INTENSIVE CULTURAL RESOURCES SURVEY OF THE PROPOSED
SW MILITARY DRIVE TO LOOP 353 SEGMENT OF THE LEON CREEK
HIKE AND BIKE TRAIL PROJECT, BEXAR COUNTY, TEXAS

Prepared for

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ABSTRACT

On behalf of Vickrey & Associates, Inc., SWCA Environmental Consultants (SWCA) conducted an intensive cultural resources survey of the proposed SW Military Drive to Loop 353 (signed as Quintana Road) segment of the Leon Creek Hike and Bike Trail Project in southwest Bexar County (Figure 1). The proposed project will involve the construction of a hike and bike trail along Leon Creek on land owned by the City of San Antonio. Proposed subsurface impacts are not known at this time, but are not expected to exceed 6 feet. Overall the area of potential effects (APE) is 10,560 feet long (2 miles), 30 feet wide, and maximally 6 feet deep, for a total area of 7.3 acres. Cultural resource investigations were conducted to satisfy the requirements of the Antiquities Code of Texas (Permit No. 5333), and the San Antonio Historic Preservation Office (HPO) per the City of San Antonio Historic Preservation and Design Section of the Unified Development Code (Article 6 35-630 to 35-634).

The purpose of the work was to locate and identify all prehistoric and historic archaeological sites in the project area, establish vertical and horizontal site boundaries as appropriate with regard to the project area, and evaluate the significance and eligibility of any site recorded within the property for designation as a State Archaeological Landmark (SAL). SWCA archaeologists Mary Jo Galindo and Josh Haefner conducted the fieldwork on July 22, 2009.

The investigations included a background literature and records review and an intensive pedestrian survey with subsurface investigations. The background review revealed that small portions of the project area have been previously surveyed and one previously recorded site, 41BX598, is within or adjacent to the project area. Another previously recorded archaeological site, 41BX1061, three archaeological surveys, and two testing investigations are recorded within a one-mile radius of the project area. No trace of site 41BX598 was observed on the surface or in a shovel test excavated at its previously recorded location.

The intensive survey of the APE included 17 shovel tests placed in areas that had the highest potential for containing buried cultural materials with good integrity. The work resulted in the documentation of one new prehistoric site. Site 41BX1815, a surficial lithic scatter, is located along the proposed trail. It was found to be completely surficial in nature with no temporally diagnostic implements, cultural features, or intact buried components noted. Overall, the site has little to no research value beyond locational data based on the deflated nature of the surface assemblage coupled with the paucity of artifacts in general, and of diagnostic artifacts, in particular. As such, the site lacks the characteristics that would qualify it for formal designation as a SAL.

A cement and brick well is located along the southern end of the trail between STs 2 and 3. Mortared bricks were evident around the mouth of the well. It is likely associated with nearby modern ranching activities. No associated standing structures were evident within the APE. Based on the isolated nature of the well and its lack of association with any apparent settlement, the well was not assessed to be a historic feature and, therefore, it was not designated a site. Based on these results, SWCA recommends no further archaeological investigations within the project area. No artifacts were collected; therefore, nothing was curated.
INTRODUCTION

On behalf of Vickrey & Associates, Inc., SWCA Environmental Consultants (SWCA) conducted an intensive cultural resources survey of the proposed 2-mile SW Military Drive to Loop 353 segment of the Leon-Creek Hike and Bike Trail Project in southwest Bexar County, Texas. Cultural resource investigations were conducted to satisfy the requirements of the Antiquities Code of Texas (Permit No. 5333) and the San Antonio Historic Preservation Office (HPO) per the City of San Antonio Historic Preservation and Design Section of the Unified Development Code (Article 6 35-630 to 35-634). These investigations included a background and archival review and an intensive pedestrian survey with subsurface investigations. SWCA archaeologists Mary Jo Galindo and Josh Haefner conducted the fieldwork on July 22, 2009.

DEFINITION OF STUDY AREA

Located in southwest San Antonio, Texas, the project’s southern terminus is 2.18 miles northeast of the intersection of southwest Loop 410 and IH 35 (Figure 1). This proposed segment of the trail would follow the right bank of Leon Creek from Quintana Road to Pearsall Park Landfill, where it would join an existing two-track road that skirts the landfill and subsequently intersects with Old Pearsall Road. The proposed project will involve the construction of a hike and bike trail along Leon Creek on land owned by the City of San Antonio (COSA). Proposed subsurface impacts are not known at this time, but are not expected to exceed 6 feet. Overall the area of potential effects (APE) is 10,560 feet long, 30 feet wide, and maximally 6 feet deep, for a total area of 7.3 acres.

