A Cultural Resources Survey of 4.97 Acres for the East Southcross Rehab and Nursing Facility in San Antonio, Bexar County, Texas

Prepared for Gallegos Engineering, Inc.
San Antonio, Texas

by

David L. Nickels, Principal Investigator

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Abstract

Gallegos Engineering, Inc., San Antonio, Texas is the lead agency for a proposed new rehabilitation and nursing facility to be constructed on 4.97 acres in southeast San Antonio, Bexar County, Texas. Gallegos Engineering contracted with Tierras Antiguas Archaeological Investigations, LLC to conduct a cultural assessment of the tract. The tract is privately owned, and development, to include infrastructure was entirely privately funded.

Although no public funding was involved that would require either an Antiquities Permit from the Texas Historical Commission or federal review by the State Historic Preservation Officer, the project is located within the jurisdiction of the City of San Antonio. Under the city's Historic Preservation and Design Section of the Unified Development Code (Article 635-630 to 35-634), all new construction projects, regardless of funding must be reviewed by the city's Historic Preservation Officer (HPO). In that regard, a Scope of Work was submitted to the City for approval before the cultural resources survey began, and this report of investigations was reviewed by the city's HPO.

Tierras Antiguas archaeologists conducted a thorough pedestrian survey of the surface area on July 7, 2014, and 11 shovel tests were excavated. On July 11, 2014 archaeologists monitored backhoe trenching operations and screened backdirt samples from eight backhoe trenches excavated across the project area.

The only evidence of either historic or prehistoric cultural material observed either on or below the surface consisted of concrete remains of two apparent dugouts and a concession stand/restroom facility from a local neighborhood ballfield that was constructed and used in the 1950s and 1960s. These remnants were assigned archaeological site 41BX2018. In addition, seven potentially historic structures were observed adjacent to the project area, and were photographed.

Although interesting from an historic standpoint regarding the development of local neighborhoods in this area of southeast San Antonio in the 1950s and 1960s, the concrete structural remains of 41BX2018 have been fully documented during this investigation, and our assessment was that they do not meet the criteria for nomination as neither a State Archaeological Landmark, nor the National Register of Historic Places. As such, Tierras Antiguas recommended that no further investigations are warranted, and that construction of the Southcross Rehab and Nursing Facility should be allowed to proceed as planned.

However, if any cultural resources were to be encountered during construction, work should immediately be halted in the vicinity until such finds are examined and evaluated by Tierras Antiguas, or by any qualified archaeological consultant, and by the Texas Historical Commission.

No artifacts were collected or curated.

Acknowledgments

First and foremost, I express my sincere appreciation to Mr. Richard Gallegos, President of Gallegos Engineering, Inc. Richard was extremely helpful and patient in explaining the scope of this project, and he graciously shared previous knowledge of the project area.

The backhoe trenching was conducted by Rick Gonzales of Affordable Backhoe Service in San Antonio; thank you Rick. Next, I very much relied upon Belisario Silva, an archaeological Field Technician for Tierras Antiguas. He is a dedicated individual, and as always, Belisario worked meticulously to ensure all aspects of this investigation were thoroughly documented in accordance with the City of San Antonio, Texas Historical Commission, and Council of Texas Archeologists standards.

Finally, I express my gratitude to Mr. Matthew Elverson, City of San Antonio Assistant City Historic Preservation Officer, who oversaw this whole process.

Cover Photo - Aerial photo of the Project Area.

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Introduction

Gallegos Engineering, Inc., of San Antonio, Texas is the lead agency for a proposed new rehabilitation and nursing facility to be constructed on 4.97 acres in southeast San Antonio, Bexar County, Texas (Figure 1-4), and occasionally hereinafter referred to as the Project Area (PA). Gallegos Engineering contracted with Tierras Antiguas Archaeological Investigations, LLC to conduct a cultural assessment of the tract. The tract is privately owned, and development, to include infrastructure is entirely privately funded.

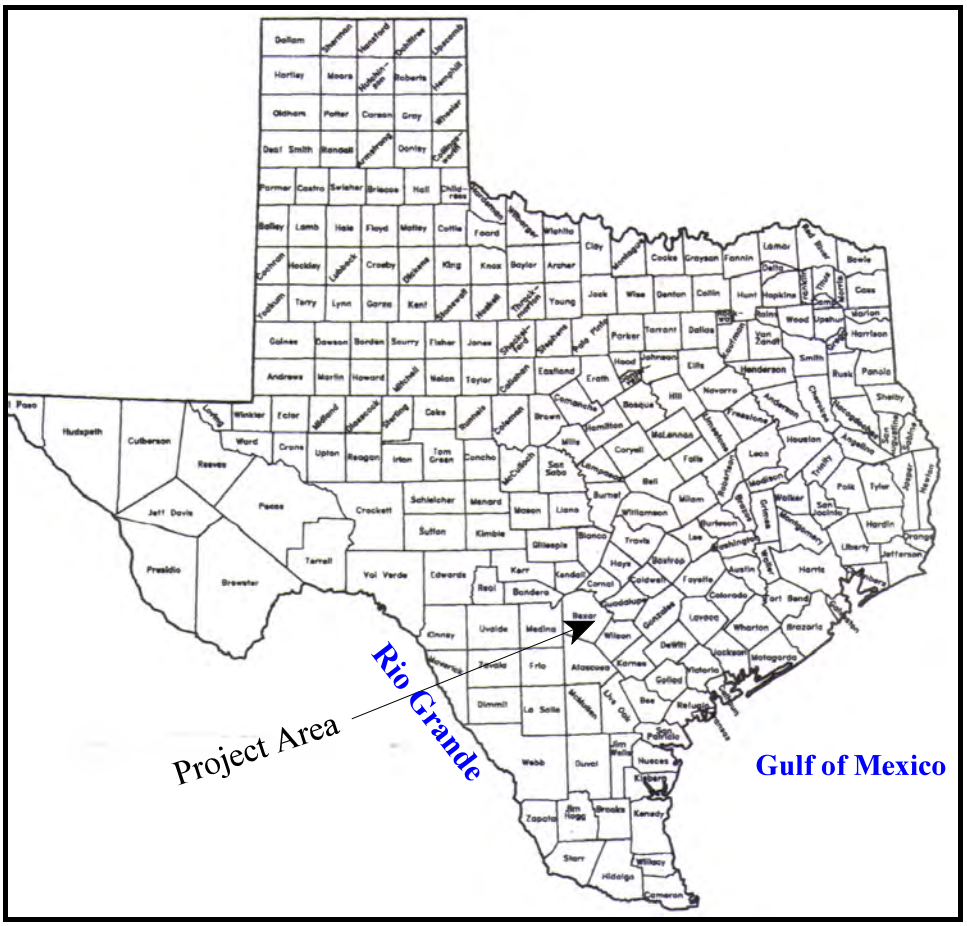

Figure 1. Location of the Project Area in Bexar County and Texas.

Although no public funding was involved that would require either an Antiquities Permit from the Texas Historical Commission or federal review by the State Historic Preservation Officer, the project is located within the jurisdiction of the City of San Antonio. Under the city's Historic Preservation and Design Section of the Unified Development Code (Article 635-630 to 35-634), all new construction projects, regardless of funding must be reviewed by the city's Historic Preservation Officer (HPO). In that regard, a Scope of Work was submitted to the City for approval before the cultural resources survey began, and this report of investigations was reviewed by the city's HPO.

Tierras Antiguas Archaeological Investigations (TAAI) archaeologists conducted a thorough pedestrian survey of the Project Area on July 7, 2014 and dug 11 shovel tests. Then, on July 11, 2014 archaeologists monitored backhoe trenching operations and screened backdirt samples from eight backhoe trenches excavated across the project area. The survey was conducted under the guidelines of the Texas Historical Commission (THC) and the Council of Texas Archeologists.

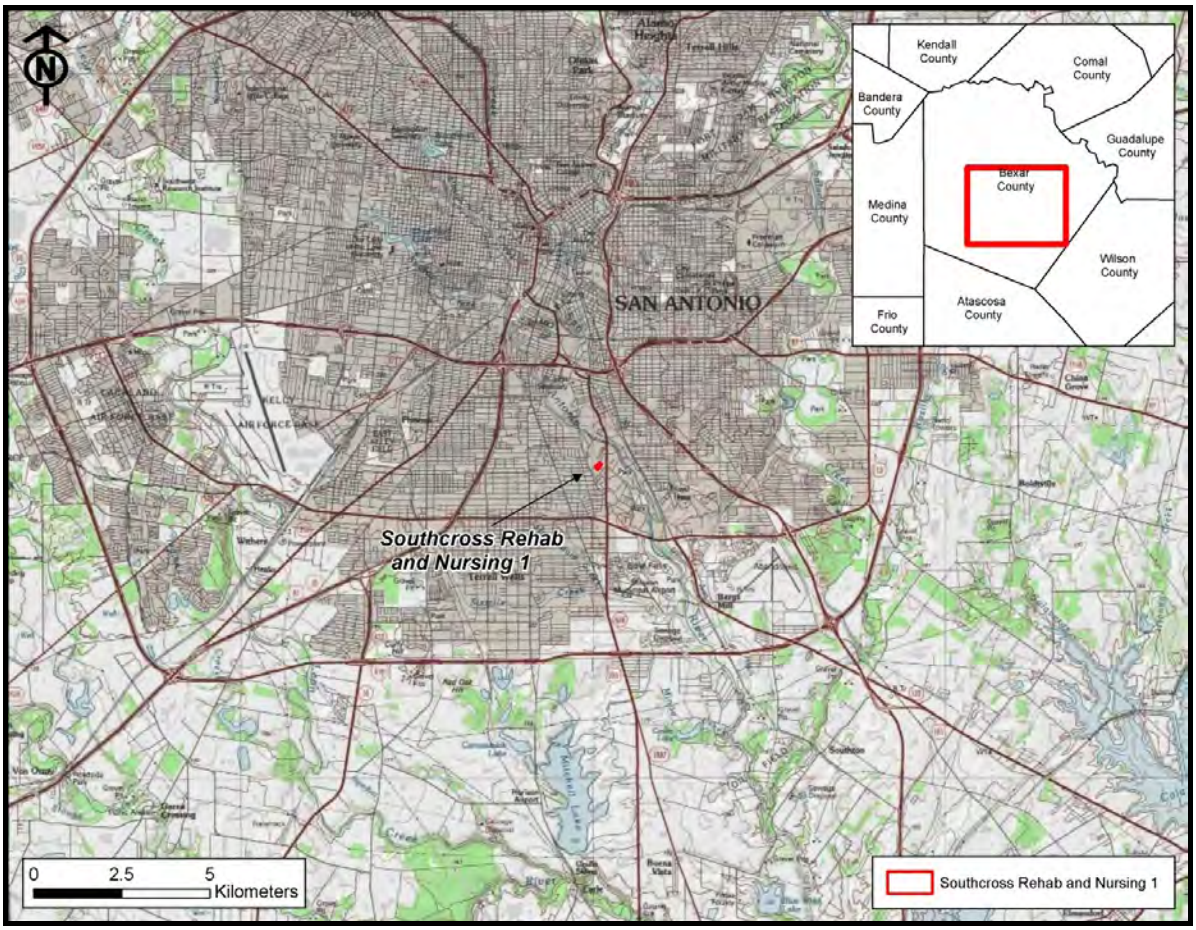

Figure 2. Location of the Project Area in San Antonio on large topographic map.

have been intentionally omitted from this map).

