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A Cultural Resources Survey for the Proposed Indian Creek II (CIMS) Drainage Improvement Project San Antonio, Bexar County, Texas

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A Cultural Resources Survey for the Proposed Indian Creek II (CIMS) Drainage Improvement Project San Antonio, Bexar County, Texas

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***A Cultural Resources Survey
for the Proposed Indian Creek II (CIMS)
Drainage Improvement Project
San Antonio, Bexar County, Texas***

Document No. 150006

Job Nos. 100042653 and 100043183

**A CULTURAL RESOURCES SURVEY
FOR THE PROPOSED INDIAN CREEK II (CIMS)
DRAINAGE IMPROVEMENT PROJECT
SAN ANTONIO, BEXAR COUNTY, TEXAS**

ANTIQUITIES PERMIT No. 7062

Prepared for:

City of San Antonio

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February 2015

Abstract

Atkins was contracted by the City of San Antonio (COSA) to perform cultural resource investigations of the proposed Indian Creek II (CIMS) Drainage Improvement Project in San Antonio, Bexar County, Texas. Covering an area of 40.36 acres (16.33 hectares), the project would improve localized flooding within the 100-year floodplain by creating overflow channels, and in some locations, by deepening and widening the existing channel bottom. On October 28 and 29, 2014, an intensive pedestrian survey was conducted of four portions of the project area, totaling 17.79 acres (7.24 hectares). The pedestrian survey was supplemented by the excavation of 12 mechanical trenches were excavated on November 24 and 25, 2014; these were located both within and between the four survey areas. Two prehistoric open campsites were recorded (41BX2066 and 41BX 2067) during the survey. Based on the sparse nature of the deposits and the lack of diagnostic artifacts or features, neither site is recommended eligible for inclusion to the National Register of Historic Places or for designation as a State Antiquities Landmark. No artifacts were collected, and all project records will be curated at the Center for Archaeological Research at the University of Texas at San Antonio. With the exception of the two sites, no other cultural material was encountered.

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Acknowledgments

This work was conducted by a team of Atkins personnel. Ryan Bayer coordinated with the City of San Antonio to communicate project details and field questions and served as Quality Control officer. Krista McClanahan conducted background research. Mary Jo Galindo prepared the research design and served as Principal Investigator, crew leader, and report author, aided by Michael Smith. Kelley Russell and Justin Rains assisted as field technicians. The report was formatted by Christine Vidrick, and Myron Friedel and Steve Voroselo drafted the figures for the report.

I. INTRODUCTION

The City of San Antonio (COESA) has contracted Atkins to conduct cultural resources investigations, including pedestrian survey and backhoe trenching, for proposed drainage improvements within the Indian Creek floodplain. The project would alleviate localized flooding within the 100-year floodplain by creating overflow channels, and in some locations deepening and widening the existing channel bottom. Because the proposed project is located on lands owned by COESA, and the need for Nationwide Permits 12, 14, and 18 from the U.S. Army Corps of Engineers (USACE), in accordance with 33 Code of Federal Regulations (CFR) Part 325, Appendix C (Processing Department of Army Permits: Procedures for the Protection of Historic Properties; final Rule 1990; with current Interim Guidance Document dated April 25 2005), compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and the Antiquities Code of Texas were required, including the acquisition of Antiquities Permit Number 7062.

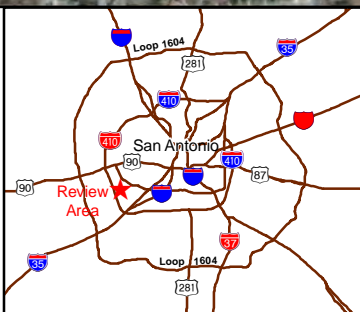
The Area of Potential Effect (APE) would include drainage improvements within the Indian Creek floodplain from approximately Medina Base Road to Five Palms Drive, a length of 2.3 kilometers (km) (1.44 miles), and may potentially affect adjacent property parcels (Figure 1). The majority of the overall project improvements would consist of creating overflow channels; however, in some locations the depth of impact ranges from 1.52 to 3.04 meters [m] (5 to 10 feet [ft]) for deepening and widening the existing channel bottom. The overall width of the project varies and includes permanent drainage and utility easements, for a total APE of 40.36 acres (16.33 hectares).


The area covered by the pedestrian archaeological survey was limited to four distinct sections of the APE, totaling 17.79 acres (7.24 hectares), which encompass the proposed placements of constructed drainage improvements (see Figure 1). Survey Area 1 consists of the Indian Creek drainage easement channel and adjacent former railroad right-of-way; Survey Area 2 is a drainage easement along the north side of Medina Base Road; Survey Area 3 straddles the Elm Valley Drive intersection and extends northwest to include a potential crossing of the El Camino Real de los Tejas National Historic Trail (NHT); and Survey Area 4 straddles the Ray Ellison Boulevard intersection. Backhoe trenching was conducted both within and between the four pedestrian Survey Areas within the larger APE (Figure 2; as they can provide site-specific locations, backhoe trench numbers are labeled only in Appendix A, which is not for public disclosure). The following investigations were designed to (1) locate and record all archeological resources present within the project area; (2) preliminarily assess their eligibility status for listing in the National Register of Historic Places (NRHP) and for designation as State Antiquities Landmarks (SAL); and (3) provide site-specific recommendations for all NRHP- or SAL-eligible sites, and for sites with an unknown eligibility status.