The southern half of the project area follows the right bank of Leon Creek and contains relatively thick vegetation with an overstory of various elm and cedar, and in places, an understory of various shrubs and grasses (Figure 2). The northern half has been extensively cleared of vegetation with scattered oaks and short grasses along the perimeter of the existing two-track road (Figure 3). Prior disturbances within the northern half are associated with landfill activities. Ground visibility within the project area ranged from a low of 20 percent to a high of 100 percent, but the visibility was typically about 60 percent.

ENVIRONMENTAL SETTING

The project area is mapped as 75 percent Quaternary-age Fluvialite Terrace deposits and 25 percent Eocene-age Midway Group. Fluvialite Terrace deposits are made up of predominately gravel, limestone, dolomite, and chert (Fisher 1983). The deposits also consist of sand, silt, and clay. Most low terrace deposits along entrenched streams like Leon Creek are above flood level. The Midway Group is comprised of clay, silt, and sand, with a thickness of 100-400 feet and is located at the southern end of the APE near Quintana Road (Fisher 1983).

Four types of soil are mapped in the project area: Gullied land, Houston Black clay, Houston Black gravelly clay, and Venus clay loam (Taylor et al. 1991:Map Sheets 61 and 69). Approximately 66 percent of the project area is mapped as Gullied land with 3–20 percent slopes. This type of land occurs along Leon Creek where high terraces break to flood plains. Gullying and sheet erosion can be severe. The soil consists of strongly calcareous loam, clay loam, or silty clay derived from alluvium (Taylor et al. 1991:17).

Houston Black clay and Houston Black gravelly clay, each with 1–3 slopes, comprise 25 percent of the APE. Houston Black clay occurs on the uplands as long, smooth, gentle
Figure 1. Project location map.
Figure 2. Vegetation typical of the southern half of the trail segment, facing south.

Figure 3. Previous impacts to the northern half of the trail segment include a two-track road lined with test wells, facing north.
slopes and its surface layer is up to 38 inches thick. Houston Black gravelly clay has shorter undulating slopes along Leon Creek. Compared to Houston Black clay, this gravelly clay has a thicker surface layer and more pebbles on the surface and within the profile (Taylor et al. 1991:20–21). These soils are found at both the northern and southern terminuses.

Finally, Venus clay loam with 1–3 slopes comprises the remainder of the APE. This soil occupies small, narrow terraces that parallel and slope toward Leon Creek. The surface layer is about 24 inches thick (Taylor et al. 1991:33). Although these soils are typically deep and require backhoe trenching, they are mapped in an area of extensive prior disturbances from landfill activities.

**Cultural Setting**

The proposed project area falls within Central Texas Archeological Region (Pertulla 2004). Although the archaeological regions are not absolute, they do generally reflect recognized biotic communities and physiographic areas in Texas (Pertulla 2004:6). The Central Texas Region, as its name implies, is in the center of Texas and covers the Edwards Plateau and portions of the Blackland prairie east of the Edwards Plateau. The following synopses provide basic culture histories of the Central Texas region.

The archaeological record of the Central Texas region is known from decades of investigations of stratified open air sites and rockshelters throughout the Edwards Plateau, its highly dissected eastern and southern margins, and the adjoining margins of physiographic regions to the east and south (see Collins [2004] for review). Traditionally, the Central Texas archaeological area has included the Balcones Canyonlands and Blackland Prairie—that is, north of San Antonio (e.g., Prewitt 1981; Suhm 1960). These two areas are on the periphery of the Central Texas archaeological area, and their archaeological records and projectile point style sequences contain elements that suggest influences from and varying degrees of contact over time with other areas such as the Lower Pecos and Gulf Coastal Plain (Collins 2004; Johnson and Goode 1994). For more-complete bibliographies concerning archaeological work done in the region, see Black (1989), Collins (1995), and Johnson and Goode (1994).

