

# Intensive Pedestrian Survey of NCBs 476 and 862, San Antonio, Bexar County, Texas



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## **Abstract:**

On December 20, 2012, the Center for Archaeological Research (CAR) at The University of Texas at San Antonio (UTSA) conducted an intensive pedestrian survey for Hixon Properties Incorporated. Future developments are planned within NCBs 476 and 862 located at the southwest corner of the I-35/I-37 Interchange in San Antonio, Texas. At the request of the City of San Antonio's Office of Historic Preservation, CAR staff conducted an intensive archaeological pedestrian surveyed of the two tracts. The primary goal of the survey was to determine whether any previously unrecorded archaeological sites are present within the 3.1-acre Area of Potential Effect (APE).

Five backhoe trenches and six shovel tests were excavated within the APE. Each trench location was chosen to investigate what appeared to be the least disturbed surface areas within the project area. Each shovel test location was chosen to investigate the content of shallow deposits within the APE.

While prehistoric cultural materials were found within one backhoe trench, the deposits were disturbed and localized to the immediate vicinity of the trench. Overall, the sparse archaeological deposits identified in the trench have minimal to no research value due to their disturbed nature. No archaeological deposits have been identified within the project APE that warrant listing to the National Register of Historic Places (NRHP) or official designation as a State Archaeological Landmark (SAL). Therefore, no additional archaeological investigations are recommended in the proposed APE, and it is recommended that the development project proceed as planned. All records and artifacts collected during the project are permanently curated at the CAR.

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# Chapter 1: Introduction

## Area of Potential Effect (APE)

On December 20, 2012, the Center for Archaeological Research (CAR) of The University of Texas at San Antonio (UTSA) was contracted by Hixon Properties Incorporated to conduct an intensive pedestrian survey and subsequent archaeological investigation of two plots of land near downtown San Antonio. These archaeological services were precipitated by the planned future development of two areas to the southwest of the I-35/I-37 Interchange in San Antonio, Texas. The Area of Potential Effect (APE) includes two adjoining tracts, designated as NCBs 476 and 862, measuring approximately 3.1 acres combined. These two tracts are located on the east bank of the San Antonio River. Figure 1-1 shows the APE on the San Antonio East USGS 7.5-minute quadrangle map.

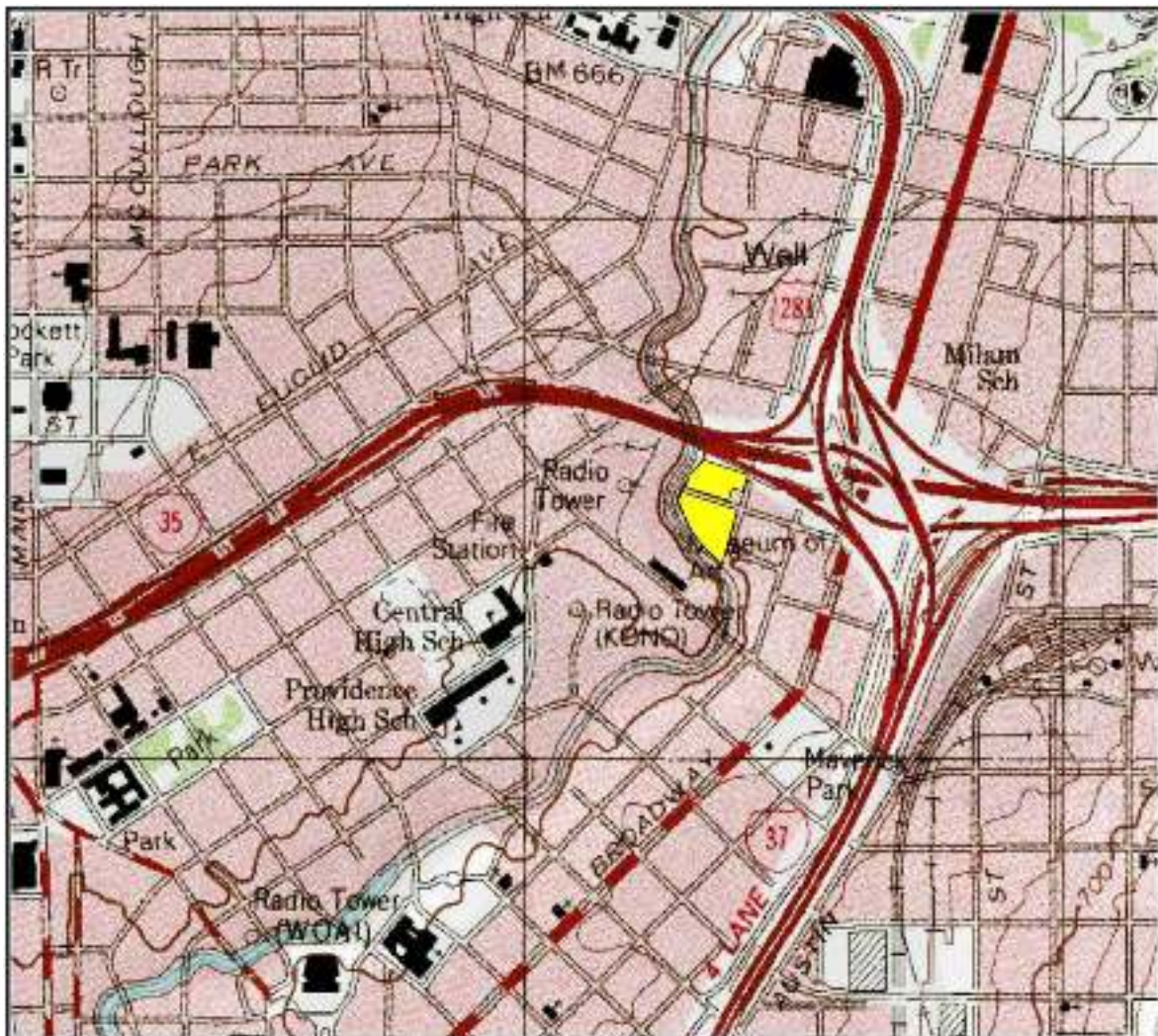


Figure 1-1. Project APE, highlighted in yellow, on the San Antonio East USGS 7.5-minute quadrangle map.



These two tracts are located on the east bank of the San Antonio River, and such perennial water sources typically attract both prehistoric and historic human occupation. All of the principal streams flowing through Bexar County have seen extensive human occupation extending back thousands of years. These occupations result in large numbers of highly significant buried archaeological sites within terraces bordering these streams. In addition to prehistoric occupations, historic activities also are often centered on waterways. Historic farming and ranching activities depend on water for irrigation and livestock, and waterways are critical for economic and military purposes as well. Often, military camps are established near water and travel routes follow drainages. Because of the high likelihood that buried cultural deposits are present in terraces adjacent to streams, the City of San Antonio's Office of Historic Preservation has requested that an intensive archaeological pedestrian survey be conducted of the project APE to ensure that no hitherto undiscovered archaeological deposits would be disturbed by the future development.

Since the project area is privately owned and the development is privately funded, the work does not fall under the jurisdiction of the Antiquities Code of Texas. However, the archaeological investigations do fall under Chapter 35 of Unified Development Code of the City of San Antonio. For this survey work, Dr. Steve Tomka served as the Principal Investigator, and Justin Blomquist served as Project Archaeologist.