Figure 4. Southcross Rehab and Nursing Facility site on modern aerial photo.

Project Setting

Geology

The local geology (Barnes 1982) within the project area is of Quaternary Alluvial Terrace deposits (Qt), a combined depositional sequence of Austin Chalk (Kau), undivided Navarro and Marlbrook Marl (Knb), Pecan Gap Chalk (Kpg), and Uvalde Gravels (Qtu). Edwards chert is a common gravel component across the region, a result of down-cutting of the Edwards Plateau. Edwards chert and the Uvalde Gravels both provided Native Americans a rich resource for lithic tool production.

Soils

Development within the Project Area will impact Venus clay loame (VcA), commonly found on gently sloping, smooth terraces 20 to 40 feet above the San Antonio River flood plain. The typical pedon reveals limey clay in the upper roughly 16 inches (40 centimeters), underlain by about 20 inches (50 centimeters) of clay loam (Taylor et al. 1991; Websoil Survey Online 2014).

Figure 5. Soils map of the Project Area.

Climate, Flora, and Fauna

The physiographic makeup of Bexar County is a combination of four distinct physiographic regions of Texas: the Edwards Plateau, the Balcones Escarpment, the Blackland Prairie, and the South Texas Gulf Coastal Plain (Figure 6). More specifically, the Project Area lies within a transitional zone on the lower Balcones Escarpment region where it gives way to the Blackland Prairie. As such, this micro-environmental zone can still be classified as upland prairie. In addition, the Project Area lies within the Balconian vegetation area as defined by (Blair 1950; Map 2014; Figure 7). The annual average rainfall is about 28 inches (77 centimeters), with 194 growing-season days per year (Taylor et al. 1991).

The Edwards Plateau physiographic region of Texas exists in the northern portion of Bexar

County where the group(s) which occupied it were advantageously able to exploit an ecotone encompassing riverine, upland, and semi-arid adapted plants and animals. The Edwards Plateau, with elevations reaching 2,250 ft. above mean sea level (amsl) in northern Gillespie County (Allison et al. 1975:76), is a hilly region, gradually sloping to the southeast, and ending in the escarpment running across the middle of the sub-region (Figure 6). The most common flora observed on the plateau include juniper (*Juniperus ashei*), plateau live oak (*Quercus fusiformis*), Texas persimmon (*Diospyros texana*), honey mesquite (*Prosopis glandulosa*), and agarita (*Berberis trifoliata*) (Blair 1950:112; Van Auken 1988:45; Simpson 1988). Due to overgrazing by livestock and restricted range fires, much of the plateau has been overtaken by juniper in modern times (Buechner 1944:703-704; Van Auken 1993:199-210).

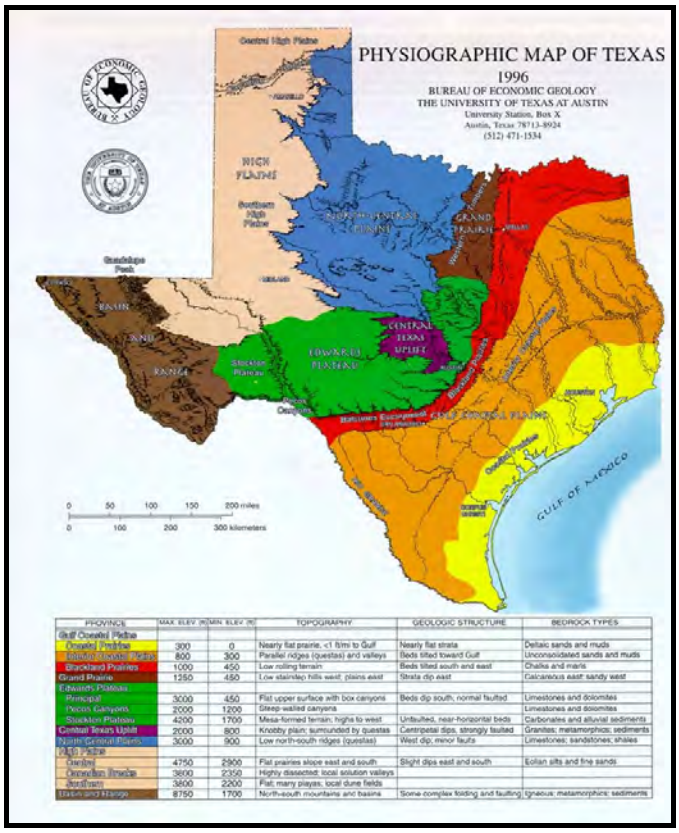

Figure 6. Physiographic regions of Texas (http://www.lib.utexas.edu/geo/pics/txphysio.jpg).

The Balcones Escarpment separates the Edwards Plateau from the lower blackland prairies to the east. It is a fault zone, consisting of blocky limestone, chalk, shale, and marl. The escarpment slopes to the southeast from about 700-1,000 feet above mean sea level (Taylor et al. 1991:119). The most economically important floral species are riparian nut trees, including oak, walnut, and pecan that thrive along the rivers and creeks (Van Auken 1988:55). The intertwined diversity in biotic resources existing along the escarpment provides an ecotone in which humans could exploit a wide variety of plants and animals from season to season (Collins 1995:366; 2004). The presence of prehistoric cemeteries found in areas

Figure 7. Blair's (1950) biotic provinces of Texas.

along the escarpment where seasonally rich food resources such as nut-bearing species, particularly acorn and pecan trees, and prickly pear tunas may not be just a coincidence (Hall 1995:633-647).

The Blackland Prairie is a rolling and well-dissected plain representing the extension of the true prairie that runs through the center of North America. The prairie was once dominated by tallgrass species such as little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardi*), indiangrass (*Sorghastrum nutans*), tall dropseed (*Sporobolus asper*), and silveus dropseed (*Sporobulus silveanus*). Oaks (*Quercus* species), elms (*Ulmus*), cottonwoods (*Populus*), and native pecan (*Carya illinoinensus*) are common along the drainages.

The South Texas Plain is the western extension of the Gulf Coastal Plain. It is a nearly level to rolling plain that is moderately dissected by major river drainages through its northern half and by numerous intermittent drainages, and the Bordas Escarpment in the south. It was originally an open grassland mixed with brushy chaparral. Oaks, pecans, and ash (*Zanthroxylum fagara*) were common along streams (Black 1989:12; Hester 1980:31, 33).

Both the plains and the prairies have apparently undergone dramatic vegetational changes over the past 300 years. Due in part to overgrazing and range-fire suppression, much of the original vegetation has been replaced by woody invader species, transforming the grassland into what we know today as the "South Texas Brush Country", dominated by mesquite, huisache, granjeno or spiney hackberry, brasil, lotebush, whitebrush, and cenizo (Black 1989:14-16; Hester 1980:34-37).

Cultural Context and Chronology

Introduction

The Project Area is located within South-Central Texas, and as such, prehistoric cultural affinities most common to South Texas plains cultures and Central Texas/Edwards Plateau hill country cultures are often manifested in archaeological sites near the Project Area (see Figure 8). The most basic chronology of the Central and South Texas regions can be divided into either: (1) prehistoric cultural groups with no specific tribal affiliation, or; (2) historically documented groups with a designated tribal or band name. Before Spanish soldiers and Catholic missionaries arrived in Texas, the cultural activities of the groups of prehistoric Native Americans who inhabited the two regions can only be surmised from what we can glean from the archaeological records at undisturbed, and well-documented sites. Historic cultural groups are those observed firsthand by the Spanish soldiers and priests beginning in the late 1600s. The Spanish then began recording in writing the names, numbers, and living conditions of the many groups of Native Americans who lived in the regions. However, as we will discuss later in this section, there is a significant transition era between the least archaeologically known prehistoric cultural groups, and the historic Native Americans that the Spanish documented; that transition era occurs in the 1500s when Spanish explorers and treasure seekers ventured through Texas.

The Prehistoric Chronology

Based on research in Texas over the past 70+ years, beginning with professionals from the University of Texas at Austin, archaeologists have been able to segregate the prehistoric period in Central and South Texas into the Paleoindian, Archaic, and Late Prehistoric periods. Although other archaeologists have made significant foundational contributions to our current understanding of how past cultures changed through time (e.g., Story 1985; Prewitt 1981), in our opinion the most current and widely recognized chronologies are those offered by Michael Collins (1995; 2004) for Central Texas, and Thomas Hester (1995; 2004) for South Texas.