Legend

- Project Boundary
- Survey Area
- Drainage Improvements



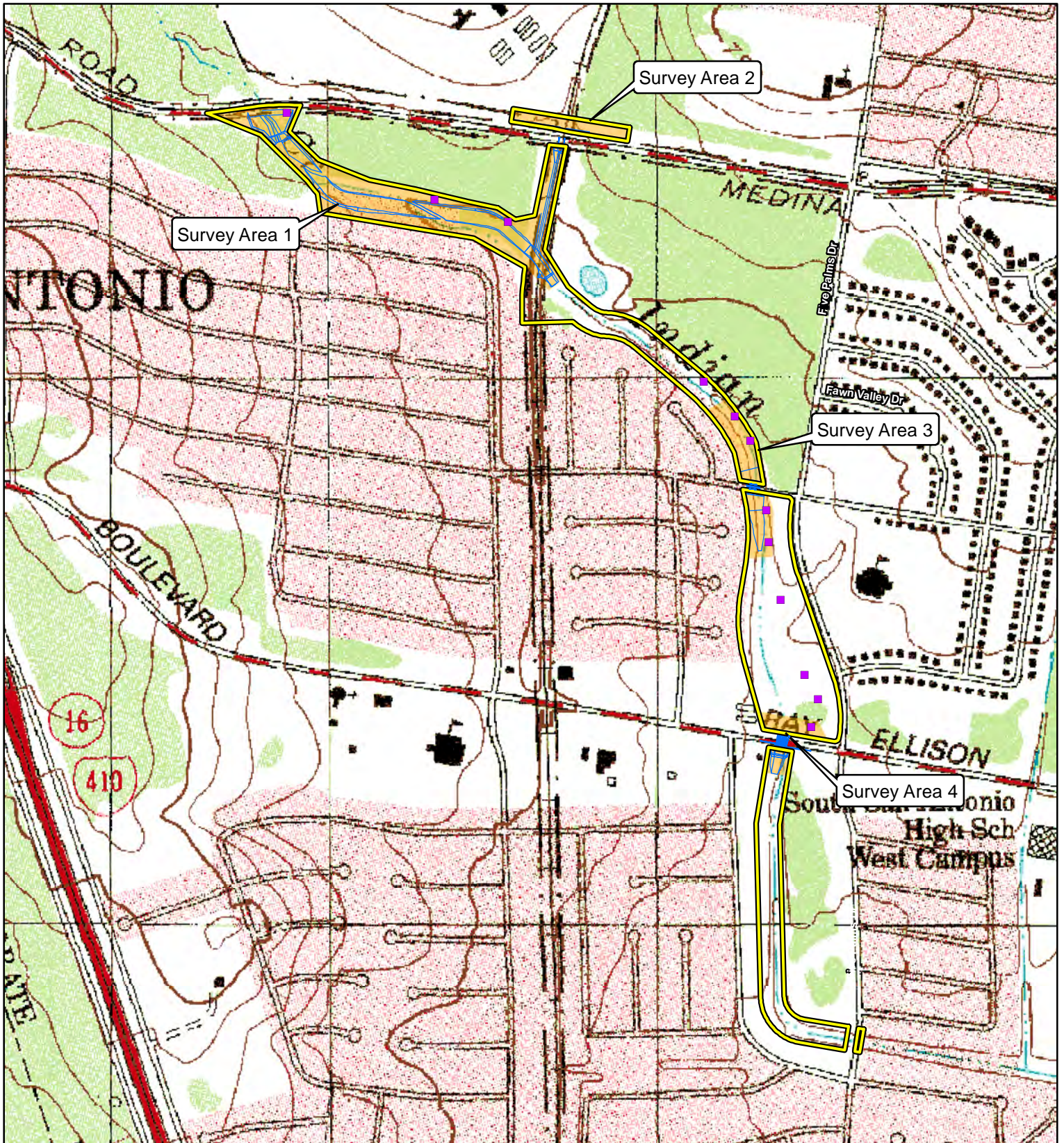

 0 100 200
 Meters
 0 400 800
 Feet

Source(s):
 COSA, TNRIS, & ESRI





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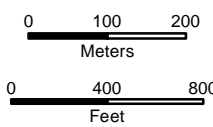
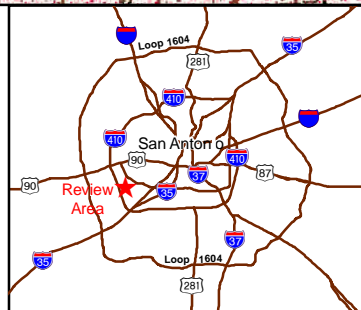
Figure 1
 Project Location Map
**Indian Creek Phase II CIMS
 Drainage Improvement**
 San Antonio, Texas

Prepared for: City of San Antonio	
Prepared By: frie8827	Scale: 1 in = 800 ft
Job No.: 100043183	Date: 1/22/2015



Legend

-  Project Boundary
-  Survey Area
-  Drainage Improvements
-  Backhoe Trenches



ATKINS

Figure 2
Trench Location Map
**Indian Creek Phase II CIMS
Drainage Improvement**
San Antonio, Texas

Source(s): COSA, TNRS, 1991 Macdonia & 1992 Terrell Wells 7.5' Quadrangles	Prepared for: City of San Antonio
Prepared By: 18827	Scale: 1 in = 800 ft
Job No.: 100043183	Date: 1/23/2015

File: N:\Clients\San Antonio_City\Indian_Creek_Phase_II\100043183\geo\figs\Fig2_Cult_Survey_Area_results_map_Indian_Creek_Phase_II.mxd

II. SETTING

The project area is located in northern San Antonio approximately 5.8 km (3.6 miles) northeast of the intersection of Loop 410 and U.S. Highway 281. The project is located within the Indian Creek floodplain, approximately 5.23 km (3.25 miles) southeast of the intersection of Loop 410 and U.S. Highway 90. The creek is surrounded by extensive residential development. Situated within the Blackland Prairies of southern Texas, Indian Creek is a tributary to Leon Creek in the San Antonio River watershed. The underlying geology of the project area is mapped mainly as Navarro Group and Marlbrook Marl, undivided, of the Phanerozoic, Mesozoic, and late Cretaceous periods (Bureau of Economic Geology [BEG] 1983). These deposits consist of clay, mud, sandstone, and sand and are up to 91.4 m (300 ft) thick (BEG 1983). The overall project area soils are mapped as about 64 percent Houston Black clay or gravelly clay with 1 to 3 percent slopes, and 36 percent frequently flooded Tinn and Frio soils with 0 to 1 percent slopes (U.S. Department of Agriculture, Natural Resources Conservation Service [USDA, NRCS] 2014). The Houston Black series consists of very deep, moderately well-drained, and very slowly permeable soils that formed in clayey residuum derived from calcareous mudstone of the Cretaceous Era. These nearly level to moderately sloping soils occur on interfluves and side slopes on upland ridges and plains (USDA, NRCS 2014) and have a very shallow Holocene horizon. The Frio and Tinn series both consist of very deep, moderately to well-drained, and moderately to very slowly permeable soils. These formed in loamy and clayey calcareous alluvium on floodplains of streams, which drain the Blackland Prairies (USDA, NRCS 2014), and possess the possibility of harboring buried cultural resource sites.

At the time of the survey, ground surface visibility ranged from zero to nearly 100 percent in some parts of the project area, averaging about 50 percent. The density of vegetation varied throughout each survey area with a mix of mature oak and mesquite trees and an understory of grasses and forbs. Some areas had apparently been cleared of vegetation in the past and were relatively recently overgrown, or remained clear of all vegetation besides grass.

III. CULTURAL OVERVIEW

The Paleoindian period, representing the earliest occupations in the region, began before 10,000 B.C. and continued to about 6500 B.C. The Paleoindian people were hunters and gatherers who hunted now-extinct species of Pleistocene megafauna such as the mammoth, mastodon, camel, and bison. In most areas, however, big-game hunting was probably augmented by the utilization of wild plants and smaller animals. Data collected during excavations at the St. Mary's Hall site (41BX229) in Bexar County have contributed to this view of a more-varied diet for Paleoindian groups (Hester 1978).