Figure 1-2. Location of project area on a current aerial photo.

## Historic Use, Present Condition, and Expected Impacts in the APE

Currently the APE consists of empty lots; however, during the early twentieth century, the APE was in the center of a very vibrant and economically significant brewing district of San Antonio. Research of the period Sanborn Fire Insurance maps indicates that a small beer brewing company stood on the northern portion of NCB 862, and a bottling company sat immediately across from it in NCB 476. As seen in Figure 1-3, both businesses fronted 13<sup>th</sup> Street that dead ended in the San Antonio River, just as it does today. The Lone Star Brewing Company complex stood across the San Antonio River from these two tracts. The facility consisted of a Fermenting Cellar, the Bottling Works, and a third structure of unknown use.

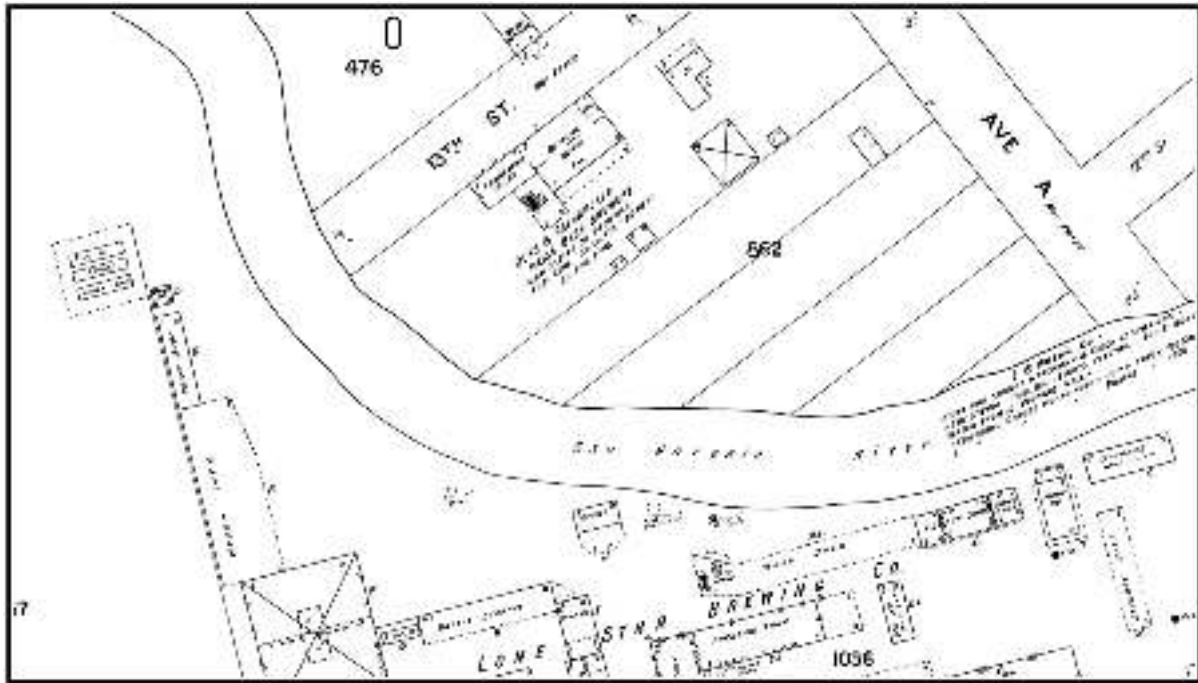


Figure 1-3. *Portion of the APE shown on the 1904 Sanborn Fire Insurance Map.*

In 1904, George Aschbacher purchased the business and ran it until 1915. The review of the historic Sanborn Fire Insurance maps indicates that the Oschs and Aschbacher's Weiss Beer Brewery was established in 1890 and was in business until 1904. Figure 1-4 shows the target NCB and also indicates that the brewery was in the hands of Aschbacher by 1911.

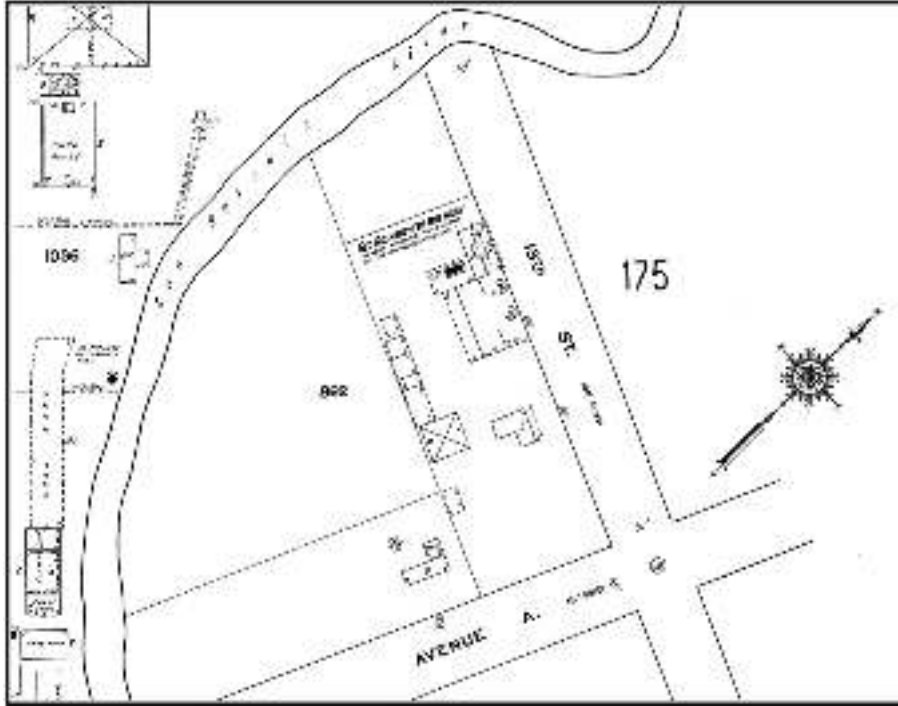


Figure 1-4. Portion of the APE shown on the 1911 Sanborn Fire Insurance Map.

By 1951, the area is occupied by a trailer park (Figure 1-5), although the structure at the corner of 13<sup>th</sup> Street and Avenue A is still there, as it is today. This structure falls outside of the APE of this project.

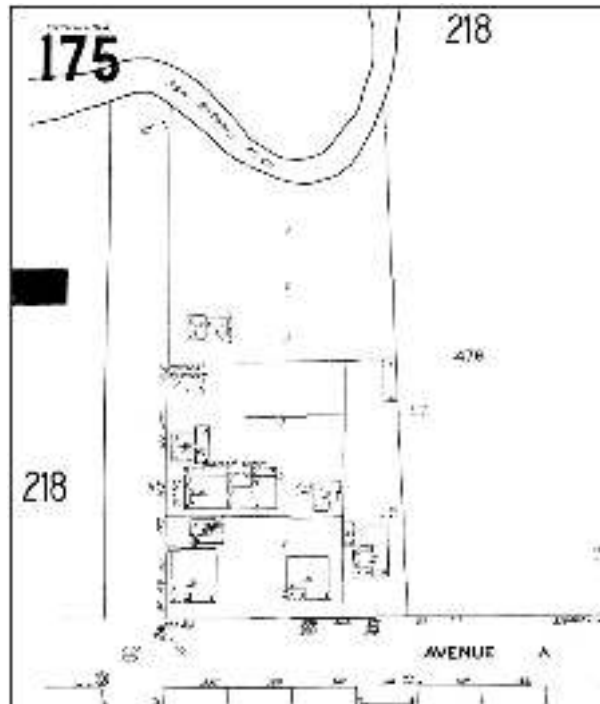


Figure 1-5. Portion of the APE shown on the 1951 Sanborn Fire Insurance Map.

