ARCHAEOLOGICAL INVESTIGATIONS OF THE PROPOSED BROOKS CITY BASE CONNECTION TRAIL IN SOUTHEAST SAN ANTONIO, BEXAR COUNTY, TEXAS

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Management Summary:

In October 2017, on behalf of Brooks Development Authority the San Antonio River Authority (SARA) (CLIENT) contracted Raba Kistner Environmental, Inc. (RKEI) to perform an intensive cultural resources survey of the proposed Brooks City Base Connection Trail southeast San Antonio, Bexar County, Texas. The CLIENT proposes to construct a 1,120 feet of a hike and bike trail that will connect Brooks City Base to an existing network of trails adjacent to Mission Reach. The majority of the project area is located on land owned by SARA and includes portions that extends into lands controlled by the City of San Antonio and a portion of right-of-way controlled by the Texas Department of Transportation; however all land will eventually be acquired by SARA. As such the project is subject to review under Antiquities Code of Texas (ACT), as administered by the Texas Historical Commission (THC). Accordingly, investigations were designed to satisfy the requirements of the ACT. All work was conducted in accordance with the Archeological Survey Standards for Texas as set forth by the Council of Texas Archeologists and the Texas Historical Commission under Texas Antiquities Committee Permit Number 8200.

The purpose of the investigations were to identify any surface-exposed or buried cultural deposits within the Area of Potential Effect and, if feasible, access their significance and eligibility for inclusion in the National Register of Historic Places (NHRP) and for formal designation as State Antiquities Landmarks (SAL). Investigations included an intensive pedestrian survey coupled with shovel testing along the proposed haul road and the excavation of backhoe trenching within the proposed borrow pit location. The pedestrian survey and shovel testing was conducted on October 16, 2017, while the backhoe trenching activities were conducted on October 18, 2017. Antonio E. Padilla served as the Principal Investigator and Project Archaeologist for the project and was assisted by archaeologists Chris Murray.

A background review revealed that the project area is located within the Mission Parkway National Register District, where several archaeological investigations have been conducted and numerous prehistoric and historic archaeological sites have been recorded. Of the many archaeological sites recorded, only one site (41BX268) falls within the proposed project area. Site 41BX268, also known as the San Juan Acequia, intersects the eastern portion of the project area. During the initial recording of the acequia, the portion within the project area was an earth lined ditch. However, sometime between 1985 and 1995, the project area had been dramatically altered with the creation of a 65-foot-wide drainage easement. During the construction of the drainage easement, an unnamed drainage had been channelized and the acequia had been cement lined.

Investigations of the Area of Potential Effect (APE) consisted of a pedestrian survey coupled with the excavation of eight shovel tests (AP01, AP02, AP04–AP06, and CRM01, CRM04 and CRM05) along two transects and the excavation of four backhoe trenches within the APE. During the pedestrian survey it was observed that a majority of the APE had been impacted by the construction of the drainage easement and construction of the South Presa Street and Southern Pacific Railroad Bridges. Subsurface testing of the APE corroborated what was observed during the survey. Although much of the area had been disturbed an undecorated white earthenware sherd was encountered within CRM01 at a depth of 40 to 50 centimeters (cm) below surface (bs). Three additional shovel tests (AP03, CRM02, and CRM03) were
excavated after the recovery of the ceramic sherd; all were negative of cultural material. Due to the disturbed nature of the area where it was encountered and the lack of additional cultural materials, RKEI judge the sherd as an isolated find (IF1).

Excavation of the backhoe trenches occurred on the north and south side of the San Juan Acequia, in areas where impacts were expected to exceed the depth of shovel tests, and in an area where intact soils were encountered. Two backhoe trenches excavated on the north side of the acequia channel revealed that the area had been severely impacted as disturbances were observed to a depth of 6 feet. The backhoe trenches south of the acequia channel revealed intact soils; however no cultural materials were encountered within these two backhoe trenches.

The area in which the acequia channel intersects the APE was examined during the course of the project. Investigations at this location consisted of the excavation of a backhoe trench and shovel test along the artificial berms on the north and south side of the channel. Both excavations revealed that the area had been heavily disturbed. The locations along the acequia channel investigated are where a proposed pedestrian bridge is to be constructed. The footing of the bridge will be located 20 feet from the center of the channel and will reach a depth of 4-feet. These footings will be connected by a 40 foot platform that will cross the channel, avoiding any impacts to the San Juan Acequia.

RKEI has made a good faith effort in identifying cultural resources within the APE. Based on the results of the investigations and the proposed avoidance measures concerning the San Juan Acequia, it is RKEI’s opinion that the proposed undertaking would have NO ADVERSE EFFECT on any properties listed or otherwise eligible for the NRHP. However, should changes be made to the project APE and avoidance measures, further work may be required.
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Chapter 1: Introduction

Raba Kistner Environmental, Inc. (RKEI) was contracted by the San Antonio River Authority (CLIENT) on behalf of the Brooks Development Authority (BDA) to conduct archaeological investigations for the proposed Brooks City Base Connection Trail Project in southeast San Antonio, Texas (Figure 1-1). The purpose of the project is to construct a hike and bike trail that will connect Brooks City Base to Mission Reach Trail. The proposed project is located on lands that will be controlled by SARA, an entity of the State of Texas. As such, the proposed undertaking is subject to review by the Texas Historical Commission (THC) under the Antiquities Code of Texas (ACT). Additionally, the property is located within the City of San Antonio and is also subject to review by the City of San Antonio Office of Historic Preservation (COSA-OHP) under the Historic Preservation and Design Sections (Article VI 35-360 to 35-364) of the City of San Antonio’s Unified Development Code (UDC).

Investigations consisted of an intensive pedestrian survey coupled with shovel testing along the proposed hike and bike trail and the excavation of backhoe trenches. Cultural resources investigations were conducted on behalf of the CLIENT to satisfy the requirements of the ACT and the City of San Antonio’s UDC. The purpose of the investigations were to identify any surface-exposed or buried cultural deposits within the limits of the proposed undertaking and if possible access their significance and eligibility for inclusion in the National Register of Historic Places (NHRP) and for formal designation as State Antiquities Landmarks (SAL). All work was conducted in accordance with the Archeological Survey Standards for Texas as set forth by the Council of Texas Archeologists (CTA) and the Texas Historical Commission (THC) under Texas Antiquities Committee Permit Number 8200.

The cultural resources investigations were conducted over the course of three days. The intensive pedestrian survey augmented with shovel tests were conducted on October 16, 2017, while the backhoe trenching investigations were conducted on October 17, 2017. Antonio E. Padilla served as the Principal Investigator and Project Archaeologist for the project and was assisted by archaeologist Chris Murray.

This report summarizes the results of the field investigations, and provides recommendations regarding the proposed project. Following this introductory presentation and the description of the project area, Chapters 2 and 3 provide background on the setting of the project area, as well as the culture history and previous archaeological investigations that have taken place in the vicinity of the project area. Chapter 4 outlines the field and laboratory methods employed during the project and the Chapter 5 summarizes the results of the field investigations. Chapter 6 provides a brief summary of the investigations and provides recommendations regarding the planned project.
Figure 1-1. Location of the Project Area.
Project Area Description and Area of Potential Effect (APE)

The Area of Potential Effects (APE) is located in southeast San Antonio, Bexar County, Texas on the western side of Old Corpus Christi Road, approximately 0.25 miles south of the intersection of Henderson Court and Old Corpus Christi Road. The APE is depicted on the Southton, Texas (2998-132) U.S. Geological Survey 7.5-minute topographic quadrangle (Figure 1-2). The proposed undertaking will involve the construction of approximately 1,120 feet of a hike and bike trail that will connect Brooks City Base to an existing network of trails adjacent to Mission Reach along the San Antonio River. The projected alignment of the trail extends west from Old Corpus Christi Road for approximately 100 feet where it splits into two trails. A short branch of the trail continues approximately 105 feet to the west terminating at a location for a 35 x 28 feet shade structure. The main trail continues south/southeast, crossing the San Juan Acequia (41BX628), continuing to State Highway 121 (South Presa Street). As the alignment nears South Presa Street it meanders west following along a drainage easement that feeds into the San Antonio River. The route of the trail eventually crosses beneath South Presa Street following the drainage easement to the southwest/west, crossing under the Southern Pacific Railroad Bridge, and terminates on a branch of the Mission Reach Trail.