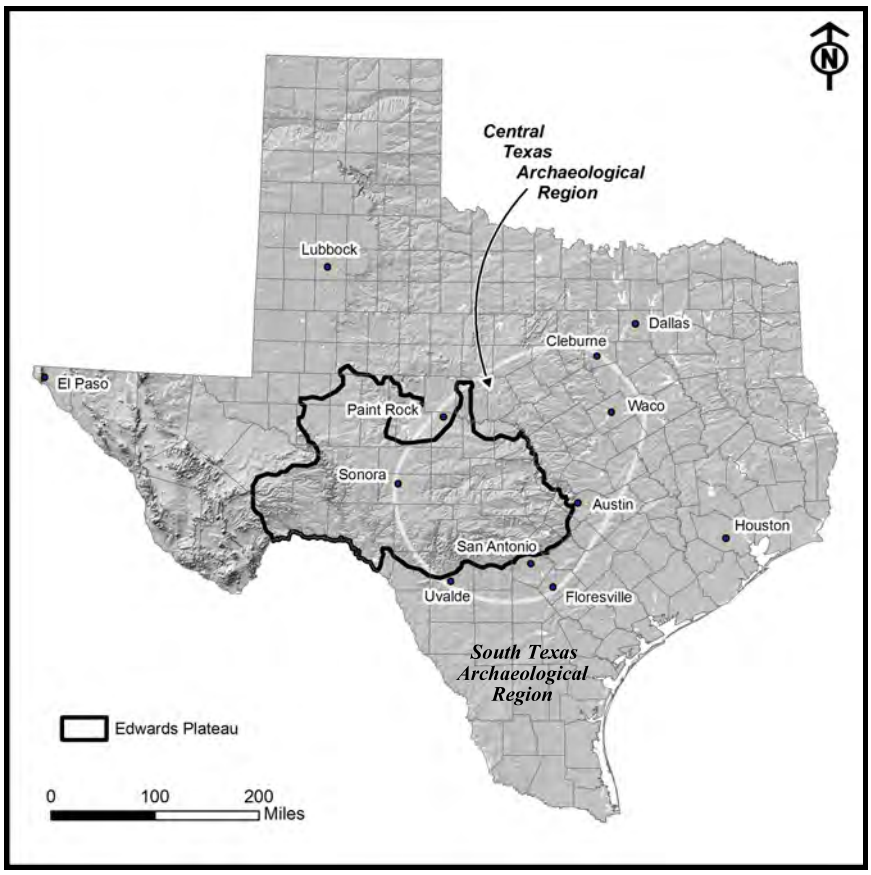

Figure 8. Map of Central and South Texas Archaeological Regions and Edwards Plateau.

Paleoindian Period (11,500-8,800 years ago)

With minor differences observed in the archaeological record across the wide expanse of Central and South Texas, this period spans the past years estimated at between ca. 11,500 and 8,800 years ago (Collins 1995:381–383; Hester 1995:433–436). Diagnostic artifacts include a unique, fluted, finely flaked, and blade-shaped spear or dart point called "Clovis", other stone tools chipped on both sides, and unique prismatic blade-like flakes systematically knocked off from river cobbles. Archaeologists have documented Clovis-age sites in Central and South Texas such as killsites, quarries, stone tool caches, open campsites, ritual sites, and burials (Collins 1995:381–383; Hester 1995:433–436). A Folsom interval follows the Clovis. Folsom artifacts are fairly common in Central and South Texas; however, no campsites or killsites have been found south of Bexar County (Hester 1995:434–435).

During this 2,700-year Paleoindian period around the Project Area, the Native Americans we term as the Paleoindian culture were likely one of small bands of nomadic, big-game hunters following herds of Late Pleistocene fauna, including mammoth, mastodons, bison, camel, and

horse that are now extinct in North America (Black 1989). Nevertheless, when big game was not available, we have archaeological evidence that the Paleoindian peoples supplemented their diet by eating turtles, tortoises, alligators, mice, badgers, and raccoons (Collins 1995:381).

Archaic Period (8,000-1,200 years ago)

Primarily, by studying the differences in the stone tools, the diversities in campsites or other types of sites, the locations of the sites, as well as many other measurable and analytical observations such as ethnobotanical and faunal remains found at Central and South Texas archaeological sites, archaeologists have been able to dissect about 6,000 years of our past into what we commonly term the "Archaic". Based on these same aforementioned affinities, the Archaic has further been defined in terms of the Early Archaic, the Middle Archaic, and the Late Archaic.

Early Archaic (ca. 8,800-6,000 years ago)

The region was most probably occupied by small groups who moved almost constantly during the Early Archaic period. Archaeologists have observed a distinctive change in projectile point styles that are unique to this period; they include Early Corner Notched and Early Basal Notched dart points. Although they were still very much hunters and gatherers, the large animals such as mammoths that their Paleoindian ancestors had hunted were by this time extinct. To survive, they capitalized on exploiting the other abundant food resources that Central Texas had to offer Texas—such as deer, fish, rodents, prickly pear tunas, and various plant bulbs and tubers. Archaeologists point to the increased numbers of ground stone, firecracked limestone used in cooking ovens larger in size than normal campfires, and specialized stone processing tools as evidence that Native Americans refocused their pursuit of foodstuffs (Weir 1976; McKinney 1981; Story 1985; Collins 1995; Hester 1995).

Middle Archaic (ca. 6,000-4,000 years ago?)

When this period actually began and ended is always debatable among archaeologists. Some (e.g., Collins 1995) see a significant pattern in the archaeological record between 6,000 and 4,000 years ago, but others (e.g., Hester 1995) don't think the same changes were prevalent until much later in South Texas - about between 4,500 and 2,400 years ago. Nevertheless, the climate began changing in Central and South Texas beginning around 6,000 years ago, and a continuum of dry climate known as the Altithermal, is believed by some archaeologists to have caused the Native Americans to gather in larger groups. They gathered in large groups to exploit plant foods that were more dependable than larger game animals such as bison (Sollberger and Hester 1972:338; Weir 1976:125, 128; Story 1985:40). Archaeologists have found more sites that date to this period, and in Summer seasons the groups apparently took advantage of the numerous prickly pear tunas and pads that thrived in the environs of South-Central Texas, as well as deer and rabbit (Campbell and Campbell 1981:13–15; Collins 1995:383).

Later, they apparently congregated along the many creeks and rivers in the area to gather the abundant and nutritional nuts ripening in the Fall (Black 1989). On the Edwards Plateau, they may have come together to gather acorns, and then built large cooking ovens to steam the tanic acid out of them to make them edible (Weir 1976). The large cooking ovens were apparently used over and over again. Whether they were repeatedly used within just a few years or over

several hundred years is still being debated, but the consensus seems to be that they were used to cook not only deer, but also a great deal of tubers and other plants (Black et al. 1997; Mauldin et al. 2003). These large cooking ovens which contain mounds of accumulated firecracked rocks are called "burned rock middens" in the archaeological community, but are sometimes referred to as "Indian mounds" by artifact collectors.

Late Archaic (4,000-1,200 years ago?)

As with our synthesis of the Middle Archaic period, differences in the traits of Native Americans inhabiting Central and South Texas during the Late Archaic period may have occurred over several hundred years. Whether it was a matter of cultural adaptation or an adaption to the environment is questionable. In either case, the uniqueness seen in archaeological sites of the two regions imply that change may have been slower in South Texas than in Central Texas.

Collins (1995) dates the final interval of the Archaic in Central Texas to approximately 4,000–1,200 years ago, while Hester (1995) believes the Late Archaic traits seen in South Texas archaeological sites may better be defined as between 2,400–1,300 years ago. The large cooking ovens which after repeated uses coalesced into burned rock middens, intensified during the Late Archaic (Black et al. 1997; Mauldin et al. 2003). Some researchers believe populations increased throughout the Late Archaic (Prewitt 1985), while others feel populations remained the same or fell during this period (Black 1989:30). Although the Native Americans of Central Texas still sought the abundant acorns, prickly pear, and riverine plant foods such as nuts, the slightly cooler and moister climate allowed them to pursue other food goods. Even though by about 1,500 years ago the gregarious, large herds of bison no longer predominated the now-dwindling grasslands of Central and South Texas (Dillehay 1974), the Native Americans still hunted and/or gathered deer and smaller animals such as rabbits, rodents, fish, and turtles (Black 1989:30).

Although farther south, near Brownsville and Rockport, the Native Americans inhabiting those areas began making pottery about 1,800 years ago, those groups farther to the north, around the Southcross Rehab area, either elected not to make pottery vessels, lacked the skills, or because of their generally highly nomadic lifestyle, simply elected not to use the easily breakable vessels until 1,000± years later (Story 1985:45–47). In addition to the uniqueness of Central Texas' hunter-gatherers not adapting to the use of pottery, archaeologists have also observed a noticeable change in the styles/types of killing dart points used during the Late Archaic. Keep in mind that dart points were manufactured to be used with the atlatyl, a spear-like shaft with a dart point attached to it, and thrown or launched from over the shoulder. It would not be until perhaps 1,200 years ago that the bow-and-arrow was adapted for use for hunting in the region. Late Archaic dart points tend to be much smaller than Middle Archaic points, and the most common dart points that are found within the area are what archaeologists call Ensor and Frio types (Turner et al. 2011).

As with most spectrums of scientific research, there is ongoing speculation amongst professional archaeologists as to when, and what traits mark a transition between the Late Archaic, hunter-gatherer practices of Central Texans and the Late Prehistoric peoples who presumably began to settle down into territorial groups claiming a part of the landscape as their own.

Transitional Archaic (2,300 - 1,300 years ago?)
A clear and abrupt transition of Native Americans adapting or developing the traits that archaeologists define as being inclusive to the Late Archaic period, separate from the Late Prehistoric period, around the Project Area is simply not distinct in the many sites that archaeologists have been able to excavate and analyze. In effect, some of the same characteristics that archaeologists see in Late Archaic artifacts and earlier Late Prehistoric assemblages left behind are nearly identical - or at least transitional in technology and style. Therefore, some archaeologists prefer to deem this transitional period as the "Terminal, or Transitional Archaic", spanning from approximately 1,200 to perhaps as long ago as 2,300 years ago - depending on where in South or Central Texas the groups who left behind the now-present archaeological sites were living (Weir 1976; Hester 1995). Nevertheless, the increased number of burned rock midden sites that archaeologists have documented in Central Texas, and that date to this time period, suggest that people returned time and again to the same sites to once again take advantage of cooking and eating the abundant plants available during this time (e.g., Mauldin et al. 2003).