Few intact Paleoindian sites have been recorded in this region, partly because Paleoindian deposits are usually deeply buried in various alluvial settings and are difficult to locate and study. When Paleoindian sites are found they are usually poorly preserved or stratigraphically mixed (Mercado-Allinger et al. 1996). Sites occur more commonly as small, surface lithic scatters, usually located in upland areas along divides of major and minor watersheds. These are thought to represent transient camps, resource procurement loci, or retooling stations by loosely structured, highly mobile social groups composed of several nuclear families referred to as bands. However, Paleoindian sites with buried components have been excavated in the Central Texas region. These include the Kincaid Rockshelter site (41UV2) in Uvalde County (Collins et al. 1988), the Levi site (41TV49) in Travis County (Alexander 1963), the Wilson-Leonard site (41WM235) in Williamson County (Collins 1993), and the Pavo Real site (41BX52) in Bexar County (Henderson 1980), which yielded one of the few known Paleoindian burials. Late Paleoindian components have also been found during excavations at site 41BX47 on Leon Creek (Tennis 1996) as well as the Richard Beene site (41BX831) (Thoms et al. 2005). Temporally diagnostic tool kits associated with the Paleoindian period consist of a variety of finely chipped, sometimes fluted, lanceolate projectile points, such as the Clovis, Folsom, and Plainview types (Willey 1966).

At the end of the Paleoindian period, the archaeological record exhibits evidence of a diversification in subsistence patterns that mark the beginning of the complex chronological period referred to as the Archaic. Indications suggest that the prehistoric inhabitants began hunting a variety of small game animals, including deer and rabbit, as well as gathering edible roots, nuts, and fruits (Black 1989). Site types include rockshelter, campsites, lookout sites, and quarry sites that are usually located near a reliable water source.

The Archaic period is divided into three subperiods: Early, Middle, and Late. Numerous Archaic sites have been identified along Panther Springs, Medina River and Culebra Creek (COSA 2011). The Early Archaic groups continue to exhibit many of the characteristics of the preceding Paleoindian period and the early part of this period is sometimes referred to as transitional between the Paleoindian and the Archaic periods. Most of the projectile points from this period are well made and many exhibit characteristics typical of Paleoindian technologies, such as lateral edge grinding. In addition, Early Archaic artifact forms have been recovered beyond the boundaries of central

Texas. The variety of projectile point types distributed over such a large area has prompted Prewitt (1981) to suggest that these people were organized in small, dispersed bands that roamed broad territories. Sites in Bexar County with Early Archaic components include the Higgins site (41BX184) and the Panther Springs site (41BX228) (McNatt et al 2000).

The Middle Archaic period can be subdivided into early (Clear Fork) and late (Round Rock) intervals. Nolan and Travis projectile points are indicative of the Clear Fork interval, while the Round Rock interval is marked by the Pedernales, Marshall, and Langtry points. It was during the Middle Archaic period that burned rock middens became a specialized site type (Black 1989). This site type becomes extremely common during this period, suggesting an intense and perhaps rather specialized plant-processing economy. Weir (1976) has even suggested a population increase during this period and possible developments in social organization. Projectile points from this period are quite numerous, occurring in large frequencies at some sites. They tend to be large, straight-stemmed, and often not as well made as the points from earlier or later periods. Middle Archaic sites in Bexar County include the Granberg II site (41BX271) and Elm Waterhole site (41BX300) (McNatt et al. 2000).

By the beginning of the Late Archaic period, a proliferation of projectile point types again occurred and the frequency of burned-rock middens appears to have decreased. Prewitt has suggested that proliferation of projectile points during the earliest phase of this subperiod may represent a return to the Early Archaic pattern of small, dispersed bands with wide-ranging territorial areas. The latter part of this period appears to be marked by an emphasis on the utilization of a wide variety of food resources, perhaps indicative of population or climatic stress at this time. Projectile points diagnostic of the early part of the Late Archaic include Bulverde and Pedernales types. Later in the period Ensor, Frio, and Marcos point types became prominent. Cemeteries, especially associated with rock shelters, also become common in central Texas during the Late Archaic (Dockall et al. 2006).

The Late Prehistoric period (A.D. 800–1600) is much shorter in duration than the Archaic period and is divided into two phases based upon radio carbon dates and changes in arrow types and subsistence pursuits. The first phase of this period, the Austin Phase, dates to between A.D. 800 and 1300, and is manifested by Scallorn points and burned rock middens. During the second phase identified for the Late Prehistoric, the Toyah Phase, there are indications of major population movements, changes in settlement patterns, and perhaps lower population densities (Black 1989). The first evidence of incipient agriculture appears at this time as do ceramics. Bison hunting appears to be a very important subsistence strategy during the Toyah phase. The Toyah phase has very distinctive traits that separate it from the earlier Austin phase. Temporal indicators of the Toyah phase include ceramics, both locally made and imported, Perdiz arrow points, end scrapers, large thin bifaces, beveled knives, and prismatic blades (Rogers and Russell 2007). While the hunting of bison was an important subsistence endeavor, deer, antelope, and other smaller

mammals were also exploited. The use of burned rock middens was not great during this time; rather, large hearths were used for cooking (Johnson 1994).

The Late Prehistoric period also is marked by the introduction of several technological advances, most notably the bow and arrow and, later, pottery. The bow and arrow quickly became the standard weapon, replacing the throwing stick, or atlatl, and small thin arrow points became a key indicator among the material remains of the period. Sometime after the adoption of the bow and arrow, plainware ceramics were introduced into the area. This development probably came from agricultural groups to the east or northeast. Possible indications exist of major population movements, changes in settlement patterns and, perhaps, lower population densities during the Late Prehistoric period (Black 1989).

IV. METHODS

RECORDS REVIEW

Atkins archaeologists conducted a cultural resources background review of the area within 1 km (0.6 mile) of the project area. Research of available records was conducted at the Texas Archeological Research Laboratory (TARL) with the purpose of determining the location of previously recorded archaeological sites within the proposed review area. The Texas Historical Commission's (THC) Texas Archeological Sites Atlas Online (Atlas) files were used to identify NRHP-listed properties and sites, NRHP districts, cemeteries (including historic Texas cemeteries), Official Texas Historical Markers (OTHMs, including Recorded Texas Historic Landmarks), SALs, as well as any other potential cultural resources such as National Historic Landmarks (NHLs), National Monuments, National Memorials, National Historic Sites, and National Historic Parks to ensure the completeness of the study. As a secondary source of NRHP properties and NHLs, the National Park Service's (NPS) NRHP database and GIS Spatial Data as well as the NHL Program were consulted. The NPS Geographic Resources Program National Historic Trails Map Viewer was used to identify NHTs. Supplementary to the NPS Trail Map Viewer, the El Camino Real de los Tejas Comprehensive Management Plan/Environmental Assessment Maps provided additional information about the El Camino Real de los Tejas NHT. Finally, the City of San Antonio's Historic Landmark Sites and Historic Districts GeoDatabase was consulted.

