# Archaeological Investigations and Construction Monitoring at the Bexar County Justice Center Expansion Project, San Antonio, Bexar County, Texas



*by* Antonia L. Figueroa

Texas Antiquities Committee Permit No. 4853

Prepared for:
Bexar County Infrastructures Services
233 North Pecos Street, Suite 420
San Antonio, Texas 78207



Prepared by:
Center for Archaeological Research
The University of Texas at San Antonio
One UTSA Circle
San Antonio, Texas 78249
Archaeological Report, No. 392

# Archaeological Investigations and Construction Monitoring at the Bexar County Justice Center Expansion Project, San Antonio, Bexar County, Texas

by

Antonia L. Figueroa

Principal Investigator Raymond P. Mauldin

Texas Antiquities Committee Permit No. 4853



Prepared for:

Bexar County Infrastructure Services 233 North Pecos Street, Suite 420 San Antonio, Texas 78207 Prepared by:

Center for Archaeological Research University of Texas at San Antonio Archaeological Report No.392

## **Abstract:**

In March and April of 2008, the Center for Archaeological Research (CAR) of the University of Texas at San Antonio (UTSA), conducted archaeological investigations for the Bexar County Justice Center Expansion Project located in San Antonio, Bexar County, Texas. The expansion project involved the construction of a large building to the south of the current Bexar County Justice Center. The goal of the archaeological investigations was to document the *San Pedro Acequia* (41BX337) and any other historical properties that might be present in the project area. To achieve this goal, nineteen shovel tests and eight backhoe trenches were excavated. In the western portion of the Bexar Justice Center parking lot, the CAR crew uncovered nine architectural features that were designated as site 41BX1775, along with a portion of the *San Pedro Acequia* (41BX337). The portion of the *acequia* that was revealed during the current investigation has been disturbed by subsequent construction.

The eastern portion of the project area had been previously investigated by Fox et al., (1989). During those investigations, a portion of the *San Pedro Acequia* was documented as well as three archaeological sites. Of these three archaeological sites, 41BX334 and 41BX336 were designated as State Archaeological Landmarks (SAL). The current investigation on the eastern fringes of the parking lot concluded that the kitchen structure associated with State Archaeological Landmark (SAL) 41BX334 has been disturbed.

CAR recommended that further archaeological investigations are not warranted for the western portion of the APE, or for the northern portion of the eastern section, to the north of SAL's 41BX334 and 41BX335. However, the THC recommended archaeological monitoring during the phases of the construction to assure that SAL's 41BX334 and 41BX335 were not impacted. Moreover, monitoring was also recommended to ensure that no unique portions of the *acequia* were demolished without proper documentation. Subsequently, the monitoring of various construction activities was carried out between the fall of 2008 and November 2010

The archaeological investigations and construction monitoring were conducted under Texas Antiquities Committee Permit No. 4853 with Raymond P. Mauldin serving as the Principal Investigator. All collected artifacts and project associated documentation are permanently curated at the Center for Archaeological Research.

## **Table of Contents:**

Abstract	ii
Table of Contents	
List of Figures	<b>v</b> i
List of Tables	vii
Acknowledgements	viii
Chapter 1: Introduction	1
Area of Potential Effect	2
Chapter 2: Project Area Background	3
Historical Background	3
The Colonial and Mission Periods in San Antonio (ca. 1700-1800)	3
Early Texas (1800-1836)	3
The Republic of Texas (1836-1845)	4
The State of Texas (1845-1900)	4
The San Pedro Acequia System	4
Previous Archaeological Investigations	5
Previous Archaeological Investigations at NCB 100	7
Property History	7
Chapter 3: Field and Laboratory Methods	9
Field Methods	9
Laboratory Methods	9
Chapter 4: Results of the Archaeological Investigations	11
Archaeological Investigations in the Western Portion of the APE	11
Shovel Tests	12
Features	13
Backhoe Trenches	14
Archaeological Investigations in the Eastern Portion of the APE	18
Shovel Tests.	19
Backhoe Trenches	
Test Units	20
Summary of Testing Phase and Recommendations	23
Monitoring Activities	24
Building Footprint Excavations	24
Utility Trenches	27
Landscaping	
Summary of Monitoring Activities	28
Chapter 5: Project Conclusions	29
Potoronoos Citad	2.1

## **List of Figures:**

Figure 1-1. The project location.	1
Figure 1-2. The project area and Area of Potential Effect (APE).	2
Figure 2-1. A map of downtown San Antonio showing archaeological investigations in the project area	5
Figure 4-1. Map showing the current archaeological investigations.	11
Figure 4-2. The excavation of Shovel Test 3.	12
Figure 4-3. 1912 Sanborn showing several unidentified structures that may be associated with Feature 2	13
Figure 4-4. 1904 Sanborn. Note that the highlighted dwelling is in the vicinity of Feature 3.	14
Figure 4-5. Feature 3, a plaster floor uncovered in Shovel Test 10.	14
Figure 4-6. 1885 Sanborn. Note structure labeled "shed" may be associated with Feature 5.	15
Figure 4-7. Feature 5, limestone blocks recovered in Shovel Test 14.	15
Figure 4-8. Feature 6, yellow brick wall encountered in BHT 1.	16
Figure 4-9. Feature 7, a limestone alignment uncovered in BHT 2.	16
Figure 4-10. Profile of the south wall of BHT 4 and Feature 9.	17
Figure 4-11. Profile of the south wall of BHT 5 and the San Pedro Acequia.	17
Figure 4-12. 1884 Liberty Head five cent coin.	18
Figure 4-13. South wall profile of BHT 6.	19
Figure 4-14. Fragments of Tonalá jar.	21
Figure 4-15. West profile of BHT 8.	22
Figure 4-16. Kitchen structure associated with 41BX334 documented in previous investigations.	22
Figure 4-17. Line graph showing artifact density in Test Unit 1.	23
Figure 4-18. North kitchen wall associated with 41BX335 documented in previous investigations.	24
Figure 4-19. Asphalt removal in the eastern portion of the APE.	25
Figure 4-20. Possible acequia remnants and foundation remains associated with 41BX1775	25
Figure 4-21. a) Evidence of deep impacts to the western portion of the APE (note concrete floor) b) Evidence of deep impacts to western portion of the APE (note the concrete bell-footers)	26
Figure 4-22. Feature 10 encountered during sump pit excavations.	26
Figure 4-23. Feature 10 (dark stain) in east wall profile of sump pit excavation.	27
Figure 4-24. Utility trench excavations monitored by CAR.	27
Figure 4-25. a) Limestone block possibly associated with 41BX334; b) portion of 41BX334 disturbed by previous construction.	28

## **List of Tables:**

Table 4-1. Cultural Material Recovered from Shovel Tests.	. 12
Table 4-2. Cultural Material Recovered from BHT 5 (San Pedro Acequia)	. 18
Table 4-3. Bottles Recovered from the San Pedro Acequia	. 18
Table 4-4. Cultural Material Recovered from Backhoe Trenching	. 20
Table 4-5. Artifacts Recovered from Test Unit 1	. 23

## **Acknowledgements:**

The completion of this project could not have occurred without the support of several individuals. The author would like to thank the field crew from the Center for Archaeological Research: Nathan Divito, Leonard Kemp, Lindy Martinez and Cathy Stacy. Monitoring activities were conducted by Jon Dowling, Barbara Meissner, and Steve Smith. Bruce Moses served as the project surveyor and created the figures along with Rick Young for the report. Cyndi Dickey and Lindy Martinez aided with laboratory and curation activities, under the supervision of lab director Marybeth Tomka.

Special thanks to Betty Bueché, the Facilities Division Manger with Bexar County Infrastructure Services. Other individuals with Bexar County that were of great help during the project were: Troy Spears, Jose R. Torralva, Raymond Madero, and Oscar Cervantes. Thanks go to Mark Denton of the Texas Historical Commission. The folks with Zachry construction were great to work with, and the author would like to thank all their staff and subcontractors. Special thanks to Derrick Minor, Fred Galvan and T.J. Pinales. Thanks also go to Jack D. James and Jeff Judkins for providing equipment during field work. Backhoe services were provided by Alamo Backhoe Services and Central Backhoe Services. Raymond P. Mauldin served as the Principal Investigator and provided comments on the draft report. Steve Tomka, director at the Center for Archaeological Research, provided guidance during all phases of the project.

## **Chapter 1: Introduction**

The Center for Archaeological Research (CAR) of The University of Texas at San Antonio (UTSA) was contracted by the Bexar County Infrastructure Services to conduct archaeological investigations for the Bexar County Justice Center Expansion Project. The proposed expansion consists of the construction of office buildings south of the existing Bexar County Justice Center facilities, located in downtown San Antonio, Bexar County, Texas (Figure 1-1).

Previous archaeological investigations have taken place in the eastern portion of the project area (Fox et al. 1989) and included documentation of a portion of the *San Pedro Acequia* and three archaeological sites (41BX334, 41BX335 and 41BX336). Sites 41BX334 and 41BX335 are designated as State Archaeological Landmarks (SAL). The goal of the current archaeological investigations was to document the *San Pedro Acequia* (41BX337) and any other historical properties that may be present within the western portion of the project area. In

the eastern portion of the project area, determining the condition of SAL 41BX334 (kitchen structure) and the amount of fill in the areas of SAL's 41BX334 and 41BX335 was also pursued.

Archaeological investigations in the western portion of the project area resulted in the location of nine architectural features and the *San Pedro Acequia* (41BX337). The nine features in the western portion of the project area were designated as 41BX1775. Investigations within the eastern fringes of the project area revealed that the northern portion of SAL41BX334 had been disturbed and that 45 cm (18") to 62 cm (24") of fill is contained in the southeastern portion of the project area. After consultation with the Texas Historical Commission (THC), the CAR recommended that archaeological monitoring be conducted during the construction in the southeastern portion of the project area to assure that the southern two-thirds of SAL's 41BX334 and 41BX335 are not impacted.

CAR also recommended that further archaeological work is not warranted in the western portion of the APE, or in the

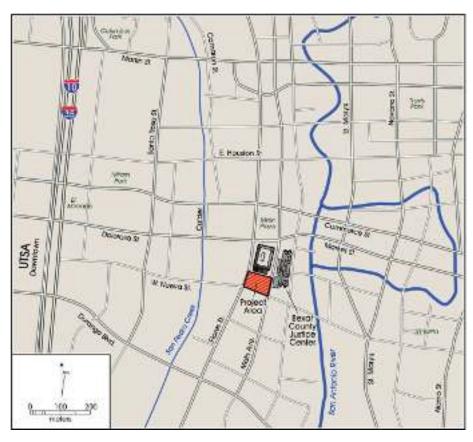


Figure 1-1. The project location.

area to the north of the SAL's 41BX334 and 41BX335. It was recommended that the proposed construction proceed as planned in those above specified areas. The THC concurred with these recommendations and monitoring was implemented from the fall of 2008 to November 2010.

The fact that the proposed work takes place on land owned by Bexar County, a political subdivision of the state, brings the project under the jurisdiction of the Antiquities Code of Texas. Because the project took place within the limits of the City of San Antonio, the project also falls under the jurisdiction of the City of San Antonio Unified Development Code, Chapter 35. The principal oversight agency is the Archeology Division of the Texas Historical Commission. Archaeological investigations, including construction monitoring, were conducted under THC Permit No. 4853. Antonia L. Figueroa served as the Project Archaeologist and Raymond P. Mauldin served as the Principal Investigator.

