

An Intensive Pedestrian Survey of the Culebra Tributary Greenway Trail, San Antonio, Bexar County, Texas

by
José E. Zapata and Sarah Wigley



Texas Antiquities Permit No. 8665

REDACTED

Principal Investigator
Leonard Kemp

Original Principal Investigator
Paul Shawn Marceaux

Prepared for:
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Archaeological Report, No. 492

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Abstract:

The University of Texas at San Antonio (UTSA) Center for Archaeological Research (CAR), in response to a request from Bain Medina Bain, Inc. (BMB), conducted an intensive pedestrian survey of the proposed Culebra Tributary Greenway Trail in San Antonio, Bexar County, Texas. BMB proposes to construct a 3 km (1.9 mile) long hike and bike trail that would run along the Culebra Tributary, between Tezel Road and Grissom Road, in northwest San Antonio, Bexar County, Texas. At the south end, the trail will traverse through the Grissom Road box culverts, then up and into the Cathedral Rock Park. Work on the trail will be conducted for the City of San Antonio, Parks and Recreation Department and thus will require review authority by the City of San Antonio, Office of Historic Preservation (COSA-OHP). This project falls under the Texas Antiquities Code. As such, it required a Texas Antiquities Permit, number 8665, issued by the Texas Historical Commission (THC).

The initial survey was completed during the months of November and December 2018, with Dr. Paul Shawn Marceaux serving as Principal Investigator and José Zapata as Project Archaeologist. After Dr. Marceaux's departure from the CAR in November of 2019, Leonard Kemp assumed the role of Principal Investigator. Twenty-seven shovel tests were completed within the project area during the initial survey, of which three were positive. Based on the number of recovered artifacts and limited access, additional testing, consisting of two backhoe trenches, was limited to one of the positive shovel tests. Eight additional shovel tests were completed in March of 2021 under a permit amendment required after a revision to the trail. Five of these shovel tests were excavated in order to investigate deposits along the revised trail path, and three additional shovel tests were excavated in order to delineate the positive shovel tests in the area that was inaccessible to backhoe. All eight shovel tests were negative for cultural material. In total 35 shovel tests and two backhoe trenches were excavated in the project area, encompassing 12,451 square kilometers (3 acres) during the course of the investigation.

A previously recorded site (41BX1592) was revisited, and two new sites (41BX2293 and 41BX2297) were recorded. All are prehistoric in nature. No additional archaeology is recommended for the trail segment that will be located between Tezel and Grissom roads. However, the proposed trail segment south of Grissom Road that leads into Cathedral Rock Park will adversely impact site 41BX1592. Consequently, the CAR has proposed an alternate route.

All artifacts collected and records generated during the course of this project, including a copy of this report, will be permanently curated at the CAR in accordance with THC guidelines. The material is under accession number 2391.

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Chapter 1: Introduction

The University of Texas at San Antonio (UTSA) Center for Archaeological Research (CAR), in response to a request from Bain Medina Bain, Inc. (BMB), conducted an intensive pedestrian survey of the proposed Culebra Tributary Greenway Trail in San Antonio, Bexar County, Texas. The City of San Antonio, Parks and Recreation Department, contracted BMB to construct a 3-kilometer (km; 1.9 mile) hike and bike trail along the Culebra Tributary. It is located between Tezel Road and Grissom Road, and it continues into Cathedral Rock Park, in northwest San Antonio, Bexar County, Texas. The project area included a 9.1-meter (m; 30-foot [ft.]) wide easement (Figure 1-1 and Figure 1-2). Work on the trail was funded by the City of San Antonio, Parks and Recreation Department. Therefore, the City of San Antonio, Office of Historic Preservation (COSA-OHP) had review authority for the project. The project also fell under the Texas Antiquities Code and required a Texas Antiquities Permit (8665). The initial work was completed during the months of November and December 2018. CAR staff returned in March of 2021 following a permit amendment. Paul Shawn Marceaux, PhD, served as Principal Investigator until his departure from the CAR in November 2019, when Leonard Kemp assumed the role. José Zapata was the Project Archaeologist.

Thirty-five shovel tests were excavated, with only three producing positive results. Shovel tests were identified by

the initials of the excavator in sequential order (e.g., SW1 was excavated by Sarah Wigley). Shovel test SW1 was the only positive shovel test assigned a site designation (41BX2293), based on the number of artifacts recovered. A second site (41BX2297) was recorded, just east of Oscar Perez Park, that was based on a cluster of fire-cracked rock found on the surface and a positive shovel test (SW7) located 25 m (82 ft.) to the east of the feature. No other artifacts were located nearby, and a shovel test placed at the feature location was negative. Neither of these sites has research potential within the project area, and they are not eligible for designation as a State Antiquities Landmark (SAL) or for the National Register of Historic Places (NRHP). Site 41BX1592, which is potentially eligible as a SAL (Nichols 2017; Nickels 2004) was revisited in the northern portion of Cathedral Rock Park, and the CAR proposed a trail revision to avoid the site.

This report is presented in five chapters, including this introductory chapter. The second chapter covers the area's natural environment, followed by a cultural history. The field and laboratory methods are covered in the third chapter that is followed by the results of the fieldwork in Chapter 4. The final chapter summarizes the results of the study and submits the CAR's recommendations.