FIELD INVESTIGATION

Atkins archaeologists conducted an intensive archaeological field survey of four survey areas within the proposed APE, totaling 17.79-acre (7.24-hectare) APE, which was of sufficient intensity to determine the nature, extent, and, if possible, significance of any cultural resources located within the project survey areas. The survey met all Texas minimum archaeological survey standards for such projects. Atkins thoroughly documented any exceptions. The archaeological field crews judgmentally employed shovel testing and backhoe trenching to probe for subsurface cultural materials, and visually inspected the ground surface and any available cut bank exposures. The frequency and intensity of subsurface testing was keyed to the level of disturbance of the proposed project area and the nature of the soils, geology, and topography. The field investigation included sufficient subsurface investigations to provide linear survey-level coverage according to State of Texas and Council of Texas Archeologists standards (one trench every 175 m [574 ft] or one shovel test every 100 m [328 ft]).

Pedestrian Survey

The pedestrian survey was conducted along two transects paralleling the existing creek. Ground surface visibility was generally high, averaging 50 percent. Due to the nature of the disturbances, soils, and topography, it was not possible to excavate shovel tests within the four survey areas.

Instead, the pedestrian survey was used to determine the placement of backhoe trenches, which replaced the shovel testing in respect to subsurface investigations.

Backhoe Trenching

The primary method for quickly and efficiently exploring a topographic setting like Indian Creek, which has the potential for deeply buried archaeological sites, is mechanical trenching. Generally, the trench investigations were placed approximately 30 to 100 m (98.4 to 328 ft) apart, with tighter intervals if necessary. Trench placement took into consideration the location of buried utilities, the location of any impacted areas, and the preservation potential for archaeological sites. Backhoe trenches were excavated to a depth sufficient to determine the presence/absence of buried cultural materials and allow the complete recording of all features and geomorphic information to depths of project impacts. Generally, trenches were a maximum 2 m (6.6 ft) deep, 8 m (26.2 ft) in length, and 1.5 m (4.9 ft) wide. All trenching was monitored by an experienced archaeologist while excavations were underway. Stratigraphic soils descriptions were recorded and photo-documented for each trench by an experienced archaeologist. Any features encountered during trenching were to be mapped and photographed. Atkins plotted each trench location using a submeter Global Positioning System (GPS) receiver and recorded each trench on appropriate project field forms. All cultural materials were photographed and documented, then reburied within the corresponding trench.

Safety is always a primary concern of Atkins when conducting trenching, particularly in deep deposits. Prior to investigations, Atkins performed a One-Call (Texas 811) to verify there were no existing utilities within the proposed excavation area. The One-Call notification required a 48-hour notice prior to any excavations within the project area to properly mark and note any existing utilities. All work was performed in accordance with Occupational Safety and Health Administration (OSHA) (29 CFR Part 1926) and the Texas Trench Safety Act (H. B. 1569). Appropriate measures were taken for any trenches that exceeded 2 m (6.6 ft) in depth, utilizing shoring or the stepping back of sidewalls to ensure that all OSHA protocols were followed. The entire process was thoroughly photographed. All trenches were backfilled and leveled upon completion of excavation and recording.

Site Definition

During the survey, all located cultural resources were fully defined within the project area. Field crews explored any archaeological sites encountered during the investigations to the maximum extent possible and with consideration to land access constraints. Due to the inability of excavating the surrounding soils by hand, a backhoe was used to test below ground surface. For this reason, sites were located and delineated completely by mechanical trenching. Once cultural materials were located, additional trenches were excavated roughly 30 m (98.4 ft) beyond in order to determine the termini of the site's horizontal extent.

Site features, settings, and representative cultural materials were photographed, mapped, and marked with a GPS device. A detailed plan map of each site was produced using standard techniques and features and site boundaries were documented using a submeter GPS receiver. A State of Texas Archeological Site Form was filled out for each site identified and submitted to TARL for the assignment of a trinomial. Had any diagnostic artifacts such as projectile points or historic artifacts with maker's marks or other definitive characteristics been encountered, they would have been collected. Artifacts such as common lithic debitage, historic-age trash, or burned rocks were photographed, tabulated, analyzed, and documented in the field, but not collected.

Sites that are within the APE were evaluated according to the criteria in 36 CFR 60.4, which states:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or (b) that are associated with the lives of persons significant in our past; or (c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or (d) that have yielded, or may be likely to yield, information important in prehistory or history.

V. RESULTS

RECORDS REVIEW

The cultural resources background review revealed that no previous archeological investigations have been performed within the area of the current APE; however, several cultural resources surveys have been conducted within 1 km (0.6 mile). The majority of these are associated with the nearby Medina Base Road improvements and park projects (Figueroa 2002; McWilliams and Kibler; Loftus 2010) and Lackland Air Force Base (National Park Service and United States Airforce 1995, no report on file), both of which lie directly to the north. In 2009, a survey was performed along Indian Creek directly south of the current project area (Shipp and Egan 2009), which encountered similar conditions to those found within the current APE and recorded no new sites.

The review identified no previously recorded archaeological sites within 1 km (0.6 mile) of the proposed project. However, the mapped route of El Camino Real de los Tejas NHT crosses Indian Creek in the vicinity of Survey Area 3, approximately 167.6 m (550 ft) northwest of the intersection of Five Palms Drive and Elm Valley Drive (Appendix A). The historic trail appears to parallel the route of Farm-to-Market Road 2536 (Old Pearsall Road), but it is about 1.6 km (1 mile) northwest of that road. Per the National Trails System Act, “determined trail[s] should follow the historic route, but deviate somewhat on occasion if necessary to avoid difficult routing through subsequent development, or to provide some route variations offering a more pleasurable recreational experience (DOI 2011).” Therefore, the route should be considered an approximation until further investigations have been undertaken. Accordingly, Survey Area 3 included a 30-m (98.4-ft) buffer on either side of the mapped route in order to cover the area.

FIELD INVESTIGATION

Atkins’ field investigations of the proposed project to alleviate flooding involved a 100 percent intensive pedestrian coverage of four survey areas and the excavation of 12 backhoe trenches within the APE (see Figure 2; Appendices A and B). During the pedestrian portion of the survey, access points for the backhoe were scouted. Despite the relatively high ground surface visibility, no cultural resources were observed aboveground. Shovel testing was attempted, but the amount of gravel and cobbles in the upper layers of sediment formed an impenetrable barrier that precluded hand excavation. Instead, backhoe trenching was relied upon for subsurface investigations.

The largest survey area, Survey Area 1, lies along the western reaches of Indian Creek and encompasses an abandoned railroad spur (Figure 3). Significant erosion is evident where the railroad spur crosses the creek, which made backhoe access to this survey area challenging. Nonetheless, three backhoe trenches were placed along Indian Creek, to the west of the railroad spur. Backhoe Trench (BHT) 5 was excavated at the terrace in the southeast quadrant of the intersection of the creek with Medina Base Road, and encountered modern fill in the top

55 centimeters. The intact sediments below did not contain cultural materials. BHTs 11 and 12 proved similar and were also negative for cultural resources. The creek bed in Survey Area 1 is entrenched and high-energy flooding episodes are evident (Figure 4). The exposed cobbles are indicative of the extremely rocky nature of the local soils.