**Paleoindian Period**

Surficial and deeply buried sites, rockshelter sites, and isolated artifacts represent Paleoindian (11,500–8,800 B.P.) occupations of the Central Texas region (Collins 2004:116). The period is often described as having been characterized by small but highly mobile bands of foragers who were specialized hunters of Pleistocene megafauna. But Paleoindians probably used a much wider array of resources (Meltzer and Bever 1995:59), including small fauna and plant foods. Faunal remains from Kincaid Rockshelter and the Wilson-Leonard site (41WM235) support this view (Bousman 1998; Collins 1998; Collins et al. 1989). Longstanding ideas about Paleoindian technologies also are being challenged.

Collins (2004) divides the Paleoindian period into early and late subperiods. Two projectile point styles, Clovis and Folsom, are included in the early subperiod. Clovis chipped stone artifact assemblages, including the diagnostic fluted lanceolate Clovis point, were produced by bifacial, flake, and prismatic-blade techniques on high-quality and oftentimes exotic lithic materials (Collins 1990). Along with chipped stone artifacts, Clovis assemblages include engraved stones, bone and ivory points, stone bolas, and ochre (Collins 2004:116; Collins et al. 1992). Clovis points are found evenly distributed along the eastern edge of the Edwards Plateau, where the pres-
ence of springs and outcrops of chert-bearing limestone are common (Meltzer and Bever 1995:58). Sites within the area yielding Clovis points and Clovis-age materials include Kincaid Rockshelter (Collins et al. 1989), Pavo Real (Henderson and Goode 1991), and San Macros Springs (Takac 1991). A probable Clovis polyhedral blade core and blade fragment was found at the Greenbelt site in San Antonio (Houk et al. 1997). Analyses of Clovis artifacts and site types suggest that Clovis peoples were well-adapted, generalized hunter-gatherers with the technology to hunt larger game but not solely rely on it.

In contrast, Folsom tool kits—consisting of fluted Folsom points, thin unfluted (Midland) points, large thin bifaces, and end scrapers—are more indicative of specialized hunting, particularly of bison (Collins 2004:117). Folsom points have been recovered from Kincaid Rockshelter (Collins et al. 1989) and Pavo Real (Henderson and Goode 1991).

Postdating Clovis and Folsom points in the archaeological record are a series of dart point styles (primarily unfluted lanceolate darts) for which the temporal, technological, or cultural significance is unclear. Often, the Plainview type name is assigned these dart points, but Collins (2004:117) has noted that many of these points typed as Plainview do not resemble Plainview type-site points in thinness and flaking technology. Nonetheless, it has become clear that the artifact and feature assemblages of the later Paleoindian subperiod appear to be Archaic-like in nature and in many ways may represent a transition between the early Paleoindian and succeeding Archaic periods (Collins 2004:118).

**ARCHAIC PERIOD**

The Archaic period for Central Texas dates from ca. 8,800 to 1,300-1,200 B.P. (Collins 2004:119–121) and generally is believed to represent a shift toward hunting and gathering of a wider array of animal and plant resources and a decrease in group mobility (Willey and Phillips 1958:107–108). In the eastern and southwestern United States and on the Great Plains, development of horticultural-based, semisedentary to sedentary societies succeeds the Archaic period. In these areas, the Archaic truly represents a developmental stage of adaptation as Willey and Phillips (1958) define it. For Central Texas, this notion of the Archaic is somewhat problematic. An increasing amount of evidence suggests that Archaic-like adaptations were in place before the Archaic (see Collins 2004:118, 1998; Collins et al. 1989) and that these practices continued into the succeeding Late Prehistoric period (Collins 1995:385; Prewitt 1981:74). In a real sense, the Archaic period of Central Texas region is not a developmental stage, but an arbitrary chronological construct and projectile point style sequence. Establishment of this sequence is based on several decades of archaeological investigations at stratified Archaic sites along the eastern and southern margins of the Edwards Plateau. Collins (1995, 2004) and Johnson and Goode (1994) have divided this sequence into three parts—early, middle, and late—based on perceived (though not fully agreed upon by all scholars) technological, environmental, and adaptive changes.