Details regarding the nature of future developments are sparse. However, the archaeologists have been informed that subsurface impacts resulting from future development of these two lots could reach a maximum depth of 4.6 m (15 ft.).



## Chapter 2: Environmental Setting

NCBs 476 and 862 sit at the edge of the Edwards Plateau off the Balcones Escarpment. The region encompasses parts of the Blackland Prairies, South Texas Brush Country, Gulf Coastal Plain, the Hill Country, and the Edwards Plateau (see Figure 2-1), thereby offering a suite of wildlife and other natural resources which were exploited by inhabitants of the area throughout the region's history. Climate in this general area is humid subtropical with hot, humid summers and mild to dry winters. Rainfall averages approximately 76.2 cm (30 in.) a year. The average temperature for the region is 70°F (Taylor et al.1991).

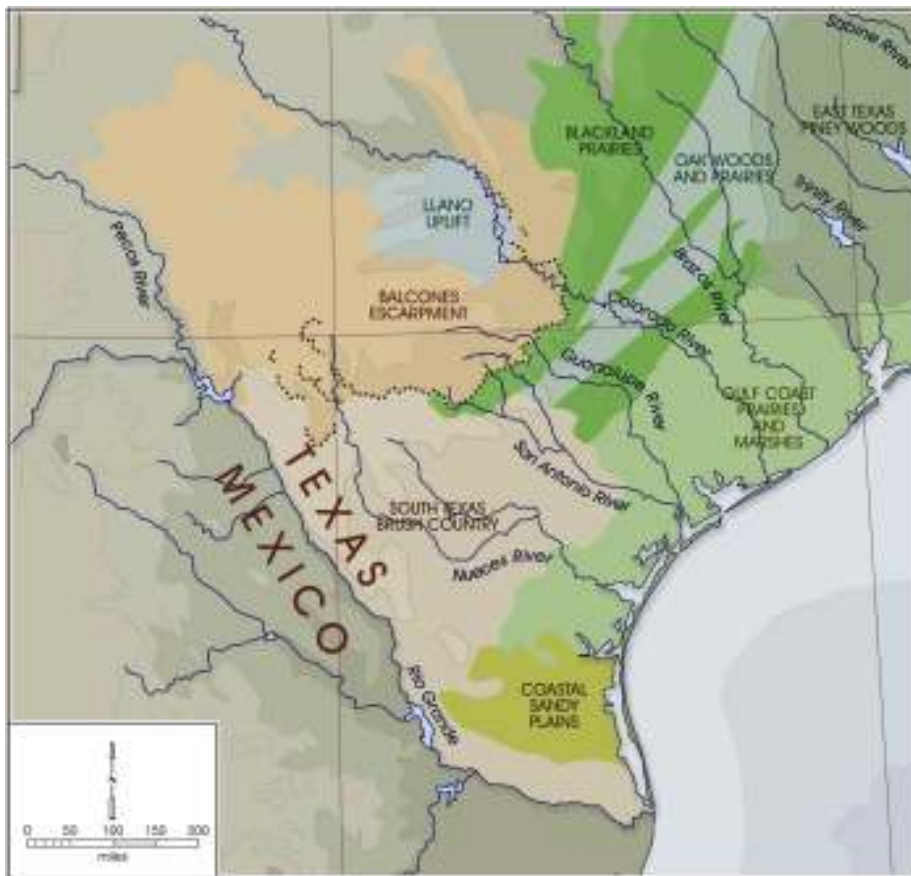


Figure 2-1. Geologic map of Central Texas showing the Edwards Plateau, Blackland Prairie, the Balcones Escarpment, and major rivers.

### Geology

The Balcones Escarpment is a line of hills and cliffs that extend through central Texas and serve as a dividing line between the ecological zones of the Edwards Plateau and the Blackland Prairie. It is the surface expression of the Balcones fault zone, which is a series of faults running from Del Rio to Waco, dividing limestones on the west from claystones, chinks, and marls on the east. Numerous caves and

springs exist along the fault zone, which feed rivers and provide fresh water sources that encouraged human settlement of the area. The landscape changes dramatically east to west across the escarpment. The Edwards Plateau to the west is rugged with thin, stony soils supporting a juniper-live oak savannah best suited for ranchlands. To the east, the Blackland Prairie features rolling hills, broad river valleys, and fertile clays that support native prairie grasslands and modern agricultural land use (Woodruff and Abbott 1986). The project area is located between the Balconian and Tamaulipan biotic zone (Blair 1950).

## **Soils**

According to the US Department of Agricultural soil survey of this area, the majority of soils that encompass it consist mainly of Branyon clay, which has between one and three percent slopes, and also Tinn and Frio soils, which slope between zero and one percent and frequently flood (USDA n.d.). According to Taylor et al. (1991:16), “Frio soils are poorly drained to moderately well-drained. Internal drainage is medium. Permeability is moderate. The capacity to hold water is good. Natural fertility is moderate. Water erosion and occasional flooding are hazards.” Therefore, this area could have provided a prime ecological zone for human habitation, but it was also in constant danger of being flooded by the San Antonio River.

## **Flora and Fauna**

Many different kinds of animals and plants exist throughout the Edwards Escarpment, especially within in the project area. The variety of animals is extraordinary, ranging from riverine resources including Bluegill (*Lepomis macrochirus*), Channel Catfish (*Ictalurus punctatus*), and Red Shiner (*Cyprinella lutrensis*) to mammalian resources, such as the black-tailed jackrabbit (*Lepus californicus*), raccoon (*Procyon lotor*), white-tailed deer (*Odocoileus virginianus*), as well as the once common mountain lion (*Puma concolor*), and black bear (*Ursus americanus*) both of which were pushed westward towards the mountainous regions of Texas (Davis and Schmidley 1997; SARA n.d.). In addition, many migratory birds frequently visit the vicinity of the project. These include the White-winged Dove (*Zenaida asiatica*), Belted Kingfisher (*Megaceryle alcyon*), Great Blue Heron (*Ardea herodias*), Turkey Vultures (*Cathartes aura*), and the Night Heron (*Nycticorax nycticorax*; San Antonio Audubon Society 2012).