Survey Area 2 is a relatively small area along the north side of Medina Base Road and opposite an abandoned rail spur. Concrete-lined drainage structures and underground water lines were noted within the survey area (Figure 5). The majority of Survey Area 2 is comprised of an easement for a high-pressure gas line (Figure 6). Based on these prior disturbances, no subsurface investigations were conducted.

Survey Area 3 is located farther to the southeast, and spans an existing paved road. Disturbances from the road construction and related utilities are present in the center of this area. Throughout the survey area, Indian Creek has been strongly channelized in the past, and its banks show obvious modification to its course and surrounding terraces (Figure 7). The NHT, as mapped, extends through the northern portion of this area, extending southwest to northeast. BHTs 2, 3, 4, and 8 were excavated within this area, primarily to determine the nature and extent of site 41BX2067. These are discussed below.

Survey Area 4, which also spans an existing paved road, has been impacted by numerous disturbances, chiefly the construction of the road, the installation of underground and overhead utilities (Figure 8), and the prior channelization of Indian Creek. The only apparently intact landform was investigated with BHT 1, which resulted in the discovery of site 41BX2066, and is discussed below.

In addition to the defined survey areas, additional trenches (BHTs 6, 7, 9, and 10) were placed within the greater APE between survey areas 1 and 3, and survey areas 3 and 4. These were placed judgmentally in areas where the topography suggested the possibility of intact soils. These also served to define site boundaries. After the initial fieldwork, additional trenching was proposed to better define sites 41BX2066 and 41BX2067. These trenches proved negative for intact soils.



Figure 3. An abandoned railroad spur situated within Survey Area 1, facing north.



Figure 4. Left bank of Indian Creek within Survey Area 1, facing northeast. Note the erosion and unsorted gravels and cobbles evident in the profile.



Figure 5. Prior disturbances within Survey Area 2, including a concrete-lined drainage structure and underground water lines, facing northeast.



Figure 6. Survey Area 2 consisted mainly of an easement for a high-pressure underground gas pipeline, facing east.



Figure 7. Channelization of Indian Creek within Survey Area 3, facing northwest.



Figure 8. Sanitary sewer and overhead utilities in Survey Area 4, facing northeast.

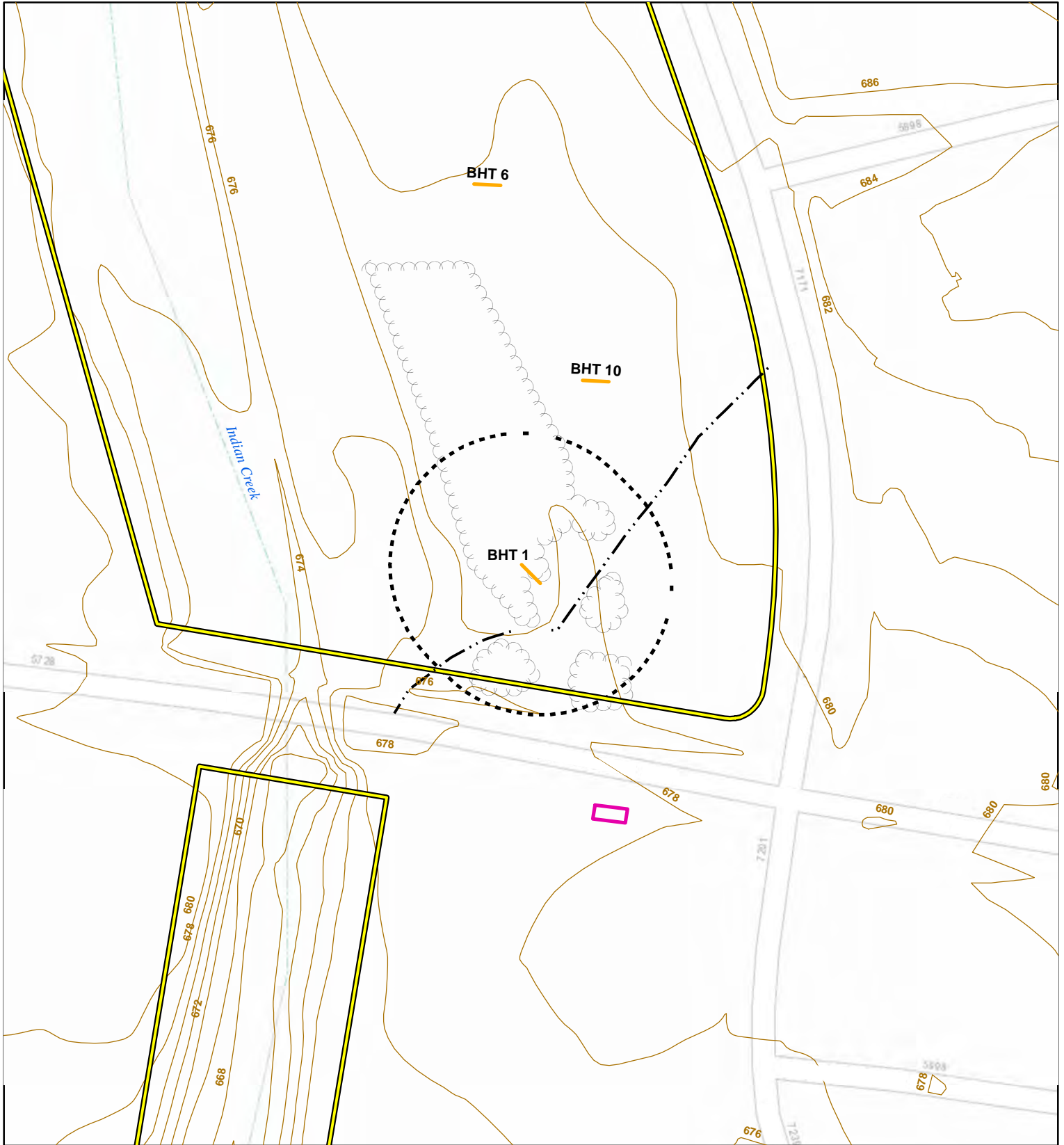
Site 41BX2066

Site 41BX2066, within Survey Area 4, represents a small subsurface scatter of prehistoric artifacts located on a terrace adjacent to the current floodplain of Indian Creek, which lies approximately 30 m (98.4 ft) to the west (Figure 9). The creek has been channelized in the past, and the creek's original course and its distance from the site is unknown. Prior disturbances at the site include a footpath that traverses it, underground utilities were marked adjacent and parallel to the roadways, and past clearing of vegetation. At the time of the survey, vegetation consisted mainly of grass and forbs, with some mature oak trees located to the east (Figure 10), resulting in ground surface visibility of roughly 50 percent. Soils mapped at the site belong to the Houston Black series.