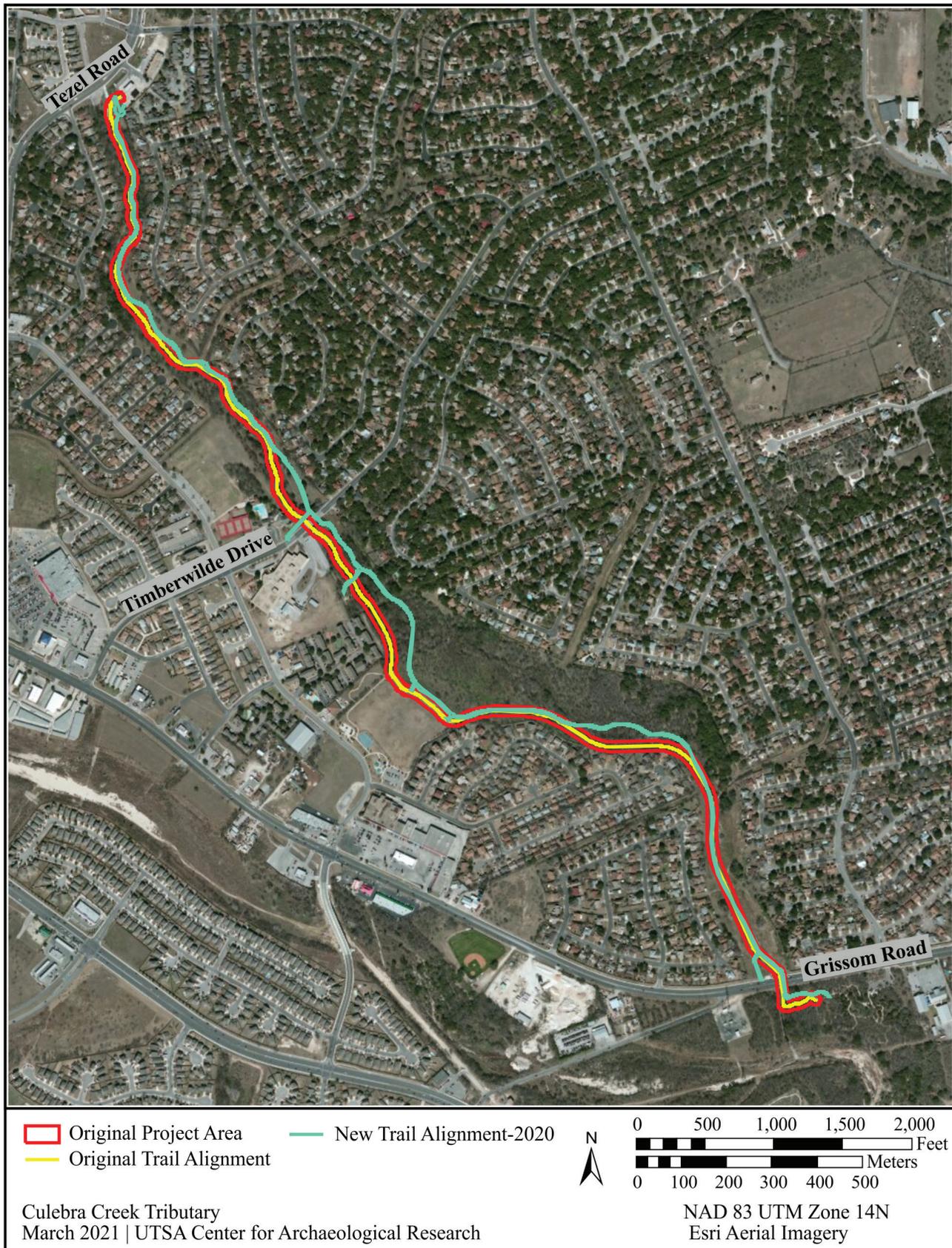


Figure 1-1. Aerial image of the project area.

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Chapter 2: Project Area

The project area lies at the southern fringe of the Edwards Plateau ecological region and the north end of the southern Texas archaeological area. This chapter details the area's environmental setting and cultural history.

Environmental Setting

The Culebra Tributary Greenway Trail project is located in northwest San Antonio and inside Loop 1604. The proposed trail will meander south-southeast along the tributary between Tezel and Grissom roads and into Cathedral Rock Park. The tributary lies between the Culebra Creek on the west and Leon Creek on the east and just above the confluence of these two creeks. The tributary lies within the Leon Creek Watershed, which encompasses most of Bexar County from north to south and includes approximately 614 square km (237 square miles) of contributing drainage area (AECOM Technical Services, Inc. [AECOM] 2011:17). Culebra Creek meanders east-southeast along the west side of the Leon Creek drainage. The Culebra Tributary drains into the Culebra Creek, just inside Cathedral Rock Park. Culebra Creek then continues southeast for approximately 1.2 km (0.75 mile) where it converges with the Leon Creek (United States Geological Survey [USGS] Culebra Hill Topo Map 2013).

The project area is located within the Edwards Plateau and Blackland Prairie, with elevations ranging between 243.8 and 274.3 m (800 and 900 ft.) above sea level (Bureau of Economic Geology 1996). The predominant soil along the tributary is Lewisville silty clay (LvB), with 1 to 3 percent slopes (Natural Resources Conservation Service [NRCS] 2018).

San Antonio's average annual precipitation is 83.6 centimeters (cm; 32.9 inches [in.]) with most rainfall occurring between May and June and smaller peaks occurring in September and October. The driest period occurs between the months of December and March with each month averaging less than 5 cm (2.0 in.) of precipitation (U. S. Climate Data [USCD] 2018).

Cultural History

Situated on the southernmost extreme of the Edwards Plateau, the study area has been occupied by various cultural groups for over 11,000 years. Sites dating to the Paleoindian (11,550-8800 years before present [BP]) have been recorded along the Leon Creek drainage (Bousman et al. 2004:62). Evidence of prehistoric lithic scatter and burned rock middens are plentiful along the Culebra Creek. To date, 20

prehistoric sites of undetermined age have been recorded in close proximity to Culebra Creek (THC Sites Atlas 2019). Six of the 20 prehistoric sites are within 500 m (1,640 ft.) of the project area and in the Cathedral Rock Park footprint (Nichols 2017:2; Nickels 2004:32-47).

Paleoindian (11,500 – 8800 BP)

The Paleoindian (11,550-8800 BP) period is characterized by open campsites that are attributable to nomadic bands of hunter-gatherers. Such sites are typically heavily eroded and feature concentrations of lithic flakes and burned rock middens (Hester 2004:133-136).

Archaic (8800 – 1200 BP)

Evidence for Archaic period (8800 - 1200 BP) occupation is common in the study area (see Cliff et al. 1990; Hester 1974; Pagoulatos 2008). The Archaic period is marked by less mobility and an increase in hunting and gathering of varied resources. Located in Camp Bullis and approximately 125 m (410 ft.) north of the Rogers Ranch segment, survey and testing of 41BX918 produced several thousand Archaic period artifacts, including burned rock, groundstone, and diagnostic points, such as La Jita, Travis, Nolan, and Pedernales (Pagoulatos 2008:103).

Late Prehistoric (1200 – 300 BP)

Late Prehistoric sites date to between 1200 and 350 BP. This period is noted for the introduction of agriculture, pottery, and the bow and arrow, but these new developments did not occur all at once. The bow and arrow, which required the production of smaller and lighter projectiles, made its way into Central Texas first. Whether locally produced or imported, pottery and agriculture were introduced into this area late in the period (Collins 2004:122-123).

Historic

Native habitation of this area was prolonged and extensive, with the historic period settlement of the area beginning in the late-1600s. The historic record attests to the presence of Coahuiltecan groups, Apache, and Comanche. However, little is known of their predecessors who left an enduring footprint on this landscape (Hester 2004:129). Although European settlement along the San Antonio River began in the early 1700s, settlement of the area west of San Antonio did not occur until the mid-1800s (Santleben 1910:246-247). In the 1840s, the growing immigrant population in San Antonio

spurred the establishment of small settlements along the Edwards Plateau. Most of these early settlers were Germans who began to purchase the land and establish stock farms and ranches. Settlers steadily populated the area throughout the mid- to late-1800s, utilizing the land for small-scale farming and grazing (Hester 1989; Santleben 1910). Based on a review of available maps (USGS Topo Map, Culebra Hill 1953, 1966, 1973, 1982), the project area has been greatly modified over the past 35 years.

Previously Recorded Sites

The project area lies within the Leon Creek Watershed. Several hundred archaeological sites have been recorded within this watershed (Osburn 2008:27-69). There are eight previously recorded sites within 1 km (0.6 mile) of the project area. Two of these sites are historic, and both are located at the north end of the project area, while the remaining six sites are located at the south end and all are prehistoric (Figure 2-1).