The use of rock and earth ovens (and the formation of burned rock middens) for processing and cooking plant foods suggests that this technology was part of a generalized foraging strategy. The amount of energy involved in collecting plants, constructing hot rock cooking appliances, and gathering fuel ranks most plant foods relatively low based on the resulting caloric return (Dering 1999). This suggests that plant foods were part of a broad-based diet (Kibler and Scott 2000:134) or part of a generalized foraging strategy, an idea Prewitt (1981) put forth earlier. At times during the
Late Archaic, this generalized foraging strategy appears to have been marked by shifts to a specialized economy focused on bison hunting (Kibler and Scott 2000:125–137). Castrovile, Montell, and Marcos dart points are elements of tool kits often associated with bison hunting (Collins 1968). Archaeological evidence of this association is seen at Bonfire Shelter in Val Verde County (Dibble and Lorrain 1968), Jonas Terrace (Johnson 1995), Oblate Rockshelter (Johnson et al. 1962:116), John Ischy (Sorrow 1969), and Panther Springs Creek (Black and McGraw 1985).

**LATE PREHISTORIC PERIOD**

Introduction of the bow and arrow and, later, ceramics into Central Texas marked the Late Prehistoric period. Population densities dropped considerably from their Late Archaic peak (Prewitt 1985:217). Subsistence strategies did not differ greatly from the preceding period, although bison again became an important economic resource during the late part of the Late Prehistoric period (Prewitt 1981:74). Use of rock and earth ovens for plant food processing and the subsequent development of burned rock middens continued throughout the Late Prehistoric period (Black et al. 1997; Kleinbach et al. 1995:795). Horticulture came into play very late in the region but was of minor importance to overall subsistence strategies (Collins 2004:122).

In Central Texas, the Late Prehistoric period generally is associated with the Austin and Toyah phases (Jelks 1962; Prewitt 1981:82–84). Austin and Toyah phase horizon markers, Scallorn-Edwards and Perdiz arrow points, respectively, are distributed across most of the state. Violence and conflict often marked introduction of Scallorn and Edwards arrow points into Central Texas—many excavated burials contain these point tips in contexts indicating they were the cause of death (Prewitt 1981:83). Subsistence strategies and technologies (other than arrow points) did not change much from the preceding Late Archaic period. Prewitt's (1981) use of the term “Neoarchaic” recognizes this continuity. In fact, Johnson and Goode (1994:39–40) and Collins (2004:122) state that the break between the Austin and Toyah phases could easily and appropriately represent the break between the Late Archaic and the Late Prehistoric.

**HISTORIC PERIOD**

Hester (1989) and Newcomb (1961) provide historical accounts of Native Americans and their interactions with the Spanish, the Republic of Mexico, the Texas Republic, and the United States throughout the region. The beginning of the late seventeenth and early eighteenth centuries was an era of more-permanent contact between Europeans and Native Americans as the Spanish moved northward out of Mexico to establish settlements and missions on their northern frontier (see Castañeda [1976] and Bolton [1970] for extended discussions of the mission system and Indian relations in Texas and the San Antonio area). There is little available information on aboriginal groups and their ways of life except for the fragmentary data Spanish missionaries gathered. In the San Antonio area and areas to the south, these groups have been referred to collectively as Coahuiltecs because of an assumed similarity in way of life, but many individual groups may have existed (Campbell 1988). Particular Coahuiltecan groups, such as the Payaya and Juancan, have been identified as occupying the San Antonio area (Campbell 1988). This area also served as a point of contact between the southward-advancing Apaches and the Spanish, with native groups often caught in between. Disease and hostile encounters with Europeans and intruding groups such as the Apache were already wreaking their inevitable and disastrous havoc on native social structures and economic systems by this time.
Establishment of the mission system in the first half of the eighteenth century to its ultimate demise around 1800 brought the peaceful movement of some indigenous groups into mission life, but others were forced in or moved in to escape the increasing hostilities of southward-moving Apaches and Comanches. Many of the Payaya and Juanca lived at Mission San Antonio de Valero (the Alamo), but so many died there that their numbers declined rapidly (Campbell 1988:106, 121–123). By the end of the mission period, European expansion and disease and intrusions by other Native American peoples had decimated many Native American groups. The nineteenth century brought the final decimation of many Native American groups, the United States’ defeat of the Apaches and Comanches, and the forced removal of Native Americans to reservations.

