Cultural Resources Investigation Conducted for the Shamaa Development Subdivision Project, City of San Antonio, Bexar County, Texas

JANUARY 2019

PREPARED FOR

Shamaa Development, LLC

PREPARED BY

SWCA Environmental Consultants

CULTURAL RESOURCES INVESTIGATION CONDUCTED FOR THE SHAMAA DEVELOPMENT SUBDIVISION PROJECT, CITY OF SAN ANTONIO, BEXAR COUNTY, TEXAS

Prepared for

Shamaa Development, LLC
3322 Sable Creek
San Antonio, Texas 78259

Prepared by

Cody C. Roush, B.A.

Sophia M. Salgado, B.A.

Principal Investigator
Zachary M. Overfield, M.A., RPA

SWCA Environmental Consultants
6200 UTSA Boulevard
Suite 102
San Antonio, Texas 78249
www.swca.com

SWCA Project No. 53117

January 2019

ABSTRACT

At the request of Shamaa Development, LLC, SWCA Environmental Consultants (SWCA) conducted a cultural resources investigation for the Shamaa Development Subdivision Project (Project), located within southern San Antonio, Bexar County, Texas. The Project involves the construction of a new 10-acre (4.0-hectare [ha]) subdivision, as well as an associated 60-foot (18-meter [m]) access easement. The total size of the area of investigation was 12.78 acres (5.17 ha) in extent, which represents the area of potential effects (APE) for the Project. The proposed Project is located on private property and is subject to review under the Historic Preservation and Design Sections of the City of San Antonio's Unified Development Code (UDC) (Article VI 35-360 to 35-634).

Investigations included a background literature and historic map review, and an intensive pedestrian survey augmented with systematic shovel testing within the Project area. The background review identified one previously recorded cultural resource (i.e., the George Family Cemetery) within 300 feet (91 m) of the Project area (THC 2018). The Project area is located 141 feet (43 m) west of the George Family Cemetery. This cemetery is located on a different property on the other side of a gravel road and will not be impacted by the Project activities (THC 2018).

The intensive pedestrian survey revealed a sandy plain setting. Previous impacts and disturbances to the Project area include erosion, vegetation clearing, and two-track roads. The cultural resources field investigation consisted of a visual inspection of the entire 12.78-acre (5.17-ha) Project area augmented by the excavation of 30 shovel tests. The current investigation did not encounter any archaeological sites within the Project area. SWCA identified a single isolated find, IF01, consisting of a single brick during pedestrian survey of the Project area. This cultural resource does not meet the criteria for designation as an archaeological site, and no further work is warranted.

In accordance with the City of San Antonio UDC, SWCA made a reasonable and good faith effort to identify cultural resource properties within the APE. No properties were identified within the APE that may meet the criteria for listing in as a Historic Landmark or District according to the UDC. Therefore, SWCA recommends that no additional cultural resources investigations are warranted within the Project area, as currently defined.

This page intentionally left blank.

CONTENTS

Abstract ..... **i**

Introduction **1**
Project Personnel 1

Project Area Description **1**

Environmental Setting **5**
Geology and Soils 5
Flora and Fauna 5

Background Literature and Historic Map Review **6**

Methodology **8**

Survey Results **8**
IF01 11

Summary and Recommendations **12**

References Cited **14**

Appendices

Appendix A Shovel Test Data

Figures

Figure 1. Project area location. 2
Figure 2. Project area overview and geology map. 3
Figure 3. Project area overview and soils map. 4
Figure 4. Background review results. 7
Figure 5. Project area survey results. 9
Figure 6. Overview of a two-track within Project area near shovel test CR006, facing east. 10
Figure 7. Overview of the easement within the Project area, facing west. 10
Figure 8. Ground surface overview 11
Figure 9. IF01 – Brick with "S" makers mark. 11
Figure 10. IF01- Area overview facing west. 12

INTRODUCTION

At the request of Shamaa Development, LLC, SWCA Environmental Consultants (SWCA) conducted a cultural resources investigation of the Shamaa Development Subdivision Project (Project), located in the Highland Oaks neighborhood in southeastern San Antonio, Texas. The Project involves the construction of a new 10-acre (4.0-hectare [ha]) subdivision, as well as an associated 60-foot (18.2-meter [m]) access easement within the extraterritorial jurisdiction of the City of San Antonio in Bexar County, Texas (Figure 1), which represents the area of potential effects (APE) for the Project. The proposed Project is located on private property within the City of San Antonio and is subject to review under the Historic Preservation and Design Sections of the Unified Development Code (UDC) (Article VI 35-360 to 35-634).

The purpose of the investigation was to identify and assess any cultural resources, such as historic and prehistoric archaeological sites and historic buildings, structures, objects, and sites (such as cemeteries) that might be located within the boundaries of the proposed Project area and evaluate the significance of these cultural resources. The investigation consisted of a background literature and historic map review and an intensive pedestrian survey augmented with shovel testing within the proposed Project area. All investigations were conducted in accordance with the standards and guidelines established by the Texas Historical Commission (THC) and Council of Texas Archeologists (CTA).