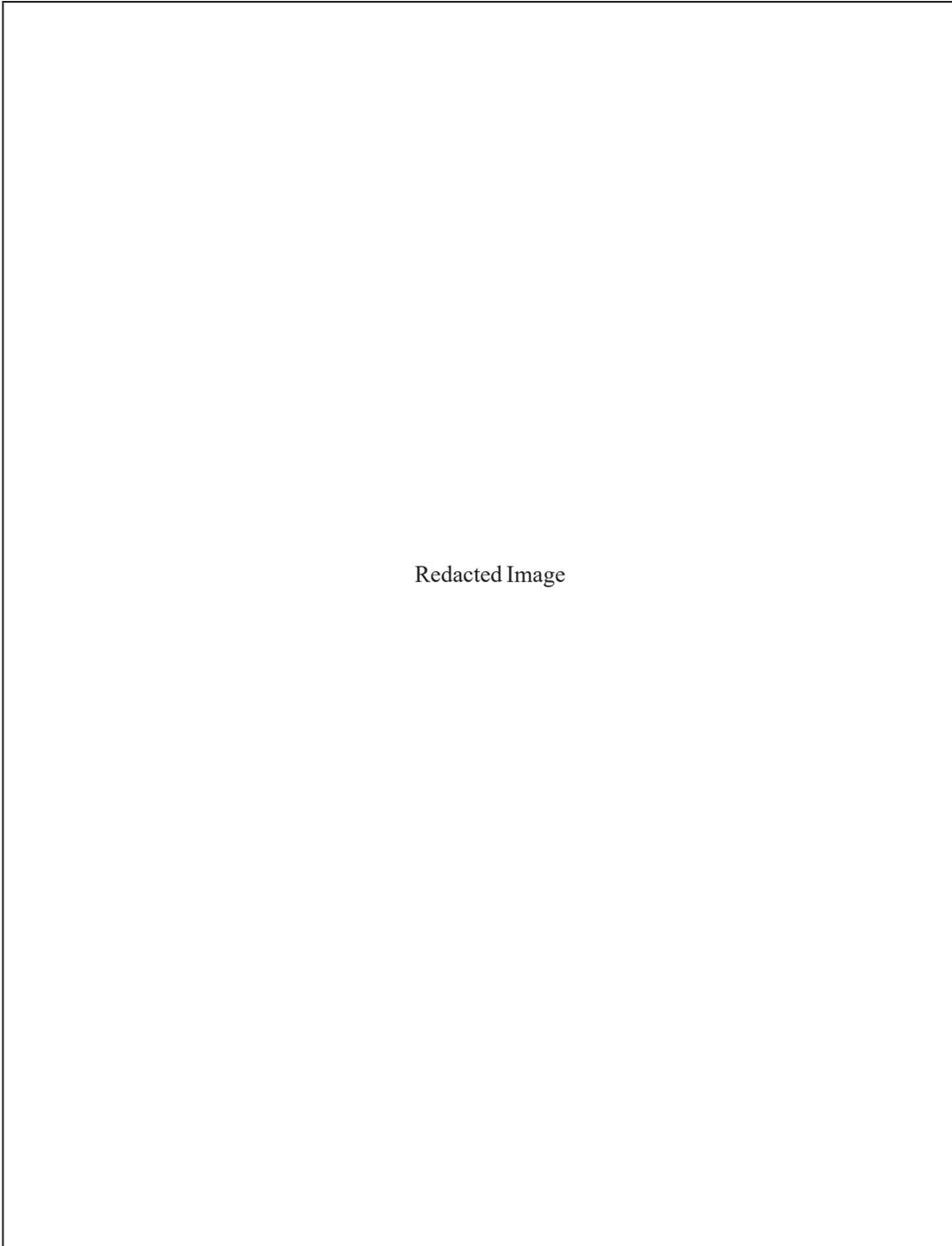


Figure 2-1. Previously recorded sites within 1 km (0.6 mile) of the project area.

At the north end, site 41BX1617 was a mid-1800s, San Antonio to Castroville, stagecoach stop recorded in 2005 (THC Sites Atlas 2019). A follow-up visit in 2007 found the site had been razed and new homes built (Osburn 2008:44). The Tezel Farm and Ranch (41BX1745), a circa 1873 limestone-constructed farmstead, was recorded in 2007 but has since been razed (THC Sites Atlas 2019).

The six prehistoric sites, located at the south end of the project area, were all recorded in 2004 during an archaeological survey of Cathedral Rock Park (Nickels 2004). Sites 41BX1592, 41BX1593, and 41BX1594 were open campsites that featured hearths, fire-cracked rock, and lithic scatter. Sites 41BX1595 and 41BX1596 were strictly lithic scatter sites, while 41BX1597 was found to be a possible Paleoindian site (Nickels 2004:31-46). Site 41BX1592 was suggested to likely have containing intact

deposits and, consequently, good research potential (Nickels 2004:47-48).

In late 2014, additional development of Cathedral Rock Park required that site 41BX1592 be revisited to determine the site's eligibility as a SAL (Nichols 2017). As a result, the site was found to be much larger than initially recorded, 3.0 hectares (7.6 acres; Nichols 2017:34) as opposed to 0.78 hectares (1.9 acres; Nickels 2004:32). Radiocarbon testing of charcoal recovered from burned rock features indicated a Late Archaic occupation at the site (Nichols 2017). Nichols (2017:35) determined that the central portion of site 41BX1592 was potentially eligible for SAL designation and recommended that the area be avoided or, if unavoidable, additional testing should be undertaken. Further discussion of CAR's recommendations for avoiding impacts to site 41BX1592 is included in the concluding chapter. The site's eligibility is undetermined (THC 2019).

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Chapter 3: Field and Lab Methods

This section covers the archaeological services provided for the project. Prior to the fieldwork, CAR staff reviewed the available literature and documents relating to the project area. Background research consisted of reviewing all previous archaeological investigations within 500 m (1,640 ft.), discussed in the previous chapter, as well as relevant reports, maps, and publications related to the project area.

Pedestrian Survey and Shovel Testing

CAR archaeologists completed a 100 percent pedestrian survey of a 3 km (1.9 mile) hike and bike trail along the Culebra Tributary, between Tezel Road and Grissom Road, in northwest San Antonio, Bexar County, Texas. The project area included a 9.1-m (30-ft.) wide easement. Work on the trail involved closely examining the ground surface. A Trimble GPS unit was utilized to map along the project area, and photographs were taken in order to record any surface finds, standing architecture, and other features. In addition to the pedestrian survey, archaeologists excavated 35 shovel tests, a rate consistent with THC guidelines, in order to locate and document subsurface cultural deposits and to delineate the horizontal extent of subsurface cultural deposits. A handheld Trimble Juno GPS unit, with an uploaded shapefile of the trail, was used to plot a course along the unmarked trail, while a Trimble Geo XT unit was used to record surface finds and shovel test (ST) locations. CAR staff began by locating the trail segment on the Juno and proceeded to survey the easement and locating shovel tests from north to south.