Despite the high surface visibility in the site's vicinity, cultural resources at site 41BX2066 were not present on the surface. These were first encountered during the excavation of BHT 1 (see Appendix B). Artifacts were encountered in two stratigraphic levels of BHT 1 from 10 to 80 centimeters below the surface (cmbs) (3.9 to 31.5 inches) (Figure 11). Level 2, from 10 to 50 cmbs (3.9 to 19.7 inches), contained three primary flakes, 14 pieces of lithic debitage, 4 pot-lidded and/or heat-treated lithic debitage, a biface preform, 2 expedient tools, and a burin. Level 3, from 50 to 80 cmbs (19.7 to 31.5 inches), contained burned rock and 16 pieces of lithic debitage, some of which were pot-lidded and/or heat-treated. Level 2 is a black clay matrix with about 70 percent limestone and chert cobbles and gravel, while Level 3 is black clay with an occasional cobble. No diagnostic artifacts or intact features were noted in BHT 1.

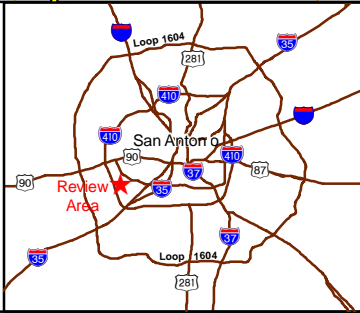
BHT 6 was excavated about 100 m (328 ft) north of BHT 1 in order to determine the site's northern boundary. Its upper layer contained heat-treated chert debitage, a core, two tertiary flakes, and six pieces of shatter. However, upon encountering a 5-cm (2-inch) underlying stratum of ash and gravel, it became evident that the upper 20 cm (7.8 inches) of BHT 6 was disturbed and represented imported fill. The ash layer is interpreted as the result of clearing and burning vegetation. BHT 10 was then placed about 45 m (147.6 ft) northeast of BHT 1 for the purposes of narrowing the site margin. The upper 25 cm (9.8 inches) of BHT 10 were also determined to be imported fill, and no ash or cultural material was encountered. As delimited by the channelized creek, maintained roads, and negative trenches, site 41BX2066 measures roughly 60 m (196.9 ft) in diameter.

Site 41BX2066 is a prehistoric site identified by the presence of worked lithic material and burned rocks, which were mixed within extremely rocky clays with no apparent pattern. The lack of intact features, diagnostic artifacts, or stratigraphic integrity suggests that site 41BX2066 is not eligible for inclusion in the NRHP or designation as an SAL according to the criteria in 36 CFR 60.4. Atkins recommends that no further cultural resource investigations are necessary for the site.



Legend

- Foot Path
- Backhoe Trench
- ▭ Project Boundary
- ▭ Bus Stop
- ☁ Tree Cover
- - - Site Boundary
- Contours (2ft Interval)



North Arrow

0 10 20
Meters

0 50 100
Feet

Source(s):
COSA, TNRS, & ESRI

ATKINS

Figure 9
41BX2066 Site Map
**Indian Creek Phase II CIMS
Drainage Improvement**
San Antonio, Texas

Prepared for: City of San Antonio	
Prepared By: voro5913	Scale: 1 in = 2,000 ft
Job No.: 100032121	Date: 1/23/2015



Figure 10. Overview of site 41BX2066 (in background along tree line), facing east.



Figure 11. Profile of BHT 1 at site 41BX2066.

Site 41BX2067

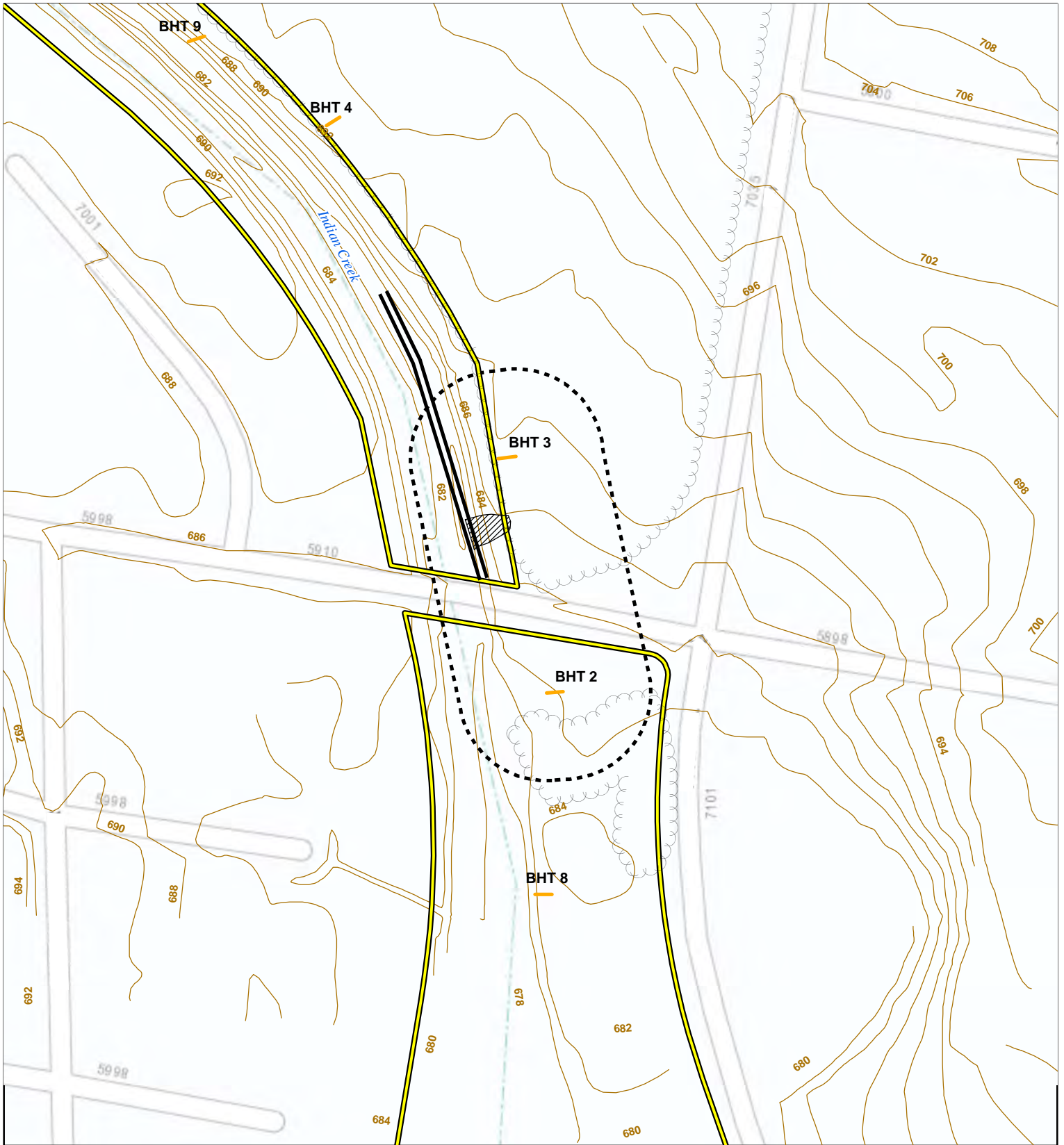
Located in Survey Area 3, site 41BX2067 is a prehistoric site occupying a low terrace and a portion of the current floodplain of Indian Creek, which has been heavily impacted by prior channelization (Figure 12). Soils within the site area are mapped as belonging to the Houston Black, Tinn, and Frio series of clay and clay loam, variably. The majority of vegetation has been cleared in the past, leaving only low grasses and secondary growth (Figure 13); surface visibility was consequently approximately 50 percent. Site 41BX2067 is bisected by a paved road running east-west, and has been disturbed along those margins by road construction and improvements. A two-track road parallels the creek to the north of the paved road, and has compacted the soil somewhat in that area.