Late Prehistoric Period (ca. 1,250-300 Years Ago)
Although artifacts commonly associated with earlier Late Archaic occupations are also found on some Late Prehistoric-in-age archaeological sites, archaeologists have documented a distinct change in projectile point styles that Native Americans began manufacturing about 1,250 years ago. These stone points suggest that Native Americans in the Central and South Texas regions surrounding the Gardens at Pinnacle project area adapted the bow-and-arrow as a weapon rather than the shoulder-thrown atlatyl with a dart point attached. As such, the stone points devised for killing became much smaller and streamlined. In layman terminology, the smaller, sleeker shafts arrow shafts carried an "arrowhead", instead of a dart point. Archaeologists have found Edwards and Scallorn arrow points dating to the earliest 600+ years of the period (e.g., Goode 1991:71). Concurrently, excavations by professional archaeologists have provided evidence that Native Americans began using crude clay pottery vessels made from local clays, as well as perhaps trading vessels from the South, Southeast Coastal, and Northeast Texas regions. As with any successful venture, the making of pottery was refined so that vessels were used more, and the technique of firing became perhaps an art (e.g., Story 1985:45-47; Black 1989:32; Hester 1995; Nickels 2000).

Archaeologists probably know more about the Native Americans who lived in Texas during this time than any other time in prehistory (Hester 1995). They continued to build large cooking ovens that we commonly call "Indian Mounds", or burned rock middens in which they roasted tubers nuts, and some game animals (see for example, Mauldin et al. 2003). During this same period, the inhabitants may have increased their dependence upon bison (Steele and Assad-Hunter 1986:468). Huebner (1991) suggests that the sudden return of bison to South and Central Texas resulted from a more xeric climate in the plains north of Texas, and increased grassiness in the Cross-Timbers and Post Oak Savannah in north Central Texas, forming a "bison corridor" into the South Texas Plain along the eastern edge of the Edwards Plateau (Huebner 1991:354–355).

One theory is that perhaps there were not as many people occupying Central Texas during the Late Prehistoric period (Black 1989:32). We do know that they began occupying the limestone

overhangs and rockshelters created by the many creeks and rivers cutting into the Balcones Escarpment limestone cliffs. Examples of rockshelters occupied by Native Americans along the escarpment include Scorpion Cave beside the Medina River in Medina County (Highley et al. 1978), Classen Rockshelter along Cibolo Creek in northern Bexar County (Fox and Fox 1967), and Timmeron Rockshelter in Hays County (Harris 1985).

Historic Period

Beginning roughly 350 years ago, European explorers, entrepreneurs, Catholic missionaries, and government officials encroached into what is today South and Central Texas in ever-increasing numbers. This transitional end of the Late Prehistoric and beginning of the Historic period in both Central and South Texas is characterized by a continuum of written accounts of European contact with the numerous indigenous, Native American groups encountered in the two regions. In Central Texas, we can be ever grateful to the meticulous writings of the Spanish priests and government officials for their recording of the names, numbers, and lifeways of the indigenous groups. However, South Texas at the time was largely bypassed by early Euro-Americans seeking permanent settlement. As such, the technology and lifestyles of the indigenous groups in South Texas may have been affected by transient European influence, but today we can only observe these changes in the archaeological record because the written accounts simply are not available. Dr. Thomas Hester (1995) is most often credited with recognizing this transitional period between the Late Prehistoric and the Historic, and labels this largely unknown period as the "Protohistoric."

Traveling northward from present-day central Mexico in the 1500s and 1600s, the Spanish encountered numerous small groups of Coahuiltecans (Campbell 1983; Campbell and Campbell 1985; Hester 1989; John 1975; Newcomb 1961; Swanton 1952). In later years, intrusive groups such as the Tonkawa, Lipan Apache, and Comanche took over the lands roamed by the Coahuiltecans (Ewers 1969; Hester 1989; Jones 1969; Kelley 1971; Newcomb 1961, 1993; Sjoberg 1953a, 1953b).

For example, around A.D. 1700, many south Texas Indian groups were being pushed northward by continual Spanish expansion. But by about 1750, the Apache, adapting to a more Southern Plains-lifeway style of bison hunting, entered what is today's Texas from the northwest. Their incursion was especially rapid because they had acquired horses from the Spaniards (Campbell and Campbell 1985:27). As if the indigenous groups were not effectively dispersed and disrupted by the Apaches, the remnants of native American cohesion that previously existed in Central Texas were even further disrupted by the nomadic, bison-hunting Comanche from the High Plains of Texas (Campbell 1991:111).

Thus ensued over a century of turmoil for those numerous, but splintered Native American groups who had established a semi-permanent foothold in Central Texas before the arrival of the Apache and Comanche. They must have been heavily traumatized and significantly demoralized over the constant conflicts resulting in death, and the mysterious diseases caused by the forced continual mixing and remixing among ethnicities from around the regions and the world (Bolton 1915; Campbell 1991:345; León et al. 1961). Supposedly, there were dozens if not hundreds of language dialects that were spoken by the earlier inhabitants, but nearly all have been lost (e.g. Johnson 1994; Johnson and Campbell 1992).

Amidst the turmoil, the Spanish Catholic missions became a refuge for many of the otherwise dispersed bands and tribes within Texas. By the early 1700s, several missions had been established, and reestablished within the Nacogdoches and San Antonio areas (Campbell and Campbell 1985; Chipman 1992; de la Teja 1995; Habig 1968a, 1968b; Hard et al. 1995). Those that entered the missions did so usually voluntarily, seeking refuge from more powerful, warring bands or tribes. Others did so because they were starved for food that the protective missions could offer in seasons of natural destitution. Regardless, the Spanish government saw the Catholic religious zeal as a means of peaceful conquest in an otherwise untenable, unsettled, and hostile environment. At the same time, each and every Native American who relied upon support from the Spanish missions became less of a threat to eventual Spanish domination of the region, and infiltration by France or other countries (Campbell 1991:346–347).

Although a treaty with the Apaches in 1749 brought peace for a while, Apaches continued to range over the area between San Antonio and Laredo until the early 1800s, pushed southward by the invading Comanche who had moved into the Hill Country of Central Texas (Campbell and Campbell 1985:27; de la Teja 1995:100). In 1785, a peace treaty was agreed to in Santa Fe, New Mexico between the Spanish Crown and the Comanches. Although the ceremony of this treaty took place hundreds of miles to the west, its signing signaled the opening of a period of peaceful coexistence in what is today Bexar County, in which Comanches brought hides, meat, and tallow to San Antonio to trade for goods and services not available elsewhere, such as blacksmithing and gun repair (Fehrenbach 1983:221-224; Poyo and Hinojosa 1991:125-126).

In 1821, after a hard-fought rebellion, Mexico gained its national sovereignty from Spain; including the vast expanse that was to become the Republic of Texas. After only 15 years, the combined Tejano and Euro-American compatriots rebelled against Mexican rule, and defeated the Mexican army to declare an independent Republic of Texas in 1836. By the 1840s, the city of San Antonio was well-established as the most progressive and most populated city in the newly formed Republic. The image of San Antonio as a metropolitan magnet has been enhanced in a continuum ever since, from Texas' evolution into statehood in 1846, through today.

Previous Archaeological Work in the Area

The first officially recognized local (Bexar County) institution organized to promote an interest in Texas archaeology was the Witte Memorial Museum, established in 1926. The Witte continues to this day to promote to citizens of all ages the need to preserve our cultural resources. Over 45 years ago, in the early 1970s, two other organizations were formed. The Center for Archaeological Research (CAR) at the University of Texas at San Antonio was born in 1973. As the Center's first director, Dr. Tom Hester sought to foster a hand-in-hand relationship among amateur collectors, landowners, and professional archaeologists. As such, he was instrumental in establishing the Southern Texas Archaeological Association (STAA) in 1973, a dedicated bunch of individuals who were (and still are) committed to documenting and preserving archaeological sites throughout Bexar County and South Texas.

While we will never know for sure how many archaeological sites have been destroyed, or how many still remain in Bexar County, we do know that professional and avocational archaeologists have managed to document over 2,000 over the past 40+ years. Although it may seem odd that there have been more sites recorded in Bexar County than in all its surrounding counties, and the reader could presume that there are simply a whole lot more sites in Bexar, there are other factors that influence the documentation of sites. For example, the largest city in the area is San Antonio, and as such the city has many historic structures that qualify as archaeological sites that skew the numbers in favor of Bexar County. Thanks to the city's historic preservation office and codes enacted by the city, many have been recorded over the years.

It also makes sense that the more pieces of property that archaeologists are able to examine, the more sites are likely to be found. Most archaeological projects are undertaken because of Federal and State Antiquity codes that require cultural resource surveys be conducted when public money (tax dollars) are used for construction, such as highways, schools, prisons, etc. In addition, military installations and the National Park Service (NPS) are required by federal law to evaluate any cultural resources within their lands. Because of Bexar County's explosive population growth, many military installations, and the Spanish missions administered by NPS, it seems reasonable that Bexar County should have more archaeological sites documented than in the surrounding counties. In addition, professional and avocational archaeologists and historians have been actively involved for many years in the county.

As shown in Figure 3, multiple cultural resources surveys have been conducted within one mile (1,609 meters) of the current Project Area, resulting in multiple historic and archaeological sites being recorded. The closest known site is 41BX270 – the Bustillo House. Around 1890, Francisco and Martin Huizar Bustillo built and occupied this house, and it is the only remaining house built before 1900 outside of Mission San José by descendants of the original land grantees. Almost all of the land in this area at the time was still under cultivation.

Historic Maps and Aerial Photographs

In Figure 9, the Project Area is laid over an 1845 map of the vicinity (NARA 2014). At that time, no structures are shown in the area. Notably, the map shows an unnamed ditch that coursed west of the Project Area. Presumably, this would be an "acequia media", or middle acequia between Mission San José and the San Antonio River. According to I. Waynne Cox (2005), Mission San José was likely re-located to the west side of the San Antonio River some time before 1729, and construction of an acequia was begun. He surmises that the re-located mission site was somewhere between present-day Mission Road and the river, and "This is somewhat supported by evidence of an 'acequia media' between the later main San José acequia and an old bow of the river since obliterated by rechanneling" Cox (2005:29). This may be the same ditch or acequia that according to the National Park Service, about 300 meters of the abandoned acequia were still visible in 1975, and almost all of the land behind the Bustillo House (41BX270) was under cultivation and watered by the San José acequia (National Park Service 2014).