The proposed hike and bike trail measures 10-feet and will include the installation of signage, trash receptacles, a shade structure, a pedestrian bridge that will span the San Juan Acequia, and retaining walls along the section of trail below South Presa Street and the rail road. The estimated depths of impacts will vary from 6 to 12 inches in areas that are to be graded and 1 to 4 feet where footings or pilings will be placed. For archaeological purposes the APE is defined as the entire footprint of the proposed project, encompassing approximately 0.28 acres; however, RKEI’s investigations encompassed approximately 1.3 acres within a 50-foot-wide survey corridor along the trail to account for easements for construction equipment access.

A review of historic aerial photography from 1938 to 1953 indicates that the project area was predominately used for agricultural purposes (Figures 1-3 and 1-4). Between 1953 and 1963, aerial photographs depict that the northern portion of the APE was altered by scraping and clearing (Figure 1-5). The entire project area was completely altered with the construction of a drainage easement between 1985 and 1995 (Figures 1-6 and 1-7). The current condition of the project area is similar to what is seen in 1995.
Figure 1-2. Area of Potential Effects shown on the Southton, Texas (2998-132) U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map.
Figure 1-3. Historical aerial photograph showing the condition of the APE in 1938.
Figure 1-4. Historical aerial photograph showing the condition of the APE in 1953.
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Chapter 2: Environmental Setting

Project Area Setting
The project area is located in the south-central Texas geographic region within the Blackland Prairie ecoregion. The Blackland Prairie is an area of low topographic relief and poor drainage, prone to frequent flooding (Collins 1995). The Blackland Prairie physiographic region is characterized by gently undulating topography and is generally defined as grasslands punctuated by riparian bands along creeks, rivers, and other drainages. Creation of the Blackland Prairies occurred during the late Tertiary, with the erosions of soils on the Edwards Plateau. These soils were deposited by eolian and colluvial processes across an existing, eroded parent material of the Gulf Coastal Plain, creating a mix of deep Tertiary and Quaternary calcareous clay soils (Black 1989a).

Geology
The APE is underlain by two distinct geological features: the Wilcox Group, undivided (Ewi) and Terrace deposits (Qt). The Wilcox Group, undivided underlies approximately 98 percent of the project area. The Tertiary-age Wilcox Group, undivided has a thickness ranging from 440 to 1,200 feet and is composed of mostly of mudstone; however it also contains sandstone, ironstone, and lignite (Barnes 1983). Terrace deposits are Holocene deposits of sand, clay, silt, and gravels. Gravels in deposits are found in older, higher terraces. Along streams the deposits are indurated with calcium carbonate (Barnes 1983).

Soils
Review of the Natural Resources Conservation Service (NRCS) datasets identify only Lorie clay loam (Fr) as the soils within the APE. These soils are derived from sediments of loamy alluvium and are typically very deep and well drained. Lorie clay loam soils are typically encountered on nearly level flood plains with slopes ranging from 0 to 30 percent (NRCS 2017).
Figure 2-1. Soils encountered within the project area and vicinity.
Flora and Fauna

The project area is located near the juncture of the Balconian and Taumaulipan biotic provinces (Blair 1950). Because the project is situated at the ecotone of two biotic provinces it floral and faunal resources consist of a mix of the two provinces. Trees, plants and grasses in this region include cedar (Juniperus ashei), live oak (Quercus fusiformis), Texas mountain laurel (Sophora secundiflora), mesquite (Prosopis glandulosa), prickly pear (Opuntia sp.), agarita (Berberis trifoliolata), cat claw (Smilax bona-nox), mustang grape (Vitis mustangensis), sotol (Dasylirion texanum), and Spanish dagger (Yucca sp.).

The fauna that inhabit the south-central Texas region includes at least 95 bird and 29 mammal species. The area also contains a wide array of reptiles, fish and amphibians. Mammal species that were noted within the APE include white-tailed deer (Odocoileus virginianus), nine-banded armadillo (Dasypus novemcinctus), Virginia opossum (Didelphis virgininana), striped skunk (Mephitis mephitis), raccoon (Procyon lotor), coyote (Canis latrans), cottontail rabbit (Sylvilagus audubonii), feral hog, domestic and feral cat, and squirrel.

South Texas Climate

The climate in south-central Texas is humid subtropical with hot and humid summers. From May through September, hot weather dominates with the cool season beginning around the first of November and extending through March. Winters are typically short and mild with little precipitation. San Antonio averages only 33 inches (in) of rain per year (Southern Regional Climate Center 2010; based on monthly averages from 1980 to 2010). Monthly temperature averages range between 52°F in January to 85°F in August.
Chapter 3: Culture Chronology and Previous Archaeology

Culture Chronology

The cultural history of South Central Texas spans approximately 11,500 years. Archaeologists have divided the occupation of the region into four principal periods and several sub-periods: Paleoindian, Archaic, Late Prehistoric, and Historic. The periods are characterized by changes in climatic conditions, distinct vegetation types and structures, and concomitant adaptive changes by human populations in hunting and gathering technologies and strategies, general material culture, and at the tail end of the cultural sequence, the arrival of non-indigenous populations. The standard summaries of the culture chronologies of Central Texas accepted by many of the regional archaeologists were produced by Collins (1995, 2004) Hester (2004) and Prewitt (1981). Below is a brief summary of the cultural sequence that has been reconstructed by archaeologists for the south-central part of the state.

Paleoindian

The oldest cultural materials found in the region date to the Paleoindian Period. The period spans roughly from 11,500–8800 BP (Collins 1995, 2004). The Aubrey site in Denton County has one of the earliest occupations, with radiocarbon assays dating to between 11,542 ± 11 BP and 11,590 ± 93 BP (Bousman et al. 2004:48). Paleoclimatic proxy measures suggest that a cooler climate with increased precipitation was predominant during the Late Pleistocene (Mauldin and Nickels 2001; Toomey et al 1993), the later portion of the period.

Initial reconstructions of Paleoindian adaptations typically viewed these hunter-gatherers as traversing extreme distances in pursuit of now extinct mega-fauna such as mammoth and mastodon. While these Paleoindians populations did exploit the Late Pleistocene mega-fauna when it was accessible, a number of faunal assemblages from an increasingly larger number of sites indicate that the Paleoindian diet was more varied and consisted of a wide range of resources, including small game and plants. The Lewisville (Winkler 1982) and the Aubrey sites (Ferring 2001) produced faunal assemblages that represented a wide range of taxa, including large, medium, and small species. Information on the consumption of plant resources during the Paleoindian Period is lacking. Bousman et al. (2004) reported that the late Paleoindian component at the Wilson-Leonard site reflected the exploitation of riparian, forest, and grassland species. Analysis of Paleoindian skeletal remains indicates that the diets of the Paleoindian and later Archaic hunter-gatherers may have been similar (Bousman et al. 2004; Powell and Steele 1994).

The early portion of the Paleoindian Period was characterized by the appearance of Clovis and Folsom fluted projectile points that were used for hunting mega-fauna. Typical projectile points produced at sites with occupations dating to the later portion of the Paleoindian Period included the Plainview, Dalton, Angostura, Golandrina, Meserve, and Scottsbluff types. Meltzer and Bever (1995) have identified 406 Clovis sites in Texas. One of the earliest, 41RB1, yielded radiocarbon assays that put the maximum age for the Paleoindian component at 11,415 ± 125 BP (Bousman et al. 2004:47).

Sites in Bexar County that contain Paleoindian components include St. Mary’s Hall (Hester 1978, 1990), Pavo Real (Collins et al. 2003), the Richard Beene site (Thoms et al. 1996; Thoms and Mandel 2006) and
41BX1396 (Tomka 2012). St. Mary’s Hall, 41BX229, was first encountered in 1972 during the construction of a house just outside the school’s property. The Pavo Real site, 41BX52, is located along Leon Creek in northwest Bexar County. The site first was documented in 1970 and has been investigated several times over the past 40 years (Collins et al. 2003). The Richard Beene site, 41BX831, is located along the Medina River in southern Bexar County (Thoms et al. 1996). Site 41BX1396 is located in Brackenridge Park in San Antonio, Texas, and was encountered during installations for lighting in 2010. Dating of organic samples indicated that occupation at the site occurred as early as 10,490–10,230 BP.