This report was finalized during the spring of 2010, once the CAR was certain that no additional construction activities

were to take place associated with the landscaping that had originally been planned along W. Nueva Street, bordering the project area. The original report had been written and amended several times as new phases of monitoring were necessary as the construction moved across the project area and through distinct phases.

## **Area of Potential Effect**

The project area is located within New City Block 100 (NCB 100). The impacts associated with the Bexar County Expansion include the construction of buildings south of the existing Bexar County Justice Center (Figure 1-2). The Area of Potential Effect (APE) is an existing paved parking lot located at the intersection of South Flores Street and

Nueva Street in downtown San Antonio. At the inception of the project, the edges of the parking lot were landscaped with shrubbery and mature trees. The northern section of the APE was within the proposed building footprint, while anticipated impacts in the southern section consisted of landscaping and utility installation. Impacts from proposed construction were to include deep excavations for a basement and support columns.

Prior to the beginning of archaeological investigation, the APE was divided into eastern and western sections. Previous investigations had occurred in the eastern portion of the APE, but none had been conducted in the western section. The APE measures 0.5 acres (2050 m²). Both the western and eastern sections will be impacted by the proposed building construction.



Figure 1-2. The project area and Area of Potential Effect (APE).

## **Chapter 2: Project Area Background**

This chapter begins with the presentation of the historical background of San Antonio. The historical background discussion starts with the Spanish Colonial Period and concludes with the establishment of the State of Texas. The second section of this chapter is a brief history of the *San Pedro Acequia*. The chapter concludes with discussion of the previous archaeological investigations in the project area.

## **Historical Background**

Although prehistoric sites are ubiquitous in the San Antonio area, the archaeological findings in the project area proper do not pre-date the Spanish Colonial period. The *San Pedro Acequia* was constructed in the Spanish Colonial Period (ca. 1700-1800), although other sites on the project area post-date 1850.

# The Colonial and Mission Periods in San Antonio (ca. 1700-1800)

The first Spanish *presidios* in North America began to appear in 1565 with the establishment of *San Agustin* on the Atlantic coast of Florida (Moorehead 1991:27). The establishment of the presidios was mainly due to the encroachment of European powers, predominantly the French (Moorehead 1991:27). The first established Spanish presence in Texas was the founding of *Mission San Francisco de los Tejas*, in 1690 near Nacogdoches. A second mission, *Santismo Nombre de Maria*, was built on the banks of the Neches River that same year. Both settlements were short-lived, and by 1693, both were abandoned (Fox and Cox 2000). The beginning of a firmly established Spanish presence in the region was marked by the founding of Mission San Juan in 1700 along the Rio Grande (Weddle 1968).

In 1718, Don Martín del Alacrón established *Presidio San Antonio de Béxar* and *Mission San Antonio de Valero* near the headwaters of San Pedro Creek (Hoffman 1937; Chipman 1992:14). Both the presidio and the villa were named after the Duke of *Béjar*, the elder brother of the Viceroy (Buerkle 1976:50). The purpose of the *San Antonio de Bexar* presidio was not only to protect the mission, town, farms and ranches, but it also served as a way-station between Mexico and East Texas settlements. After a four-month stay in East Texas, Alacrón returned to San Antonio where he faced challenges and problems with the missionary fathers (Buerkle 1976:51). After his request for additional soldiers, funds, and supplies was denied, Alacrón resigned from his position in 1719 (Buerkle 1976:51).

In 1719, Marqués de San Miguel de Aguayo became the governor and captain general of Coahuila and Texas. He led an expedition into Texas to re-establish a Spanish presence on the frontier. Aguayo and his troops re-supplied in San Antonio before returning to East Texas for eight months. While in East Texas, Aguayo re-established the presidios and installed new missions (Buerkle 1976:52). Upon his return to San Antonio, he found that the granary at the presidio, along with several of the soldiers' jacales, had been destroyed by fire. Aguayo ordered that a new presidio be built of adobe. The construction never "progressed beyond two towers, a surrounding wall and some scattered wooden or jacal structures" (Buckley 1911). Harsh weather delayed the progress of the new presidio and it was apparently never completed. In 1720, Mission San José y San Miguel de Aguayo was established in the area, followed by the missions Nuestra Señora de la Purisima Concepción de los Hasinai, San Francisco de Espada and San Juan Capistrano. In 1722, Marqués de Aguayo relocated San Antonio de Béxar and Mission San Antonio de Valero to their final locations, on the west bank of the San Antonio River. The first civil settlement of Texas began with the establishment of Villa de San Fernando in 1731. This settlement was to be home to Canary Islanders (Isleños).

The Seven Year War began in 1756 and changed the dynamics of Spanish colonialism in Texas. The British replaced the French as a major threat to Spanish presence, and Spain had to fortify its settlements in Louisiana and California against indigenous groups. As a result of this shift in focus, the Spanish settlements of East Texas began to deteriorate and populations were relocated to San Antonio. During the latter part of the eighteenth century, the missions in San Antonio began to decline due to a shortage of priests as well as a decrease in both the population and in the workers required to maintain the agricultural fields.

In 1790, Manuel Silva, under the College of Zacatecas, recommended that *Mission San Antonio de Valero* be secularized. At this date, of the four remaining missions only two were still functioning. By 1794, *Mission San Antonio de Valero* was secularized and the surrounding lands distributed to the remaining Mission Indians and other individuals.

## Early Texas (1800-1836)

In 1802, the *Compania Volante de San Carlos del Alamo de Parras* from Coahuila occupied the *Presidio de San Antonio de Béxar* (Cox 2005). The soldiers were assigned quarters in

the abandoned *Mission San Antonio*. It was at this time that the former mission became known as The Alamo.

Discontent with New Spain in the Northern provinces led to the Hidalgo revolt in 1810. Mexico became independent from Spain in 1821. The 1824 constitution became instituted merging Texas and Coahuila into one state, with San Antonio de Béxar as a separate department (Fox 1997).

Spain's attempt to regain control of Mexico in 1829 failed. Stephen F. Austin asked San Antonio to provide support for his efforts to make Texas a separate entity in 1833. In 1833, Santa Ana became the President of Mexico.

General Cós and his troops were pushed out of San Antonio under Ben Milam in December of 1835. The Mexican army arrived in San Antonio in February 1836. The Alamo and Texan troops were assaulted and defeated in early March of 1836. Santa Anna was finally defeated and caught at the Battle of San Jacinto, later that same year (Fox et al. 1997).

## The Republic of Texas (1836-1845)

Sam Houston was inaugurated as the first president of the Republic of Texas in 1836. The Texas Congress set the boundaries for the newly formed republic (Nance 2004). The Rio Grande was declared the southern boundary with Louisiana declared as the eastern border. The population of San Antonio increased due to immigration. The new city council of San Antonio elected John W. Smith as mayor in 1837.

Mexico refused to recognize the independence of Texas, thus a formal state of war continued. General Rafael Vasquez, with 700 soldiers, attempted to take over San Antonio and the unprepared Texan force retreated to present-day Seguin. In 1842, a friend of Santa Ana, General Adrian Woll, captured San Antonio, but this time the Texans resisted. Finally, in 1844 a truce was called between Mexico and Texas (Fox et al. 1997).

## **The State of Texas (1845-1900)**

On December 29, 1845, the United States Congress approved the Texas State Constitution and Texas was admitted as a state. This act, coupled with disagreements over the Rio Grande as a boundary and on the sale of California to the United States, resulted in war between the United States and Mexico (1846-1848). In early 1846, General Zachary Taylor advanced to the Rio Grande, occupying land that the Mexican government viewed as its own. War was declared in May of that year. After a series of battles, the United States

military occupied Mexico City in August of 1847. In May of 1848, the ratification of the Treaty of Guadalupe Hidalgo by the Mexican government signaled the end of hostilities, established the Rio Grande as a boundary, and gave to the United States present-day Arizona, California, New Mexico, Texas and parts of Colorado, Nevada and Utah in exchange for \$15 million. United States troops left Mexico in June of that same year (Wallace 1965; Bauer 1974).

With the boundaries of Texas now established, the new state soon found itself embroiled in controversy over its position on slavery. The majority of the population within the state was derived from the south, and while ranching and subsistence farming were the major economic activities, cotton-based agriculture was the major cash crop. In 1846, Texas had more than 30,000 black slaves, many associated with cotton production. At the breakout of the Civil War, thousands of Texans fought on both sides, with the effects of the war seen throughout Texas, including shortages of commodities in San Antonio. On June 19, 1865, General Gordon Granger arrived in Galveston with Union forces, signaling the end of the Civil War (Fox et al. 1997).

In February 1877, the Galveston, Harrisburg and San Antonio Railroad arrived in the area. With the arrival of the railroad, commercial elements were introduced into the area for the first time (Fox et al. 1997). A growth in business was created near the depot, including stores and saloons. City waterworks also commenced during this time, and the City continued to expand. At the beginning of the twentieth century, the population of San Antonio was just over 53,000 (Fox et al. 1997).

## The San Pedro Acequia System

The system of *acequias* in San Antonio was implemented by Colonists during the Spanish Colonial period. Their purpose was to supply the community's inhabitants with a water supply for consumption and agricultural purposes. It has been postulated from historical accounts that the *San Pedro Acequia*, being one of the first *acequias* built in San Antonio, began functioning around 1734 (Cox 2005). The *San Pedro Acequia* originated at the San Pedro Springs, ran south and terminated at the San Antonio River. The *acequia* was four miles in length. During Spanish Colonial times the maintenance of the *acequia* system appeared to be controlled by the local government, as is made evident by complaints made to the governor (Cox 2005:35). Early regulations pertaining to the *acequia* were few, but included cleaning and gate repairs (Frkuska 1981:13).

By the early 1800s, the condition of the San Pedro Acequia had deteriorated. This is indicated in official complaints

issued to City Council (Frkuska 1981). The arrival of German and French immigrants to the San Antonio Area sparked confusion over landownership and water rights. The City Council provided the laws for public viewing, translated into both French and German. A Ditch Commission was created to maintain the *acequias*; despite this, by 1855 the *acequias* were again in poor condition.

By the 1860s, outbreaks of typhoid and malaria were prevalent in the City, largely due to the poor conditions of the *acequia* system (Cox 2005). In 1866, yet another outbreak of cholera plagued San Antonio. A new water works system was created in 1878, and water was pumped from the San Antonio River near Brackenridge Park. This new system provided clean drinking water for the citizens of San Antonio. The function of the *acequias* became primarily as use for storm sewers. Another attempt was made by city council to implement

ordinances regarding the upkeep of the *acequias* in the 1880s. A proposal to line the San Pedro *acequia* and erect a wall (to control overflow) was brought before the City Council in 1883. The construction of a municipal sewer system in the mid-1890s decreased the use of the *acequias* even more. The covering of a portion of the *San Pedro Acequia* occurred in 1895. In 1899, the position of Ditch Commissioner dissolved, and maintenance of the *acequias* became the responsibility of the Department of the Street Cleaning and Sanitation. An ordinance was passed that the *San Pedro Ditch* and *acequia* be closed in September 1912 (Cox 2005).