Planning for the placement of the shovel tests began with a desktop review of the proposed trail, overlain on satellite imagery. The planned shovel tests were then plotted on the map at intervals of between 100 and 120 m (328.1 and 393.7 ft.). These proposed locations were then added to the trail shapefile and located as the pedestrian survey progressed from north to south. The shovel tests were 30 cm (11.8 in.) in diameter and, where possible, terminated at 60 cm (23.6 in.) below the ground surface. Seventeen shovel tests were terminated before the desired 60 cm (23.6 in.) when CAR staff encountered obstructions, such as bedrock and roots. All shovel tests were excavated in arbitrary levels of 10 cm (4 in.), and soils were screened through one-quarter inch hardware cloth. At the conclusion of each shovel test, CAR staff recorded the natural stratigraphic levels, such as texture and color, and then refilled the hole with the screened soil.

Two backhoe trenches were excavated to explore the deposits around SW1. Backhoe trenches were also planned for positive shovel tests SW7 and MB6, but the machine could not access these areas. Backhoe trench locations were recorded with a Trimble Geo XT unit. Trenches were 1 m (3.3 ft.) wide by 5 m (16.4 in.) long and reached 1.4 m (4.6 ft.) below the surface. Backdirt from the excavations was examined for artifacts. Soil stratigraphy was examined and photographed. A 1-m (3.3-ft.) segment of the profile of each backhoe trench was recorded, and field notes were recorded on a standardized form.

After the initial survey was completed in 2018, a redesign shifted the path of the trail necessitating additional shovel testing to investigate the new trail path. After consultation with COSA-OHP, the CAR requested a permit amendment from the THC in February 2021 and returned to excavate eight additional shovel tests; five were along the new trail and three were to delineate the positive shovel tests (SW7 and MB6) that CAR was previously unable to access with the backhoe as planned.

The Project Archaeologist maintained a daily log, and all archaeologists completed a standard shovel test form. Activities and discoveries were documented and supported by digital data, including photographs. CAR staff also recorded the location of each shovel test with a GPS unit and identified the shovel test with his/her initials and in sequential order (e.g., SW1 was excavated by Sarah Wigley).

Site Recording and Collection Policy

For the purposes of this survey, an archaeological site must contain cultural materials or features that are at least 50 years old within a given area. The definition of a site used for this project is as follows: (1) five or more surface artifacts within a 15 m (49.2 ft) radius (ca. 706.9 m²; 7609 ft²), or (2) a single cultural feature, such as a hearth, observed on the surface or exposed while shovel testing, or (3) a positive shovel test containing at least three artifacts within a given 10-cm (3.9 in) level, or (4) a positive shovel test containing at least five total artifacts, or (5) two positive shovel tests located within 30 m (98.4 ft) of each other.

If evidence of cultural materials meeting the minimum criteria for an archaeological site was encountered in a shovel test or on the surface, shovel tests were then be excavated at close intervals to define the extent of the distribution. Site boundaries were to be plotted on aerial photographs and a topographic quadrangle map, and location data was collected using a GPS unit.

The CAR staff were to collect all artifacts recovered from shovel tests. During the pedestrian survey, archaeologists were to document and collect diagnostic artifacts associated with sites. At the discretion of the Project Archaeologist, non-diagnostic artifacts associated with sites were to be documented in place but not collected. Any artifact observed on the surface that was not associated with a site was to be recorded as an isolated find. Only those isolated finds that were temporally diagnostic would be collected. The location of all isolated finds would be plotted with a GPS unit and plotted on an aerial map.

Lab Analysis, Curation Preparation, and Final Curation

The analysis and organization of records, artifacts, and daily logs was ongoing throughout the project. All records

generated during the project were prepared in accordance with THC requirements for State Held-in-Trust collections and Federal Regulations 36 CFR Part 79. Field forms were printed on acid-free paper and completed with pencil. Artifacts collected were brought to the CAR laboratory, washed, air-dried, and stored in 4-mil zip-lock, archival-quality bags. Any materials needing extra support were double-bagged, and acid-free labels were placed in the artifact bags. Each laser printer generated label contains provenience information and a corresponding lot number.

All field notes, forms, photographs, and drawings were placed in labeled archival folders. Digital photographs were printed on acid-free paper, and placed in archival-quality page protectors. Following completion of the project, all recovered artifacts and project-related materials, including the final report will be permanently stored at the CAR's curation facility under accession number 2391.

Chapter 4: Project Area History

The survey and shovel testing began at the north end of the proposed trail and just south of Tezel Road. Twelve shovel tests were located and completed between Tezel Road and Timberwilde Drive. An additional 15 shovel tests were located and completed between Timberwilde Drive and Grissom Road. Testing of these areas resulted in three positive shovel tests (SW1, SW7, and MB6; Figure 4-1; Table 4-1 and Table 4-2). Two backhoe trenches were excavated in order to explore deposits around SW1. Similar testing was planned for SW7 and MB6, but the machine was unable to access the areas around these shovel tests. Eight additional shovel tests were excavated following a permit amendment to revise the trail in March of 2021, five of which served to investigate the new trail and three of which delineated the deposits encountered in SW7 and MB6. In total, 35 shovel tests and two backhoe trenches were excavated in the project area. Two new sites, 41BX2293 and 41BX2297, were recorded along the trail, and one previously recorded site, 41BX1592, was revisited.

Results of Shovel Testing

Shovel test SW1 was the second excavated at the north end of the proposed trail. This shovel test was located along a foot trail and seemed very promising, as it featured dark soils and deeply buried cultural deposits (Figure 4-2). The soils to 38 cm below the surface (bs) (15 in.) were a mix of dark grayish to yellowish brown clays that were culturally sterile. The soil between 38 cmbs and 60 cmbs (15 and 23.6 in.) was black (10YR2/1) loose, silty, and ashy. Fourteen fire-cracked rocks (FCR) and a charcoal sample were recovered from this dark ashy layer. Based on these results, it was decided that additional shovel tests and backhoe trenches would be excavated nearby.

The pedestrian survey and shovel testing continued in a southeasterly direction toward Oscar Perez Park with negative results. Shovel tests excavated within this area after the trail realignment (SW9, PW1, PW2, SW10, and PW3) also produced negative results. A feature and a positive shovel test were located approximately 200 m (656.2 ft.) east of Oscar Perez Park (Feature 1 and SW7).

Feature 1 was a surface scatter composed of seven FCR and one modified flake, all within one square meter (11 square feet). After collecting the surface scatter, a shovel test (JZ10) was excavated on the same spot with negative results (Figure 4-3).

The second positive shovel test (SW7) was located approximately 25 m (82 ft.) east of Feature 1. This shovel test produced two FCR fragments from within the first 10 cm (3.9

in.) excavated and an additional FCR from a lower level (35-40 cmbs; 13.8-15.7 in.). From the location of SW7, the proposed trail meandered east for approximately 500 m (1640.4 ft), then turned south, where shovel test MB6 was located. Two planned shovel tests along this easterly route, were abandoned due to shallow soils. A third shovel test, located approximately 150 m (492.1 ft.) above Grissom Road was also abandoned due to shallow soils. MB6 was the third and final positive shovel test. It was located in a brushy area with fairly deep soils. MB6 was excavated to 51 cmbs (20 in.) and resulted in the recovery of a core from within the last 10 cm (3.9 in.) excavated. No other cultural material was observed as the survey continued south toward Grissom Road and Cathedral Rock Park.