Flora examples from along the river corridor next to the project area include the Black Willow tree (*Salix nigra*), Cedar Elm (*Ulmus crassifolia*), hackberry (*Celtis* spp.), Pecan (*Carya illinoensis*), and Sycamore (*Platanus occidentalis*). Vines and shrubs in the project area include Baccharis (*Baccharis* sp.), Bluewood Condalia (*Condalia* sp.), Buttonbush (*Cephalanthus* sp.), Mustang Grape (*Vitis*

*mustangensis*), and Roughleaf Dogwood (*Cornus drummondii*). Common plants and grasses in the project area consist of the Arrowhead bush (*Sagittaria* sp.), Bluestem (*Andropogon glomeratus*), Eastern Gamagrass (*Tripsacum dactyloides*), Frogfruit (*Phyla* sp.), Inland Sea Oats (*Chasmanthium latifolium*), Pickerelweed (*Pontederia cordata*), Sunflower (*Helianthus annuus*), Switchgrass (*Panicum virgatum*), and wildrye (*Elymus* sp.; Gould 1969; Ulrich et al. 2012).





# Chapter 3: Cultural History and Previous Archaeological Investigations

## Cultural History

Due to the channelization projects in the 1930s and 1960s, many historic and prehistoric cultural resources have been destroyed or buried (Ulrich 2009 et al.:3, 11). However, from the many remaining sites throughout the area and especially those located to the north of the project area at Brackenridge Park, it is possible to obtain a basic understanding of what this area looked like as far back as 10,000 years ago. The earliest known sites in Bexar County date from approximately 11,500-10,000 years before present (BP) (Black 2003; Collins 1995; Figueroa and Frederick 2008).

The project area is situated on the edge of Central and South Texas, so the following culture history emphasizes Central Texas although reference is made to trends in South Texas as well. The discussion is based primarily on the chronologies developed by Black (1989), Collins (1995), Johnson and Goode (1994), and Prewitt (1981) for Central Texas with observations from Hester (1995) for South Texas. Four major time periods define South Central Texas: Paleoindian, Archaic, Late Prehistoric, and Historic. These periods are further divided into sub-periods that are based on particular subsistence strategies and material culture. A brief description of each period follows to illustrate the archaeological potential of the region.

### Paleoindian

The Paleoindian period (11,500-8800 BP) is divided into early and late portions, and each is characterized by particular projectile point styles and subsistence patterns (Collins 1995). The period begins at the close of the Pleistocene with the earliest evidence of humans in the Central Texas region. Clovis and Folsom point types, bifacial Clear Fork tools, and finely flaked end scrapers characterize the early Paleoindian (Black 1989). The first stemmed points (i.e., Wilson), as opposed to lanceolate points (i.e., Angostura and Golondrina), begin to appear during the late Paleoindian. In the past, Paleoindian populations have generally been characterized as hunter-gatherers ranging over wide areas in pursuit of now extinct megafauna, such as mammoth and bison (*Bison antiquus*). However, research from the Wilson-Leonard site in Central Texas (Collins 1998) and other perspectives on Paleoindian adaptations (Tankersley and Isaac 1990) indicate that the diet of these early inhabitants may have been much broader. Although Late Pleistocene megafauna may have constituted a part of Paleoindian subsistence, these peoples are perhaps better characterized as more generalized hunter-gatherers, exploiting a wide variety

of plants and animals including large herbivores, like deer and bison, and small animals, such as turtles, alligators, rabbit, and raccoons (Collins 1995; Nickels 2000).

In South Central Texas, many of the sites containing Paleoindian materials are found on high terraces, within valley margins, along the banks of many rivers, and in multiple upland locations (Black 1989a; Bousman et al. 2004; Collins 2004). This seems to fit with a broader pattern of Paleoindian site distributions where sites are located on landforms providing views of the surrounding landscape, are centered on critical resource zones, or are found in highly productive resource areas (Tankersley and Isaac 1990). Paleoindian artifacts are commonly recovered as isolated finds or from lithic scatters lacking good stratigraphic context, including kill, quarry, cache, camp, ritual, and burial sites (Collins 1995). Many of these sites are deeply stratified and provide a complex view of past life ways (Collins 2004).

### **Archaic**

The Archaic period, 8800-1200 BP, is marked by intensification of hunting and gathering of local resources, changes in projectile points, and a broader array of material culture (Collins 1995; Prewitt 1981; Weir 1976). A change in food processing is evident from a widespread increase in hearth, oven, and midden features. During this period, large cemeteries were formed indicating an increasing population and the subsequent establishment of territories (Black and McGraw 1985). Collins (1995) and Johnson and Goode (1994) subdivided the Archaic into Early, Middle, and Late sub-periods. These sub-periods are distinguished by variances in climate conditions, resource availability, subsistence practices, and diagnostic projectile point styles (Collins 1995; Hester 1995).

#### **Early Archaic**

In Central Texas, the Early Archaic dates from 8800 to 6000 BP (Collins 1995). Changing climate and the extinction of megafauna appear to have initiated a behavioral change by the Prehistoric peoples of Texas. Because of the necessary economic shift away from some level of dependence on big game hunting, local resources in Central Texas, such as deer, fish, and plant bulbs were more intensively exploited. This behavioral change is indicated by greater densities of ground stone artifacts, burned rock cooking features, and more specialized tools, such as Guadalupe bifaces and Clear Fork gouges (Turner and Hester 1993). Projectile point styles found in sites from this period include Angostura, Early Split Stem, and Martindale-Uvalde (Collins 1995). Open campsites, including Loeve, Richard Beene, Wilson-Leonard, Jetta Court, Sleeper, Camp Pearl Wheat, Youngsport, Landslide, and Hall's Cave, contain notable Early Archaic components (Collins 1995).

Weir (1976) concludes that the Early Archaic groups were highly mobile and small. He bases this inference on the fact that Early Archaic sites are sparsely distributed and that projectile points are widely distributed across most of Texas and northern Mexico. The decline in bison numbers on the plains suggested to Hurt (1980) that the inhabitants were forced to utilize the same or slightly more expended effort to broaden their diets to include animals and plants that produce equivalent amounts of calories and protein. Story (1985) concurs with Weir that population densities were low during the Early Archaic and suggests that groups were made up of small bands of related individuals with “few constraints on their mobility” (Story 1985:39) subsisting on a broad range of resources, such as prickly pear, lechugilla, rodents, rabbits, and deer.

### **Middle Archaic**

The Middle Archaic, 6000 to 4000 BP (Collins 1995), appears to have been a period of increasing population, based on the large number of sites documented from this time in South and Central Texas (Story 1985; Weir 1976). Projectile point variation at the Jonas Terrace Site suggests a period of “ethnic and cultural variety, as well as group movement and immigration” (Johnson 1995:285). Point styles from this period include Bell, Andice, Calf Creek, Taylor, Nolan and Travis (Collins 1995). Exploitation of broadly scattered, year-round resources such as prickly pear, deer and rabbit continued (Campbell and Campbell 1981) with the addition of seasonal nut harvests from the riverine settings of the Balcones Escarpment (Black 1989a, b). Weir (1976) posits that the expansion of oak on the Edwards Plateau and Balcones Escarpment resulted in intensive plant gathering and acorn processing that may have been the catalyst for the merging of the widely scattered bands prevalent in the Early Archaic into larger groups. These larger groups likely shared the intensive labor involved with the gathering and processing of acorns. Some investigators believe burned rock middens resulted from acorn processing (Creel 1986; Weir 1976) although others (e.g., Black et al. 1997; Goode 1991) question this argument. Black et al. (1997) suggest that the burned rock middens of Central Texas accumulated as a result of the baking of a relatively broad range of resources in rock/earth ovens. These resources potentially included carbohydrate laden nuts, bulbs, roots, and pads as well as various vertebrate and invertebrate animals.