**Archaic Period**

The Archaic Period dates between ca. 8800 to 1200 BP. It is divided into three sub-periods: Early, Middle, and Late. During the Archaic, mobility strategies may have shifted to more frequent short-distance movements that allowed the exploitation of seasonal resource patches. The intermittent presence of bison in parts of Texas, combined with changes is climatic conditions and the primary productivity of the plant resources may have contributed to shifts in subsistence strategies and associated technological repertoire. When bison was not present in the region, hunting strategies focused on medium to small game along with continued foraging for plant resources. When bison was available, hunter-gatherers targeted the larger-bodied prey on a regular basis.

**Early Archaic**

Collins (1995, 2004) suggests that the Early Archaic spans from 8800 to 6000 BP. Projectile point styles characteristic of the Early Archaic include Angostura, Early Split Stem, Martindale, and Uvalde (Collins 1995, 2004). The Early Archaic climate was drier than the Paleoindian Period and witnessed a return to grasslands (Bousman 1998). Mega-fauna of the Paleoindian Period could not survive the new climate and ecosystems, therefore eventually dying out. Early Archaic exploitation of medium to small fauna intensified.

The Wilson-Leonard excavation produced a wealth of cultural materials representative of a lengthy period in regional prehistory. The projectile point assemblages from the site indicate that the lanceolate Paleoindian point forms continue from the Paleoindian into the Early Archaic (Angostura). However, relatively quickly during the Early Archaic, they are replaced by corner- and basally-notched and shouldered forms (Early Triangular, Andice, Bell) that quickly become the dominant points tipping the atlatl-thrown darts. In addition, the uses of small to medium hearths similar to the previous period were noted. The appearance of earth ovens suggests another shift in subsistence strategies. The earth ovens encountered at the Wilson-Leonard site were used to cook wild hyacinth along with aquatic and terrestrial resources (Collins et al. 1998). Analyses of Early Archaic human remains encountered in Kerr County (Bement 1991) reveal diets low in carbohydrates in comparison to the Early Archaic populations found in the Lower Pecos region. Within Bexar County, the excavations at 41BX1396 revealed an Early Archaic component, radiocarbon dated to Cal BP 8390 to 8180 (Tomka 2012).

**Middle Archaic**

The Middle Archaic sub-period spans from 6000 to 4000 BP (Collins 1995, 2004; Weir 1976). Archaeological data indicates that there appeared to be a population increase during this time. Climate
was gradually drying leading to the onset of a long drought period. Changes to the demographics and cultural characteristics were likely in response to the warmer and more arid conditions. Projectile point styles characteristic of this sub-period include Bell, Andice, Calf Creek, Taylor, Nolan, and Travis.

Subsistence during the Middle Archaic saw an increased reliance on nuts and other products of riverine environments (Black 1989b). The increase of burned rock middens during the Middle Archaic represented the increased focus on the use of plant resources (Black 1989b; Johnson and Goode 1994). Little is known about burial practices during the Middle Archaic. An excavation in an Uvalde County sinkhole (41UV4) contained 25–50 individuals (Johnson and Goode 1994:28).

**Late Archaic**

The Late Archaic spans from 4000 to 1200 BP (Collins 1995, 2004). It is represented by the Bulverde, Pedernales, Kinney, Lange, Marshall, Williams, Marcos, Montell, Castroville, Ensor, Frio, Fairland, and Darl projectile points. The early part of the Late Archaic exhibited fluctuations in the temperature and rainfall. There appears to have been an increase in population at this time (Nickels et al. 1998).

Some researchers believe that the use of burned rock middens decreased during the Late Archaic. Some research has challenged this notion (Black and Creel 1997; Mauldin et al. 2003). Johnson and Goode (1994) discuss the role of burned rock middens in relation to acorn processing.

Human remains from burials related to the Late Archaic in Central and South Texas suggest the region saw an increase in population. This increase may have prompted the establishment of territorial boundaries, which resulted in boundary disputes (Story 1985). Human remains dating to this sub-period have been encountered near the Edward’s Plateau.

**Late Prehistoric**

The Late Prehistoric Period begins ca. 1200 BP (Collins 1995, 2004), and appears to continue until the beginning of the Protohistoric Period (ca. A.D. 1700). The term Late Prehistoric is used in Central and South Texas to designate the time following the end of the Archaic Period. A series of traits characterizes the shift from the Archaic to the Late Prehistoric Period. The main technological changes were the shift to the bow and arrow and the introduction of pottery. The Late Prehistoric Period is divided into two phases: the Austin Phase and the Toyah Phase.

At the beginning of this period, environmental conditions were deemed to be warm and dry. Moister conditions appear after 1000 BP (Mauldin and Nickels 2001). Subsistence practices appeared similar to the Late Archaic. Projectile points associated with the Austin Phase include the Scallorn and Edwards types. The Toyah Phase is characterized by the prominence of the Perdiz point (Collins 1995, 2004).

Most researchers concur that the early portion of the Late Prehistoric Period saw a decrease in population density (Black 1989b:32). Radiocarbon dates from some sites have indicated that the middens were utilized during the Late Prehistoric. Some archaeologists feel the peak of midden use was after A.D. 1 and into the Late Prehistoric (Black and Creel 1997:273). Radiocarbon dates from Camp Bowie middens
provide evidence that supports Black and Creel’s arguments that burned rock middens were a primarily Late Prehistoric occurrence (Mauldin et al. 2003).

Beginning rather abruptly at about 650 BP, a shift in technology occurred. This shift is characterized by the introduction of blade technology, the first ceramics in Central Texas (bone-tempered plainwares), the appearance of Perdiz arrow points, and alternately beveled bifaces (Black 1989b:32; Huebner 1991:346). Prewitt (1981) suggests this technology originated in north-central Texas. Patterson (1988), however, notes that the Perdiz point was first seen in southeast Texas by about 1350 BP, and was introduced to west Texas some 600 to 700 years later.

Early ceramics in Central Texas (ca. A.D. 1250 to 1300) are associated with the Toyah Phase of the Late Prehistoric and are referred to as Leon Plain ware. The Leon Plain ceramic types are undecorated, bone-tempered bowls, jars, and ollas with oxidized, burnished and floated exterior surfaces (Ricklis 1995). There is notable variation within the type (Black 1986; Johnson 1994; Kalter et al. 2005). This variation can be attributed to differences in manufacturing techniques and cultural affiliation. Analysis of residues on ceramic sherds suggests that vessels were used to process bison bone grease/fat, mesquite bean/bison bone grease, and deer/bison bone grease (Quigg et al. 1993).

The return of bison to South and Central Texas during the Late Prehistoric resulted from a drier climate in the plains located to the north of Texas and increased grasses in the Cross-Timbers and Post Oak Savannah in north-central Texas (Huebner 1991). The increased grasses in the two biotas formed the “bison corridor” along the eastern edge of the Edwards Plateau and into the South Texas Plain (Huebner 1991:354–355). Rockshelter sites, such as Scorpion Cave in Medina County (Highley et al. 1978) and Classen Rock Shelter in northern Bexar County (Fox and Fox 1967), have indicated a shift in settlement strategies (Skinner 1981). Burials dating to this period often reveal evidence on conflict (Black 1989b:32).

**Historic Period**

The beginnings of San Antonio came about with the establishment of Mission San Antonio de Valero in 1718. Fray Antonio de San Buenaventura y Olivares had briefly visited the site several years prior, and petitioned to set up a mission at the headwaters of the San Antonio River to act as a waypoint in the journey to East Texas. The Marques de Valero, Viceroy of New Spain, granted Olivares’ request and granted him permission (de la Teja 1995). Mission Valero occupied at least two locations before it settled into its current spot.