Delineation of Positive Shovel Tests

Based on the positive results of shovel test SW1, additional shovel testing and backhoe trenching was planned and executed (Figure 4-4). Note that backhoe access to the other two positive shovel tests (SW7 and MB6) was not possible. Two shovel tests were located close to SW1 in an attempt to determine the aerial extent of the site. Shovel test JZ11 was located 15 m (49 ft.) north of SW1 and excavated to 56 cmbs (22 in.). Shovel test JZ12 was located 15 m (49 ft.) south of SW1 and excavated to 40 cmbs (15.7 in.). In both cases, the results of the testing were negative.

The excavated soils of JZ11 were dark and clayey and absent of cultural material. Excavation of this shovel test stopped at 56 cmbs (22 in.), due to a heavy concentration of cobbles. The soil matrix of shovel test JZ12 consisted of a continuous layer of silty clay with a heavy concentration of cobbles between 11 and 40 cmbs (4.3 to 15.7 in.). No cultural material was encountered and excavation ceased at 40 cmbs (15.7 in.) due to an increased concentration of large cobbles.

Backhoe trench 1 (BHT 1) was located 5.0 m (16.4 ft.) north of SW1, and BHT 2 was located 5.0 m (16.4 ft.) south of SW1. Both trenches were 1.0 m (3.3 ft.) wide by 5.0 m (16.4 ft.) long, and excavated to between 1.1 and 1.3 m (3.6 and 4.3 ft.). A few fragments of post-1950 cultural material were noted within the top 30 cm (11.8 in.) of fill. The BHT 1 soil matrix was a mix of alternating layers of silty clays and gravel (Figure 4-5).

The BHT 2 soil matrix was similar to what was observed in shovel test SW1. The BHT 2 stratum between 32 and 89 cmbs (12.6 and 35.0 in.) was a dark gray silt intermixed with a grayish brown soil with limestone gravel and flecks of pale yellow pebbles (Figure 4-6).



Redacted Image

Figure 4-1. Location of shovel tests along project area.

Table 4-1. Summary of Shovel Testing in North to South Sequence

Excavated Sequence N-S	Shovel Test	End Level	Depth (cmbs)	Depth (inches)	Results
1	JZ1	4	33	13.0	Negative
2	JZ11	6	56	22.0	Negative
3	SW1	6	60	23.6	Positive
4	JZ12	4	40	15.7	Negative
5	MB1	6	60	23.6	Negative
6	JZ2	5	42	16.5	Negative
7	SW2	6	54	21.3	Negative
8	MB2	2	12	4.7	Negative
9	JZ3	6	60	23.6	Negative
10	SW3	6	60	23.6	Negative
11	MB3	6	60	23.6	Negative
12	JZ4	6	60	23.6	Negative
13	SW4	6	60	23.6	Negative
14	SW9	6	60	23.6	Negative
15	MB4	6	60	23.6	Negative
16	PW1	6	60	23.6	Negative
17	MB5	3	24	9.4	Negative
18	PW2	3	28	11.0	Negative
19	JZ5	1	5	2.0	Negative
20	SW10	6	60	23.6	Negative
21	JZ9	3	24	9.4	Negative
22	PW3	6	60	23.6	Negative
23	SW8	3	26	10.2	Negative
24	MB7	6	60	23.6	Negative
25	SW7	6	60	23.6	Positive
26	PW4	6	60	23.6	Negative
27	JZ8	2	15	5.9	Negative
28	SW6	6	60	23.6	Negative
29	PW5	6	60	23.6	Negative
30	MB6	6	51	20.1	Positive
31	SW11	2	15	5.9	Negative
32	JZ7	6	60	23.6	Negative
33	SW5	5	50	19.7	Negative
34	JZ6	4	35	13.8	Negative
35	JZ10	4	37	14.6	Negative

Table 4-2. Summary of Positive Shovel Tests

Shovel Test	Depth bs (cm)	Depth bs (in.)	Munsell	Soil Color and Texture	Cultural Material Recovered
SW1	0-10	0-3.9	10YR3/2	Very dark grayish brown clay	Culturally sterile
	10-27	3.9-10.6	10YR3/2	Very dark grayish brown clay	Culturally sterile
	27-30	10.6-11.8	10YR4/6	Dark yellowish brown	Culturally sterile
	30-38	11.8-15.0	10YR4/2	Dark grayish brown	Culturally sterile
	38-60	15.0-23.6	10YR2/1	Black loose silty, ashy soil	14 FCR fragments, 1 charcoal sample.
SW7	0-35	0-13.8	10YR2/2	Very dark brown silt clay; large roots	2 FCR fragments from the first 10 cm.
	35-60	13.8-23.6	10YR3/3	Dark brown clay	1 burned rock fragment between 35 and 40 cmbs.
MB6	0-12	0-4.7	10YR3/3	Dark brown silty clay	Culturally sterile
	12-20	4.7-7.9	10YR4/3	Brown silt clay with pebbles	Culturally sterile
	20-51	7.9-20.0	10YR4/6	Dark yellowish brown silt clay	Core between 40-50 cm
Feature 1	Surface	Surface	not applicable	not applicable	7 FCR fragments, 1 modified flake from the surface. Shovel test JZ10 was excavated on this spot and was negative.



Figure 4-2. Shovel test SW1 excavated to 60 cm (23.6 in.) below surface (bs).



Figure 4-3. Location of Feature 1 and shovel test SW7.

In sum, testing within the area of shovel test SW1 did not locate evidence of a larger site. The negative results of this additional testing suggest that SW1 is a spatially restricted site, which was recorded as 41BX2293. No additional testing is recommended for the proposed trail extending between Tezel and Grissom roads.

When CAR returned in March of 2021 following the permit amendment, staff revisited SW7 and MB6 in order to delineate the two positive shovel tests. Three additional shovel tests (PW4, PW5, and SW11) were excavated. All three were negative for cultural material. A previously excavated shovel test, JZ10, was located 25 m (82 ft.) west of SW7 and was also negative for buried material, although there was a lithic scatter (Feature 1) located on the surface. These results indicate that the cultural material recovered from MB6 was isolated and did not meet the definition of a site. The cultural material from SW7, located 25 m (82 ft.) east of Feature 1, is included within site 41BX2297 but does not appear to extend east or west within the confines of the project area.