### **Late Archaic**

The Late Archaic in Central Texas dates from 4000 to 1200 BP (Collins 1995). There is not a consensus among researchers as to population size in this sub-period. Prewitt (1985) posits an increase while Black (1989a) believes population remained the same or decreased. There is also disagreement as to the continuing use of burned rock middens. Prewitt (1981) suggests the near cessation of the midden construction, whereas excavations at a number of sites document large cooking features up to 15 m (49.2

ft.) in diameter (Black and Creel 1997; Houk and Lohse 1993; Johnson 1995; Mauldin et al. 2003). Bison reemerge during this sub-period in Central Texas (Mauldin and Kemp 2005) after evidence of a definitive decrease during the Middle Archaic (Dillehay 1974). Points from the Late Archaic sub-period are generally smaller than those of the Middle Archaic and include Bulverde, Pedernales, Kinney, Lange, Marshall, Marcos, Montell, Castroville, Ensor, Frio, and Darl types (Collins 1995; Turner and Hester 1993). During this period, large cemeteries were formed indicating an increasing population and the subsequent establishment of territories (Black and McGraw 1985). The earliest occurrences are at Loma Sandia (Taylor and Highley 1995), Ernest Witte (Hall 1981), Hitzfelder Cave (Givens 1968), and Olmos Dam (Lukowski 1988).

Some researchers describe the last 1,000 years of the Late Archaic as Transitional Archaic (Turner and Hester 1993) or Terminal Archaic (Black 1989a) because they found the dart point forms (i.e. Darl, Ensor, Fairland, and Frio) similar to early arrow point forms and thought the two may have overlapped. More commonly, researchers extend the dates of the Late Archaic and add additional style intervals (Collins 1995). This designation is not universally recognized. It corresponds with Johnson and Goode's (1994) Late Archaic II.

### **Late Prehistoric**

The Late Prehistoric period, 1200-350 BP, in Central Texas marks a distinctive shift from the use of the atlatl and dart to the use of the bow and arrow (Black 1989a; Collins 1995; Hester 1995; Story 1985). The Late Prehistoric is subdivided into early and late sub-periods termed Austin and Toyah Phases, respectively. Temporal diagnostics including Scallorn and Edwards arrow points define the Austin Phase (1200-650 BP; Prewitt 1981). Burned rock midden use may have reached a peak during this phase (Black and Creel 1997). The subsequent Toyah Phase spans 650-350 BP and includes the first occurrence of pottery in South Texas (Black 1989a). Characteristic artifacts of this phase include Perdiz and Clifton arrow points (Black 1986). Material culture associated with the Late Prehistoric period suggests increasing complex subsistence patterns and large prehistoric populations (Black 1989a; Collins 1995).

### **Historic**

The Historic period in Texas begins with the arrival of Europeans. Although the Historic period theoretically begins in Texas with the shipwreck of the Narvaez expedition along the Texas coast in 1528, the majority of the inhabitants of Texas were Native Americans until the late eighteenth century. From AD 1550 to the late 1600s, European forays into South and Central Texas were infrequent. René Robert Cavelier, Sieur de La Salle, established a French settlement, Fort St. Louis, along Matagorda Bay on the

Texas coast in 1685. Hunger, disease, and escalating hostilities between the French and the Karankawas, subsequently destroyed the colony. In 1690, as a result of the discovery of the remains of the La Salle colony, the Spanish began securing the northern border of New Spain, expanding their interests in East Texas to counter any French expansion across the Mississippi River (Foster 1998). The first Europeans settled in the region in early AD 1700 (Taylor 1996). The southward incursion of the Comanche and Apache and the northward expansion of Spanish influence led to the displacement of many of the area's indigenous groups. Decimated by disease brought by Europeans, many of the remaining groups sought refuge in the numerous Spanish missions established early in the eighteenth century. The move to the missions significantly impacted the hunter-gatherer way of life and the material culture. Artifacts from the Historic period reflect European influences and include metal, glass, and ceramics along with pre-Hispanic Goliad wares and lithic arrow points, tools, and gunflints (Taylor 1996; Wade 2003).

### **Previous Archaeological Investigations**

A review of the resources on the San Antonio River channel route shows that the river has been channelized north of Newell Street, south of Jones Avenue, and directly north of NCB 476 (Ulrich et al. 2009:3).

The west bank of the channel has been extensively impacted by industrial construction and activities associated with the construction and operations of the Lone Star Brewing Company. The east bank of the river, between Avenue A and the San Antonio River, has been subjected to primarily residential development and occupation although limited industrial development did occur during the early twentieth century.

Portions of the two NCBs immediately fronting the river channel were part of the CAR's pedestrian survey associated with the Museum "Urban" Reach Segment of the San Antonio River Improvements Project (SARIP) conducted in 2006 (Figueroa et al. 2006) and again with archaeological monitoring in 2009 (Ulrich et al. 2009). A few historic buildings that were noted by CAR include the relocated remains of the iron bridge, which may have been relocated since 2009, from the Lone Star Brewery near NCB 476 and a book binding facility/warehouse located on the southern edge of NCB 862 (Figueroa et al. 2006:6). Two large businesses were located in the vicinity of the project area. The first was the Samuel Glass Company that was located to the north of NCB 476. The second was the Lone Star Brewing Company, which now serves as the San Antonio Museum of Art, and is located towards the southwest of the project area and on the west bank of the river (Figueroa et al. 2006:6-7).

No Spanish Colonial Period sites or irrigation features, such as irrigation ditches, are present within the project area. The nearest out-flow ditches are located well north of the project area, and the *Acequia Madre* is east of the project area on the east side of Broadway Avenue.

Four historic dumps, or trash middens, were identified during the CAR pedestrian survey (Figueroa et al. 2006). They were eroding out of the west bank of the river across from the APEs. These dumps consisted of bricks and bottles that are related to the industrial activities associated with the Lone Star Brewery complex. Similar dumps may be expected on the east bank of the river within the project area. In addition, given the large footprint of the previous brewery that stood in the area, buried remnants of these facilities may be expected unless later construction activities and land use have destroyed them. A review of the Neighborhood Survey of historically significant standing structures indicates that three structures were recorded during this survey and appear to fall outside of the current APE.

Finally, a review of the Texas Archeological Sites Atlas indicates that no known prehistoric or historic sites are present within the APE targeted by this investigation. However, it is important to note that this may be due to the fact that no systematic pedestrian surveys of the APE have hitherto been conducted. The aforementioned Neighborhood Survey only focused on standing structures and did not involve subsurface investigations for buried cultural deposits such as prehistoric sites.

While no sites have been recorded within the APE, there are two archaeological sites, 41BX1913 and 41BX1817, near the APE according to the Texas Archeological Site Atlas. Site 41BX1913 is a prehistoric site recorded in 2012 by Abasolo Archaeological Consultants (Texas Historical Commission 2004). This site is located approximately 0.4 km (0.25 mi.) southwest of the APE and is on the west side of the San Antonio River north of Ninth Street. Site 41BX1817 contains a buried lithic scatter from an unknown time period. Site 41BX1817 is a historic limestone dam recorded by the CAR in 2009 (Ulrich et al. 2009). This dam, constructed ca. 1872, is located approximately 0.35 km (0.22 mi.) south of the APE and is within the river channel between the Ninth Street Bridge and the Jones Avenue Bridge.