## **Previous Archaeological Investigations**

Several archaeological investigations have taken place in close proximity of the project area (Figure 2-1). One of the earliest studies was undertaken in 1975 by the Texas

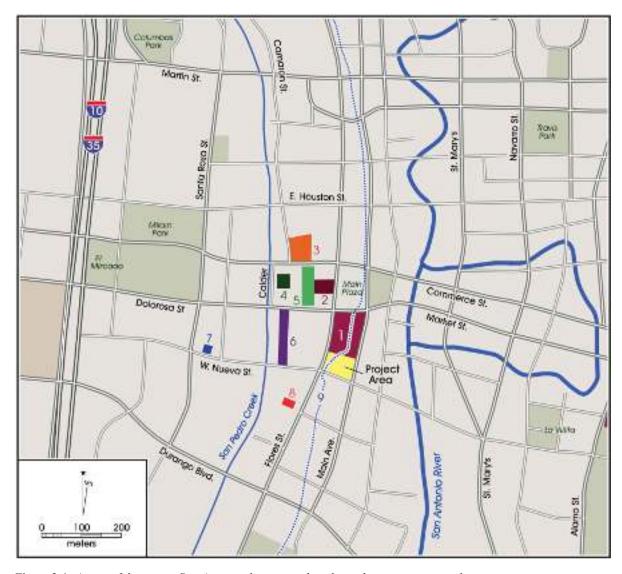


Figure 2-1. A map of downtown San Antonio showing archaeological investigations in the project area.

Historical Commission. Archaeologists from the Office of the State Archaeologist conducted excavations associated with the installation of air conditioning ducts in the floor of the San Fernando Cathedral (see Figure 2-1-2); (Fox et al. 1977). Archaeological testing recovered a variety of artifacts, as well as animal bone that appeared to date from the Spanish Colonial period through the early 1870s.

Excavations conducted by CAR in 1977 were on the northwest side of the cathedral, where the original sacristy was located. While a report has not been produced on this work, artifacts retrieved from the excavations are representative of one of the earliest non-indigenous settlements in San Antonio, dating to ca. 1720-1738.

Site 41BX1598 was recorded by CAR during excavations associated with the San Fernando Community Center just north of Military Plaza (Figure 2-1-3); (Figueroa and Mauldin 2005). The occupation of the site spans from the Colonial Period into the mid 1900s. During investigations, a variety of features were encountered that included the architectural remains of the first site of the Santa Rosa Infirmary that later began the St. Joseph's Orphan Asylum. Two Colonial Period middens were also excavated. Cultural material from the middens revealed subsistence changes, as evident from the faunal remains. Ceramics recovered from the stratified middens also posed questions about ceramic chronology in San Antonio.

Fox (1977) reported on investigations carried out at the Spanish Governor's Palace (41BX179), just northwest of the current project area (Figure 2-1-4). This work, conducted in 1976, consisted of a test unit that was placed on the northern portion of the complex, just south of Commerce Street. Ceramic evidence from the test unit revealed that the northern portion of the building dated to 1725.

In 1996, Fox returned to the Spanish Governor's Palace to examine the condition of the foundations of the structure and to assess their depth. Test units were placed against the front façade of the building. Foundations of the building were encountered 40-43 inches below the level of what had been the present ground surface from prior excavation (Fox 1997). Spanish Colonial and nineteenth-century material was encountered during these excavations, along with large quantities of animal bone and some chipped stone artifacts.

The Ruiz property (41BX795) is to the west of the project area. The Ruiz family played a prominent role in San Antonio history (Figure 2-1-6). CAR conducted excavations at the site in 1989 in association with the City Hall annex (Uecker et al. 1991). Artifacts recovered from this investigation,

particularly ceramics, dated from the mid 1700s to the early twentieth century. The cultural material reveals that the function of the site changed significantly throughout time. The earliest evidence indicates it served as a school for the City in the early nineteenth century. Evidence of residential activity on the site is seen in the recovered household items. Later, the site became a campground.

The José Antonio Navarro House and Office are located west of the current project area (Figure 2-1-7). According to the Texas Historical Commission sites atlas, the property is listed in the National Register of Historic Places and is a Texas Historic Landmark. The historic property consists of a three-building complex that includes a house, office and kitchen. Jose Antonio Navarro was a signee of the Texas Declaration of Independence.

Site 41BX786, known as the Vollrath Blacksmith shop, is immediately southwest of the project area (Figure 2-1-8) CAR conducted archaeological investigations of the site for the Bexar County Justice Center parking facility (Cox et al. 1990). The blacksmith shop associated with the site began production in the 1870s. CAR concluded that disturbance to the original blacksmith structure had occurred during subsequent construction, thus the site was not eligible for further work.

CAR has conducted several investigations that have resulted in the documentation of the San Pedro Acequia (Figure 2-1-9;Fox 1978; Valdez and Eaton 1979; Frkuska 1981; Cox 1986; Cox 1991; Cox 1995; Cox 2002). One of the first investigations was for the Bexar County Justice Center (Fox 1978; Fox et al. 1989). The acequia was documented at the location where the current Bexar County Justice Center is erected (see Previous Investigations at NCB 100 in this chapter). Lined and unlined sections of the acequia were recorded south of the old U.S. Arsenal between South Flores Street and Main Avenue (Valdez and Eaton 1979). These investigations noted that the acequia walls were 90 cm apart. Subsequent excavations in the same project area (Frkuska 1981) revealed that the San Pedro Acequia underwent three construction phases. Trenching indicated that the acequia was 8 ft wide (2.4 m), and one section of the ditch was divided and disturbed by a concrete footing (Frkuska 1981).

The San Pedro Acequia also was documented at the intersection of Evergreen and Duffield Streets (Cox 1986). The acequia was 5 ft (1.5 m) wide in this area. In 1989 (Cox 1991), during investigations at the McDonald site at Guenther and South Flores Streets, the acequia was documented in two backhoe trenches. It was again recorded at Trevino and South Main Street (Cox 1995). Sections of the acequia in this area

revealed that the ditch had once been covered with concrete, which was consistent with historical documents. In 2001 (Cox 2002), a small portion of the *acequia* was documented on South Alamo Street.

## Previous Archaeological Investigations at NCB 100

The APE is located in the southern portion of NCB 100. Previous archaeological investigations have occurred within the northern and southeastern portions of NCB 100. Fox conducted preliminary investigations in association with the Bexar County Justice Center in 1978, in the eastern portion of the current project area (Fox et al. 1989). These investigations resulted in the excavation of five backhoe trenches. Subsequent excavations were conducted to the north of the current project area that were also related to the construction of the Bexar County Justice Center (Fox et al. 1989). Investigations included backhoe trenching and test unit excavations, in addition to monitoring (Fox et al. 1989).

During testing of the southeastern portion of the APE, three small residences were documented (41BX334, 41BX335, and 41BX336). Sites 41BX334 and 41BX335 are listed as State Archeological Landmarks. 41BX334 dated to around 1873, whereas 41BX335 was dated as early as the pre-Civil War period (Fox et. al. 1989). It was recommended that 41BX334 be nominated to the National Register of Historic Places because it was the residence of a well-known person (Dr. Campbell), under criteria (b). Dr. Charles Campbell was the author of the book, *Bats, Mosquitoes and Dollars,* published in 1925. The site may have potential to contain information on architecture and living habits of San Antonians from the late 19<sup>th</sup> century through the early 20<sup>th</sup> century. A backhoe trench (Trench 1) uncovered the wall of the Campbell House and its kitchen during the previous investigations.

Site 41BX335 also was recommended for nomination to the National Register and formal designation as a State Archeological Landmark, as noted on the Texas Sites Atlas, because it contains architectural remains and artifacts dating from 1850 to 1900. During previous investigations, three trenches found remnants of the site. Trench 2 revealed the southwest corner of a house structure, while Trench 3 encountered the east and west walls of the structure. Deposits outside the west wall of the house, in Trenches 2 and 3 contained artifacts that represented the entire occupational span of the house. Trench 4 uncovered the north and south walls of the kitchen, and the north wall of the house. Artifacts from an excavation north of the kitchen wall also represented the entire occupational span of the house. It was revealed that the south wall of the kitchen had been removed and the wall trench had become a pipe trench for a one-inch metal pipe.

Site 41BX336 consisted of two structures (Fox et al. 1989). The structure in the front of the property (the southern portion of the APE), was originally made of adobe and functioned as a dwelling. It was thought to have been constructed in 1856. It was suggested that the rear (northern) structure, constructed of unshaped limestone, served initially as a dwelling, then as a shed. Based on the ceramic evidence, the rear structure associated with 41BX336 dates from the mid-1800s to the early-1900s.

The northern portion of NCB 100 also contained foundations of a small stone house and well, built by the Salinas family. Also documented during previous testing of the northern area was the *San Pedro Acequia* (41BX337), which is listed as a State Archeological Landmark. The *acequia* was noted as being filled with late 19<sup>th</sup> and early 20<sup>th</sup> century artifacts. The *acequia* walls consist of cut limestone, while a layer of cobbles and limestone chunks (Fox et al. 1989:26) lined the bottom. The top of the north wall of the *acequia* was recorded at 86 centimeters below surface (cmbs), and the bottom of the *acequia* was encountered at 154 cmbs. Fox et al. (1989) concluded that the south wall of the *acequia* was robbed of stone.

## **Property History**

Fox et al. (1989) had completed archival research of the APE at NCB 100 in their previous investigation. A majority of the information presented in this chapter is based upon that work. Historical research on the project area indicates that NCB 100 lies within an area designated in the 18<sup>th</sup> and early 19<sup>th</sup> centuries as the *Barrio del Sur* (Fox et al. 1989). Most structures south of the row of houses on Main Plaza were built after 1840. In 1873 there were a row of small adobe houses facing south onto Nueva Street and another row on the northeast corner of South Flores and Nueva Streets (Koch 1873). By the 1900s, the block consisted mostly of commercial building, many with basements. By the 1950s, the block was used entirely for commercial purposes.

Excavations were conducted in some of the areas of these modern day parking lots (Lots 13, 14 and 15). Specifics regarding parking lot locations, potential for archaeological remains, and excavations conducted in these areas are discussed below.

The eastern portion of the parking lot in Lots 13 and 14 is where sites 41BX334 and 41BX335 were recorded. Lot 13 was initially part of the Salinas property that is to the north of the project area (Fox et al. 1989). The lot was conveyed to Dolores de la Concepción Barrera in 1875 from Agustin Barrera and Antonia Salinas (BCDR 1:390). Dolores married John Rosenheimer in 1879 and their residence was located on

Lot 13. The property was conveyed to the couple's nephew, Charles Campbell, after the death of Mrs. Rosenheimer. Dr. Campbell, aforementioned author of the book *Bats, Mosquitoes and Dollars*, published in 1925, resided on the property until his death in 1931.

Lot 14, where site 41BX335 was recorded, was granted to M. David and Trinidad C. Anderson by Thomas J. Devine in 1855 (BCDR Vol. N1:346). In 1858 the lot was then sold to Frank Egan (BCDR P2:427). The property was granted to Charles Johnson in 1871 (BCDR Vol. 328:219). The property was transferred in 1910 by the heirs of Charles Johnson to

George R. Stumberg. The structures on the lot were destroyed by a fire before 1917 (Fox et al. 1989).