METHODS

BACKGROUND REVIEW

SWCA conducted a thorough background cultural resources and environmental literature search of the project area. An SWCA archaeologist reviewed the Terrell Wells, Texas, USGS 7.5-minute topographic quadrangle map at the Texas Archeological Research Laboratory (TARL) and searched the Texas Historical Commission’s (THC) Texas Archeological Sites Atlas (Atlas) online database for any previously recorded surveys and historic or prehistoric archaeological sites located in or near the project area. In addition to identifying recorded archaeological sites, the review included information on the following types of cultural resources: National Register of Historic Places (NRHP) properties, State Archeological Landmarks (SALs), Official Texas Historical Markers, Registered Texas Historic Landmarks (RTHLs), cemeteries, and local neighborhood surveys. The archaeologist also examined the Soil Survey of Bexar County, Texas (Taylor et al. 1991) and the Geologic Atlas of Texas, San Antonio Sheet (Barnes 1983). Aerial photographs were reviewed to assist in identifying any disturbances.

FIELD METHODS

SWCA conducted an intensive cultural resources survey of the 2-mile SW Military Drive to Loop 353 segment of the Leon Creek Hike and Bike Trail APE. These investigations consisted of an intensive pedestrian survey with subsurface investigations and an attempted reassessment of previously recorded site 41BX598 that was reportedly located within the project area.

Archaeologists examined the ground surface and erosional profiles for cultural resources. Subsurface investigations involved shovel testing in settings with the potential to contain buried cultural materials. The shovel tests were approximately 30 cm in diameter and excavated to culturally sterile deposits or impassable limestone, whichever came first. The matrix from each shovel test was screened through ¼-inch mesh, and the location of each excavation was plotted using a hand-held GPS receiver. Each shovel test was recorded on a standardized form to document the excavations.

RESULTS

BACKGROUND REVIEW

In addition to the aforementioned previously recorded site 41BX598 within the project area, another archaeological site, five archeological surveys, and two testing investigations are recorded within a one-mile radius of the project area. THC records indicate that two linear surveys have been conducted that intersect the project area. Three additional surveys and two testing projects were conducted within one
mile of the project area. These investigations are related to roadway construction or expansion, Lackland and Kelly Air Force base development, park and residential development, and water management.

The first archaeological survey that crosses the APE extended north/south between SW Military Drive and Quintana Road. It was completed in 1983 by archaeologists from the Center for Archaeological Research (CAR) on behalf of the Texas Department of Water Resources (TDWR) and the U.S. Environmental Protection Agency (EPA). It encountered one archaeological site within the Leon Creek Trails Project area. Site 41BX598 is a sparse prehistoric lithic scatter located approximately 0.5 miles south of the intersection of Pearsall Road and SW Military Drive. Specifically, the site was recorded within the Pearsall Landfill and at the point in the proposed trail where the trail joins the creek corridor in the northern half. The site was recorded by Ralph Snavely of CAR in 1983 and consists of a sparse scattering of streamed rolled artifacts. Although the site record form information infers that this site offers little research value, no recommendations were made regarding site significance (Atlas).

The second survey that intersects the project area involved monitoring and was completed in 1998 on behalf of the San Antonio Water System (SAWS) by archaeologists from SWCA Environmental Consultants (Miller et al. 1999). It encountered no archaeological sites within the Leon Creek Trails Project area.

The next survey was located adjacent to the northeastern edge of the Leon Creek Trails Project area, near the intersection of SW Military Drive and Medina Base Road. This survey was completed in May of 1995 by archaeologists from the National Parks Service (NPS) on behalf of the U.S. Air Force and a testing project followed the next year. One archaeological site, 41BX1061, was encountered one mile from the Leon Creek Trails Project area (Atlas). Site 41BX1061 consists of posts, brick aprons, cement curbs, and clay pipe fragments from an historic sewer line associated with the military base's first occupation (Atlas).

Archaeologists from Geo-Marine conducted survey and testing at Lackland Air Force Base in 2003 and 2006, respectively, on behalf of the U.S. Air Force. No archaeological sites were encountered within one mile of the Leon Creek Trails Project area (Atlas).

The final survey for this portion of the Leon Creek Trails Project was located just east of the project area along Quintana Road. This survey extended from US 90 southwest approximately 8.8 miles to SH 16. This archaeological survey was conducted by archaeologists from Parsons Brinckerhoff Quade & Douglas on behalf of the Texas Department of Transportation (TxDOT) in 2003 and did not encounter any archaeological sites within one mile of the Leon Creek Trails Project area (Ahr 2004).