In summary, the review of the available records pertaining to known historic or prehistoric archaeological resources (sites) within the APE (NCBs 476 and 862) revealed no known sites. The three standing structures that were included in the Neighborhood Survey appear to have been demolished sometime after the survey. Without known or documented Spanish Colonial Period resources within the project area, it appears that finding significant and intact historic resources in and around the two APEs is highly unlikely. Ulrich et al. (2009:3) mention that because of the large channelization projects during the 1930s and 1960s, a large number of historic and prehistoric archaeological resources that were originally located

along the lower terrace of the San Antonio River were destroyed. However, the presence of a historic limestone dam suggests the presence of other historic sites remains a possibility.

There are numerous known prehistoric sites buried in the banks of the San Antonio River along its course both to the north and south of the project area. Archaeological sites found in the banks of the river range from a few hundred years in age to thousands of years. For instance, some of the nearby sites contained cultural materials ranging in age from 650 years B.P. (the Late Prehistoric Period) to 11,000 years B.P. (the Paleoindian Period).

The fact that the river has not been channelized in the project area except for a small portion to the north of NCB 476 (see Ulrich 2009 et al.:3) increases the likelihood that any buried prehistoric sites may have depositional integrity and research value. Prehistoric deposits that would signal the presence of archaeological sites may be buried at a depth ranging from only a few centimeters to several meters. The repeated flooding of the river would be conducive to the burial of archaeological deposits leading to their preservation and the isolation of individual occupations of the bank of the river (see Collins 2004:106-8). The combination of these factors makes the project area a location that is typically identified by professional archaeologists as an area of high probability for finding buried cultural deposits.





## **Chapter 4: Archaeological Field and Laboratory Methods**

### **Field Methods**

A combination of methods was used during the survey of NCBs 476 and 862. They included a surface reconnaissance of the 3.1-acre tract, shovel testing, and backhoe trenching. The goal of the surface reconnaissance was to determine whether any historic or prehistoric features or artifacts were present on surface that may provide a clue as to the subsurface deposits that may be present within the APE. Shovel testing, was used to search for shallowly buried cultural materials from the present grade to roughly 61 cm below the surface (cmbs; 24 in.). This method is less invasive than backhoe trenching, and because the matrix excavated in each trench is screened, it has a high rate of success in discovering cultural materials. Finally, backhoe trenching was employed in an effort to search for cultural deposits that may have been buried to roughly 1.5 m (5 ft.) below the surface. Given that the APE is located on the terrace of the San Antonio River, deeply buried deposits would be the norm rather than the exception.

### **Pedestrian Reconnaissance**

Crew members from the CAR conducted a surface inspection of the two tracts that form the APE. During the survey, the transect interval between individuals was no greater than 30 m (98 ft.) in accordance with the Texas Historical Commission Minimum Survey Standards. Diagnostic artifacts found on the surface (indicated as 'IF' or isolated finds) were recorded using a Trimble Geo XT GPS unit and plotted on an aerial photograph as a backup to the GPS information. These artifacts were then photographed and collected.

### **Shovel Testing**

Each shovel test (ST) was approximately 30-35 cm (12-14 in.) in diameter and was excavated to a maximum depth of 60 cmbs (24 in.) in 10cm (4in.) levels. All soil recovered from each level was screened through ¼-inch hardware cloth, and all artifacts were retained by provenience for laboratory process, analysis, and curation. Small samples of soil were collected from each level of each shovel test to aid in the identification of soil color and texture in the laboratory.

### **Backhoe Trenching**

Each backhoe trench (BHT) location was selected to explore for the presence of buried cultural remains within portions of the APE that appeared the least disturbed based on surface indications. All trenches

excavated during the project were an average of 1.2 m (3.9 ft.) in width, 1.6 m (5.2 ft.) in depth, and 5.7 m (18.7 ft.) in length.

Both walls of each trench were examined for the presence of cultural materials or features. Selected representative portions of one wall of each trench were profiled noting all artifacts or features present in the wall. The backdirt resulting from the excavations was also inspected to determine if any cultural material was present. No screening of backhoe trench soil was conducted during the course of the project.

### **Laboratory Methods**

All diagnostic cultural materials obtained and records generated during the project were prepared for curation in accordance with 36 CFR part 79 and THC requirements for State Held-in-Trust collections. Additionally, the materials have been curated in accordance with current guidelines of the CAR. The materials collected and processed in the CAR laboratory were washed, air-dried, and stored in 4-mil, zip-locking, archival-quality bags. Acid-free labels were placed in all artifact bags. Each laser-printed label contains provenience information and a corresponding lot number. The soil samples collected from each level of each shovel test were discarded once the soil texture and color were properly recorded in the CAR laboratory.

Artifacts returned to the CAR laboratory were separated by class and stored in acid-free boxes that are identified with standard tags. Field notes, forms, photographs, and drawings were placed in labeled archival folders. Digital photographs were printed on acid-free paper, labeled with archive-appropriate materials, and placed in archival-quality sleeves. All field forms were completed with pencil. Any soiled forms were placed in archival-quality page protectors. Ink-jet produced maps and illustrations also were placed in archival-quality page protectors. All artifacts recovered during the project and all project related documentation is currently curated at the CAR's facility.

## Chapter 5: Survey Results

The project Scope of Work called for an intensive pedestrian survey of the APE employing surface reconnaissance, shovel testing, and backhoe trenching. In accordance with guidelines provided by the City of San Antonio's Office of Historic Preservation, five backhoe trenches and six shovel tests were excavated within the APE.

### Pedestrian Reconnaissance

A reconnaissance survey was conducted prior to the subsurface investigations to identify any clusters of cultural materials that may be exposed on surface. Ground visibility ranged between 30 to 100 percent throughout the survey area. Only three pieces of glass were recovered on the surface of NCB 476 (Figure 5-1). They included one broken glass bottle, a glass bottle neck and a piece of glass with an embossed letter on its surface. No culturally identifiable material was recovered from the surface of NCB 862. Each of these surface-exposed artifacts was recorded with a GPS unit and plotted onto an aerial photograph.



Figure 5-1. Locations of surface finds (IF), shovel tests (ST), and backhoe trenches (BHT) within the APE.

## Shovel Testing

Six shovel tests were completed throughout the course of this survey (see Figure 5-1). Table 5-1 presents the Munsell soil colors for each 10 cm level excavated within each shovel test. Of these units, four were positive for cultural material. ST 1 was located towards the northern end of NCB 476 and close to BHT 1. The shovel test was positive for cultural materials. The artifacts consisted of pieces of glass and one piece of metal. There were ten pieces of clear flat glass, four pieces of aqua clear glass, two pieces of clear container glass that were part of a base, five pieces of aqua colored container glass, nine pieces of clear body container glass, and one piece of amber colored container glass. The piece of metal is a possible belt strap. All of these artifacts derived from levels 2-6 (20-60 cmbs; 7.9-23.6 in.) of the unit.