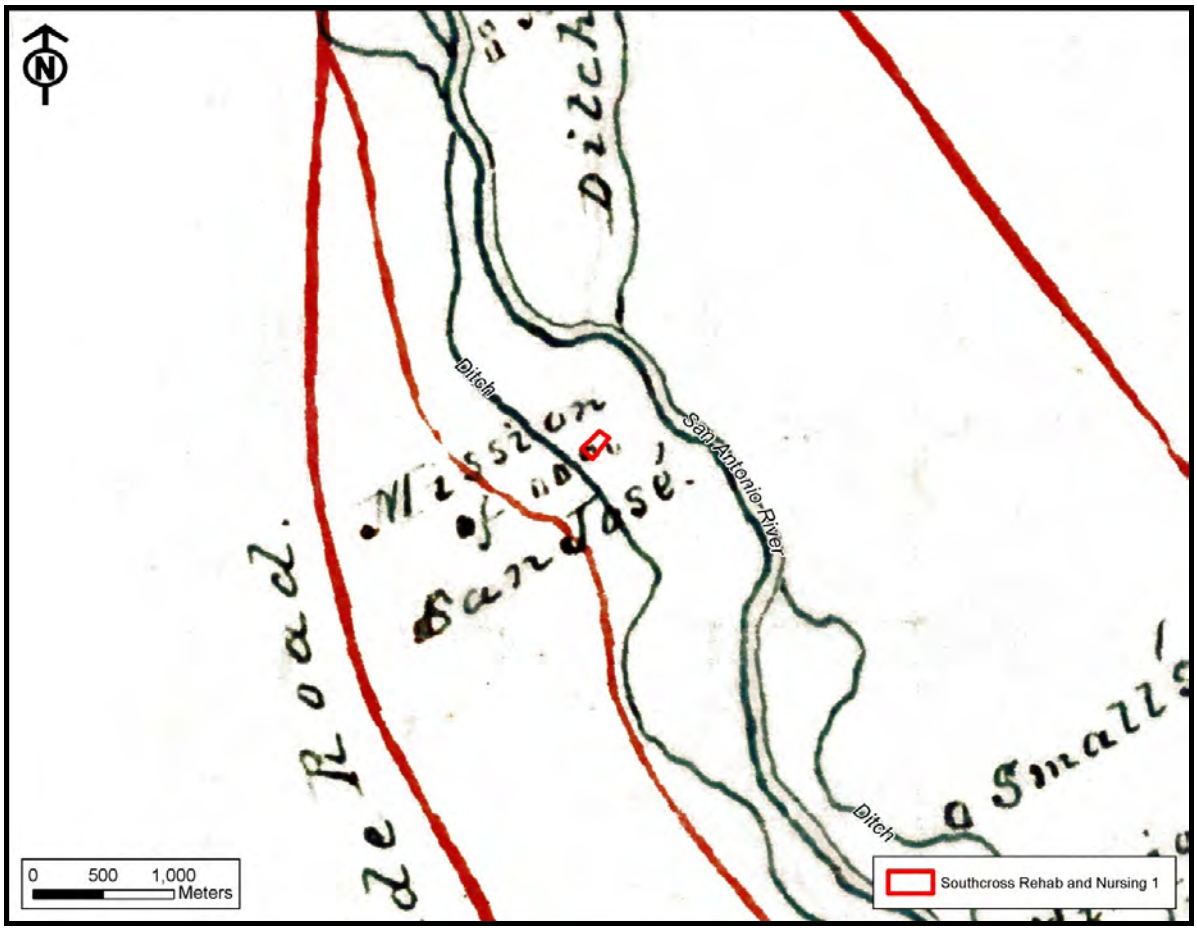

Figure 9. Project Area overlain onto an 1845 map of San Antonio.

The 1903 United States Geological Survey (USGS 1903) map shown in Figure 10 indicates that no structures were present within the Project Area at that time. However, notably it neither shows the Bustillo House (41BX270) located at 238 Bustillo Drive.

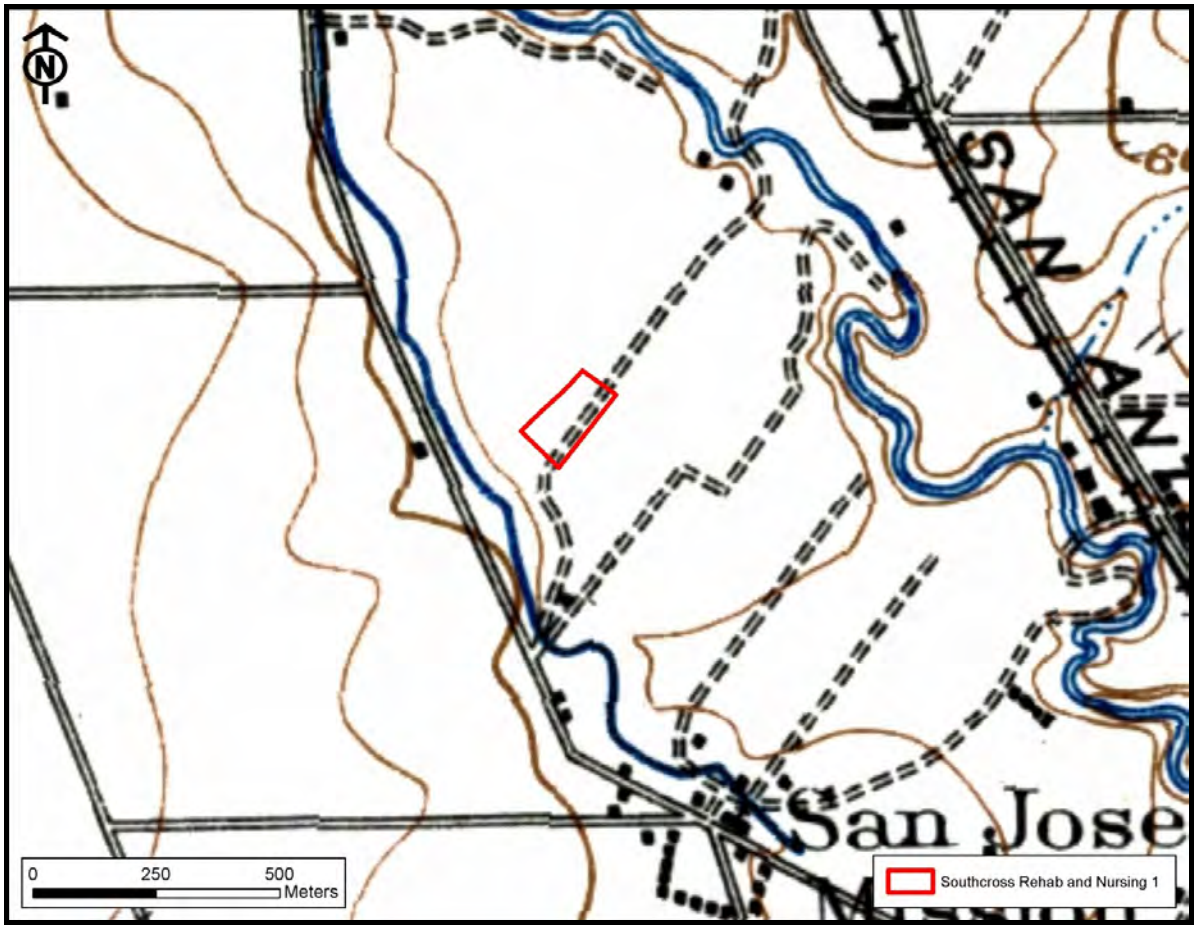

Figure 10. Project Area overlain on a 1903, 1:62,500 USGS topographic map.

A 1953 topographic map (USGS 1953) reveals that no structures were present within the Project Area at that time, and East Southcross had been constructed (Figure 11).

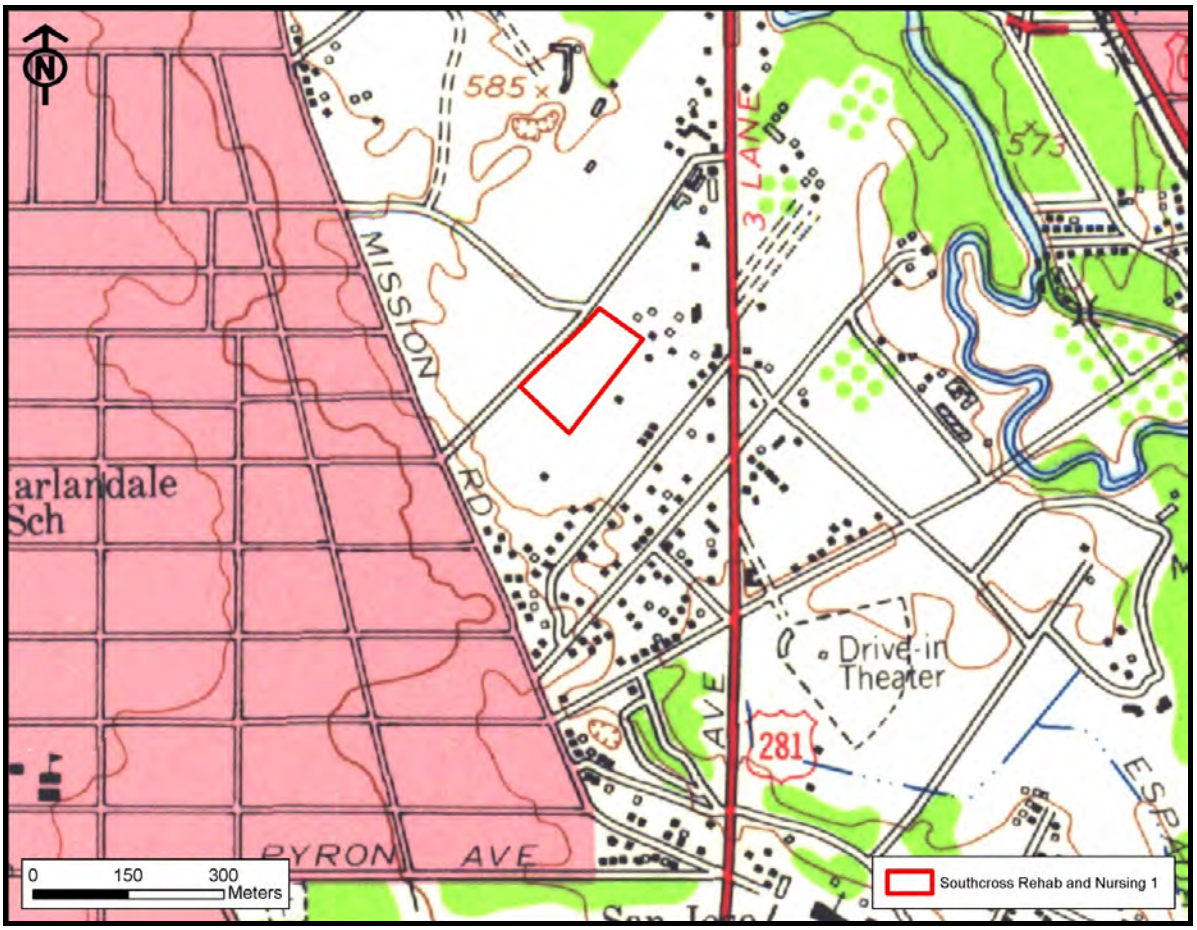

Figure 11. Project Area on a 1953 USGS 7.5' USGS topographic map.