Site 41BX2067 was initially discovered within BHT 2, which was excavated about 300 m (1,984 ft) north of BHT 1. The soil within Level 3 (45 to 115 cmbs [17.7 to 45.3 inches]) appeared to be black clay with an occasional cobble layer (as found in BHT 1), and contained an expedient tool, a blade, 35 pieces of lithic debitage, and fragments of fire-cracked rock (Figure 14). Level 4 (115 to 150 cmbs [45.3 to 59.1 inches]) was black clay with about 80 percent limestone and chert cobbles and gravel, and contained an expedient tool, 4 primary lithic flakes 2 secondary flakes, 3 tertiary flakes, and 21 pieces of lithic debitage. Although heat-altered rocks were present, no intact features or stratigraphic integrity were observed.

In order to delineate the site's extent to the south, BHT 8 was placed roughly 45 m (147.6 ft) beyond BHT 2. The upper 50 cm (19.7 inches) proved to be a brownish yellow silty loam, which appears to be disturbed fill. Intact black clay was found directly beneath. No cultural materials were present.

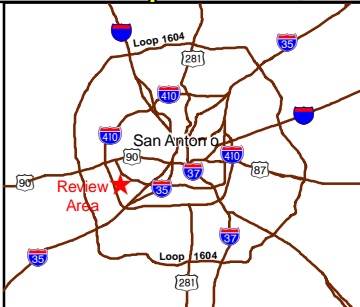
BHT 3 was excavated on the terrace north of the paved road, and proved that the site continued in that direction. As with BHT 2, cultural materials were encountered in the same black clay with an occasional cobble layer (30 to 90 cmbs [11.8 to 35.4 inches]), including 3 primary lithic flakes, 1 secondary flake, 1 tertiary flake, and 5 pieces of lithic debitage. The stratum above (0 to 30 cmbs [0 to 11.8 inches]) contained fire-cracked rock, 1 primary flake, and 4 pieces of lithic debitage, but the integrity of their context was questionable due to surface disturbance. No diagnostic artifacts were encountered and no features were noted in either trench at site 41BX2067.


Finally, BHT 4 was excavated about 100 m (328 ft) north of BHT 3. This was placed in part to determine site 41BX2067's northern border, and because it is located in the approximate area of El Camino Real, as mapped by the NPS Trails Map Viewer. Besides fragments of possible fire-cracked rock in the upper stratum, the trench contained no other cultural materials. No visible traces of the NHT were observed either on the ground surface or within the profiles of the backhoe trench.



Legend

- 2-Track Road
- Backhoe Trench
- Project Boundary
- Site Boundary
- Tree Cover
- Disturbed Area
- Contours (2ft Interval)




 0 20 40
 Meters
 0 75 150
 Feet

Source(s):
 COSA, TNRIS, & ESRI

ATKINS

Figure 12
 41BX2067 Site Map
**Indian Creek Phase II CIMS
 Drainage Improvement**
 San Antonio, Texas

Prepared for: City of San Antonio	
Prepared By: voro5913	Scale: 1 in = 2,000 ft
Job No.: 100032121	Date: 1/23/2015



Figure 13. Overview of site 41BX2067, facing southwest.

The negative results of BHTs 4 and 8 suggest that site 41BX2067 measures roughly 122 m (400 ft) north-south. Its east-west extent of approximately (200 ft) is defined by Indian Creek to the west, and the APE boundary to the east. Prehistoric site 41BX2067 consists solely of lithic debitage and fire-cracked rock dispersed within clays composed up to 80 percent of gravel and cobbled inclusions. Atkins evaluated site 41BX2067 according to the criteria in 36 CFR 60.4 and determined that it is not eligible for inclusion to the NRHP or for designation as a SAL based on its lack of stratigraphic integrity, intact cultural features, or diagnostic artifacts. For these reasons, no further work is recommended at site 41BX2067.



Figure 14. Profile of BHT 2 at site 41BX2067.

SUMMARY

Pedestrian survey of the four Survey Areas, and the APE in general, consisted of surface observation supplemented by the excavation of 12 backhoe trenches. This resulted in the location of two previously unrecorded archeological sites, 41BX2066 and 41BX2067. Prior disturbances were noted throughout the APE from earlier drainage improvements, the installation of overhead and underground utilities, and erosion.

VI. RECOMMENDATIONS

Atkins' cultural resource investigations of the 40.36 acres (16.33 hectares) proposed for the City of San Antonio's Indian Creek II (CIMS) Drainage Improvement Project resulted in the location of two previously unrecorded prehistoric cultural resource sites, 41BX2066 and 41BX2067. The investigations consisted of an intensive pedestrian survey of four Survey Areas totaling 17.79 acres (7.24 hectares), and the notation of disturbances, supplemented by backhoe trenching, throughout the entire project area. Neither site displayed intact stratigraphic cultural deposits, diagnostic artifacts, cultural features, or any other indication that they can provide significant new information to contribute to the prehistory of the region.

In accordance with Section 106 of the NHPA and 13 Texas Administrative Code (TAC) 26, Atkins has made a reasonable and good faith effort to identify archaeological historic properties within the APE. As no properties were identified that meet the criteria for inclusion in the NRHP or designation as a SAL, Atkins recommends no further cultural investigations need be conducted within the project area and that construction be allowed to begin.

In the unlikely event that cultural resources or human remains are encountered during construction of the proposed project, construction should cease at that location, and the COSA archaeologist should be notified immediately.