The first location of Mission Valero was located on a prominent hill along San Pedro Creek, near the modern day location of the Christopher Columbus Italian Society. The mission remained in this location for approximately a year before its relocation to the east bank of the San Antonio River in 1719. It is hypothesized that this second location is the modern day location of Saint Joseph’s Church on East Commerce Street. Due to the destruction of the mission location by a disastrous storm that flooded the area, the mission was moved to its current location (Chipman 1992, Cox 1999, Cox 2005, Habig 1968, Nichols 2015, Schoelwer 2017, Tous 1930). The final location was in use by 1724.
Five days after Mission Valero was founded, Presidio de Bexar was established. The presidio was to house the Spanish soldiers who had come along with the expedition to found the Mission. Typically, the families that followed the soldiers lived just outside the presidio.

Two years later, in 1720, Mission San José y San Miguel de Aguayo was established on the opposite bank of the San Antonio River, and to the south of Mission Valero and Presidio San Antonio de Bexar. This mission was established to help serve native groups that did not want to reside at Mission Valero because they were not on friendly terms with groups already living there. The original location of Mission San José was along the east bank of the San Antonio River, approximately three leagues from Mission Valero. The mission was then moved to the opposite bank sometime between 1724 and 1729, and relocated to its present site during the 1740s due to an epidemic (Scurlock et al. 1976:222).

In 1722, just two years after Mission San José was founded, Mission San Francisco Xavier de Nàjera was established. The mission was to serve a group of 50 Ervipiami families that came from the Brazos River area (Schuetz 1968:11). Mission San Francisco Xavier de Nàjera was located on or near the present site of Mission Concepción. The mission was unsuccessful due to a lack of funding. An attempt was made to make the mission a sub-mission of Valero, but this failed as well (Habig 1968:78–81). Its doors closed in 1726 (Schuetz 1968:11). Ivey (1984:13) argued that the closure of the mission was due to the natives’ lack of interest in entering mission life.

Within the next few years, three other missions were established within the San Antonio area. The remaining three missions were established in San Antonio within weeks of each other in 1731. These three missions, Mission Nuestra Señora de la Purísima Concepción, Mission San Juan de Capistrano, and Mission San Francisco de la Espada, were originally missions established in east Texas. When each failed along the eastern border, they were moved to San Antonio.

In addition to the five missions, the civilian community outside of the mission and presidio, Villa San Fernando de Bexar was established by the Canary Islanders. Prior to the establishment of Villa San Fernando, Villa de Bexar had been settled by 30 presidial soldiers, seven of whom were married and brought their families. Archival research indicates that upon arrival, the Canary Islanders immediately took over the land surrounding the garrison. This land was used as pasture and was originally property of Mission Valero. There had been a lack of cleared agricultural land at the time, leading Captain Juan Antonio Pérez de Almazán to allow the Canary Islanders use of the property (de la Teja 1995). The initial plan was for additional Canary Island settlers to be sent to San Antonio after the first group was established. Due to high costs to the Spanish Crown, no more groups were brought to Texas. The Canary Islanders launched a formal complaint against Mission Valero. In 1731, the Canary Islanders established their own villa, named San Fernando de Bexar, with their own church. The arrival of the Isleños resulted in the first clearly defined civilian settlement in San Antonio.

San Juan Acequia (41BX268)

As the first huts, or jacales, were built for Mission San Juan Capistrano in May 1731, construction for the San Juan Acequia (also known as the San Juan Ditch) likely began at the same time. However, frequent Apache raids, interference from the viceroy, and an epidemic in 1739, delayed the completion of both the
mission and the *acequia*. The *acequia* did not become fully operational until February 1740 (Cox 2005). Constructed along the western bank of the San Antonio River, the San Juan Dam was directly east of the present day site of Mission San José (Cox 2005). Constructed of large river cobble with lime and caliche mortar, the structure served as a diversion dam, or weir. The San Juan Dam was 300 feet in length and branched out from the western bank of the San Antonio River impounding a large pool of water to raise the water level within the channel. The dam allowed the raised water level to direct water flow to the start of the *San Juan Acequia* ditch on the eastern bank. Approximately 0.77 miles north of the intersection of S. E. Military Drive and S. Presa Street, the *acequia* begins near and around a current pedestrian crossing of the Mission Reach Trail system east of Padre Park. The *acequia* extended southward east of the San Antonio River towards Mission San Juan Capistrano for approximately 3 miles. A stone head gate was also constructed approximately 550 feet from its eastern intake to control the flow. The *acequia* extended an additional 2.6 miles eastward to irrigate additional *labores*. Archaeological evidence from 1988 indicated the dam was overgrown and covered with vegetation and the *acequia* contained abundant rock and earth. Initially believed to be the river channel, the *acequia* channel was widened during subsequent excavations and dredging throughout its use and filled with the same sediments several feet in depth (Cox 2005).

**Archival and Historical Research of the APE**

The APE crosses the *San Juan Acequia*, which once brought water to the fields of Mission San Juan Capistrano (Figure 3-1). The mission was founded on July 10, 1716 by Franciscan missionaries in East Texas. However, the mission failed, and it was moved to San Antonio in 1731, along with two other missions from East Texas.
Mission lands were used for animal husbandry (cattle, sheep, and goats) and some agriculture. However, the lands allotted for agriculture at San Juan were not ideal for crops. Despite this, the San Juan Acequia was completed in 1730, bringing water from the San Antonio River to the mission and its lands. Despite the investment in the acequia system, San Juan was far from town and subjected to frequent attacks and raids. Therefore, the population remained stagnant and several construction projects were never finished (Handbook of Texas Online 2010).

The Texas General Land Office (T-GLO) has digitized land grant records from Spanish Colonial and Republic of Texas time periods. These records indicate that the first deed to the APE was issued to William Small through a “headright” grant. As a citizen of Texas, Small was entitled to land. Documents of this headrights indicated that he received one-third of a league, or approximately 1,476.1 acres. Single men over the age of seventeen were entitled to one-third of a league. In order to qualify, Small had to provide evidence that he had immigrated to Texas before Texas Independence (Lang and Long 2017). Small’s certificate (No. 449), dated March 1838, reads:

This is to certify that William Small appeared before the Board of Land Commissioners for the County of Bexar and proved according to Law that he emigrated to Texas previous to the Declaration for Independence, is a single man and entitled to One Third of a League of Land upon consideration of paying the rate of $5.00 for every labor of arable land and $2.4006 for every labor of pasture land which may be contained on the Survey secured to him by the Certificate (T-GLO 2017).
The survey of William Small’s land was completed by September 1838. The field notes for Survey No. 26 indicates that the Small property was near the San Antonio River and bounded by “the west bank of the ditch for the Mission San Juan” and follows its meanders (Figure 3-2). Several sturdy hackberry and mesquite trees served as markers for the property. The surveyors determined that five labors of arable land ($25.00) and three and one-thirds of pasture land ($8.00) could be found within the headright (T-GLO 2017).

**Figure 3-2.** Map showing Survey No. 26 from the surveyor’s field notes (T-GLO 2017).


In 1845, Small repurchased the property from Hays for $1,700.00 (BCDR C2:191). By 1849, he started selling of small portions of land on the northern side of the survey, near Mission Concepcion (BCDR H1:134; H1279). In January of 1851, a claim is filed by Sarah Bombach on Small’s estate. The document, written by Sam Smith, Clerk for Bexar County Court, indicates that Small was deceased, and Sarah (nee Small) Bombach is the guardian of Ann Small. Bombach made the claim on lands owned by the estate based on the fact that she is the “natural” guardian of the child and administration of the estate (BCDR K1:2). Newspaper notices of the estate indicate that other relatives were interested in the estate and petitioned the court. The petition to the court was filed by John Tyce and his wife Amaranthe (Amarantha) (nee Small) Tyce and Gabriel Westfall, guardian of Lycurgus Small. They note that they are “donees” of Martha Small (The San Antonio Ledger 1851:3).
Martha Small is the grandmother of Amarantha, Lycurgus, and Ann. A claim filed with Bexar County in 1851 indicates that Martha is mother to William Small, and since he left no heirs, and his father and brothers were deceased, she was laying claim to his estate to benefit her grandchildren. Martha writes that William died suddenly from cholera, and was unable to fulfill his promises to his brothers. Brother Garrett had two children (Amarantha and Lycurgus), and John, who had his name on William’s headright claim in 1837, had Ann (BCDR D1:142). Martha was asking that the court share the land between the three grandchildren as promised by William to John and Garrett (BCDR K1:349).