Lot 15 is located on the western portion of the project area, at the recorded site of 41BX336. Lot 15 was conveyed to Dolores Ortiz y Garcia by Thomas J. Devine in 1856 (BCDR Vol.1:396). The property was conveyed to John Dullnig in 1878 (BCDR Vol. 5:578). In 1910 Dullnig moved his grocery store from South Flores Street to 227 West Nueva (the current project area). By 1917, the J. Dullnig Grocery Company was established on the property. The property was conveyed to Nathan Kallison in 1944.

## **Chapter 3: Field and Laboratory Methods**

## Field Methods

The archaeological methods used during investigations included shovel testing, backhoe trenching and a single 0.25m-x-0.25m test unit excavation. Shovel testing was conducted in the western and eastern portion of the APE. As per the THC standards, only three shovel tests were required for the APE as it measures 0.5 acres. To ensure that all remnants of the two SAL sites would be identified, nineteen shovel tests were excavated during the current investigations. Sixteen shovel tests were excavated in the western portion of the APE and three shovel tests were dug in the southeastern portion. Prior to shovel test excavations in the western portion of the APE, the overlying asphalt was mechanically removed. Each area mechanically cleared for shovel testing measured approximately 1 m by 0.70 m. If soil was encountered underneath the removed asphalt, a standard shovel test was excavated. Standard shovel tests were 30 cm in diameter and extended to a maximum depth of 60 cmbs. The shovel tests were excavated in 10 cm increments and all soil was screened through 1/4 inch hardware cloth. If an architectural feature (such as a floor or a wall) was uncovered during asphalt removal, it was documented and given a feature number. Stripped areas where architectural features were documented were also given a shovel test number. The three shovel tests excavated in the eastern portion of the APE were standard and did not require the removal of asphalt.

Eight backhoe trenches were excavated on the western and eastern portion of the APE. The purpose of the backhoe trenching in the western portion of the APE was to locate and document the *San Pedro Acequia*. Backhoe trenching was conducted on the eastern edge of the APE to locate and document the kitchen structure associated with 41BX334. The depth of backhoe trenches did not exceed 1.5 meters. Backhoe trenches varied in length. Measured drawings of the stratigraphy including a description of soil types and any artifacts associated with the matrix or wall of the

trench were noted. All diagnostic artifacts were collected. If all trench walls revealed the same stratigraphy, then only one representative trench wall segment was profiled to avoid redundancy.

A single test unit (TU1) was excavated off the southern wall of Backhoe Trench 7 (BHT 7), located in the eastern portion of the APE. The test unit was 0.25m-x-0.25m and the six depositional zones defined in the unit were excavated in either five or ten centimeter levels, depending on their thickness. One hundred percent of the soil from the test unit levels was collected and brought back to the CAR laboratory for water screening.

## **Laboratory Methods**

All archaeological materials recovered during the project were fully analyzed, described, and reported. Any cultural materials and paper records obtained and/or generated during the project were prepared in accordance with federal regulation 36 CFR part 79 and THC requirements for State Held-in-Trust collections. Artifacts processed in the CAR laboratory were washed, air-dried, and stored in 4-mm zip locking archival-quality bags. Organic materials and materials needing extra support were double-bagged. Acidfree tags were placed into all artifact bags. Each tag contained provenience information and a corresponding lot number which was written in either archival ink or in pencil. Tags that were not filled out by hand were generated with a laser printer. Ceramics were labeled with an acryloid and the appropriate provenience data and/or catalogue number written atop the layer of acryloid in archival pen. A topcoat of acryloid sealed the written information. Artifacts were separated by class and stored in acid free boxes. Digital photographs were printed on acid free paper, labeled with archival appropriate materials and placed in archival-quality plastic sleeves. All field forms were completed in pencil.

## **Chapter 4: Results of the Archaeological Investigations**

This chapter presents the results of the current archaeological investigations that occurred in association with the Bexar County Justice Center Expansion project (Figure 4-1). The western portion of the APE underwent more intensive investigations than the eastern portion as the latter portion was the focus of prior investigations (Fox et al. 1989). Backhoe trenching and shovel testing was conducted in the western portion of the APE, and as a result, the *San Pedro Acequia* was documented and site 41BX1775 was recorded. The eastern margins (within the landscaped areas) of the APE were investigated using backhoe trenching, shovel testing and a single test unit excavation. Investigations on the east side of the APE concluded that the northern portion (kitchen structure) of 41BX334 has been disturbed. This chapter will conclude with a discussion of the monitoring phases of the project.

## Archaeological Investigations in the Western Portion of the APE

In the western portion of the APE, sixteen areas were mechanically stripped for shovel testing, and five backhoe trenches were excavated (see Figure 4-1). The aim of the investigations was to locate and document the *San Pedro Acequia* and any cultural resources in the area. The *acequia* had been previously documented in 1978 (Fox et al.1989), north of the APE. The *acequia* was encountered during current backhoe excavations (BHT 5). Nine architectural features were encountered during shovel testing and backhoe trenching of the western portion of the APE and designated as site 41BX1775.



Figure 4-1. Map showing the current archaeological investigations.

## **Shovel Tests**

Sixteen shovel test areas (ST's 1-16), measuring approximately 1 meter long by 0.70 meters wide (0.7 m²), were excavated in the western portion of the APE. These excavations involved the mechanical removal of the asphalt and caliche base. The depth of the mechanically removed caliche base was 35 to 40 cmbs. Beneath Shovel Test Areas (STA) 1, 2, 7, and 16 (west of BHT 1), only concrete was encountered. In previous investigations concrete was found in BHT 6 (Fox et al. 1989). STA's 1, 2, 6, 7, 8, 11, and 16 did not yield any artifacts. Shovel Tests that did yield artifacts during excavations are discussed below and are referenced in Table 4-1.

In Shovel Test Areas 3, 4, 5, 9, and 13, standard shovel tests were excavated to a depth of 60 cmbs below the asphalt and caliche base (Figure 4-2). The artifacts recovered from shovel tests are listed in Table 4-1. Shovel Tests 3, 4 and 5 contained dark brown clay. There was a low density of artifacts, consisting mostly of construction material, glass, metal and faunal remains.

**Shovel Test 3** (ST 3) yielded a handful of artifacts including three pieces of metal, construction material and one piece of burnished Spanish Colonial ceramic.

Shovel Test 5 (ST 5) contained only faunal remains.

**Shovel Test 9** (ST 9) contained a high density of clear glass, faunal material, possible adobe chunks, white earthenwares and semi-porcelains. The last two levels of Shovel Test 9 contained one sherd of Goliad Ware and three pieces of clear glass. Backhoe trenching performed in the area at a later point revealed that ST 9 was excavated in the debris associated with the *San Pedro Acequia*.

**Shovel Test 10** (ST 10) included three pieces of glass and one piece of stoneware sewer pipe.



Figure 4-2. The excavation of Shovel Test 3.

Table 4-1. Cultural Material Recovered from Shovel Tests

Shovel Test	Level	Bone*	Burned Rock	Glass	Personal Items	Construction Material	Porcelain	Lead Glazed Ceramics	Unglazed Ceramics	white earthern ware	Stonewares	Sewer Pipe	Slate	Metal	Grand Total
3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	2	0	0	0	0	2	0	0	0	0	0	0	0	3	5
5	surface	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	1	189.83	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	28.3	0	43	0	7	9	0	0	1	0	0	0	11	71
	2/3	2.48	1	48	8	0	0	0	0	4	2	0	0	10	73
9	4	5	0	9	0	1	0	3	0	4	0	0	0	10	27
	5	1.45	0	2	0	0	0	0	2	0	0	0	0	2	6
	6	0	0	3	0	0	0	0	0	0	0	0	0	0	3
10	surface	0	0	3	0	0	0	0	0	0	0	2	0	0	5
11	surface	0	0	4	0	1	0	0	2	0	0	0	0	1	8
12	1	24.01	0	2	0	0	1	0	0	0	0	0	1	2	6
40	1	1.4	0	2	0	0	0	0	0	0	0	0	0	0	2
13	2	0	0	0	0	0	0	1	0	0	0	0	0	0	1
15	surface	0	0	16	0	0	0	0	0	5	1	0	0	1	23
Grand Total		7	1	133	8	12	10	4	4	14	3	2	1	40	232

<sup>\*</sup>weight only (counts not included for bone)

**Shovel Test 11** (ST 11) yielded container glass, one piece of bone and one piece of lead glazed Spanish Colonial ceramic.

*Shovel Test 12* (ST 12) had metal, slate, porcelain, bone and both amber and brown container glass.

*Shovel Test 13* (ST 13) contained olive glass, faunal material and one sherd of lead glaze ware. Soils encountered in this shovel test consisted of dark brown clay.

Feature 5 was recorded in Shovel Test 14 (ST 14). The feature was itself considered an artifact (the remnants of a limestone structure); cultural material was not found in the area above the feature.

**Shovel Test 15** (ST 15) displayed a higher density of artifacts than most other shovel tests (with the exception of ST 9). Artifacts recovered from ST 15 included: metal, container glass, earthenware and stoneware.

A total of five of the features (Features 1, 2, 3, 4 and 5) associated with 41BX1775 were documented during shovel test efforts.

These features consist of architectural features such as brick walls, limestone walls and a plaster floor.

#### **Features**

Feature 1 was located in ST6 and consisted of four red bricks that appear to be the remnants of an old sidewalk (see Figure 4-1). The feature was found at 30 cmbs underneath the caliche base of the parking lot. The bricks measured approximately 30cm-x-30cm. Although this feature is within the lot that J. Dullnig owned from 1878 to 1944 (see Property History section in Chapter 2) it is not thought to date to that time. Artifacts were not observed during the exposure of Feature 1. Furthermore, it is unlikely that the brick feature dates to when Dullnig occupied the area.

Feature 2 consisted of an alignment of yellow bricks uncovered in ST8 at 40 cmbs. The alignment spanned the entire length of the exposed area (approximately 1 m) and was 25 cm wide. The 1885 Sanborn map does not show any structures in this part of the project area, although a 1912 version of the map depicts several unidentified small buildings in the area (Figure 4-3). During the mechanical removal of the asphalt and fill, no artifacts were observed.

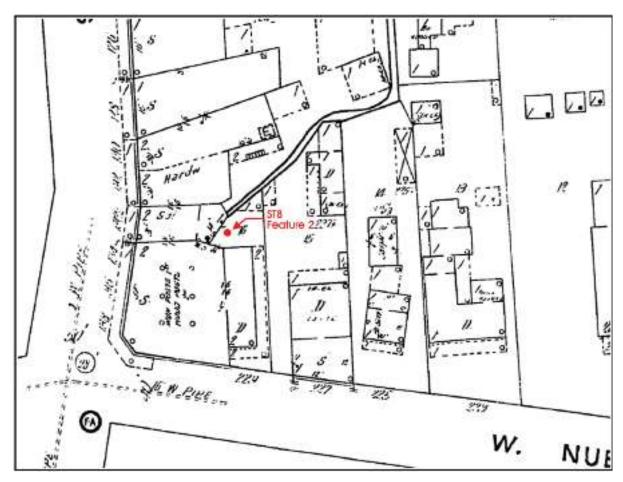
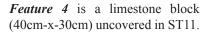
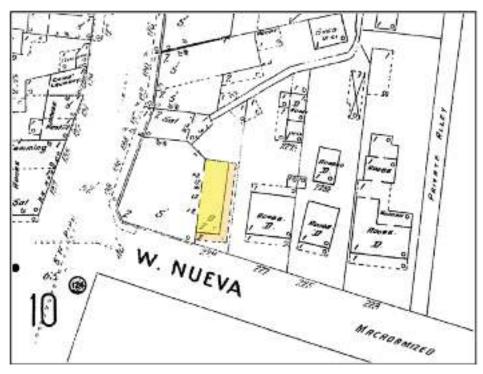


Figure 4-3. 1912 Sanborn showing several unidentified structures that may be associated with Feature 2.