**FIELD SURVEY**

On July 22, 2009, two SWCA archaeologists conducted an intensive pedestrian survey of the 2-mile SW Military Drive to Loop 353 segment of the Leon Creek Hike and Bike Trail APE, with particular focus on relocating site 41BX598. The project area can be divided into northern and southern halves, based on vegetation and prior disturbances. The trail segment's northern mile follows the route of a two-track road associated with the Pearsall Landfill, while the southern half is a wooded corridor along the banks of Leon Creek. Prior disturbances along the northern half of the trail segment include vegetation clearing, two-track road construction and maintenance, a
retaining wall, an elevated section of the road, overhead utility installation, earth moving, and test well installations (Figures 4 and 5). Prior disturbances evident in the southern half are less severe and include livestock grazing, fence construction, sheet erosion, and over-bank flooding episodes.

The subsurface investigations of the project area consisted of 17 shovel tests excavated in areas with most potential for intact buried cultural resources (Figure 6). The depths of these shovel tests ranged from 10–45 centimeters below surface (cmbs); however, most of them encountered hardpan clay or gravel around 30 cmbs. Overall, the shovel tests averaged 30.5 cm in depth and generally encountered a horizon of clay loam with occasional limestone and chert gravels and small cobbles overlying hardpan clay (Table 1).

Most of the shovel tests were excavated in the southern half of the project area, where the trail occupies the less developed wooded corridor. Additional shovel tests in the northern half, except in the vicinity of 41BX598, were deemed unnecessary due to the prior disturbances from landfill activities.

No cultural materials were encountered in any of the 17 shovel tests. Abundant chert resources exist outside the APE along upland ridges and these cobbles can be observed on the surface of the APE, having eroded down.

A cement and brick well is located along the southern end of the trail between STs 2 and 3 (Figure 7). The well was not covered at the time of survey and contained water and construction debris; therefore, the exact depth of the well could not be determined from the surface (Figure 8). Mortared bricks are evident around the mouth of the well, but the inner surface of the well has been plastered, thus, obscuring its internal structure. It is not mapped on the Terrell Wells (2998-241) 7.5-minute USGS topographic quadrangle. The well is likely associated with nearby modern ranching activities, which include a series of stock tanks west of the trail segment APE. No associated standing structures were evident within the APE. Based on the isolated nature of the well and its lack of association with any apparent settlement, the well was not assessed to be a historic feature and, therefore, it was not designated a site. Overall, the investigations documented two sites in the APE, 41BX598 and 41BX1815.

Site 41BX598

The site was recorded in 1983 as a sparse surficial lithic scatter with a scattering of stream-rolled artifacts along the right bank of the creek. The lack of substantial information in the site record form implies that 41BX598 offers little research value beyond locational data; however, no recommendations were made regarding site significance at the time of its recording (Atlas). Its current location is along a two-track road near the edge of the landfill property. A fence line separates the portion of the site within the landfill from the creek. Two test wells used to monitor the landfill's groundwater are northeast and southwest of 41BX598 (Figure 9). Asphalt and limestone gravels were evident in patches on the surface at this location and the area between the two-track and the fence appeared to have been used as a pull through for vehicles and to store piles of asphalt and limestone gravels. No trace of site 41BX598 was observed within the APE of the hike and bike trail. ST 17 was excavated at the recorded location of Site 41BX598 near midway point along the APE (Figure 10). No cultural material was encountered within the shovel test or on the surface at site 41BX598. Based on the surficial nature of the site and the extent of disturbances that likely took place after it was recorded in 1983, the site has lost significant
Figure 4. The center line of the trail segment is marked by a stake in the foreground, facing south.