Sarah and her husband, Otto, eventually took ownership of a portion of the land and started selling and leasing Small’s properties. A deed written by the Bexar County Sherriff transferring ownership to the Bombachs in May of 1854 indicates that the Bombach’s received 1,001 acres in the William Small Survey 26, and it was located along the San Juan Ditch (BCDR L2:524-526). John and Amarantha Tyce received the northern portions of Small’s survey along the Concepcion Ditch, which they co-owned with Charles L. Pyron (BCDR K1:609).

In 1854, the Bombach’s sold land, noting that their farm neighbored the parcel in question, along with the San Juan road and ditch, to Joseph Shadler (BCDR M2:93-94). By the 1860’s, the land was owned by Robert and Caroline Belvin. Caroline’s father, Asa Mitchell, owned Mission San Juan lands granted to the Yturri’s (BCDR A2:74). The Belvins sold the property along the San Juan Ditch to William White in 1867 (BCDR U2:75-76). White then subdivided the property, and sold 50 acre parcels. This includes parcels to Henry Kramer and William Wetzel (1883), and to Rudolph Kielman (misidentified as Hielmann) (1886) (BCDR 29:208; 50:64). Upon the arrival of the San Antonio and Aransas Pass Rail Road in 1885, White sold a strip of land 75 feet wide by 2,370 feet long to the railroad company for $200.00 (BCDR 40:619).

Nearby Kielman Cemetery provides some insights into the Small family tree. According to FindAGrave.com, the Kielman Cemetery contains eight known graves, but may have up to 45 interments. The cemetery is within the William Small Survey 26, on land subdivided to Rudolph and Eliza Ann Kielman. According to the obituary posted to the page for Thomas Tice, his mother was Amarantha and his sister was Eliza Ann (nee Tice). Amarantha remarried Heinrich F. Dwenger in 1857 and they resided at the property near Mission San Juan. Other burials in the cemetery include Amarantha and William White.

The deed records indicate that Small’s third of a league was quickly subdivided as farmers moved into the area and the railroad was established. The railroad led to the establishment of Berg’s Mill. Located eight miles south of downtown, Berg’s Mill was one of the first wool-washing mills in San Antonio. The business did not last for long. By 1887 a settlement grew in the area, complete with a post office. The community remained Berg’s Mill until after World War II (Cameron 2010).

In addition, records suggest that the San Juan Acequia remained an important feature on the landscape. As other acequias fell into disrepair and were closed in the 1900’s, the San Juan Acequia continued to be used. In 1889, Texas passed legislation to keep the San Juan and Espada Acequias functioning as irrigation channels. In 1900, the San Juan Ditch Company was incorporated, and conveyed water rights which allowed users to use irrigation water in proportion to how many shares they owned in the venture. This ownership was based on acreages. The San Juan Ditch Company maintained the system through a ditch
commissioner until the 1950’s. In 1958, channel improvement projects on the San Antonio River inhibited water supply to the acequia, as the new channel buried the San Juan Dam (saca de agua). Litigation by landowners, including the Archdiocese of San Antonio, led to the restoration of waters to the system (Rivera 2003). The San Juan Acequia continues to provide water to several farms in the area, is a contributing feature to the Mission Parkway National Register Historic District, and is designated as archaeological site 41BX268.

The area became increasingly urban after World War II. Deed records indicate that parcels between Old Corpus Christi Road and South Presa were further subdivided. However, these subdivisions, such as the Weller-Fricks Subdivision, show the channel of the San Juan Ditch within the APE (Figure 3-3). In addition, it identifies the land as being part of the William Small Survey 26, Mission San Juan lands.

Figure 3-3. The Weller-Fricks Subdivision, 1949 (BCDR 2575:115).

Previous Archaeology

Within a ¼-km radius of the APE, at least five archaeological surveys have been completed, and one known archaeological site documented (THC 2017) (Figure 3-4). Given its location, the project area is rich in both prehistoric and historic cultural resources. Examination of the THC’s Texas Archaeological Sites Atlas (Atlas), an online database, revealed that the entire project area is located within the Mission Parkway Historic-Archaeological District, listed on the NRHP. Of the numerous archaeological sites documented within the district, one archaeological site (41BX268) is shown to intersect the proposed project alignment. Site 41BX268, also known as the San Juan Acequia, intersects the project alignment approximately 180 feet southwest of the APE at Old Corpus Christi Road.
The Mission Parkway National Register Historical District was designated in 1975. The district consists of 84 contributing elements within approximately 2,400 acres along the San Antonio River. The San Juan Acequia was considered to be contributing element MP-68 (THC 2017).

The APE falls within the boundary of several previous archaeological surveys. Atlas indicates that the APE was part of a survey conducted in 1976 for the THC (THC 2017). The survey was conducted in association with the Mission Parkways Project that led to the area being designated as the Missions Parkway National Register of Historic Places District. Site 41BX268, San Juan Acequia, was recorded as an archaeological site as a result of the survey. In 1980, the vicinity was surveyed for the National Park Service (NPS) in connection with the delineation of the San Antonio Missions National Historical Park (SAMNHP). The APE was also part of a survey conducted in 1983 under Texas Antiquities Committee Permit 317.

In 1992, the University of Texas-Center for Archaeological Research (UTSA-CAR) conducted a survey of Asylum and No-Name Creeks for SARA in association with a channel rectification project. The San Juan Acequia was revisited during the course of the project. No significant cultural resources or deposits were identified (THC 2017).

In 2012, Horizon Environmental Services, Inc. conducted an archaeological investigation for San Antonio Water System (SAWS) which crossed the path of the San Juan Acequia. The survey resulted with a previously unrecorded portion of San Juan Acequia being documented. In addition, Horizon determined that the proposed improvements to the SAWS sewer line needed to avoid impacting the acequia (THC 2017).

Other than the San Juan Acequia, only one archaeological site is located within the ¼-km radius of the APE: 41BX243. Site 41BX243 is located on the west bank of the San Antonio River, roughly 0.6-mile north-northwest of Mission San Juan. The site consists of a standing, five-bedroom house, known as the Grothaus homestead, and a free-standing stone chimney. G.E. Grothaus constructed the main house in 1884, in addition to a mill and barn. The mill was destroyed during river channelization, and the barn was swept away in a flood event. The origin or purpose of the chimney is unknown.
Figure 3-4. Previously conducted archaeological investigations and recorded archaeological sites within 0.25 km of the APE.
Chapter 4: Methods of Investigation

RKEI utilized a combination of visual inspection of the ground surface augmented by shovel testing and the excavation of backhoe trenches in selected locations within the APE. Shovel testing was employed to assess surface and shallowly buried archaeological deposits. Shovel testing was conducted in areas judged to have high probabilities for cultural deposits and/or when surface visibility was below 30 percent. No shovel tests were conducted in areas containing 20 percent or greater slope. Backhoe trenching was employed to assess deeply buried archaeological deposits that may be impacted due to the installation of footing for the pedestrian bridge and pilings for the shade structure and in areas assessed as containing intact soils. All work complied with the THC and CTA survey standards for Texas for the overall project area.

Field Methods

The archaeological survey consisted of a 100 percent pedestrian survey of the entire project APE. The survey involved visual inspection of the ground surface and included the examination of cut bank exposures along creeks and drainages within the APE. Archaeologists surveyed the APE along two transects within a 50-foot wide survey corridor. The survey along the proposed connector trail was accompanied by the excavation of shovel tests staggered along the two transect, at intervals varying from 25 to 100 meters (m) depending on the setting and topography within the APE.