Feature 3 consists of a plaster floor uncovered in ST10. The plaster floor was encountered at 40 cmbs, just below the caliche base. It measured 70cm-x-50cm. This feature appears to match the location of a structure labeled "Boarding" that is depicted on an 1885 Sanborn's map. The structure is labeled as a dwelling on a 1904 dated version of the Sanborn map (Figure 4-4).

This feature was on the property once owned by J. Dullnig. Three pieces of glass (cobalt, olive and clear) and two fragments of ceramic sewer pipe were collected during the mechanical removal of the asphalt and caliche base. The caliche base was located just above the feature (Figure 4-5).





Feature 4 is a limestone block Figure 4-4. 1904 Sanborn. Note that the highlighted dwelling is in the vicinity of Feature 3.



Figure 4-5. Feature 3, a plaster floor uncovered in Shovel Test 10.

The feature was encountered at 40 cmbs. It does not appear to be associated with any structures depicted on the 1885 or 1904 Sanborn's map. Artifacts collected above the feature, in the disturbed caliche fill, consisted of two unglazed flowerpot sherds, glass (clear and green), brick and metal.

**Feature 5** was uncovered in the ST14, 40 cm below the asphalt. The feature consisted of two limestone blocks that measured an area 1 m by 70 cm. The feature may be related to a structure labeled as "shed" on the 1885 Sanborn map (Figure 4-6). Feature 5 may be associated with the dwelling structure (41BX336) uncovered by previous investigations in BHT 5 (Fox et. al., 1989). Cultural material was not observed within the feature during excavations (Figure 4-7).

## **Backhoe Trenches**

Five backhoe trenches (BHT's 1, 2, 3, 4 and 5) were excavated in the western portion of the APE. Three backhoe trenches (BHT's 6, 7 and 8) were excavated in the eastern portion of the APE. The goal of the backhoe trench excavations was to document the *San Pedro Acequia*. A portion of the *San Pedro Acequia* was uncovered during the excavations along with five architectural features that were associated with 41BX1775.

Backhoe Trench 1 (BHT 1) and Feature 6 was orientated north-south and measured 3.70 m in length and 80 cm wide

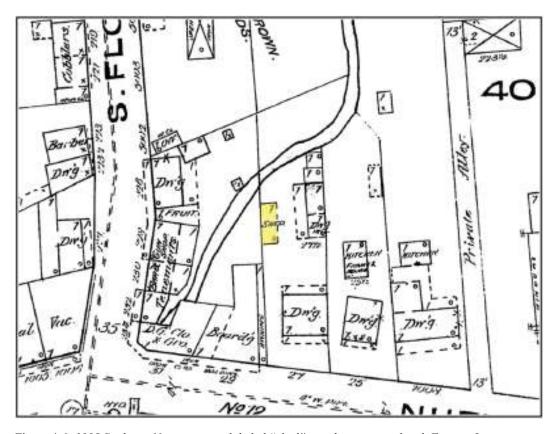


Figure 4-6. 1885 Sanborn. Note structure labeled "shed" may be associated with Feature 5.



Figure 4-7. Feature 5, limestone blocks recovered in Shovel Test 14.

(refer to Figure 4-1). Backhoe Trench 1 (BHT 1) consisted of asphalt that measured 8 cm thick, followed by concrete and fill material that reached 1.5 meters below surface (mbs) in its northern portion. In the southern portion of BHT 1, Feature 6 was encountered and recorded (Figure 4-8). Feature 6 was a yellow brick wall that was encountered at 60 cmbs and was situated perpendicular to the trench. The feature was 80 cm wide (the width of the trench) and measured 1.5 m in depth, the terminal depth of the trench. The northern face of the wall was plastered. A small structure is depicted in this area of the APE on an 1895 Sanborn map and it is possible that the wall is part of the structure. Artifacts were not recovered during the excavation of this backhoe trench.

Backhoe Trench 2 (BHT 2) and Feature 7 was excavated immediately south (orientated north-south) of the brick wall that was in BHT 1. BHT 2 measured 230 cm long and 65 cm wide. Soil in BHT 2 consisted of 46 cm of asphalt (being 8 cm thick) and caliche base sitting atop dark brown silty clay. In the southern portion of BHT 2 (approximately 1.8 meters south of the brick wall), Feature 7, a limestone alignment was uncovered at 40 cmbs (Figure 4-9). The limestone feature appeared to run perpendicular to the trench. It was 30 cm wide and it was surmised that the eastern portion had been disturbed by a utilities installation. Excavations south of the limestone alignment were halted due to a utility line encountered in the trench.

Feature 7 may be part of a shed that was associated with 41BX336, the same as in Feature 5. The two were given different feature numbers because the structure was not fully exposed. In addition, it had not

been recorded during previous investigations. During the excavation of this backhoe trench, no artifacts were observed or collected.

Backhoe Trench 3 (BHT 3) and Feature 8 was excavated southwest of BHT's 1 and 2 (refer to Figure 4-1). The trench was 5 m long and 80 cm wide. The terminal depth of the trench was 110 cmbs. The first 40 cm of the trench consisted of asphalt and caliche fill. Feature 8 was revealed in this trench and consisted of a yellow brick wall that spanned perpendicular (east-west) to the trench. The feature was



Figure 4-8. Feature 6, yellow brick wall encountered in BHT 1.



Figure 4-9. Feature 7, a limestone alignment uncovered in BHT 2.

encountered at 40 cmbs. It was 45 cm thick and extended to the bottom of the trench. Artifacts were not collected or observed in the backhoe trench. No remnants of the *acequia* were found.

**Backhoe Trench 4 (BHT 4) and Feature 9** was excavated southwest of BHT 2. BHT 4 was orientated north-south and was 5 meters long and 80 cm wide. The terminal depth of the trench was 1 m. Feature 9 was revealed at 28 cmbs under a layer of asphalt and caliche fill. Feature 9 consisted of a yellow brick wall that was set in a 40 cm wide builder's

trench. The wall was orientated north-south and ran perpendicular to the trench. A builder's trench is evident on the east and west of the brick wall (Figure 4-10). The brick wall was 50 cm in depth. Beneath the wall was a layer of limestone chunks, which extended down to 10 cm. The soil that surrounded the brick wall was a yellowish brown (10YR 5/4), sandy clay. To the east of the sandy clay was a very dark grayish brown (10YR 3/2), silty clay. The brick wall appeared to be situated in a larger trench that consisted of yellowish-brown sandy clay. It was surmised that this could be the acequia (41BX337). No cultural material was observed or collected from the backhoe excavation. The lower 15 cm of the trench was composed of pale brown silty clay with calcium carbonate inclusions.

Backhoe Trench 5 (BHT 5) and the San Pedro Acequia (41BX337) was excavated in the southern portion of the project area, orientated east-west. A remnant of the San Pedro Acequia was unearthed in BHT 5. Two concrete alignments were encountered in the trench at 2.6 meters apart (Figure 4-11). The easternmost alignment was encountered 30 cmbs, and consisted of concrete and limestone. The western alignment consisted entirely of concrete material. In-between both alignments was a high density of cultural material, mostly glass bottles and metal (Table 4-2). It was quite evident from the southern profile of the trench that the trash material terminated at 110 cmbs. A different soil that consisted of a vellowish-brown (10YR 5/4), silty clay with calcium carbonate inclusions followed. The location of the acequia deviates three to four meters (to the west) from where the Sanborn map has it plotted.

The majority of the materials recovered from the *acequia* fill ranged in date from 1884 to the early 1900s. An 1884 nickel (Figure 4-12) was retrieved, as well as several medicinal and soda bottles. Table 4-3 lists bottles retrieved from the *acequia* that could be dated. The majority range in date between 1885 and 1920. The earliest dated item was the 1884 nickel. Material evidence indicated that the *acequia* at

this location started to be filled in between 1884 and 1900. The official closing of the *acequia* was not until 1899. It seems that the use of this portion of the *acequia* began to dwindle prior to its official closing in 1899. The dwellings and businesses on the property probably contributed to most of the waste found in the *acequia*.

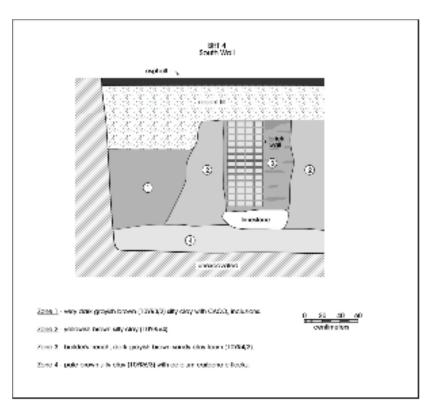


Figure 4-10. Profile of the south wall of BHT 4 and Feature 9.

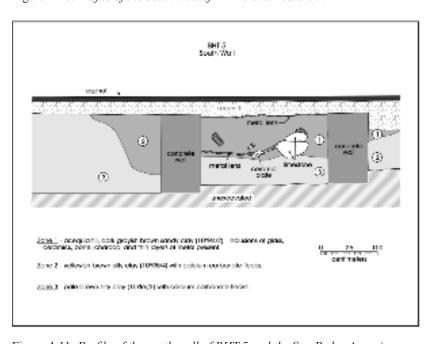


Figure 4-11. Profile of the south wall of BHT 5 and the San Pedro Acequia.

Investigations by Fox et al. (1989) note intrusive architectural features such as brick foundations and concrete piers within the *acequia* (Fox et al. 1989:32-34). The *acequia* was apparently capped with concrete in 1895. Evidence of this was reported by Cox (1995), however, the concrete walls uncovered in the current backhoe trench excavations more

Table 4-2. Cultural Material Recovered from BHT 5 (San Pedro Acequia)

Artifacts	Count
White Earthenware	
undecorated	35
transferware	1
edgeware	3
annularware	4
handpainted	2
Stoneware	8
Lead Glazed	3
Porcelain	5
Glass	
chimney glass	1
milk	1
Clear	49
Olive	7
Brown	14
Aqua	8
Cobalt	7
Blue	8
teal	2
Other	
Porcelain Figuerine	1
1884 Nickel	1
Construction Material	2
Porcelain Insulator	1
Metal	10
Slate	3
Bone	1 (300.8 g)

Table 4-3. Bottles Recovered from the San Pedro Acequia

Color	Marking	Year	Count	Туре
colbalt	Bromo-Seltzer	1890-1911	3	medicinal
colbalt	Keasbey & Mattison	1887	1	medicinal
aqua	Hutchinsons	1886-1904	1	soda
aqua	E.R. Durkee & Co	1885-1920	1	medicinal
clear	NA	1885-1920	1	medicinal
clear	NA	1885-1920	1	medicinal
clear	NA	Post 1900	1	ink well
clear	Phila	Post 1900	1	medicinal
clear	H. Schuchard	1870	1	medicinal

than likely represent later building construction on the property, unrelated to the *acequia* maintenance.