Figure 5. A retaining wall is within the APE, followed by an elevated section of the two-track road, facing north.
Figure 6. Shovel test location map.
<table>
<thead>
<tr>
<th>Shovel Test #</th>
<th>Site</th>
<th>Depth (cmbs)</th>
<th>Munsell</th>
<th>Soil Color</th>
<th>Soil Texture Description</th>
<th>Inclusions</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-</td>
<td>0-15</td>
<td>10YR3/2</td>
<td>very dark brown</td>
<td>loam</td>
<td>none</td>
<td>proposed parking lot at south end of trail segment; terminated at compact clay</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>0-40</td>
<td>10YR3/2</td>
<td>very dark brown</td>
<td>clay</td>
<td>occasional limestone rock</td>
<td>along side of a two-track road and near the railroad tracks; terminated at compact clay</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>0-25</td>
<td>10YR3/2</td>
<td>very dark brown</td>
<td>loam</td>
<td>none</td>
<td>west of two-track road; terminated at compact clay</td>
</tr>
<tr>
<td>4</td>
<td>41BX1815</td>
<td>0-30</td>
<td>10YR3/2</td>
<td>very dark brown</td>
<td>clay</td>
<td>none</td>
<td>wooded area: mesquite, willow, elm, and hackberry; terminated at compact clay</td>
</tr>
<tr>
<td>5</td>
<td>-</td>
<td>0-20</td>
<td>10YR5/4</td>
<td>yellowish brown</td>
<td>silty clay loam</td>
<td>&lt;5% gravel</td>
<td>70 m west of creek</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20-30</td>
<td>10YR4/4</td>
<td>dark yellowish brown</td>
<td>clay loam</td>
<td>none</td>
<td>terminated at compact clay</td>
</tr>
<tr>
<td>6</td>
<td>-</td>
<td>0-45</td>
<td>10YR6/3</td>
<td>pale brown</td>
<td>silty clay</td>
<td>none</td>
<td>wooded area: mostly elm; terminated at compact clay</td>
</tr>
<tr>
<td>7</td>
<td>-</td>
<td>0-20</td>
<td>10YR5/1</td>
<td>gray</td>
<td>silty clay loam</td>
<td>2-3% gravel</td>
<td>increasing compaction with depth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20-55</td>
<td>10YR5/4</td>
<td>yellowish brown</td>
<td>clay loam</td>
<td>none</td>
<td>terminated at compact clay</td>
</tr>
<tr>
<td>8</td>
<td>-</td>
<td>0-45</td>
<td>10YR6/3</td>
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<td>silty clay</td>
<td>none</td>
<td>wooded area: mostly elm; terminated at compact clay</td>
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<tr>
<td>9</td>
<td>-</td>
<td>0-30</td>
<td>10YR5/4</td>
<td>yellowish brown</td>
<td>clay loam</td>
<td>2-3% gravel</td>
<td>terminated at compact clay</td>
</tr>
<tr>
<td>10</td>
<td>-</td>
<td>0-30</td>
<td>10YR6/3</td>
<td>pale brown</td>
<td>silty clay</td>
<td>occasional rocks</td>
<td>wooded area: mostly elm; terminated at compact clay</td>
</tr>
<tr>
<td>11</td>
<td>-</td>
<td>0-35</td>
<td>10YR5/4</td>
<td>yellowish brown</td>
<td>clay loam</td>
<td>2-3% gravel</td>
<td>terminated at compact clay</td>
</tr>
<tr>
<td>12</td>
<td>-</td>
<td>0-35</td>
<td>10YR6/3</td>
<td>pale brown</td>
<td>silty clay</td>
<td>occasional rocks</td>
<td>wooded area: mostly elm with understory; terminated at compact clay</td>
</tr>
<tr>
<td>13</td>
<td>-</td>
<td>0-35</td>
<td>10YR5/4</td>
<td>yellowish brown</td>
<td>clay loam</td>
<td>2-3% gravel</td>
<td>terminated at compact clay</td>
</tr>
<tr>
<td>14</td>
<td>-</td>
<td>0-20</td>
<td>10YR6/3</td>
<td>pale brown</td>
<td>silty clay</td>
<td>none</td>
<td>wooded area: mostly elm; 3 meters west of entrenched creek; terminated at compact chert gravels</td>
</tr>
<tr>
<td>15</td>
<td>-</td>
<td>0-40</td>
<td>10YR5/4</td>
<td>yellowish brown</td>
<td>clay loam</td>
<td>2-3% gravel</td>
<td>terminated at compact clay</td>
</tr>
<tr>
<td>16</td>
<td>-</td>
<td>0-10</td>
<td>10YR6/3</td>
<td>pale brown</td>
<td>silty clay</td>
<td>none</td>
<td>open area south of large dirt pile; terminated at compact gravel</td>
</tr>
<tr>
<td>17</td>
<td>41BX598</td>
<td>0-20</td>
<td>10YR9/3</td>
<td>pale brown mottled with black and yellow</td>
<td>silty clay</td>
<td>limestone and asphalt gravel</td>
<td>near fence line and away from asphalt gravel on surface; terminated at compact gravel</td>
</tr>
</tbody>
</table>
Figure 7. 41BX1815 site map.
Figure 8. A cement and brick well near the railroad tracks and the southern end of the trail segment, facing northeast.
Figure 9. Test well used to monitor the groundwater of the landfill is located northeast of 41BX598, facing north.