By 1953, an aerial photograph (Figure 12) indicates that much of the Project Area was being used as a baseball field (Aerials 1953). In fact, an adjoining property owner who visited the site while we were conducting backhoe trenching revealed that his father, Richard (Rico) Guerrero, coached teen baseball at the field in the 1960s (personal communication, Richard Guerrero, Jr., July 11, 2014). Notably, the photograph reveals probable structures associated with the baseball field, and as will be discussed in the "Results" section below, archaeologists documented the concrete remains of two apparent dugouts and a concession stand and/or restroom facility.

Figure 12. 1953 aerial of the Project Area.

By 1966, the baseball field was apparently still being used (Figure 13; Aerials 1966).

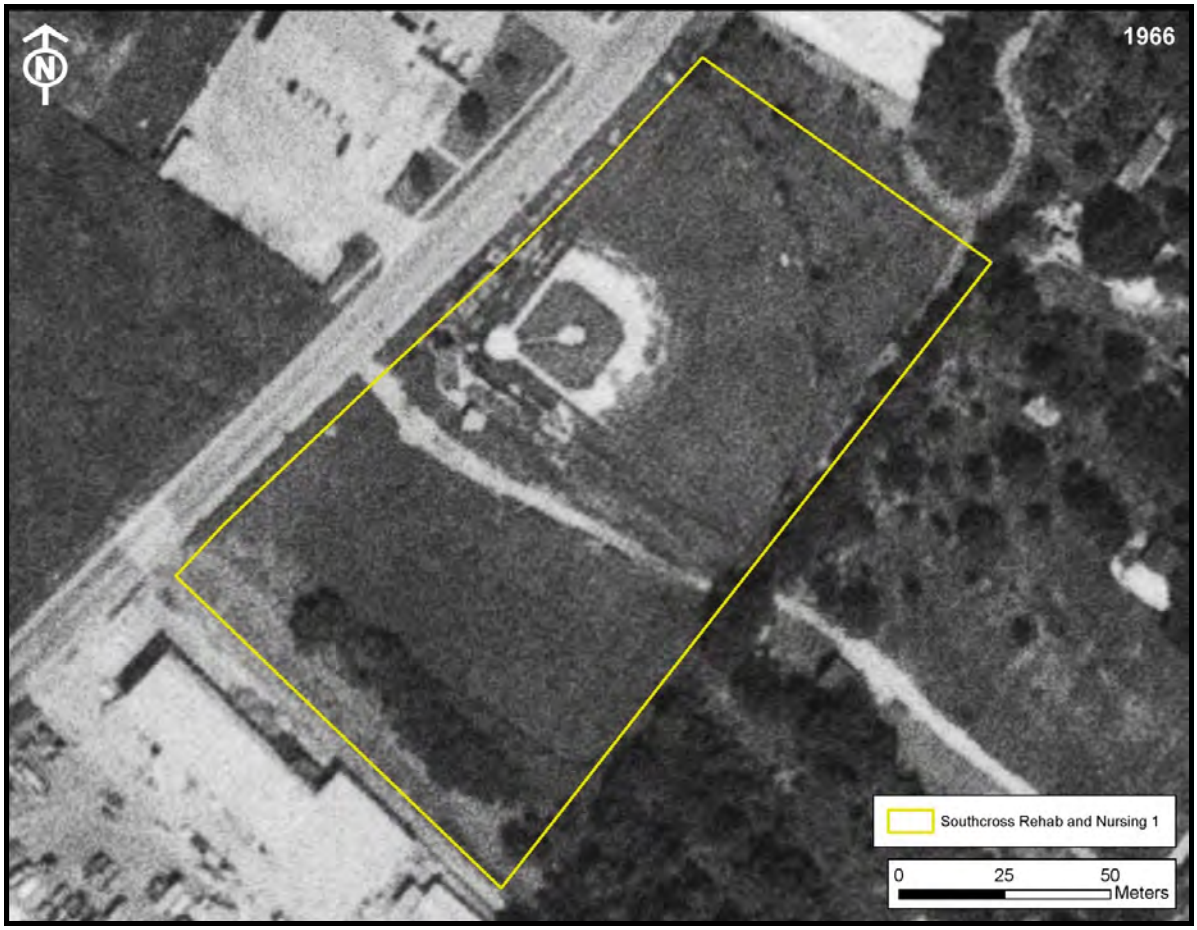

Figure 13. Aerial photo of the project area in 1966.

Although the aerial photo shown in Figure 14 is blurred, it is apparent that by 1973, the baseball field has been abandoned (Aerials 1973). As confirmation, Richard Guerrero, Jr. (Personal communication, July 11, 2014) indicated that he was born in 1972, and he could not remember a ball field being there, but his father often talked of coaching there in the 1960s.

Figure 14. Aerial photo of the Project Area in 1973.

Finally, the reader is referred to Figure 4, which shows the remnants of a paved drive and parking lot in the northern portion of the Project Area.

Project Goals and Methods

Goals

The project goals focused on archaeological issues that could be addressed by the types of data obtained through pedestrian survey, along with shovel testing and backhoe trenching. The topics addressed were site type, distribution, density, size, depth, and stratigraphy. The prehistoric theoretical framework is structured around patterns of settlement, mobility, subsistence, and social systems for the South-Central Texas region. The historic framework is structured around the settlement along the Balcones Escarpment and adjoining Blackland Prairie as documented in the earliest written accounts by Spanish priests and government representatives, through Mexican and Republic of Texas sovereignty, and into the Texas Statehood period.

The goals of the project were to:

1) locate and record cultural locations and sites in the project area using a systematic survey methodology;

2) quantify site size, as well as depth, and stratigraphy; and,

3) place any diagnostic artifacts within the regional time frame.

Methods and Levels of Effort

Prefield Preparation
Before the official survey began, the Principal Investigator reviewed previous archaeological and historical reports of investigation, both in hard copy and online, that had been conducted in the area in an effort to better understand the potential and types of cultural resources that could potentially be encountered during the survey. In addition, soils and geological maps were reviewed in order to evaluate the potential depths of archaeological deposits, and the types of both historic and prehistoric features and associated artifacts that may be present.

A review of the Texas Historical Commission's Atlas of Texas Archaeological Sites indicated that the 4.97-acre tract had not been subjected to a cultural resources survey, nor were there any documented archaeological sites within it. However, there were known and documented potentially significant prehistoric archaeological sites within one mile of the Project Area, and it lies within an area of San Antonio that is rich in 1700s thru 1900s history.

Based upon modern aerial photographs, it could be surmised that the area of proposed development may have been disturbed by modern development. However, without an on-the-ground physical survey, the potential for intact and possibly significant archaeological deposits could only be surmised.

The Survey

In accordance with Texas Historical Commission (THC) and Council of Texas Archeologists (CTA) Archaeology Survey Standards, a systematic and thorough pedestrian survey of the tract was conducted. In addition, a shallow unnamed drainage that courses along the western edge of the property was carefully examined (Figure 15). Surface visibility ranged from 10 to 100 percent across the area. Eleven shovel tests were placed in a systematic pattern across the area, as were eight backhoe trenches (Figure 16). The results of shovel testing were fully documented on Shovel Test forms, and are described in Appendix A. The shovel tests were dug in 20-cm levels, and all sediments were screened through 1/4-inch wire mesh (Figure 17).

Backhoe trenches were excavated in roughly 30-cm increments, and the sediments and soils removed from the backhoe trenches were scrutinized by two archaeologists. In addition, a 5-gallon bucket sample of each 30-cm increment was screened through 1/4-inch wire mesh (Figure 18). All backhoe trench walls were examined for potentially intact cultural deposits and features, and the walls were photographed and briefly described.

Following our designed research plan, any artifacts recovered from shovel tests or backhoe trenches were not to be collected, but were to be placed in the upper 10 cm of the backfilled shovel tests and backhoe trenches.

Figure 15. Ephemeral drainage along the western edge of the Project Area; facing south.

Figure 16. Locations of shovel tests (ST) and backhoe trenches.

Figure 17. Shovel Test 8; facing northwest.