## Archaeological Investigations in the Eastern Portion of the APE

After consultation with the Texas Historical Commission and the project sponsor (Bexar County Public Works representatives), CAR proceeded with investigating the eastern portion of the project area. Investigations on this portion of the APE were performed to determine if the kitchen



Figure 4-12. 1884 Liberty Head five cent coin.

structure associated with 41BX334 was still present in the area or if it had been destroyed during the construction of the current Justice Center parking lot. The CAR crew conducted archaeological investigations on the eastern portion of the Justice Center parking lot on April 16th and 17th, 2008. The northern portion of the eastern parking lot was to be impacted by the construction for the Bexar County Justice Center Expansion project. The southeastern portion of the property was to suffer minimal disturbance. The current asphalt surface was to be replaced with hardscape and tree planting. The investigations conducted by CAR in this area consisted of shovel testing (n=3) and backhoe trenching (n=3) on the landscaped margins of the Justice Center parking lot. Lastly, a 25-x-25 cm unit was excavated off the south wall of BHT 6. Five to 10 cm levels of soil were bagged and water screened in the CAR laboratory. Three archaeological sites (41BX334, 41BX335 and 41BX336) were documented in this area during previous investigations (Fox et al. 1989). Three backhoe trenches were excavated on the eastern fringes of the project area, in the landscaped area. An aerial map with an overlay of the structures was used to place backhoe trenches.

## **Shovel Tests**

Shovel testing (n=3) was conducted in the southeastern portion of the parking lot to document the depth of fill where proposed hardscape and tree planting will occur. Currently, the area contains several trees and grass. Two of the shovel tests were excavated on the eastern (ST 18) and western fringes (ST 17) of the landscaped area.

Both shovel tests revealed a sandy loam (yellowish-brown-10YR 5/4) that extended to 30 cm (12") below ground surface (bs) in Shovel Test 17 (refer to Figure 4-1) and to 54 cmbs (21") in Shovel Test 18. The sandy loam is followed by

caliche fill that ends at approximately 45 cmbs (18") in Shovel Test 17, and to 62 cmbs (24") in Shovel Test 18. In Shovel Test 18, fill included brick fragments. Beneath the fill, the material was dark brown, silty clay with calcium carbonate flecks that extended to 1 meter (39") below the surface. Shovel Test 19 was excavated in the center of the southeastern section and contained a sandy loam (yellowish brown-10YR 5/4) to 45cmbs (18") followed by dense limestone that could not be penetrated with either the shovel or hand auger. This limestone could be the remnants of one of the structures associated with either 41BX334 or 41BX335. However, Shovel Test 19 was to have been positioned between the two structures. The finding of limestone could indicate that the overlay is not 100 percent accurate or a hitherto unmapped feature may be present at the location, or that the walls of one of the structures had been damaged and impacted during the construction of the parking lot following the Fox et al. 1989 work.

In summary, shovel testing in southeastern portion of the project area where hardscape and tree planting was proposed, indicated

the presence of disturbed soils at least 45 cmbs (18") in the center, western section, with a maximum of 62 cmbs (24") in the eastern section.

## **Backhoe Trenches**

Backhoe Trench 6 (BHT 6) was intended to expose the kitchen structure associated with 41BX334 (see Figure 4-1). BHT 6 did not reveal evidence of a structure, but what appeared to be intact soils were encountered at 55 cmbs. The BHT measured 90 cm wide and 2 meters long. Six stratigraphic zones were noted in the southern wall profile of the BHT (Figure 4-13). Zone 1 consisted of a humus layer (in first 2 cm), followed by a grayish-brown, clay loam (10YR 5/2). Zone 2 began at 25 cmbs and consisted of a grayish-brown, clay loam mixed with a caliche fill (<50%). Zone 3 began at 45 cmbs and ended at 55 cmbs. It consisted of a dense concentration of limestone and bricks fragments about 15 cm thick. Zone 4 (55 to 85 cmbs) is a dark brown (10YR

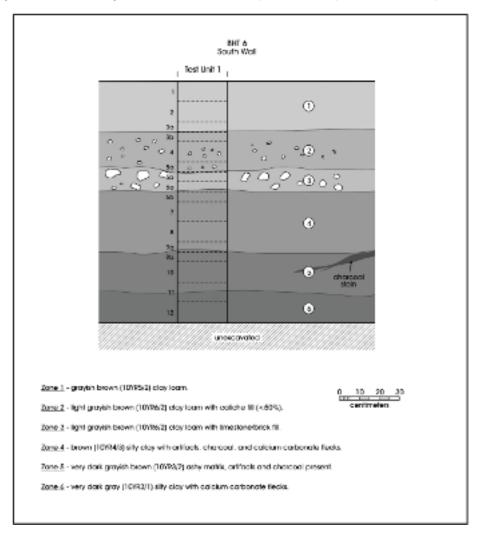


Figure 4-13. South wall profile of BHT 6.

4/3), silty clay, containing artifacts such as faunal material and charcoal. Zone 5 (85 to 105 cmbs) appeared to be an ashy lens of dark, grayish-brown, sandy clay containing artifacts and charcoal samples. Zone 6 appeared to be sterile brown, silty clay with calcium carbonate inclusions that ended at the bottom of the backhoe trench (120 cmbs). Zone 4 to Zone 6 manifested intact deposits. Artifacts recovered from the back dirt in BHT's 6-7 are presented in Table 4-4. Materials for BHT 6 include bone (643g), glass (n=17), construction material (n=3) and *Tonalá* burnished ceramics (n=10).

Table 4-4. Cultural Material Recovered from Backhoe Trenching

ВНТ	Bone (g)	Glass	Lead Glazed	Unglazed Ceramic	White earthern ware	Construction	Metal	Grand Total
6	643	17	0	10	0	3	0	30
7	179.4	15	1	0	6	0	10	32
Total	822.4	32	1	10	6	3	10	62

The *Tonalá* fragments recovered from BHT 6 are thought to be from the same vessel, possibly a jar (Figure 4-14). *Tonalá* is burnished earthenware produced in Tonalá, Jalisco. It is buff-colored with a buff, red or black slipped surface. The ware is typically painted with floral and geometrical designs. The most notable characteristic of the ware is a sweet, earthy fragrance when dampened (Fox 2002). The dates for *Tonalá* burnished ware span from the mid-seventeenth century to the early-nineteenth century.

One whole glass bottle was recovered from the back dirt of BHT 6. The bottle is a Lea and Perrins Worcestershire Sauce club style condiment bottle (Lindsey 2009). The glass stopper of the bottle was also encountered; the stopper was to be used in combination with a shell cork. This condiment originated in Europe and import of it to the United States began in 1839. The bottle has "LEA & PERRINS" embossed vertically and "WORCESTERSHIRE SAUCE" embossed horizontally on the shoulder. Embossed on the base of the bottle is "JD/S/26." This lettering stands for John Duncan & Sons, who from 1877 to 1900 were the American licensees for importing the sauce. The sauce was imported in casks, then bottled by Duncan & Sons. Production for this style of embossed bottle was discontinued in 1920-1921.

**Backhoe Trench 7 (BHT 7)** was placed approximately one meter north of BHT 6. The backhoe trench measured 90 cm wide and 2 meters long. The first upper 60 cm consisted of three stratigraphic zones that appeared to be disturbed. Zone 4 is dark brown, silty clay with calcium carbonate specks. Zone 5 is brown, silty clay with calcium carbonate specks. The following zone (Zone 6) is also silty clay containing metal, bone and ceramic (white earthenware).

An inclusion of a burned root ended at the bottom of the trench (120 cmbs). Cultural material recovered from this backhoe trench (see Table 4-4) consisted of faunal material (wt=822 g), glass (n=15), lead glazed ceramic (n=1), white earthen ware (n=6) and metal (n=10). One complete glass bottle was recovered from the backhoe trench. It was a soda bottle with an embossing across the base that reads: "SEE THAT EACH CORK IS BRANDED, CANTRELL & COCHRANE, BELFAST DUBLIN." The round bottomed bottle was not intended for standing upright. Bottles such as these were designed with round bottoms to insure that the bottle was lain on its side. This was so that the wired down cork would not dry and shirk (Lindsey 2009). These types of bottles dates from 1870s to 1910s (Lindsey 2009).

Backhoe Trench 8 (BHT 8) was excavated south of BHT 6. This backhoe trench measured three meters long and 1.5 meters wide. At 40 cmbs, a layer of limestone and Portland cement was exposed that extended beyond the width of the backhoe trench (150 cm). The northern portion of the layer was defined by two large pieces of limestone, as seen in profile (Figure 4-15). The layer varied in thickness from 2 cm to 10 cm. A section of the limestone and cement layer was removed to reveal a layer of dark brown, silty loam underneath. This layer could be the remnants of the kitchen structure associated with 41BX334. Fox et al., (1989), encountered the south wall of the kitchen immediately underneath the parking lot that occupied the area at the time of the investigations (Figure 4-16).

Evidence of the pre-existing concrete parking surface was not encountered in the three backhoe trenches excavated during the current investigations. One possibility is that the kitchen structure associated with 41BX334 was removed when the previous parking lot was demolished, prior to the construction of the existing parking lot. This trench did not produce any artifacts.

## **Test Units**

Test Unit 1 (TU 1) was a 0.25-x-0.25 m unit that was manually-excavated in the southern wall of BHT 6 (see Figure 4-13). The unit was excavated in 5 to 10 cm increments. Soil was bagged and taken back to the CAR laboratory for water screening. There were a total of 12 levels in TU 1 that terminated at 120 cmbs. Six stratigraphic zones were identical to those defined in the BHT 6 discussion earlier in this chapter. The first zone consisting of Levels 1, 2 and 3a, was composed of modern overburden; therefore, soils from those levels were not water screened. Levels 1, 2 and 3a were a compact, clay loam (10YR 5/2).

Both Levels 1 and 2 were 10 cm levels. Level 3a was 5 cm in thickness. At 25 cm, there was change in soil that comprised of a caliche fill that was grayish-brown (10YR 6/2) mixed with >50% gravels. This second soil zone extended to a depth

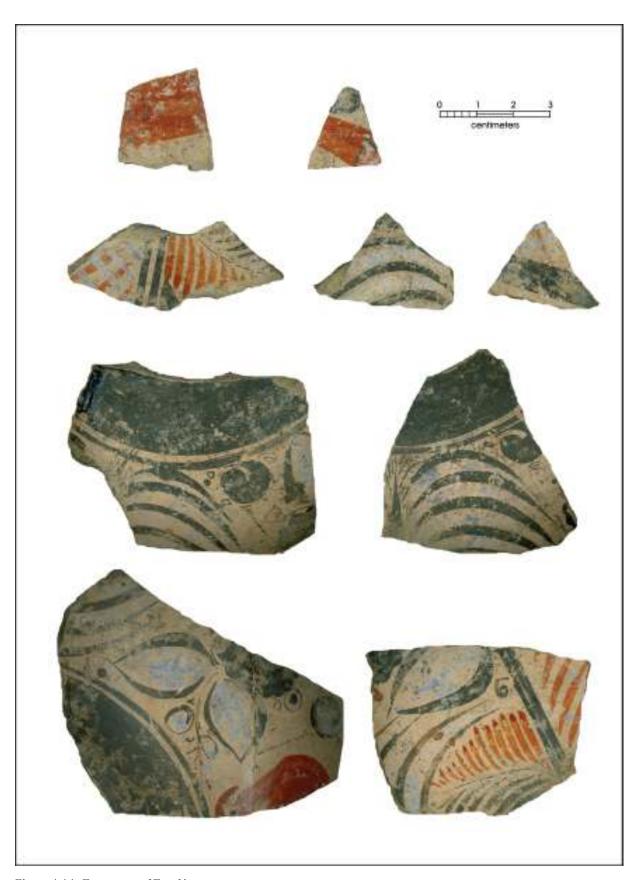


Figure 4-14. Fragments of Tonalá jar.