Table 5-1. Munsell Color of Soil Samples from Shovel Tests 1-6

| Level<br>(depth cmbs) | ST 1    | ST 2    | ST 3    | ST 4    | ST 5    | ST 6    |
|-----------------------|---------|---------|---------|---------|---------|---------|
| 1 (0-10)              | 10YR3/3 | 2.5Y5/2 | 2.5Y4/4 | 2.5Y5/2 | 2.5Y5/4 | 2.5Y4/2 |
| 2 (10-20)             | 2.5Y5/2 | 2.5Y5/2 | 2.5Y3/2 | 2.5Y4/2 | 10YR5/3 | 2.5Y4/2 |
| 3 (20-30)             | 2.5Y5/2 | 2.5Y4/2 | 2.5Y3/2 | 10YR8/0 | 10YR4/2 | 2.5Y4/2 |
| 4 (30-40)             | 2.5Y5/2 | 2.5Y3/2 | 10YR3/3 | 10YR8/0 | 2.5Y3/2 | 2.5Y4/2 |
| 5 (40-50)             | 2.5Y4/4 | 2.5Y3/2 | 10YR3/2 | 10YR8/0 | 2.5Y3/2 | 2.5Y4/2 |
| 6 (50-60)             | 2.5Y4/2 | 2.5Y3/2 |         | 10YR8/0 | 2.5Y3/2 | 2.5Y4/2 |

ST 2 was located towards the eastern end of NCB 476. The only cultural artifact that was discovered in ST 2 was a decorative metal nut that may have been used to hold a lampshade in place above the light bulb. It was uncovered in Level 3 (20-30 cmbs; 7.9-11.8 in.) in a highly disturbed context.

ST 4 was excavated near the western edge of NCB 862 and only 10 m (32.8 ft.) from the edge of the San Antonio River. Cultural material included one piece of clear flat glass and a metal fastener that were both discovered in Level 3 (20-30 cmbs; 7.9-11.8 in.). Other artifacts included a metal nail, a door knob, and a flake that appears to have had use modification on its edge. These later artifacts were recovered from Level 4 (30-40 cmbs; 11.8-15.7 in.) of the unit.

The final positive unit is ST 5, located along the eastern boundary of NCB 862 not far from Avenue A. Cultural material included one piece of clear colored container glass, a wire nail, and a fragment of animal bone which were all uncovered in Level 4 (30-40 cmbs; 11.8-15.7 in.).

## Backhoe Trenching

Five backhoe trenches were completed throughout the course of the survey (see Figure 5-1; Table 5-2).

Table 5-2. Characteristics and Material Content of Backhoe Trenches, NCBs 476 and 862

| BHT#    | Orientation | Length (Meters) | Width (Meters) | Depth (Meters) | Pos./Neg. | Comments                                      |
|---------|-------------|-----------------|----------------|----------------|-----------|---|
| 1       | E→W         | 6.3             | 0.9            | 1.8            | +         | Pedernales Point, Untypeable Biface, Debitage |
| 2       | N→S         | 7               | 1.5            | 1.7            | -         |   |
| 3       | E→W         | 7               | 0.7            | 1.6            | +         | Broken Glass                                  |
| 4       | E→W         | 4.4             | 0.7            | 1.5            | -         |   |
| 5       | E→W         | 3.9             | 0.7            | 1.3            | -         |   |
| Average |             | 5.72            | 0.9            | 1.58           |           |   |

### BHT 1

Backhoe Trench 1 was located in the approximate center of NCB 476. This area was chosen because it was appeared to be the area with the least surface disturbance and, therefore, had the highest probability of encountering intact buried cultural materials. Cultural material from the trench included a Pedernales dart point and a bifacially flaked artifact (see Figure 5-2); both of which were found during the excavation of the backhoe safety bench. Pedernales dart points date to the Late Archaic period (4000-1200 B.P.; Collins 1995; Turner and Hester 1993:171). The surface of the safety bench was at an elevation of roughly 60 cm (23.6 in.) below grade (Figure 5-3). The two flaked artifacts were associated with a number of other cultural materials, including a piece ofdebitage and historic glass.



Figure 5-2. Pedernales dart point and biface recovered from BHT 1 in NCB 476. Point measures 62 mm in length.



Figure 5-3. Surface of safety bench in BHT 1. The two lithic artifacts came from this surface.

This trench also exposed a lens of burned rocks scattered over a 5-6 m (16.4-19.7 ft.) section in the north wall (see Figure 5-3). These burned rocks were approximately 30 cm (11.8 in.) below modern debris and fill that is roughly 10-50 cm (3.9-19.7 in.) thick (Figure 5-3). The Principal Investigator, Dr. Steve Tomka, visited the project area and inspected the distribution of burned rock and other artifacts. Since none of the pieces formed a cluster, were no more than 5.1-7.6 cm (2-3 in.) in size, and were strung out over the length of the trench, he determined that the deposits are not in an intact context and therefore do not represent an intact feature.

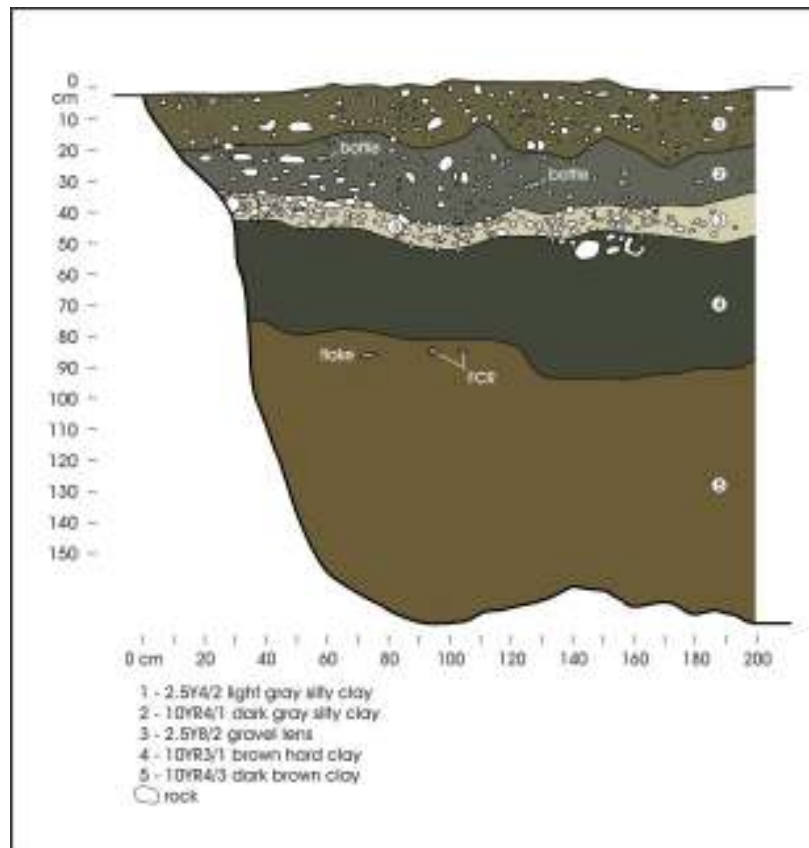


Figure 5-4. North wall profile of BHT 1 in NCB 476.