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Appendix A

Site Map (Not for Public Disclosure)

Appendix B

Shovel Test Data

Appendix B. Backhoe Trench Data

BHT No.	Level/ Strat	Depth (cmbs)	Munsell Color	Texture	Consistency	Mottles	Inclusions	Cultural Materials and Comments
1	1	0–10	10YR 7/2 Light Gray	Silt Loam	Loose	None	Roots, rootlets, limestone, and chert cobbles	Humus
	2	10–50	10YR 2/1 Black	Clay	Firm	None	75% Limestone and chert gravel, angular cobbles	Pot-lidded chert, several heat treated shatter, gravel is unsorted and water worn
	3	50–80	10YR 2/1 Black	Clay	Firm	None	5% Gravel and cobbles	Large biface preform and burin of same material
	4	80–150	10YR 7/2 Light Gray	Clay	Firm	None	90% Angular and rounded, unsorted, less than 5-cm gravel	Terminated at bedrock marl
2	1	0–35	10YR 7/1 Light Gray	Silty Clay	Loose	None	Humus, 70% limestone and chert cobbles and gravel	A few flakes noted in sidewall
	2	35–50	10YR 7/1 Light Gray	Silt Loam	Firm	None	50% Cobbles, small gravel	None
	3	50–115	10YR 2/1 Black	Clay	Firm	None	5% Cobbles	Fire-cracked rock and flakes
	4	115–150	10YR 2/1 Black	Clay	Firm	None	80% Cobbles to gravel	Terminated at depth, fire-cracked rock, scraper, and flakes, including 2 tertiary flakes
3	1	0–30	10YR 3/4 Dark Yellowish Brown	Clay	Friable	None	Humus, 50% cobbles and gravel	Fire-cracked rock and shatter
	2	30–90	10YR 2/1 Black	Clay	Friable	None	5% Limestone and chert gravel	Flake noted in sidewall
	3	90–130	10YR 3/4 Dark Yellowish Brown	Clay	Firm	None	90% Cobbles and gravel	None
	4	130–150	10YR 8/1 White	Clay	Loose	None	None	Terminated at depth

Appendix B. Backhoe Trench Data

BHT No.	Level/ Strat	Depth (cmbs)	Munsell Color	Texture	Consistency	Mottles	Inclusions	Cultural Materials and Comments
4	1	0–65	10YR 2/1 Black	Clay	Friable	None	10% Limestone and chert cobbles and gravel	Fire-cracked rock
	2	65–80	10YR 8/1 White	Clay	Friable	None	50% Cobbles	None
	3	80–110	10YR 7/2 Light Gray	Clay	Firm	None	70% Gravel	None
	4	110–160	10YR 8/1 White	Caliche	Loose	None	50% Cobbles	Terminated at depth
5	1	0–55	10YR 2/1 Black	Clay Loam	Friable	50% gray and yellow	Plastic and other modern trash	Fire-cracked rock in imported fill
	2	55–95	10YR 2/1 Black	Clay Loam	Friable	None	5% Cobbles and gravel	None
	3	95–135	10YR 7/2 Light Gray	Clay	Firm	None	70% Gravel	Terminated at depth
6	1	0–20	10YR 3/3 Dark Brown	Clay Loam	Friable	None	Roots, rootlets, rounded cobbles, and gravel	Pot-lidded chert flake, collection sample: 1 potlid, 1 core, 2 tertiary flakes, and 6 pieces of shatter
	2	20–25	10YR 7/1 Light Gray	Silty Loam	Friable	None	50%+ Gravel and ash	Burned lens, probably associated with vegetation clearing
	3	25–55	10YR 3/2 Very Dark Grayish Brown	Silty Loam	Friable	None	20% Smaller gravel, less than 5-cm diameter	None
	4	55–130	10YR 3/2 Very Dark Grayish Brown	Clay	Firm	None	90% Gravel	Terminated at depth

Appendix B. Backhoe Trench Data

BHT No.	Level/ Strat	Depth (cmbs)	Munsell Color	Texture	Consistency	Mottles	Inclusions	Cultural Materials and Comments
7	1	0-40	10YR 3/2 Very Dark Grayish Brown	Silty Clay Loam	Friable	None	Roots and rootlets, 15% small gravel	None
	2	40-55	10YR 3/2 Very Dark Grayish Brown	Silty Clay	Friable	None	50% Gravel	None
	3	55-110	10YR 4/3 Brown	Silty Clay	Friable	None	75-85% Gravel with sandstone and chert cobbles	None
	4	110-130	10YR 8/1 White	Silty Clay	Firm	None	Gravel and cobbles	Terminated at depth
8	1	0-5	10YR 4/4 Dark Yellowish Brown	Silty Loam	Loose	50% 10YR5/4 Brownish Yellow	Plastic, roots, rootlets	Appears to be disturbed fill
	2	5-50	10YR 6/8 Brownish Yellow	Silty Loam	Friable	10% 10YR5/6 Yellowish Brown	65% Cobbles, roots	Fill
	3	50-90	10YR 2/2 Very Dark Brown	Clay	Friable	None	40% Cobbles, roots	Intact sod layer
	4	90-130	10YR 2/2 Very Dark Brown	Clay	Firm	50% 5YR8/1 White	10 % Caliche cobbles	Terminated at depth
9	1	0-70	10YR 3/2 Very Dark Grayish Brown	Silty Loam	Friable	None	Roots, less than 5% gravel	None
	2	70-100	10YR 3/2 Very Dark Grayish Brown	Silty Clay Loam	Friable	None	75% Cobbles and gravel	None
	3	100-120	10YR 8/1 White	Silty Caliche	Loose and Friable	None	None	Terminated at depth
10	1	0-10	10YR 3/2 Very Dark Grayish Brown	Silty Clay Loam	Friable	None	20% Gravel, roots and rootlets	Fill and humus
	2	10-25	10YR 3/3 Dark Brown	Silty Clay Loam	Friable and Dry	Less than 5% 10YR7/4 Very Pale Brown	50% Gravel, mottled, ephemeral layers	Fill and humus

Appendix B. Backhoe Trench Data

BHT No.	Level/ Strat	Depth (cmbs)	Munsell Color	Texture	Consistency	Mottles	Inclusions	Cultural Materials and Comments
	3	25-65	10YR 2/2 Very Dark Brown	Silty Clay	Friable	None	Less than 5% gravel	Natural stratum
	4	65-125	10YR 8/1 White	Caliche; Low Clay Content	Friable	None	75-80% Gravel	Terminated at depth
11	1	0-55	10YR 2/2 Very Dark Brown	Silty Clay	Friable	None	Roots, rootlets, less than 5% 5-cm diameter gravel	None
	2	55-95	10YR 3/3 Dark Brown	Silty Clay	Firm	None	75-85% Gravel and cobbles greater than 5-cm diameter	None
	3	95-130	10YR 6/8 Brownish Yellow	Caliche	Loose and Friable	None	75-85% Gravel and cobbles greater than 5-cm diameter	Terminated at depth
12	1	0-60	10YR 2/2 Very Dark Brown	Silty Clay	Sticky and Friable	None	Roots, rootlets, less than 5% greater than 5-cm diameter gravel	None
	2	60-95	10YR 7/3 Very Pale Brown	Silty Clay	Firm	None	65-75% Gravel and cobbles greater than 5-cm diameter	None
	3	95-140	10YR 8/1 White	Silty Clay	Firm	None	75-85% Gravel and cobbles greater than 5-cm diameter	Terminated at depth