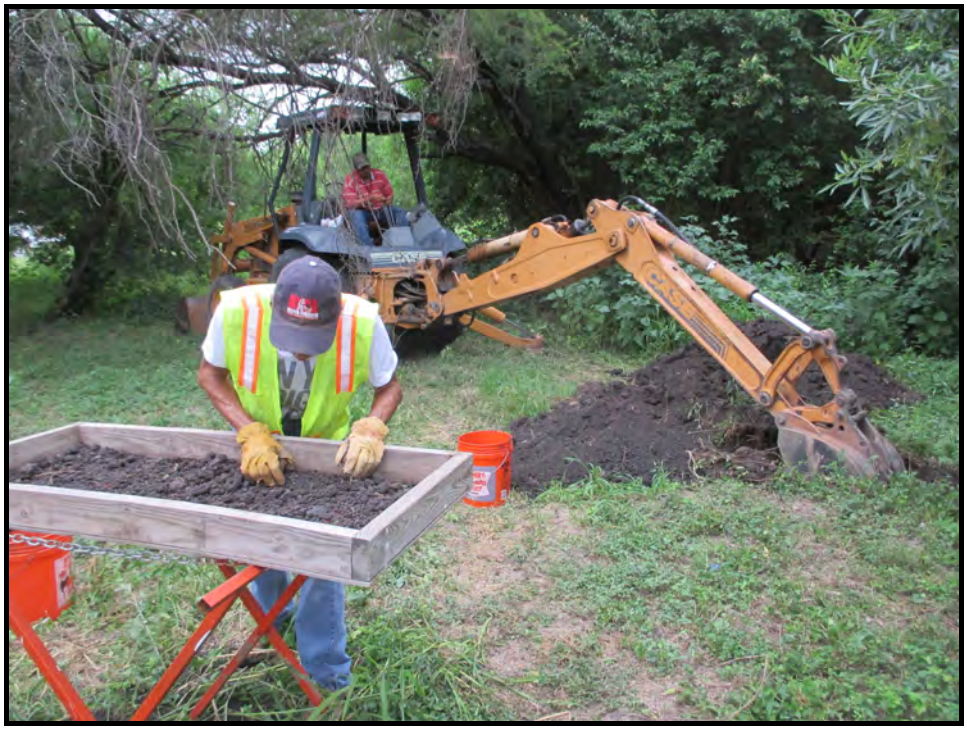

Figure 18. Screening backdirt sample from Backhoe Trench 1; facing southeast.

Results of the Investigations

Surface Examination and Shovel Testing

A full pedestrian survey of the surface that offered up to 100% visibility and the shallow cutbanks along an ephemeral drainage on the western edge of the Project Area was conducted, along with the excavation of 11 shovel tests and eight backhoe trenches (see Figure 16). Typically deep and undisturbed sandy clay loam was observed along the intermittent drainage, while significantly disturbed sediments and clay loams were observed in the shovel tests and backhoe trenches in the upper, eastern portions of the Project area. The drainage appears to have been artificially machine contoured in the recent past and subsequently filled with angular limestone boulders to inhibit erosion (see Figure 15).

The results of shovel testing were fully documented on Shovel Test forms, are on file at the Tierras Antiguas Archaeological Investigations office in Martindale, Texas, and may be made available upon request. However, the results of shovel testing are also presented in Appendix A. With the exception of Backhoe Trench 8, backhoe trenches were 5 meters long x 60 centimeters wide x 150 centimeters deep. As will be discussed below, the length of Backhoe Trench 8 was extended to 10 meters in length in order to investigate a 'possible' desague (minor irrigation ditch).

No evidence of either prehistoric or historic cultural material was observed below the surface in any of the shovel tests or backhoe trenches. However, the concrete remnants of what were apparent dugouts and a concession stand/restrooms structure associated with a ca. 1950s -1960s baseball field were observed on the surface. These remains were documented as archaeological site 41BX2018, described further below.

Backhoe Trenching

Backhoe Trench 1

Backhoe Trench 1 (BHT1) was positioned along the eastern edge of the unnamed drainage (see Figures 16 and 18) so to investigate not only any archaeological deposits that could possibly exist, but also the geomorphological profile of a possible T-1 terrace deposit. As discussed above, sediments and soils were removed in 30-cm increments, they were examined as they were removed, and a 5-gallon sample of each 30-cm level was screened through 1/4-inch wire mesh. Although no cultural material was found, the profile of this 5-meter trench (Figure 20) revealed apparently disturbed, grayish brown (10YR 5/2) coarse sandy clay with rounded limestone pebbles and gravels from marble to baseball-sized, 2% by volume; highly fragmented snails shell fragments; common grass rootlets, small tree roots, and worm casts in the upper 30 centimeters below the surface (cmbs). In addition, a concrete fragment similar to the constuction material used in the modern elementary school north of East Southcross was found.

From 30 to 120 centimeters below the surface (cmbs), the Venus clay loam transitioned from grayish brown to dark grayish brown (10YR4/2) clay with fragmented snail shells, few roots, but with no pebbles or gravels; common slickensides, few coarse sand granules; very compact.

From 120 to 150 cmbs, the soils gradually transitioned to dark gray (10YR4/1) clay with highly fragmented snail shells, occasional rounded limestone pebbles, and soft calcium carbonate masses; very compact.

Figure 19. South wall of BHT 1.

Backhoe Trench 2

Backhoe Trench 2 was situated on the eastern edge of what was possibly a lower, T-1 terrace along the eastern edge of an intermittent drainage (Figures 20 and 21; see also, Figure 16). Soils in this area revealed a typical pedon of Venus clay loam. That is, from 0 to 33 cmbs was grayish brown (10YR 5/2) coarse sandy clay with rounded limestone pebbles and gravels from marble to baseball-sized, <5% by volume; highly fragmented snails shell fragments; common grass rootlets, small tree roots, and worm casts.

Figure 20. Backhoe Trench 2 excavations; facing southeast.

Figure 21. South wall profile of BHT 2.

From 33 cm to 130 centimeters below the surface (cmbs), the Venus clay loam transitioned from grayish brown to dark grayish brown (10YR4/2) clay with fragmented snail shells, few roots, but with no pebbles or gravels; common slickensides, few coarse sand granules; very compact.

From 130 to 150 cmbs, the soils gradually transitioned to dark gray (10YR4/1) clay with highly fragmented snail shells, occasional rounded limestone pebbles, and soft calcium carbonate masses; very compact.

Backhoe Trench 3

Backhoe Trench 3 was also excavated along the eastern edge of the intermittent drainage (Figure 22; see also, Figure 16). In this case, we excavated the trench to 150 cmbs (five feet) within OSHA standards, and documented the south trench wall. Following that, we elected to dig deeper to 215 cmbs (7 feet) to investigate deeper soils and sediments. Without entering the trench, we examined the trench walls and photographed them from above. In sum, we found no changes in the lower 65 cm than what we had observed in the lower portions of BHTs 1 and 2.

Figure 22. BHT 3; facing west.

Backhoe Trench 4

BHT 4 was placed in the east-central, upper portion of the PA, where shovel testing attempts could not penetrate the existing pavement (Figures 23 and 24; see also, Figure 16).

Figure 23. Excavating BHT 4; facing southwest.

As shown in Figure 25, the backhoe penetrated nearly 30 cm of pavement and road fill before encountering gray, compacted light brownish gray (10YR6/2) clay with slickensides, and highly fragmented snail shells from roughly 30 to 75 cmbs. Below that, from 75 to 150 cmbs, excavations revealed grayish brown to dark grayish brown (10YR4/2) clay with fragmented snail shells, with common slickensides, few coarse sand granules; very compact.

Figure 24. South wall profile of BHT 4.

Backhoe Trench 5

As shown in Figure16, BHT 5 was placed in the southeastern portion of the PA. The southwest wall of BHT 5 is shown in Figure 25. The upper 30-35 cm consisted of grayish brown (10YR6/2) clay loam, with machine fractured angular, as well as rounded limestone gravels to baseball size, <5% by volume, and fragmented snail shells. Below that, from about 35 to 70 cmbs is grayish brown clay, once again with highly fragmented snail shells and calcium carbonate threads and fines. From 70 to 105 cmbs is gray (10YR6/1) clay with common calcium carbonate masses. The lower portion, from 105 to 150 cmbs is white (10YR8/1) caliche.

Figure 25. Southwest wall of BHT 5.

Backhoe Trench 6

Backhoe Trench 6 was placed in the northeastern portion of the PA (see Figure 16). The north wall of BHT 6 is shown in Figure 26. The upper 35-40 cm consisted of pavement and road base, before encountering the underlying grayish brown (10YR6/2) clay, with fragmented snail shells, and an occasional rounded limestone pebble; slickensides, massive structure. Below that, from about 120 to 150 cmbs is light brownish gray (10YR6/2) clay, with highly fragmented snail shells, calcium carbonate threads and fines, and few calcium carbonate masses.

Figure 26. North wall profile of BHT 6.

Backhoe Trench 7

This trench was placed in the vicinity of what would have been the pitcher's mound on the old baseball field (Figure 27; see Figures 12 and 16).

As shown in Figure 28, the upper 25-30 cm consisted of reddish brown (2.5YR5/4) coarse, clumped sand, not unlike the sand mixture used on modern baseball infields. Below that, from about 30 to 105 cmbs was grayish brown (10YR5/2) clay with both whole and fragmented snail shells, calcium carbonate fines that increased with depth; slickensides, very compact. From 105 to 150 cmbs, the soil smoothly transitioned to light brownish gray (10YR6/2) clay with common calcium carbonate small masses, and few rounded limestone pebbles.

Figure 27. Excavating BHT 7; facing northwest.

Figure 28. Southwest wall profile of BHT 7.

Backhoe Trench 8

This trench was positioned along the south-central edge of the Project Area (see Figure 16). It is the only trench that was excavated beyond 5 meters in length due the discovery of a mesquite tap root, that before it could be fully examined, was considered to be a possible post. Post and cedar lined acequias in San Antonio were not uncommon in 19th century (e.g., Nickels et al. 1996), so in this case an extended trench was warranted in order to rule out the possibility that a lined irrigation ditch once existed on this portion of the property.

Figure 29. South wall profile of BHT 8.

Upon close examination, the mesquite trap root exhibited a relatively fresh rind, and no evidence of an infilled ditch was observed in any of the backhoe trench walls. As shown in Figure 29, the mesquite tap root extended from about 15 cm below the modern ground surface to 95 cmbs, extending through grayish brown (10YR5/2), largely clodded clay with common fragmented snail shells and calcium carbonate fines. Below that, from roughly 95 to 135 cmbs, dark grayish brown (10YR4/2) clay with common calcium carbonate fines and threads was observed. In the bottom 15 cm of the trench, the clay was mottled with white (10YR8/1) caliche and soft calcium carbonate masses.

Personal conversation with Mr. Richard Guerrero, Jr., (July 11, 2014) an adjacent landowner, revealed that the immediate area has periodically been cleared of small mesquite trees and brush in the recent past.

Archaeological Site 41BX2018

Description

This site is situated on a gently sloping upland area within an older neighborhood of San Antonio, that in the 1800s and 1900s was most probably cultivated fields before local residents constructed a baseball field on it in the 1950s (Figure 30; see also, Figure 12). From that time forward, the site has been cleared of the natural mesquite, huisache, and herbaceous weeds and grasses that would otherwise overgrow the site. An intermittent, machine-channeled drainage courses some 50 meters west of the site.