All shovel tests were approximately 30 cm in diameter and, unless prevented by obstacles or buried features, extended to a depth of 60 cm below surface (cmbs). Each shovel test was excavated in 10-cm intervals. All soil from each level was screened through ¼ inch hardware cloth. Any collected artifacts were to be labeled with appropriate provenience information for laboratory processing and analysis. A shovel test form was completed for each excavated shovel test. Data collected from the shovel test included the final excavation depth, a tally of all materials encountered from each 10-cm level, and a brief soil description (texture, consistency, Munsell color, inclusions). The location was recorded using a Garmin, hand-held, GPS unit. Shovel test locations were sketched onto a current aerial photograph of the APE as a backup to the GPS information. Any additional observation considered pertinent was included as comments on the standard shovel test excavation form.

In addition to the excavation of shovel tests, RKEI excavated four backhoe trenches within the APE. The backhoe trenches were located in areas where depths of impact would exceed the depths of shovel tests and in areas deemed to contain intact soils. Backhoe trenches measured 20 feet in length and were excavated to depths ranging from 4.3 feet to 6.03 feet. Spoils from the backhoe trench were examined to access the presence or absence of cultural material. During the excavation of the trenches, mechanical excavation was temporarily stopped at a depth of 1.4 m so an archaeologist could safely get in to examine the profiles and document what was observed within the trenches. During the inspection of the trenches, the walls were scraped down to better identify strata changes, features, and artifacts. Once the trench was documented, excavations continued to assess the potential for deeply buried cultural deposits.
Excavation of the trenches were conducted by an experienced backhoe operator and monitored by an experienced archaeologist. Excavations were performed in accordance with Occupational Safety and Health Administration (29 CFR Part 1926) and the Texas Trench Safety Act (H. B. 1569). After each trench was examined and documented, the backhoe operator backfilled and compacted the area, returning it, as much as possible, to its original state.

**Laboratory Methods**

All project related documentation produced during the survey was prepared in accordance with federal regulation 36 CFR Part 79, and THC requirements for State Held-in-Trust collections. Field notes, field forms, photographs, and field drawings were placed into labeled archival folders and converted into electronic files. Digital photographs were printed on acid-free paper, labeled with archivally appropriate materials, and were placed in archival-quality plastic sleeves when needed. All field forms were completed with pencil. Ink-jet produced maps and illustrations were placed in archival quality plastic page protectors to prevent against accidental smearing due to moisture. A copy of the report and all digital materials were saved onto a CD and stored with field notes and documents. One artifact was collected during the survey. The artifact was washed and photographed; however as the artifact was deemed as possessing little scientific value, it was discarded pursuant to Chapter 26.27(g)(2) of the ACT.
In October of 2017, RKEI conducted an intensive cultural resources survey of the proposed Brooks City Base Connection Trail. Investigations were comprised of a pedestrian survey augmented by the excavation of shovel tests and backhoe trenches within the APE. As a result of the investigations, 11 shovel tests (AP01–AP06 and CRM01–CRM05), eight on transects and three for delineation of a positive shovel test, and four backhoe trenches were excavated (Figure 5-1). During the investigations, an isolated find (IF 1) consisting of a non-diagnostic piece of white earthenware was encountered within CRM01. Other types cultural materials encountered within the shovel tests consisted of modern trash. No significant cultural materials were encountered during the investigations.

The APE is situated within a floodplain setting composed of an area that has been artificially modified along the eastern portion and a wooded area to the west. The modified area of the APE is located between Old Corpus Christi Road and the Southern Pacific Railroad Bridge (see Figure 5-1), while the wooded area extends west from the railroad bridge to a branch of the Mission Reach Trail (see Figure 5-1 and Figures 5-2 and 5-3). Vegetation varied across the APE and consisted mostly of a mix of short and tall grasses with scatters of pecan trees and stands between Old Corpus Christi Road and the Southern Pacific Railroad Bridge, and hackberry and mesquite trees, green briar, vines, short grasses, and secondary growth on the west side of the railroad bridge (Figure 5-4 and Figure 5-5). Due to the vegetation across the APE, surface visibility ranged from 0 to 20 percent.

During the investigations disturbances were observed throughout the APE and were mostly related to land alteration and construction activities. Disturbances between Old Corpus Christi Road and the Southern Pacific Railroad Bridge are comprised of activities associated with the creation of a 65-foot-wide drainage easement that a majority of the proposed trail follows. These activities include the creation of an artificial berm and terrace sloping along both sides of the channelized San Juan Acequia that intersects the APE, terrace sloping along the channelized drainage easement, and the construction of the South Presa Street and Southern Pacific Railroad Bridges across the drainage easement within the APE (Figures 5-6–5-9). Disturbances encountered on the western side of the railroad bridge consisted of gravel fill and trash in the proximity of the rail road bridge and the branch of the Mission Reach Trail. No cultural materials were encountered during the pedestrian survey of the APE.
Figure 5-1. Results of the cultural resources investigations.
Figure 5-2. Overview of project area from the South Presa Bridge; facing east.

Figure 5-3. Overview of the project area from the South Presa Bridge showing the beginning of the wooded area; facing west.
Figure 5-4. Overview of the vegetation within the APE between Old Corpus Christi Road and the Southern Pacific Railroad Bridge; facing southwest.

Figure 5-5. Overview of the wooded area within the APE between the Southern Pacific Railroad Bridge and the branch of the Mission Reach Trail. Facing east.
Figure 5-6. Overview of the drainage at Old Corpus Christi Road showing sloped terrace banks; facing east.

Figure 5-7. Overview of the *San Juan Acequia* flowing into the project from a natural channel to cemented channel, showing the artificial berm along the southern bank and sloped terrace along the north bank; facing east.
Figure 5-8. Overview of the South Presa Street Bridge along the proposed trail; facing southeast.

Figure 5-9. Disturbances associated with the Southern Pacific Rail Road Bridge; facing west.
Shovel Testing

During the survey of the APE, shovel tests were only excavated on the westernmost and easternmost portions of the APE (see Figure 5-1). Specifically, shovel tests were conducted between the Mission Reach Trail and the tree line east of the Southern Pacific Railroad Bridge, and between Old Corpus Christi Road and the South Presa Street Bridge. Shovel tests were not excavated between South Presa Street and the Southern Pacific Railroad Bridge due to its location along the steeply sloped (greater than 20 percent slope), channelized drainage (Figure 5-10).

Excavation of shovel tests between the branch of the Mission Reach Trail and the tree line east of the Southern Pacific Bridge were conducted at an interval of one every 50 m. Intervals were shortened due to the natural setting of the area. Originally, three shovel tests (AP01, AP02, and CRM01) were excavated; however due to a positive shovel test (CRM01), three additional shovel tests (AP03, CRM02 and CRM03) were excavated to further explore the positive shovel test. All shovel tests were excavated to a depth of 60 cmbs and revealed that the area had been impacted by the construction of the branch of the Mission Reach Trail and the Southern Pacific Bridge.

Of the six shovel tests excavated, four (AP01, AP03, CRM02, and CRM03) exhibited a similar profile that consisted of a brown (10YR 4/3) silty clay intermixed with 65 percent small-sized, sub-rounded gravel to a depth of 30 cm below surface (bs). This was underlain by a very dark grayish brown (10YR 3/2) compact silty clay intermixed 75 percent medium to large-sized, sub-rounded gravels that extended to a depth of 60 cmbs (Figure 5-11). Within AP03, CRM02, and CRM03 the upper 40 cm contained evidence of
disturbance marked by the presence of fragments of a screw top jar, clear glass, a piece of carpet, and white plastic (Figures 5-12 and 5-13). The additional tests within the vicinity of AP01 differed greatly in the amount of disturbance noted. AP01 was located west from the three shovel tests near the existing trail branch and appears to have not been impacted by the construction of the trail.

Figure 5-11. Shovel test CRM02 at depth; facing east.
Figure 5-12. Fragments of a screw top jar in CRM02 encountered at a depth between 0 and 10 cmbs.