## BHT 2

BHT 2 was located in the approximate center of NCB 862. Similar to BHT 1, this trench contained six lenses of modern debris accumulated from the ground surface to a depth of approximately 40 cmbs (15.7 in.; Figure 5-5). No cultural materials were recovered from BHT 2.





Figure 5-5. *West wall profile of BHT 2 in NCB 862.*

### **BHT 3**

BHT 3 was located approximately 25 m (82 ft.) to the northwest of BHT 2 in NCB 862. Its location was chosen to determine if there were any deep cultural deposits closer to the river since many other deeply buried deposits have been discovered along the river on other archaeological projects (Figueroa et al. 2006; Ulrich et al. 2009). This backhoe trench exhibited disturbances to a depth of at least 80 cmbs (31.5 in; Figure 5-6). A thin layer of yellowish caliche that was buried approximately 23 cmbs (9 in.) capped a 35 cm (13.8 in.) thick light gray loam layer that contained no artifacts but was clearly fill. Underneath this zone was a layer of gravel that sat on light brown silty loam that appeared to be undisturbed. Close examination of these depositional and fill layers identified no artifacts in the walls of the trench, but a single piece of debitage was recovered from the backdirt derived from the trench.



Figure 5-6. North wall profile of BHT 3 in NCB 862.

#### **BHT 4**

BHT 4 was located approximately 25 m (82 ft.) to the northeast of BHT 1 in NCB 467. Its location was chosen to investigate whether the burned rock lens that was discovered in BHT 1 continued throughout the lot or if it was restricted to a small area. The trench exposed two depositional zones. The upper zone consisted of dark gray silty loam that extended from surface to roughly 40 cmbs (15.7 in.). Underlying this zone was a dark gray silty clay that extended to the base of the trench. Neither deposit contained cultural materials.

#### **BHT 5**

BHT 5 was located approximately 10 m (32.8 ft.) to the northwest of BHT 4 in NCB 467. It was excavated to determine whether the burned rock exposed in BHT 1 extended to the north of the positive trench. There were no culturally identifiable materials identified either the profile of the trench or the backdirt derived from it. These findings further substantiated the impression that the prehistoric cultural

deposits found in BHT 1 were in a secondary disturbed context perhaps introduced with fill or horizontally displaced from an area outside of the APE.

### **Artifacts Recovered**

In total, 56 artifacts were recovered from surface and subsurface contexts during the project. Of these, three (5 percent) were found during surface reconnaissance, 44 (79 percent) were recovered in shovel test units, and 9 (16 percent) derived from the backhoe trenches excavated within the APE (Table 5-3). The bulk (n=48, 85 percent) of the materials are historic artifacts, while only 9 (15 percent) represent prehistoric materials.

Table 5-3. Cultural Material Recovered from All Units Excavated within the APE

| Location      | Level           | Debitage | Lithic Tools | Metal    | Glass     | Modern   | Bone     | Total     |
|---------------|-----------------|----------|--------------|----------|-----------|----------|----------|-----------|
| Surface Finds | NCB 476 Surface | 0        | 0            | 0        | 3         | 0        | 0        | 3         |
| Trench 1      | Backdirt        | 4        | 0            | 0        | 2         | 0        | 0        | 6         |
| Trench 1      | Bench           | 0        | 2            | 0        | 0         | 0        | 0        | 2         |
| Trench 3      | Backdirt        | 1        | 0            | 0        | 0         | 0        | 0        | 1         |
| ST 1          | 3               | 0        | 0            | 0        | 4         | 0        | 0        | 4         |
| ST 1          | 4               | 0        | 0            | 0        | 20        | 0        | 0        | 20        |
| ST 1          | 5               | 0        | 0            | 0        | 10        | 0        | 0        | 10        |
| ST 1          | 6               | 0        | 0            | 1        | 0         | 0        | 0        | 1         |
| ST 2          | 3               | 0        | 0            | 0        | 0         | 1        | 0        | 1         |
| ST 4          | 3               | 0        | 0            | 1        | 1         | 0        | 0        | 2         |
| ST 4          | 4               | 0        | 1            | 1        | 0         | 1        | 0        | 3         |
| ST 5          | 4               | 0        | 0            | 1        | 1         | 0        | 1        | 3         |
| <b>Total</b>  |                 | <b>5</b> | <b>3</b>     | <b>4</b> | <b>41</b> | <b>2</b> | <b>1</b> | <b>56</b> |

## **Chapter 6: Summary and Recommendations**

### **Summary**

The Center for Archaeological Research (CAR) of The University of Texas at San Antonio (UTSA) conducted an intensive pedestrian survey of the Area of Potential Effect designated as NCBs 476 and 862. The archaeological services were aided by backhoe trenching performed by Alamo Backhoe Service Incorporated. The survey was conducted under the jurisdiction of Chapter 35 of the City of San Antonio's Unified Development Code. Since the property is privately owned and financed, the development does not fall under the jurisdiction of the Antiquities Code of Texas administered by the Texas Historical Commission.

The project area is located near the southwest corner of the I-35/I-37 Interchange on the eastern bank of the San Antonio River. The survey was completed on December 20, 2012. The archaeological survey was performed to determine whether any potentially significant prehistoric or historic cultural resources may be found within the project APE. The APE consists of 3.1-acres planned for future development.

The project area has been heavily impacted during the recent past. Historic records show that the location was the site of several commercial and industrial-scale facilities during the early twentieth century. These facilities included the Oschs and Aschbacher's Weiss Beer Brewery that operated between 1890 and 1904 and the George Aschbacher Brewery that subsequently functioned until 1915. Support facilities, such as a bottling company that may have served both of these breweries as well as the nearby Lone Star Brewery Company, were located nearby within the project APE.

Following a pedestrian reconnaissance of the project area, five backhoe trenches and six shovel tests were excavated within the APE to search for intact cultural deposits. These subsurface excavations resulted in the recovery of 56 artifacts including a Pedernales point, a biface, a sparse burned rock lens, and ample historic artifacts (glass and metal). Backhoe trench locations were chosen to explore the least disturbed portions of the APE as it appeared on surface. Two trenches, BHTs 1 and 3, produced cultural deposits, including the Pedernales point and a burned rock lens that were both discovered in BHT 1. Nearly all backhoe trenches excavated revealed moderate to high levels of subsurface disturbances extending to a depth of between 40-80 cmbs (15.7-31.5 in.). Shovel testing and additional trenches were implemented in the vicinity of the positive backhoe trench to determine whether the materials recovered were part of a more extensive deposit or clustered in the vicinity of the positive unit. No additional prehistoric materials were identified in any of the additional units (STs or BHTs) excavated within the APE.

## **Recommendations**

While archaeological deposits of both historic and prehistoric age have been encountered as a result of the investigations that occurred within NCBs 476 and 862, none of the materials derive from intact depositional zones nor do they represent intact cultural features. Therefore, these materials have very limited or no research value and can contribute only minimal information to the history and prehistory of the area. None of the cultural materials encountered warrant their listing to the National Register of Historic Places or their formal designation as State Archeological Landmarks. CAR recommends no additional archaeological investigations of the APE and suggests that the proposed development of the APE proceed as planned.

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