Figure 10. ST 17 was excavated at the recorded location of 41BX598; note the second test well in background, facing southwest.
integrity within the APE. Site 41BX598 is not eligible for designation as a SAL.

Site 41BX1815

Newly recorded site 41BX1815 is located near the southern end of the SW Military Drive to Loop 353 trail segment. The site is a prehistoric surficial lithic scatter that contains cores, primary and secondary flakes, and chert cobbles (see Figure 7). ST 4 was excavated at this location, but no cultural materials were encountered below the surface. The site is approximately 100 meters long by 9.15 m wide and is confined topographically to a gently sloping terrace along Leon Creek (Figures 11 and 12). The site may occupy more of the terrace outside the APE. No diagnostic artifacts or features were observed on the surface of the site. The area in which the site is located has been extensively disturbed by livestock grazing and substantial sheet erosion. Overall, the site has little to no research value beyond locational data based on the deflated nature of the surface assemblage coupled with the paucity of artifacts in general, and of diagnostic artifacts, in particular. The site also lacks features or intact buried components. As such, the site is not eligible for designation as a SAL.

SUMMARY AND RECOMMENDATIONS

SWCA conducted an intensive cultural resources survey of the proposed SW Military Drive to Loop 353 segment of the Leon Creek Hike and Bike Trail Project in southwest Bexar County. Cultural resource investigations were conducted to satisfy the requirements of the Antiquities Code of Texas (Permit No. 5333) and the San Antonio HPO per the City of San Antonio Historic Preservation and Design Section of the Unified Development Code (Article 6 35-630 to 35-634).

The investigations included a background literature and records review and an intensive pedestrian survey with subsurface investigations. The background review revealed that small portions of the project area have been previously surveyed and one previously recorded site, 41BX598 is within or adjacent to the project area. Another previously recorded archaeological site, 41BX1061, three archaeological surveys, and two testing investigations are recorded within a one-mile radius of the project area. The survey included 17 shovel tests placed in areas that had the highest potential for containing buried cultural materials with good integrity. No evidence of 41BX598 was observed on the surface of the project area or in ST 17, which was excavated at its previously recorded location. SWCA recommends no further archaeological investigations at the site.

The intensive survey of the APE resulted in the documentation of one new prehistoric site. Site 41BX1815 is located along the proposed trail and was found to be completely surficial in nature with no temporally diagnostic implements or cultural features noted. Overall, the site has little to no research value beyond locational data based on the deflated nature of the surface assemblage coupled with the paucity of artifacts in general, and of diagnostic artifacts, in particular. As such, the site lacks the characteristics that would qualify it for formal designation as a SAL. SWCA recommends no further archaeological investigations at the site.

A cement and brick well is located along the southern end of the trail between STs 2 and 3. Mortared bricks were evident around the mouth of the well, but the inner surface of the well had been plastered, thus, obscuring its internal structure. The well is likely associated with nearby modern ranching activities, which include a series of stock tanks west of the trail segment APE. No associated standing
Figure 11. A sampling of cores and flakes from the surface of 41BX1815.

Figure 12. Overview of newly recorded site 41BX1815, facing east.
structures were evident within the APE. Based on the isolated nature of the well and its lack of association with any apparent settlement, the well was not assessed to be a historic feature and, therefore, it was not designated a site.

THC/Council of Texas Archaeologists standards require 16 shovel tests per mile for a linear survey less than 100 feet wide. The current survey did not meet this requirement as the northern mile of the project area was extensively disturbed by prior landfill activities and shovel testing in this area was deemed unnecessary. The 17 shovel tests excavated during this survey focused on the less-disturbed southern mile of the APE.

Based on the results of this survey, no significant cultural resources will be affected by any construction activities within the project area. SWCA recommends no further archaeological investigations within the project area.
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