Figure 5-13. Piece of plastic encountered within CRM03 at a depth between 30 and 40 cmbs.
Profiles of shovel tests CRM01 and AP02 differed in comparison to those excavated in the western area. The two profiles showed evidence disturbance related to the construction of the branch of the Mission Reach Trail and the Southern Pacific Railroad Bridges. CRM01 displayed a profile comprised of a brown (10YR 5/3) silty clay intermixed with pea gravels and gravels that reached a depth of 30 cm. These soils were abruptly underlain by a very dark brown (10YR 2/2) silty clay that reached a depth of 60 cm (Figure 5-14). The profile exhibited in AP02 consisted of a very dark grayish brown (10YR 3/2) silty clay intermixed with large cobbles that reached a depth of 60 cm. Cobbles encountered within AP02 were similar to those in the vicinity of the bank of the railroad bridge (see Figure 5-9).

![Figure 5-14. Profile of CRM01 at depth. Facing east.](image)

Within the APE between Old Corpus Christi Road and South Presa Street, five shovel tests (AP04-AP06, CRM04, and CRM05) were excavated (see Figure 5-1). Due to the alteration of the landscape, shovel tests were conducted at an interval of one every 100 m. Disturbances were observed in four shovel test (AP04, AP05, CRM04, and CRM05), while one (AP06) contained intact soils.

Shovel tests AP04, CRM04, and CRM05 were excavated on the terrace on the north side of the San Juan Acequia, while AP05 was excavated on the south side of the acequia at the low-end of an artificial berm adjacent to the cement lined channel (see Figure 5-1). Profiles of the three shovel tests excavated on the terrace exhibited different levels of disturbance encountered within shovel tests. The profile exhibited in AP04 and CM04 contained a 5 cm layer of a very dark grayish brown (10YR 3/2) silty clay underlain by 5 cm of a light yellowish brown (10YR 6/3) base with limestone gravels. These soils were underlain by brown (10YR 4/3) silty loam intermixed with gravels that extended to a depth of 60 cm (Figure 5-15).
Figure 5-15. Profile of AP04 at depth; facing southeast.

The profile encountered within CRM05 consisted of a very dark grayish brown (10YR 3/2) silty clay intermixed with pebbles that reached a depth of 60 cmbs. Within CRM05 a round nail was encountered at a depth of 40 to 50 and a lip fragment of a screw top was encountered from 50 to 60 cm (Figures 5-16 and 5-17).

Shovel test AP05 exhibited a profile comprised of a dark grayish brown (10YR 4/2) silty loam intermixed with small gravels that reached a depth of 20 cmbs. These soils were underlain by 5 cm of a light yellowish brown (10YR 6/4) base layer of gravels. The base layer of gravels were underlain by a dark yellowish brown (10YR 4/4) silty loam intermixed with limestone gravels (Figure 5-18).

Shovel test AP06 is located along a southward trending gently sloping terrace overlooking the channelized drainage. The excavation of AP06 revealed intact soils. Soils within AP06 exhibited a very dark brown (10YR 4/2) gravely loam that reached a depth of 60 cmbs. No cultural materials were encountered within AP05 or AP06.
Figure 5-16. Round nail encountered within CRM05 between 40 and 50 cmbs.

Figure 5-17. Clear glass screw top encountered within CRM05 between 50 and 60 cmbs.
Isolated Find 1

An isolated find (IF1) was identified at western end of the APE (see Figure 5-1) approximately 25 feet from the branch of Mission Reach Trail within a flood plain that is overgrown with grasses, mesquite, and hackberry trees (Figure 5-19). IF1 is an undecorated white earthenware sherd encountered during the excavation of CRM01 at a depth between 40 and 50 cmbs (Figures 5-20). Plain white earthenware is commonly associated with historical sites; however the use of white earthenware spans over 250 years with dates ranging from 1830 to present (Fox et al. 1997).

Due to the positive shovel test, three additional shovel tests (AP02, CM02, and CM03) were excavated to further examine the area; however all three were negative for cultural material. The excavation of the four shovel tests revealed that the area had been disturbed during the construction of the branch of the Mission Reach Trail. Since the area proved to be disturbed no other shovel tests were excavated. Based on the disturbed setting in which the IF was encountered and lack of additional cultural materials, IF1 was assessed as not significant, therefore no trinomial was requested.
Figure 5-19. Overview of the setting where isolated find 1 was encountered; facing west.

Figure 5-20. Undecorated white earthenware sherd encountered with CRM01 at a depth between 40 and 50 cmbs.
Backhoe Trenches

In addition the pedestrian survey of the proposed Brooks City Base Connection Trail, RKEI excavated BHTs along areas within the APE (see Figure 5-1). Of the four excavated backhoe trenches, two were located north of the San Juan Acequia and two were located south of the acequia channel. The backhoe trenches were placed in areas where impacts would exceed the depths of shovel tests and in an area where intact soils were encountered. Depths of the trenches from 1.32 to 1.84 m and were terminated due to the condition of soils encountered.

Backhoe Trench 1

Backhoe Trench 1 (BHT01) was excavated in the area of the proposed shade structure on the terrace north of the acequia channel and was excavated on a 165°/345° orientation. During the excavation of the trench, six different strata (Zones I–V) were observed (Figure 5-21). Zone I was comprised of a very dark gray (7.5R 3/1) medium to fine grained silty loam that reached a depth of 10 cmbs. Soils contained inclusions of rootlets and pea gravels. Zone I was underlain by a very pale brown (10YR 8/2) gravel base layer that measured between 4 and 10 cm. Below Zone II was Zone III, comprised of a disturbed soils. Soils within Zone III consisted of a brown (10YR 4/3) loam, mottled with a brownish yellow (10YR 6/6) loam. Inclusions within Zone III included subrounded gravels, pea gravels and nodules of calcium carbonate that reached a depth of 94 cmbs. Zone III was underlain by Zone IV, comprised of a very dark gray (10YR 3/1) loam that reached a depth of 148 cmbs. Inclusion within Zone IV included pea gravels, subrounded gravels, fine rootlets, and calcium carbonate. The last strata observed was Zone VI; however soils were examined from the ground surface due to depth. Zone VI consisted of a very dark brown (10YR 2/2) gravelly loam containing approximately 80 percent gravels that reached the depth of termination at 1.75 m.

Backhoe Trench 2

Backhoe Trench 2 (BHT02) was excavated north of the acequia channel approximately 95 feet southeast of BHT01, on the berm north of the where the proposed footing for a pedestrian bridge will be installed (see Figure 5-1 and Figure 5-22). BHT02 was excavated at an 80°/260° orientation. During the excavation of BHT02, significant disturbance was observed throughout the six different strata (Zones I–VI) observed within the profile (Figure 5-23). Zone I was observed from 0 to 10 cmbs and consisted of a very dark gray (7.5YR 3/1) silty loam containing pea gravels and rootlets. Zone I was underlain by Zone II, 8 cm of a very pale brown (10YR 7/3) gravel base layer of rounded gravels. Zone II is underlain by Zone III, a black (10YR 2/1) clay that extended to 22 cmbs. Inclusions within Zone III were comprised of fine rootlets. Zone IV consisted of 44 cm of mottled dark grayish brown (10YR 4/2) and mottled with an olive brown (2.5YR 4/4) clays. Inclusions within Zone IV consisted of fine rootlets, pea gravels, calcium carbonate deposits, and large limestone rocks. Within Zone IV, modern trash was encountered, consisting of clear glass, a metal bolt, plastic pipe, sprinkler heads, and red brick (Figure 5-24). Zone IV is underlain by Zone V, composed of a very dark grayish brown (10YR 3/2) gravelly clay that reached a depth of 120 cmbs. Inclusions within Zone V consisted of fine rootlets, limestone gravels, and calcium carbonate deposits. Zone V was underlain by Zone VI that consisted of a dark gray (2.5YR 4/1) gravelly silt with fine rootlet and calcium carbonate inclusions. Excavations continued in BHT02 to a depth of 1.84 m and additional trash including a tire tube, asphalt, a paver, and a plastic bucket bottom were encountered (Figure 5-25)
Figure 5-21. Northeast profile BHT01 at a depth of 148 cmbs; facing northeast.

Figure 5-22. Excavation of BHT02; facing west.
Figure 5-23. Southwest profile of BHT02 at a depth of 132 cmbs; facing southwest.