Newly Recorded Sites

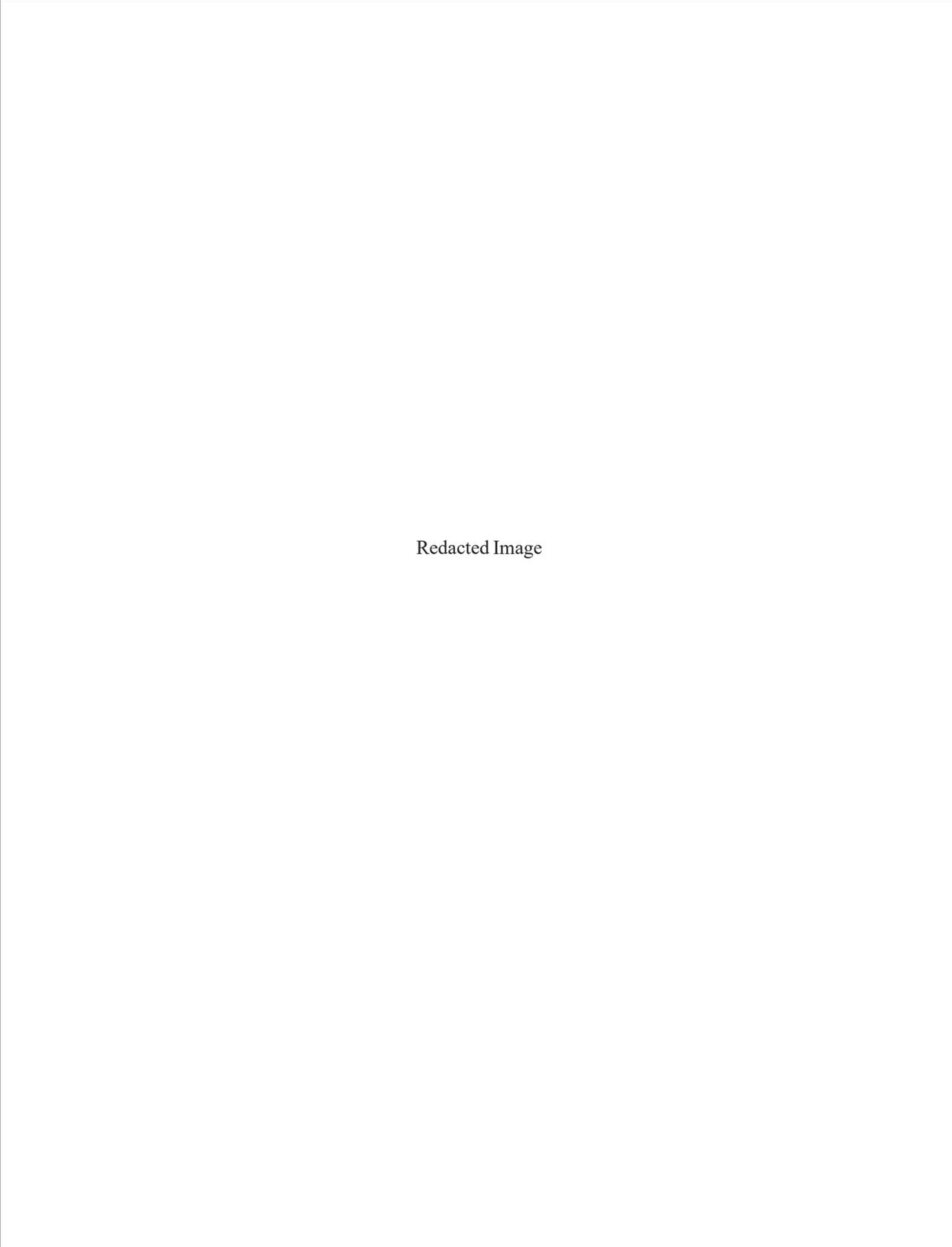
In summary, shovel testing and backhoe trenching resulted in the recording of two new sites, 41BX2293 and 41BX2297. 41BX2293 was defined in SW1 by the presence of burned rock, charcoal and dark, possibly burned soils, associated with a hearth feature. Dark soils and charcoal were

encountered in BHT 2, located 5 m (16.4 ft.) to the south, but lithic material was lacking. BHT 1, located 5 m (16.4 ft.) to the north, and shovel tests (JZ 11 and 12) located 15 m (49.2 ft.) to the north and south were both negative, suggesting that within the project area 41BX2293 is spatially restricted. Buried material the site extends from 32-89 cmbs (12.6-35 in.). No temporally diagnostic lithic artifacts were present, but radiocarbon dating of the charcoal could provide data on the components present. Within the project area, the site has limited research potential.

Site 41BX2297 (Figure 4-7) was defined by the presence of a surface burned rock feature (Feature 1) and a positive shovel test located 25 m (82 ft.) to the east (SW7). A shovel test (JZ10) within the lithic scatter determined that Feature 1 is restricted to the surface. SW7 encountered a fragment of burned rock at a depth of 35-40 cmbs (13.8-15.7 in.), with the rest of the material recovered from 0-10 cmbs (0-3.9 in.). Shovel tests located to the east and west (MB7 and PW4) were negative. No temporally diagnostic artifacts or material suited for radiocarbon dating was observed. Site 41BX2297 has limited research potential within the project area.

Revisit of 41BX1592

At the south end, a short 120-m (393.7-ft.) long segment of the proposed trail crosses beneath Grissom Road through a

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Figure 4-4. Additional testing of SW1 and site boundaries of 41BX2293.

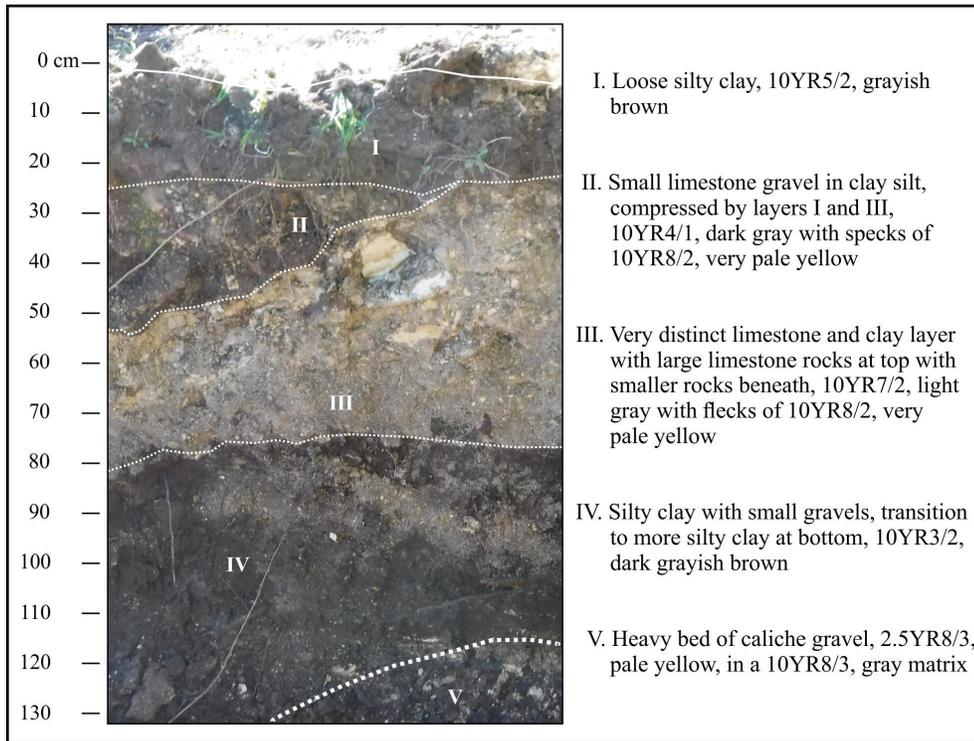


Figure 4-5. BHT 1 profile.