Figure 4-15. West profile of BHT 8.



Figure 4-16. Kitchen structure associated with 41BX334 documented in previous investigations.

of 45 cmbs, consisting of Levels 3b, 4 and 5a. Levels 5b and 6a were 5cm levels that consisted of a light grayish-brown (10YR 6/2) containing limestone and brick debris. Zone 4 encompassed Levels 6b, 7, 8, and 9a, and was a dark brown (10YR 4/3), silty clay with charcoal flecks. Levels 9b, 10 and 11 were in Zone 5; its soil was dark, grayish-brown, silty clay. Level 12 was the final level of the unit that consisted of brown, silty clay with calcium carbonate inclusions.

Over 900 artifacts were recovered from Levels 3a-12 of TU 1 (Table 4-5). The level with the highest density of artifacts was Level 6a (Figure 4-17) with 0.1 artifacts per m<sup>3</sup>. However, the majority of the artifacts in this level were construction debris consisting of bricks (n=221) and mortar (n=50). Densities were low in subsequent levels, with the exception of Level 11 (0.02 artifacts per m<sup>3</sup>), where there was a minor increase; however, as in Level 6a, artifacts from this level consisted mostly of brick and mortar. Eleven sherds of *Tonalá* burnished pottery were recovered from this unit in Levels 9b, 10 and 12. All of the sherds appear to be from the same vessel, and refit with the Tonalá sherds collected from BHT 6.

Based upon evidence from the recovered *Tonalá* jar refits, it is likely that Zones 5 and 6 date to the same time period. Although dates for *Tonalá* burnished ware span from the midseventeenth century to the early-nineteenth century, remaining artifacts in Zones 5 and 6 date to the late-nineteenth century. Clear and purpled glass was also recovered from these zones along with a shell button. The manufacture of shell buttons began during the mid-nineteenth century (South 1964). The materials recovered in this area suggest the presence of a household refuse dump associated with 41BX334. Further work is not recommended in this area.

# Summary of Testing Phase and Recommendations

Archaeological investigations during Phase I of the project for the Bexar County Justice Center Expansion resulted in nineteen shovel tests, eight backhoe trenches and a 0.25m-x-

Table 4-5. Artifacts Recovered from Test Unit 1

Level	Bone	Brick	button	Charcoal and macrobotanical	Chimney Glass	Container Glass	Flat Glass	limestone	Mortar	Slate	Unglazed Ceramic	Unidentified Metal	Grand Total
3.2	1	9	0	0	1	2	0	0	3	0	0	8	24
4	0	3	0	1	0	2	0	0	0	0	0	3	9
5.1	0	0	0	0	0	0	0	0	1	0	0	2	3
5.2	0	11	0	0	0	3	0	0	6	0	0	3	23
6.1	0	221	0	0	2	9	4	7	50	0	0	16	309
6.2	1	24	0	1	1	1	2	0	8	0	0	18	56
7	0	0	0	0	1	21	2	12	10	0	0	32	78
8	0	0	0	0	0	0	0	0	0	1	0	34	35
9.1	0	0	0	0	0	3	0	2	16	0	0	19	40
9.2	0	0	0	0	0	2	0	0	12	0	2	26	42
10	0	2	0	0	3	3	1	0	25	0	8	25	67
11	0	10	1	0	0	19	0	1	88	0	0	130	249
12	0	0	0	0	0	2	0	0	0	0	1	24	27
Grand Total	2	280	1	2	8	67	9	22	219	1	11	340	962

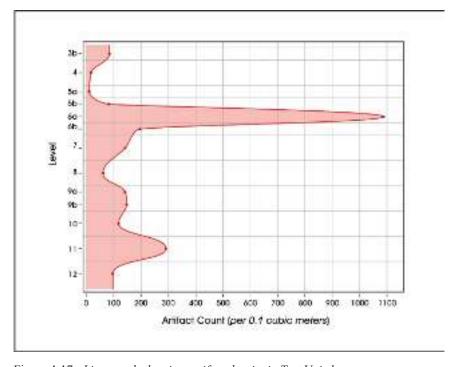


Figure 4-17. *Line graph showing artifact density in Test Unit 1.* 

0.25m test unit. Nine architectural features were uncovered during shovel test efforts along with a segment of the *San Pedro Acequia* in the western portion of the APE. The nine architectural features were given the trinomial 41BX1775. The portion of the *acequia* uncovered during the current investigations has been disturbed by two concrete walls. Material recovered from the *acequia* date mostly to the late-

nineteenth century, with the exception of the Goliad ware that was encountered in Level 5 of Shovel Test 9. Although the *San Pedro Acequia* was officially closed by 1912, artifacts encountered in excavations indicate that it began to be filled with debris by the late 1800s.

Backhoe trenching in the eastern edge of the APE failed to located intact portions of 41BX334. Furthermore, shovel testing in the southeastern portion of the APE revealed 45 cm to 62 cm of fill without any evidence of SAL's 41BX334 and 41BX335.

It was suspected that the kitchen associated with 41BX335 would be present under the existing parking lot. Figure 4-18 depicts a photograph of the kitchen structure associated with 41BX335 taken during previous investigations (Fox et al. 1989). Previous investigations postulated that the original ground surface level between the house and the kitchen was at 40 cm below the parking lot, and the foundation trenches were excavated from that level (Fox et al. 1989:21). Although the structures associated with 41BX335 were not as shallow as the kitchen structure associated with 41BX334, it too may have been disturbed during the construction of the current parking lot.



Figure 4-18. North kitchen wall associated with 41BX335 documented in previous investigations.

CAR concludes that the northern portion of the SAL sites 41BX334 has been disturbed, and thus no longer contributes to the eligibility of the site.

Following these testing efforts, CAR recommended that archaeological monitoring take place during the construction phase of the proposed building to assure that 41BX334 and 41BX335 are not impacted. It also was recommended that proposed plans

for landscaping and utility installation for the southern section of the eastern portion of the APE should not involve impacts to the southern portions of 41BX334 and 41BX335.

## **Monitoring Activities**

The Texas Historical Commission (THC) concurred with the CAR recommendation that construction activities be monitored by an archaeologist to ensure minimal damage to intact and significant portions of 41BX334 and 41BX335. The first phase included the monitoring of the asphalt/curb removal of the parking lot, along with the construction of the equipment ramp.

The second phase of monitoring coincided with the exposure and demolition of portions of the *San Pedro Acequia* that were located within the footprint of the building. Monitoring also was conducted when the installation of utility lines crossed into the vicinity of SAL's 41BX334 and 41BX335. The last phase of monitoring should have occurred in association with landscape plans for the property. Due to a communication failure, CAR was not notified during this latter phase, and consequently, monitoring was not conducted.

## **Building Footprint Excavations**

Monitoring for the construction of the building and entrance ramps began in November of 2008. Excavations took place on the eastern portions of the parking lot, starting at the place where the black top asphalt was removed (Figure 4-19). Evidence of SAL's was not noted during the removal of asphalt and curbs from the eastern portion of the APE.

Excavations associated with the building footprint began on November 13, 2008. During the span of this phase of monitoring, a course of limestone blocks and construction brick were found. The two features where found on either side of a dark matrix that contained bottle glass, undecorated white earthenware and metal. The two architectural remnants are part of 41BX1775 and more than likely represents remains of structures that stood on the property between 1885 and 1950

(Figure 4-20). It is surmised that the dark matrix containing cultural material is more than likely a portion of the *San Pedro Acequia* (41BX337) that was disturbed by the construction of the buildings associated with the architectural features (41BX1775). Bottle fragments recovered were similar to ones recovered from *acequia* portions uncovered during the testing portion of the project area. These are listed in Table 4-3. The bottles date as early as 1885.



Figure 4-19. Asphalt removal in the eastern portion of the APE.



Figure 4-20. Possible acequia remnants and foundation remains associated with 41BX1775.



Figure 4-21. a) Evidence of deep impacts to the western portion of the APE (note concrete floor) b) Evidence of deep impacts to western portion of the APE (note the concrete bell-footers).

During monitoring efforts it became evident that the northern and central portions of the APE had been disturbed substantially by 1900s construction. Figure 4-21a shows the deep impacts that occurred in the project area (note the concrete floor that might have been part of a basement). Large concrete bell-footers were extracted during deeper excavations (Figure 4-21b).

Feature 10 was uncovered during excavations within the building footprint associated with a sump pit (Figure 4-22 and 4-23). When the deposit was encountered, excavations were halted, and CAR was contacted. The excavations associated with the sump tank began at approximately 12 feet below the ground surface. The feature started about 14 to 15 feet below the ground surface and 2.25 ft below the graded surface. The feature



Figure 4-22. Feature 10 encountered during sump pit excavations.



Figure 4-23. Feature 10 (dark stain) in east wall profile of sump pit excavation.

was irregular in shape, and is 1-x-.60 meters in dimension. The feature concluded at a depth of 6 feet. The feature was located seven to eight meters north of the southern edge of

the building footprint. It appears the top of the feature was removed during construction activities in the 1980s. This feature consisted of dark soil with a mixture of brick (yellow and red), limestone, glass, ceramics, metal, sewer pipe and faunal material. Ceramics and glass dated to the late 1800s, or early 1900s. Prior excavations within the building footprint noted the removal of several concrete bell piers. This feature could be fill associated with initial installation of the bell piers, as they required deep excavations.

## **Utility Trenches**

Due to the placement of utility trenches in the vicinity of SAL's 41BX334 and 41BX335, trenching was monitored by the CAR crew (Figure 4-24). During monitoring for the installation of utility lines, portions of 41BX334 were encountered. This planned trench was moved (as per THC recommendations) in order to avoid impacting a limestone block that might have been associated with the site. An excavated trench in the vicinity of the site uncovered only disturbed portions of the foundation (Figure

4-25 a and b). Upon THC's approval, the remainder of the

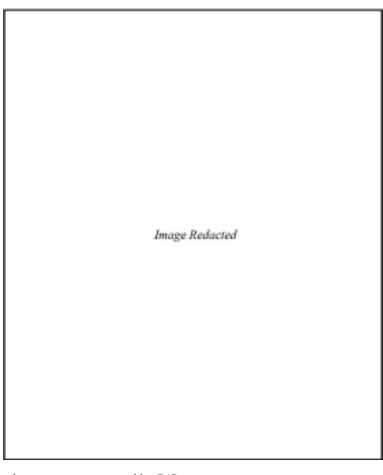


Figure 4-24. Utility trench excavations monitored by CAR.

trenching was completed and further work was not warranted during this portion of the project.