Figure 5-24. Modern trash encountered within Zone IV (22–66 cmbs).
Figure 5-25. Modern trash encountered within Zone VI (120–184 cmbs).

Backhoe Trench 3

Backhoe Trench 3 (BHT03) was excavated approximately 145 feet south/southwest of BHT02 along a gently sloping terrace and was excavated at a 350°/170° orientation. The profile observed within BHT03 consisted of three different strata [Zones I–III] (Figure 5-26). Zone I reached a depth of 48 cm below surface and was comprised of a very dark grayish brown (10YR 3/2) compact gravelly loam. Inclusions within Zone I consisted of pea gravels, subrounded and angular chert, calcium carbonate nodules, and leaching rootlets. Zone I was underlain by Zone II, a very dark gray (10YR 4/2) compact clay. Within Zone II, inclusions included an increase of calcium carbonate nodules and limestone gravels. Zone II was underlain by Zone III, comprised of a very dark brown (10YR 2/2) sticky clay that extended to a depth of 158 cmbs. No cultural materials were encountered within BHT03.

Backhoe Trench 4

Backhoe Trench 4 (BHT04) was excavated approximately 120 feet south/southwest of BHT03 at a 250°/70° orientation. During the excavation of BHT04 two strata (Zones I and II) were observed (Figure 5-27). Zone I reached a depth of 120 cmbs and consisted of a dark grayish brown (10YR 4/2) medium to fine grained silty loam. Soils were easily friable and contained inclusions of rootlets and pea gravels. Zone I was underlain by Zone II, which reached a depth of 132 cm below surface. Zone II was composed of a very dark grayish brown (10YR 3/2) saturated loam intermixed with subrounded gravels. During excavation of the trench, soils became moist at 80 cm below the surface and saturated at a depth of 120 cmbs. Due to the saturated soils, the excavation was terminated at 132 cmbs. No cultural materials were encountered in BHT04.
Figure 5-26. East profile of BHT03 at a depth of 128 cmbs; facing east.

Figure 5-27. Southeast profile of BHT04 at a depth of 132 cmbs; facing southeast.
41BX268 Revisit

Site 41BX268 (San Juan Acequia or San Juan Ditch) was originally documented during the Mission Parkway survey. Based on the projection of the acequia on the Atlas, the alignment intersects the proposed Brooks City Base Connection Trail as it progresses south towards the channelized drainage easement. The original projection of the acequia and the current alignment of the acequia within the project area overlap in some areas; however there are some slight deviations. Since the original documentation of the San Juan Acequia, the area had undergone a dramatic change in setting. In 1973, development is seen along the terrace north of the acequia channel with little development occurring between the two channels as it switches back from Old Corpus Christi Road to South Presa Street (Figure 5-28). The alignment seen in 1973 remains the same until sometime between 1985 and 1995 when the drainage easement was constructed (Figure 5-29). During the construction of the drainage easement the surrounding area changed dramatically as the landscape was altered. The acequia channel was cement lined and shifted in areas (see Figure 5-29).

During the investigations of the area where the acequia alignment and the proposed Brooks City Base Connection Trail intersect, RKEI excavated one backhoe trench and one shovel test at the location of the proposed bridge crossing. The backhoe trench (BHT) was excavated at the edge of the terrace along a berm and the shovel test (AP05) was excavated on the southern side of the acequia. Both subsurface investigations revealed that the area had been heavily disturbed and have been artificially created. Disturbances along the northern side of the channel reached a depth of 6 feet within the backhoe trench and disturbances observed within the shovel test reached a depth of 1.96 feet. Although 1.96 feet of disturbance was observed within the shovel test, it is assumed that the berm will be similar to what was seen in the backhoe trench on the northern side, as the shovel test was excavated at the base of berm near the channel. Schematics of the trail design show that the acequia channel will not be impacted. Rather, a 40-foot pedestrian bridge will be constructed spanning the channel. Footings for the channel will be placed 18 feet from the edges of the acequia channel within the artificially created berms (Figure 5-30).
Figure 5-28. 1973 historical aerial photograph showing the alignment of the San Juan Acequia recorded in 1976.
Figure 5-29. 1995 historical aerial showing the alignments of the San Juan Acequia after the construction of the drainage easement.
Figure 5-30. Schematics of proposed pedestrian bridge crossing the San Juan Acequia.
Chapter 6: Summary and Recommendations

The cultural resources investigation of the proposed Brooks City Base Connection Trail was conducted over the course of two days. The pedestrian survey was conducted on October 16, 2017, and the trenching on October 18, 2017. During the course of the investigation, RKEI excavated 11 shovel tests and four backhoe trenches within the APE. A background review of APE placed the project within the Mission Parkway National Register District, an area rich in both prehistoric and historic cultural resources. Of the several cultural resources documented within the National Register District, site 41BX268 falls within the APE. Site 41BX268, also known as the *San Juan Acequia*, is a Spanish Colonial irrigation ditch that meanders through the eastern portion of the APE. During the investigations, close attention was given to the area where the *acequia* is projected to intersect the APE.

The majority of the APE had been impacted by the construction of a 65-foot-wide drainage easement and the South Presa Bridge in the eastern portion of the APE, and the construction of the Southern Pacific Railroad Bridge and a branch of the Mission Reach Trail in the western portion. Impacts associated with the construction of the drainage easement consisted of the channelization of an unnamed drainage and the *San Juan Acequia*, and included modifications to the landscape. Modifications consisted of the creation of artificial berms, and the sloping and leveling of existing terraces.

Due to the amount of disturbances observed within the APE, shovel tests were excavated in areas that appeared to be least impacted. Shovel tests were placed within the eastern and western portion of the APE. Excavation of the shovel tests indicated that disturbances observed on the surface of the APE extended below ground. Of the 11 shovel tests, only three exhibited no evidence of disturbance (AP01, AP03, and AP06). AP01 and AP03 were excavated in the flood plain near the western terminus of the APE and contained soils intermixed with subrounded gravels. AP06 was excavated along a gently sloping terrace in the eastern area of the APE, and exhibited intact soils.

One shovel test (CRM01) was positive for cultural materials. An undecorated white earthenware sherd was encountered at a depth between 40 and 50 cmbs. However, soils within CRM01 proved to be in a disturbed context. Despite the disturbed context of the soils within CRM01, three additional shovel tests were excavated within the vicinity. The additional shovel tests did not produce for cultural materials, and two shovel tests exhibited disturbed soils. Due to the disturbed nature of the soils and lack of additional cultural materials, the white earthenware sherd was judged to be an isolated find (IF1) and no trinomial was requested.

In addition to the shovel testing within the APE, RKEI excavated four trenches in areas where impacts would exceed the depth of shovel tests. The BHTs were placed within accessible areas where intact soils were present. Two BHTs were located on north side of the *acequia* channel, while the other two were excavated on the south side, between the *acequia* and channelized drainage. During the excavation if the two backhoe trenches (BHT01 and BHT02) on the north side of the *acequia*, it was revealed that the area has been heavily disturbed. Trash was encountered in the BHT, reaching depth up to 6 feet below the surface. The excavation of BHT03 and BHT04 exhibited intact soils that reached a depth up to 5 feet; however no cultural materials were encountered within the two BHTs.
The intersection of the APE, the *San Juan Acequia* alignment, and the proposed Brooks City Base Connection Trail was examined closely. One BHT and one shovel test were placed at the intersection. Both subsurface investigation revealed the area was heavily disturbed. A pedestrian bridge is proposed to be constructed in this location. The bridge will consist of the installation of footings to a depth of 4 feet below surface, and approximately 20 feet on either side of the *acequia* channel. The footings will be connected by a 40 feet long bridge that will span the *acequia* channel. Since the footings will be located within the artificial berms and the bridge will span the acequia channel, no adverse effects will occur to the *San Juan Acequia*.

*RKEI* has made a good faith effort in identifying cultural resources within the APE. Based on the results of the investigations and the proposed avoidance measures concerning the *San Juan Acequia*, it is *RKEI's* opinion that the proposed undertaking would have NO ADVERSE EFFECT on any properties listed or otherwise eligible for the NRHP. However, should changes be made to the project APE and avoidance measures, further work may be required.
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