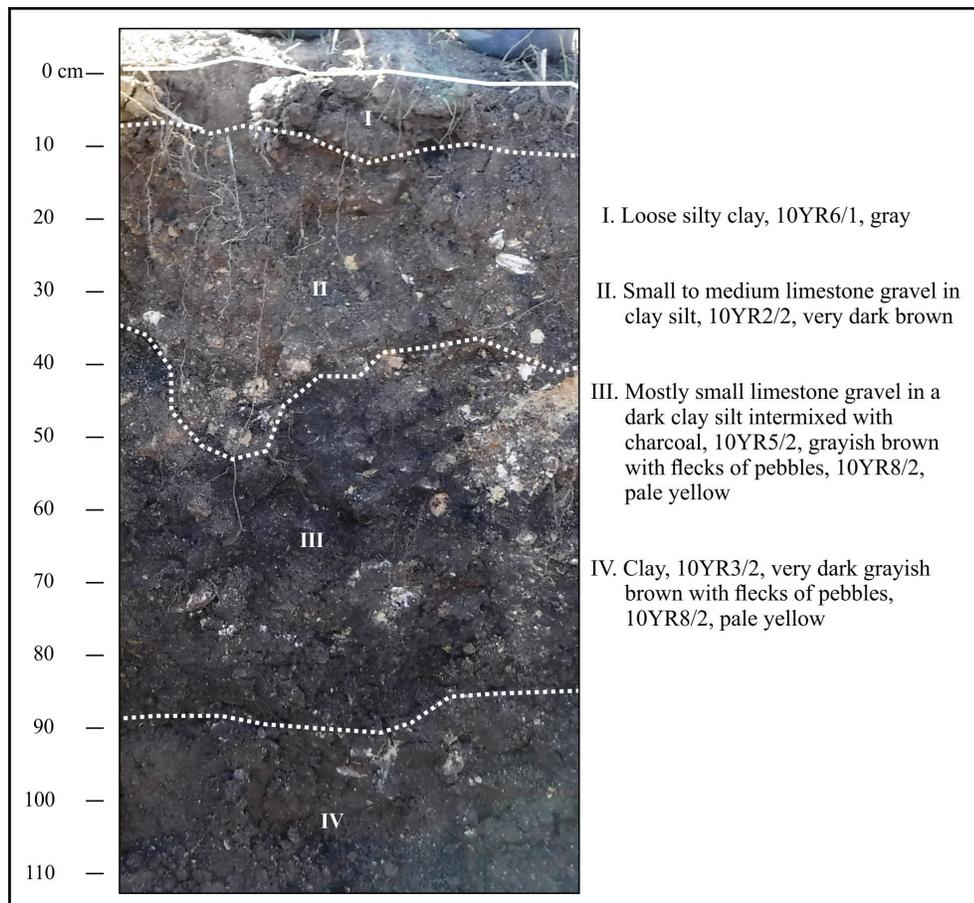
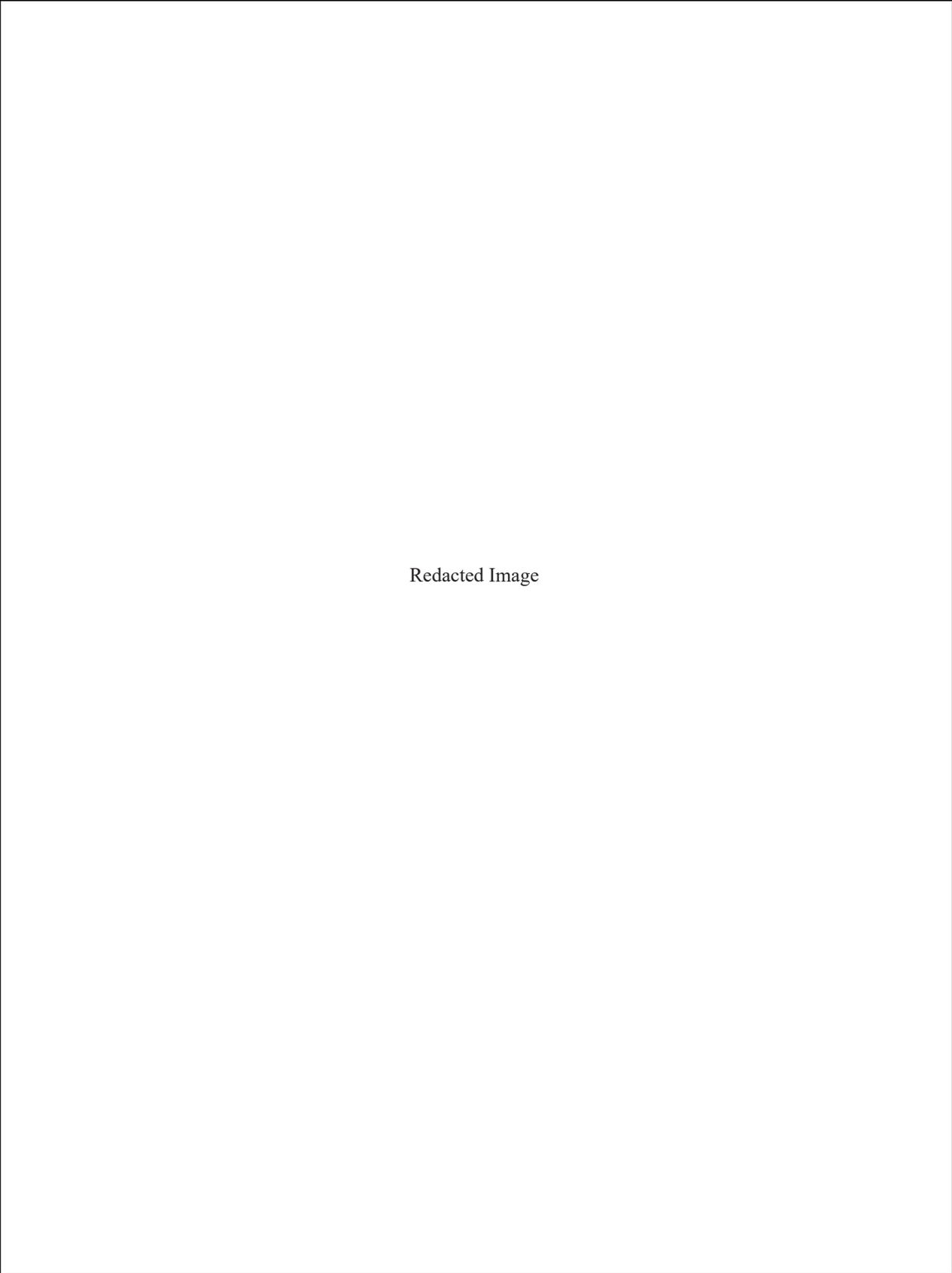


Figure 4-6. BHT 2 profile.



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Figure 4-7. Site boundaries of 41BX2297.

culvert, then heads up and into Cathedral Rock Park. This last segment of proposed trail meanders through site 41BX1592, a Late Archaic open campsite, consisting of lithic scatter and burned rock features (Nickels 2004:32-33). Subsequent SAL testing resulted in an avoidance designation for the core of site 41BX1592 (Nichols 2017:35-36). Although this area was not retested, the CAR staff did follow the proposed trail

into the avoidance area and noted an abundance of lithic scatter and burned rock on the surface, none of which was collected. The CAR staff surveyed an area south of and parallel to Grissom Road and did not observe any cultural material on the surface. This alternate trail was plotted with a Trimble GPS unit in order to produce a map of the alternate route for consideration (Figure 4-8).