Figure 30. 41BX2018 site map.

Figure 31. Photo of 41BX2018; facing southwest from center field toward home plate.

Levels of Effort and Results

As shown in Figure 30, archaeologists excavated 11 shovel tests and five backhoe trenches on and around the baseball field. As described previously, the results of backhoe trenching and shovel yielded evidence of disturbance in the upper 15-35

cm, but no evidence of cultural material. During a surface survey of the site archaeologists observed no prehistoric or historic cultural material, only modern glass and plastic. However, as shown in Figure 30, 32 and 33, the concrete remnants of what were likely two dugouts, and what was likely the foundation for a concession stand/restroom facility were documented. The dugout foundations measured 5½ feet x 18 feet, while the concession stand/restroom concrete slab measured 12 feet x 28 feet.

Figure 32. Concrete remnants of dugout along the 3rd baseline; facing southwest.

While archaeologists were conducting backhoe excavations on the site, a local resident visited with us and conveyed that his father, Richard (Rico) Guerrero was a local contractor who helped build this ballfield and others in this area of San Antonio. His father also coached teen baseball at this field in the 1950s and '60s, but the ballfield no longer existed in the 1970s (personal communication, Richard Guerrero, Jr., July 11, 2014).

Site Summary, Conclusions, and Recommendations

Although interesting from an historic standpoint regarding the development of local neighborhoods in this area of southeast San Antonio in the 1950s and 1960s, the concrete structural remains have been fully documented during this investigation, and our assessment is that they do not meet the criteria for nomination as neither a State Archaeological Landmark, nor the National Register of Historic Places. As such, Tierras Antiguas recommends that no further investigations are warranted, and that construction of the Southcross Rehab and Nursing Facility should be allowed to proceed as planned.

Figure 33. Concrete slab from what was likely the concession stand/restroom facility behind home plate; facing southeast.

Survey Summary, Conclusions, and Recommendations

A thorough pedestrian survey of the surface that offered up to 100% visibility, along with the examination of 11 shovel tests and 8 backhoe trenches within the project area was conducted, but no evidence of either prehistoric nor historic occupation was found beneath the surface. The only evidence of cultural materials were the concrete remains of two dugouts and a concession stand/restroom facility on a baseball field constructed in the 1950s and used through the 1960s (41BX2018).

Although interesting from an historic standpoint regarding the development of local neighborhoods in this area of southeast San Antonio in the 1950s and 1960s, the concrete structural remains have been fully documented during this investigation, and our assessment is that they do not meet the criteria for nomination as neither a State Archaeological Landmark, nor the National Register of Historic Places. As such, Tierras Antiguas recommends that no further investigations are warranted, and that construction of the Southcross Rehab and Nursing Facility should be allowed to proceed as planned.

In sum, we recommend that the project should proceed as currently designed by the project sponsor. The project should be considered as having “no effect” on any properties considered as eligible for nomination to the National Register of Historic Places or inclusion in the State Archeological Landmarks Program, and as such, the project should be allowed to proceed without further archaeological work. However, if any cultural resources are encountered during construction, work should immediately be halted in the vicinity until such finds are examined and evaluated by Tierras Antiguas, or by any qualified archaeological consultant, and by the Texas Historical Commission.

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Appendix A. Results of Shovel Testing

The following table presents the results of shovel testing (ST) in centimeters below the surface (cmbs). Notably, no cultural material was found in any of the 11 shovel tests excavated within the Project Area.

Table A1. Results of Shovel Testing.

ST 1	0-20 cmbs: Brown (10YR 5/3) silty loam; friable; blocky, fine, weak; few fine rootlets in upper 5 cm, few rounded limestone gravels to golf ball size, three red brick fragments <1" in size; gradual smooth lower boundary 20-40 cmbs: Grayish brown (10YR 5/2) loamy clay; firm; blocky, medium, moderate; large hackberry root, two rounded limestone gravels < golf ball size, calcium carbonate fines and threads; gradual, irregular lower boundary 40-60 cmbs: Light brownish gray (10YR 6/2) clay; firm; blocky, coarse, strong; few calcium carbonate masses 1-cm in size; no lower boundary observed 60-80 cmbs: Light brownish gray (10YR 6/2) clay; firm; blocky, coarse, strong; few calcium carbonate masses 1-2 cm in size
ST 2	0-20 cmbs: Grayish brown (10YR 5/2) fine sandy loam; friable; medium, moderate; common grass rootlets in upper 10 cm, rounded limestone gravels to golf ball size, 10% by volume; no lower boundary observed 20-30 cmbs: Grayish brown (10YR 5/2) fine sandy loam; friable; medium, moderate; angular limestone gravels to golf ball size, 5% by volume; brown Clorox bottle sherd; abrupt lower boundary 30-40 cmbs: Very dark grayish brown (10YR 3/2) clay; blocky, medium, strong; few fragmented snail shells, few calcium carbonate fines; diffuse lower boundary 40-60 cmbs: Very dark brown (10YR 2/2) clay; firm; blocky, coarse, strong; angular limestone gravels to golf ball size, 2% by volume, brown Clorox bottle base sherd with raised nubs and “15" in raised lettering; pavement chunk 12 cm long between 40-50 cmbs

ST3	0-20 cmbs: Reddish brown (2.5YR 4/3) coarse sand, firm, granular, moderate; ducky red (2.5YR 3/2) clay mottling 20% by volume, blocky, medium, moderate, distinct (apparent home plate area); common grass rootlets in upper 10 cm, few small concrete chunks in upper 20 cm; no lower boundary observed 20-42 cmbs: Reddish brown (2.5YR 4/3) coarse sand, firm, granular, moderate; dusky red (2.5YR 3/2) clay mottling 20% by volume, blocky, medium, moderate; alternate layering of yellowish brown (10YR 5/6) clay mottling between 20-30 cmbs, 10% by volume, blocky, medium, moderate, distinct (apparent home plate area); abrupt lower boundary 42-60 cmbs: Light brownish gray (10YR 6/2) coarse sandy clay, firm, blocky, medium, moderate; common small white (10YR 8/1) caliche nodules and calcium carbonate masses <1 cm in size
ST 4	0-20 cmbs: Brown (10YR 5/3) silty loam; friable; blocky, fine, moderate; common fine rootlets, one golf ball size rounded limestone, white plastic strip 1-cm long, small modern brown glass sherd; gradual, smooth lower boundary 20-40 cmbs: Brown (10YR 4/3) loamy clay; firm; blocky, coarse, strong; two 4-cm diameter roots; clear, wavy lower boundary 40-80 cmbs: Dark grayish brown (10YR 4/2) silty clay; firm; blocky, coarse, strong
ST 5	0-20 cmbs: Very dark grayish brown (10YR 3/2) clay loam; firm; blocky, medium, moderate; common grass and weed rootlets in upper 15 cm, gray plastic convenience store bag 10-13 cmbs, 1-inch root 18-21 cmbs, one rounded marble-sized limestone pebble, few round snails, no lower boundary observed 20-60 cmbs: Very dark grayish brown (10YR 3/2) clay loam; firm; blocky, medium, moderate; 1-inch root 27-30 cmbs, few round whole and fragmented snails
ST 6	0-20 cmbs: Dark brown (10YR 3/3) silty loam; friable; blocky, fine, moderate; common rootlets, reddish brown (2.5YR 4/3) sand mottling 15% by volume, friable, fine, weak, distinct; gradual wavy lower boundary

	20-80 cmbs: Dark brown (10YR 3/3) silty loam; firm; blocky, medium, moderate
ST 7	0-20 cmbs: Dark brown (10YR 3/3) silty loam; firm; blocky, fine, moderate; common rootlets; gradual wavy lower boundary 20-80 cmbs: Dark brown (10YR 3/3) silty loam; firm; blocky, coarse, strong; calcium carbonate fines and masses to 1-cm in size increase with depth
ST 8	0-20 cmbs: Brown (10YR 5/3) silty loam; firm, blocky, medium, moderate; few small roots, tiny orange brick fragments; gradual, smooth lower boundary 20-80 cmbs: Brown (10YR 4/3) silty clay loam; firm, blocky, medium, moderate; one root 1-inch in diameter 40-45 cmbs
ST 9	0-20 cmbs: Grayish brown (10YR 5/2) coarse sandy loam; firm, blocky, medium, moderate; common grass rootlets in upper 10 cm, common snail shell fragments throughout, vertical cracking to 15 cmbs; gradual, smooth lower boundary 20-60 cmbs: Grayish brown (10YR 5/2) fine sandy loam; firm, blocky, medium, moderate; common snail shell fragments throughout
ST 10	0-20 cmbs: Pale brown (10YR 6/3) sandy clay loam; firm, blocky, medium, moderate; common grass rootlets in upper 10 cm; reddish brown (2.5YR 4/3) clay mottling <2% by volume in upper 10 cm, fine, distinct; roofing shingle fragments in upper 10 cm due to nearby dumping; gradual, smooth lower boundary 20-60 cmbs: Brown (10YR 5/3) sandy clay loam; firm, blocky, medium, moderate; common snail shell fragments throughout
ST 11	0-20 cmbs: Dark brown (10YR 3/3) silty loam; firm; blocky, fine, moderate; common rootlets; gradual wavy lower boundary 20-80 cmbs: Dark brown (10YR 3/3) silty loam; firm; blocky, coarse, strong; modern green glass sherd 20-40 cmbs

Appendix B. Potential Historic Structures Adjacent to the Project Area

Photographs of structures that were visible from the Project Area are presented in Figures B-1 thru B-6.

Figure B-1. Concrete block structure just north of the Project Area at 992 East Southcross; facing north.

Figure B-2. Concrete block structure across East Southcross northwest of the Project Area @N3249234 E550124 (NAD 83); facing north.

Figure B-3. Concrete block warehouse across East Southcross @N3249183 E550086 (NAD83); facing northwest.

Figure B-4. Concrete block warehouse on East Southcross @N3249048 E549999; facing southeast.

Figure B-5. Backyard of house on Bustillo Drive @N3248990 E550224; facing southeast.

Figure B-6. Backyards of houses on Bustillo Drive @N3249022 E550250; facing southeast.