## Landscaping

The last portion of monitoring was associated with landscaping of the project area. CAR received this information via email from Zachary Construction, on November 1st 2010, explaining that the landscaping had occurred and the original landscaping plans had deviated. According to e-mail communication from Zachary construction, significant excavations were not conducted, as tree excavation impacts were limited to three feet in depth and occurred in previously disturbed areas and/or where the area had been built up to approximately two feet with introduced fill material. Additional work was associated with the installation of the security fence footing. This occurred in areas disturbed by building footprint excavations.

## **Summary of Monitoring Activities**

During the monitoring phase of the project area, several features were encountered. Two architectural remnants, which were part of 41BX1775, represent remains of structures that stood on the property between 1885 and 1950, and were encountered during mechanical excavations associated with the building footprint. A dark matrix containing cultural material is more than likely a portion of the *San Pedro Acequia* (41BX337). Artifacts encountered include bottle glass, undecorated white earthenware and metal. Monitoring for the installation of utility lines encountered disturbed portions of 41BX334. The monitoring of the landscaping in heavily disturbed locations did not take place.

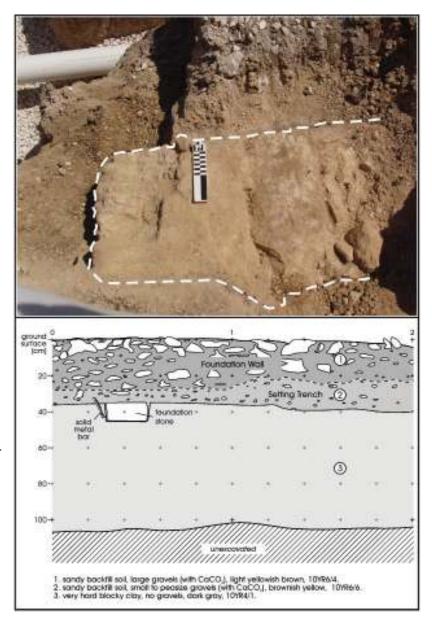


Figure 4-25. a) Limestone block possibly associated with 41BX334; b) portion of 41BX334 disturbed by previous construction.

## **Chapter 5: Project Conclusions**

CAR conducted archaeological investigations for the Bexar County Justice Center Expansion project during 2008 and through 2010. This task was undertaken due to the fact that the work took place on land owned by Bexar County, a political subdivision of the state, which brought the project under the jurisdiction of the Antiquities Code of Texas. The principal oversight agency is the Archeology Division of the Texas Historical Commission. Because the project area is within the limits of the City of San Antonio, the project also falls under the jurisdiction of the City of San Antonio Unified Development Code, Chapter 35.

During testing efforts for the Bexar County Justice Center Expansion project, the APE was divided into western and eastern sections. In the western portion of the APE, sixteen shovel tests and five backhoe trenches were excavated. The San Pedro Acequia (41BX337) was encountered in Shovel Test 9, and BHTs 4 and 5. While the CAR map overlay of the acequia (see Figure 4-1) suggests that excavators also should have encountered it in BHTs 1, 2, and 3, no evidence of the ditch was noted in these units. As noted earlier, this discrepancy may be due to inaccuracies in the overlay (e.g., positioning and/or scaling of historic maps). On the other hand, the significant and in some instances deep subsurface impacts that the project area has undergone, may have entirely removed any evidence of the acequia. It is likely, that the answer is a combination of both factors, difficulties in scaling historic maps and dramatic subsurface disturbances pre-dating this project.

Dark brown clay was present in portions of the project area where architectural features were not present or had not been disturbed by construction. Backhoe trenching in this area of the APE revealed nine features that were designated as 41BX1775. The nine features that comprise 41BX1775 consist of architectural elements: brick and limestone alignments and a plaster floor. None of the features define a complete structure, but rather they likely represent the remains of structures that stood on the property between 1885 and 1950 (prior to the installation of the parking lot).

The portion of the *acequia* examined during the current investigations had been disturbed by prior construction represented by concrete walls. It is evident that the upkeep of the *acequia* began to drastically diminish prior to its official closing in 1899. The concrete features encountered in the *acequia* are possibly associated with post-1885 construction. The CAR does not recommend any further work for site 41BX1775; neither does CAR recommend work on the portion of 41BX337 that was documented during the testing investigations.

In the eastern portion of the APE, intact portions of the kitchen structure associated with 41BX334 were not encountered. This area has been disturbed by the construction of the parking lot. The test unit placed adjoining BHT 6 yielded material related to domestic refuse, possibly associated with 41BX334. During the monitoring of utility trench excavations, small portions of 41BX334 were encountered and subsequent disturbance was noted. Upon the THC's approval, the remainder of the trenching was completed. Further work was not warranted during this portion of the project. The landscaping activities commenced without monitoring by the CAR, and e-mail communication noting this was received by CAR on November 1, 2010. The landscaping activities were limited to previously disturbed areas of the A.P.E.

## **References Cited:**

#### Bauer, J.

1974 The Mexican War, 1846-1848. Macmillan, New York.

#### BCDR (Bexar County Deed Records)

2011 http://www.countyclerk.bexar.landata.com/. Accessed September 2009.

#### Buckley, E.C.

1911 The Aguayo Expedition into Texas and Louisana, 1719-1722. *Quarterly of the Texas State Historical Association* XV (1):1-65.

#### Buerkle, R.C.

1976 The Continuing Military Presence. In *San Antonio in the Eighteenth Century*, pp. 5, San Antonio Bicentennial Heritage Committee. Clarke Printing Company. San Antonio.

#### Chipman, D.E.

1992 Spanish Texas, 1519-1821. University of Texas Press, Austin.

## Cox, I.W.

- 1986 Excavations of portions of the San Pedro Acequia (41BX337) and a Search for the Arocha Acequia, San Antonio, Texas. Archaeological Survey Report, No. 161. Center for Archaeological Research, The University of Texas at San Antonio.
- 1991 Excavations at the McDonald Site, 41BX794, San Antonio, Bexar County, Texas. Archaeological Survey Report, No. 191. Center for Archaeological Research, The University of Texas at San Antonio.
- 1995 Documentation of the San Pedro Acequia (41BX337) at Trevino Street, San Antonio, Texas. Archaeological Survey Report, No. 230. Center for Archaeological Research, The University of Texas at San Antonio.
- 2002 Archaeological Investigations for the One-Stop Development Services Center, San Antonio, Bexar County, Texas. Letter Report, No. 142.Center for Archaeological Research, The University of Texas at San Antonio.
- 2005 The Spanish Acequias of San Antonio. Maverick Publishing Company, San Antonio.

## Cox, I.W., M.J. Brown, J. Hageman, and C. McKenzie

1990 *Investigations at the Vollrath Blacksmith Shop (41BX786), San Antonio, Bexar County, Texas*. Archaeological Survey Report, No. 188. Center for Archaeological Research, The University of Texas at San Antonio.

#### Figueroa, A.L. and R.P. Mauldin

2005 Test Excavations and Monitoring at 41BX1598: A Multi-component Historic Site in Bexar County, Texas. Archaeological Report, No. 360, Center for Archaeological Research, The University of Texas at San Antonio.

#### Fox. A.A.

1977 *The Archaeology and History of the Spanish Governor's Palace Park*. Archaeological Report No. 31, Center for Archaeological Research, The University of Texas at San Antonio.

- 1978 Preliminary Archaeological Assessment of South Parking Lot Area (Phase I) Site of Courthouse Annex, San Antonio, Texas. Center for Archaeological Research, The University of Texas at San Antonio.
- 1997 *Test Excavations at the Spanish Governor's Palace, San Antonio, Texas.* Archaeological Survey Report, No. 259. Center for Archaeological Research, The University of Texas at San Antonio.
- 2002 Ceramics. In Archaeological Investigations at the last Spanish Colonial Mission Established on the Texas Frontier: Nuestra Señora del Refugio (41RF1), Refugio County, Texas, edited by C. L. Tennis, pp. 203-219.vol. 1. Center for Archaeological Research, The University of Texas at San Antonio.

#### Fox, A.A. and I.W. Cox

2000 Archaeological Monitoring for Exterior Lighting and Test Excavations at Mission San Juan Capistrano, Bexar County, Texas. Letter Report, No. 131. Center for Archaeological Research, The University of Texas at San Antonio.

#### Fox, A.A., M. Renner, and R.J. Hard

1997 Archaeology at the Alamodome: Investigations of a San Antonio Neighborhood in Transition, Volume III: Artifacts and Special Studies. Archaeological Survey Report, No. 238. Center for Archaeological Research, The University of Texas at San Antonio.

## Fox, A.A., I.W. Cox, L. Highley, and D. Hefernik

1989 Archaeological and Historical Investigations at the Site of the New Bexar CountyJustice Center in Downtown San Antonio, Texas. Archaeological Survey Report, No. 184. Center for Archaeological Research, The University of Texas at San Antonio.

## Fox, D.E., D. Scurlock, and J.W. Clark

1977 Archaeological Excavations at San Fernando Cathedral, San Antonio, Texas: A Preliminary Report. Office of the State Archaeologist, Texas Historical Commission, Austin.

## Frkuska, A.J., Jr.

1981 Archaeological Investigations at the San Pedro Acequia, San Antonio, Texas. Archaeological Survey Report, No. 103. Center for Archaeological Research, The University of Texas at San Antonio.

#### Hoffman, F.L.

1937 Diary of the Alarcón Expedition into Texas, 1718-1719. Quivira Society Publications.

#### Koch, A.

1873 Bird's Eye View of the City of San Antonio, Bexar County, Texas, 1873. In The San Antonio Museum Collection. R. H. Holland.

#### Lindsey, B.

2009 Historic Bottle Glass Identification & Information Website- Bottle Typing and Diagnostic Shapes. http://www.sha.org/bottle/dating.htm. Society for Historical Archaeology and Bureau of Land Management. Accessed September 2009.

#### Moorehead, M.

1991 The Presidio: Bastion of the Spanish Borderlands. University of Oklahoma Press, Norman.

#### Nance, J. M.

2004 Republic of Texas. http://www.tshaonline.org/handbook/online/articles/RR/mzr2.html *The Handbook of Texas Online*. Accessed September 2009.

## South, S.

1964 Analysis of the Buttons from Brunswick Town and Fort Fisher. Florida Anthropologist 17:113-133.

## Uecker, H.G., F.K. Meskill, and I.W. Cox

1991 Archaeological Investigations at the Ruiz Family Property (41BX795), San Antonio, Texas. Archaeological Survey Report, No. 198. Center for Archaeological Research, The University of Texas at San Antonio.

#### Valdez, F. Jr., and J. Eaton

1979 Preliminary Archaeological Investigations of Part of the San Pedro Acequia, San Antonio, Texas. Archaeological Survey Report, No. 85. Center for Archaeological Research, The University of Texas at San Antonio.

## Wallace, E.

1965 Texas in Turmoil: The Saga of Texas, 1849-1875. Steck-Vaughn, Austin.

## Weddle, R.S.

1968 San Juan Bautista: Gateway to Spanish Texas. University of Texas Press, Austin.