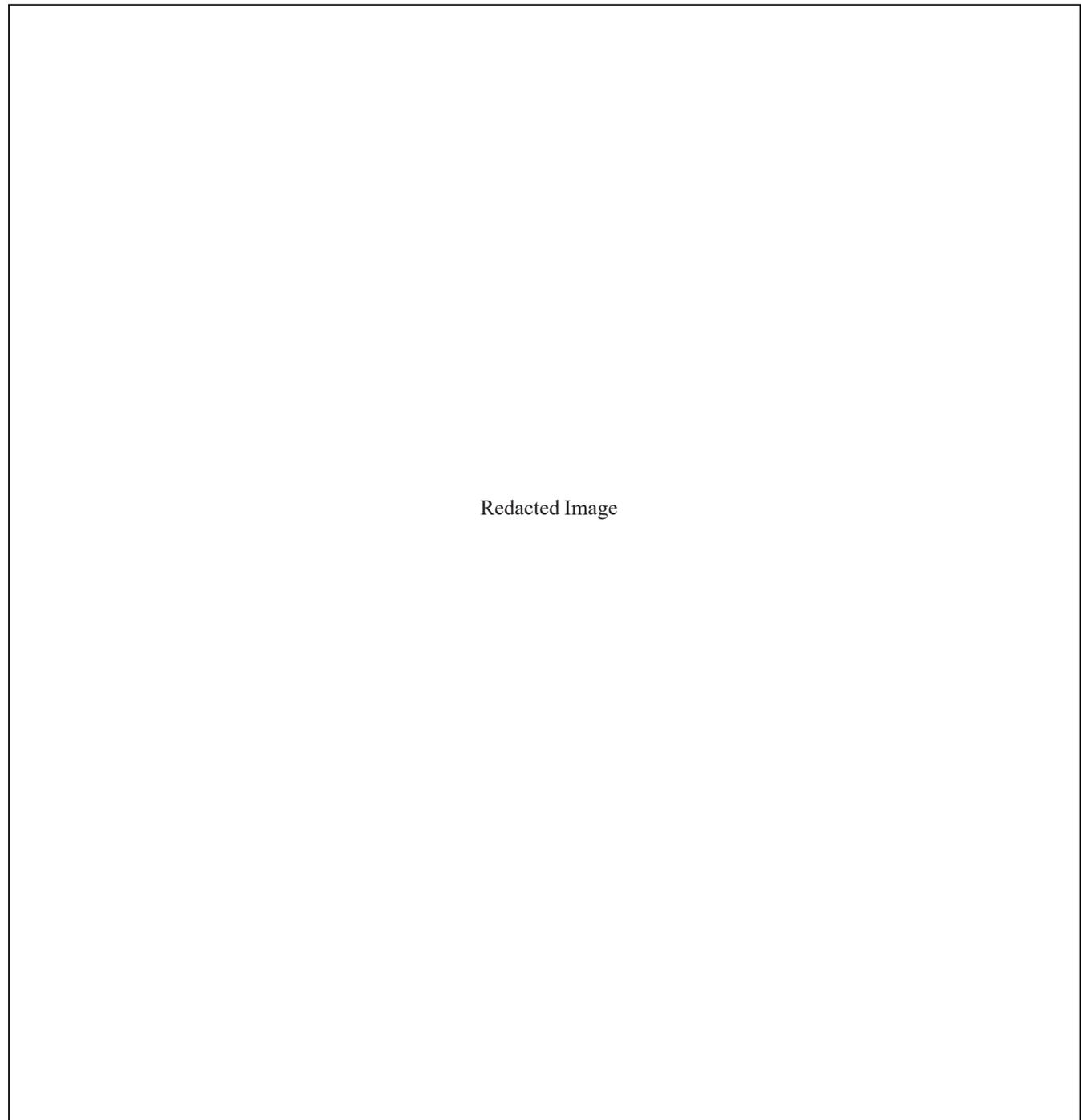


Figure 4-8. Proposed alternate route at Cathedral Rock Park.

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Chapter 5: Summary and Recommendations

The UTSA CAR archaeologists completed an archaeological investigation for the proposed Culebra Tributary Greenway Trail in November and December of 2018, with additional work completed in March of 2021 following a trail redesign. This investigation consisted of 35 shovel tests, two backhoe trenches, and 100 percent pedestrian survey. The principal goal was to identify and document all prehistoric and/or historic archaeological sites that may be impacted by the proposed trail. The project area consisted of a 3.0 km (1.9 mile) trail corridor, with a 9.1 m (30 ft.) wide easement. The trail will generally run south-southeast between Tezel Road and Grissom Road.

Two new sites were recorded, with one of these located just below Tezel Road and the other just east of Oscar Perez Park. As a result of the shovel testing, site 41BX2293 was recorded as a prehistoric hearth of undetermined age. Additional shovel testing (JZ11 and JZ12) within 15 m (49.2 ft.) on either side of SW1 turned up negative results. This same area exhibited deep soils, so two backhoe trenches were excavated below Tezel Road. In both cases, no additional features or artifacts were encountered. While no temporally diagnostic artifacts were recovered from the site, radiocarbon dating of the charcoal recovered from shovel testing could provide temporal data on the feature. Due to the restricted extent of the feature indicates that within the project area, 41BX2293 has limited research potential and is not eligible for designation as a SAL or for the NRHP. The pedestrian survey resulted in the location of a surface cluster of FCR and a modified flake (Feature 1), which was recorded as site 41BX2297. A shovel test determined that Feature 1 was restricted to the surface. Twenty-five m

(82 ft.) to the east, burned rock was encountered in SW7 to a depth of 40 cmbs (15.7 in.). Additional shovel testing (MB7 and PW4) was negative. Site 41BX2297 has limited research value within the project area and is not eligible for designation as a SAL or for the NRHP. Overall, the soils across the project area were wide-ranging, which would be attributable to a combination of cultivation, urban sprawl, and deposition resulting from periodic flooding.

CAR staff also conducted a revisit of site 41BX1592, located at the south end of the trail in Cathedral Rock Park. This site is potentially eligible as a SAL and avoidance of impact has been previously recommended (Nichols 2017; Nickels 2004). CAR staff conducted a surface inspection of the planned trail and encountered a quantity of lithic material on the surface. CAR proposes a slight realignment of the trail (see Figure 4-7) to avoid impacting the surface portion of the site.

In conclusion, the results of the pedestrian survey and testing suggest that construction of the proposed trail will not negatively impact significant cultural deposits within the project area if the CAR's proposed trail realignment within the boundaries of 41BX1592 is adopted. Therefore, the CAR recommends no additional archaeological work in advance of construction of the Culebra Tributary Greenway Trail. However, in the event that construction of the trail reveals archaeological deposits, work should cease and the City Archaeologist of the COSA-OHP should be notified. In addition, construction across the Culebra Tributary may require a Section 404 Permit, in which case the CAR will consult with the United States Army Corps of Engineers (USACE).

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