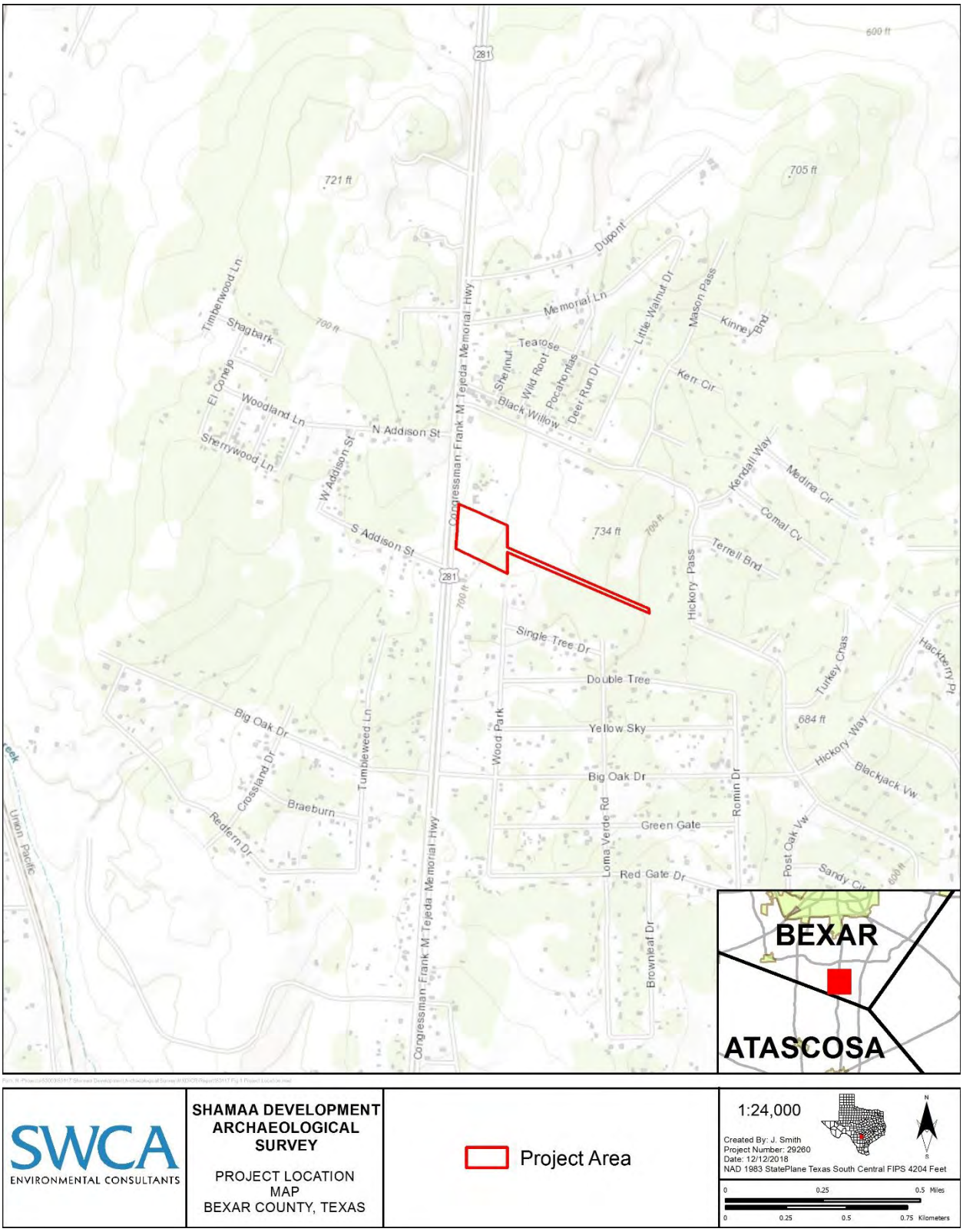
Project Personnel

Zachary M. Overfield, M.A., RPA, served as the Principal Investigator and Project Manager, while Sophia Salgado, B.A., served as Assistant Project Manager and Project Archaeologist for the duration of the Project, overseeing overall logistics and organization, managing reporting, and agency consultation. Archaeologists John Hedges and Cody Roush completed the fieldwork on December 11 and 12, 2018. Cody Roush and Sophia Salgado prepared the report of the investigations. Jason Kainer expertly produced all field and report maps for the project, and Lauri Logan provided technical editing and document preparation.

PROJECT AREA DESCRIPTION

The Project area appears on the *Losoya, Texas* (2998-123) U.S. Geological Survey (USGS) 7.5-minute quadrangle map (see Figure 1). The Project area is located within an undeveloped tract situated approximately 2.9 miles (4.7 km) south of Loop 1604 south, east of US 281, north of S. Addison Street, and west of Hickory Pass Road in far southeastern San Antonio, Texas. The Project area is located within a semi-rural setting surrounded by continually expanding residential and commercial development, with remnants of rolling, open pastures along the far southeastern side of the city (Figures 2 and 3). Overall, the Project involves the construction of a residential development within a currently undeveloped 12.78-acre (5.17-ha) tract.

The Project area is characterized as a sandy plain setting. The vegetation within the Project area consists of scrub brush, live oak, short to medium grasses, and mesquite trees. Previous impacts and disturbances to the Project area include erosion, vegetation clearing, and two-track roads.



SWCA ENVIRONMENTAL CONSULTANTS

SHAMAA DEVELOPMENT ARCHAEOLOGICAL SURVEY

PROJECT LOCATION MAP
BEXAR COUNTY, TEXAS

Project Area

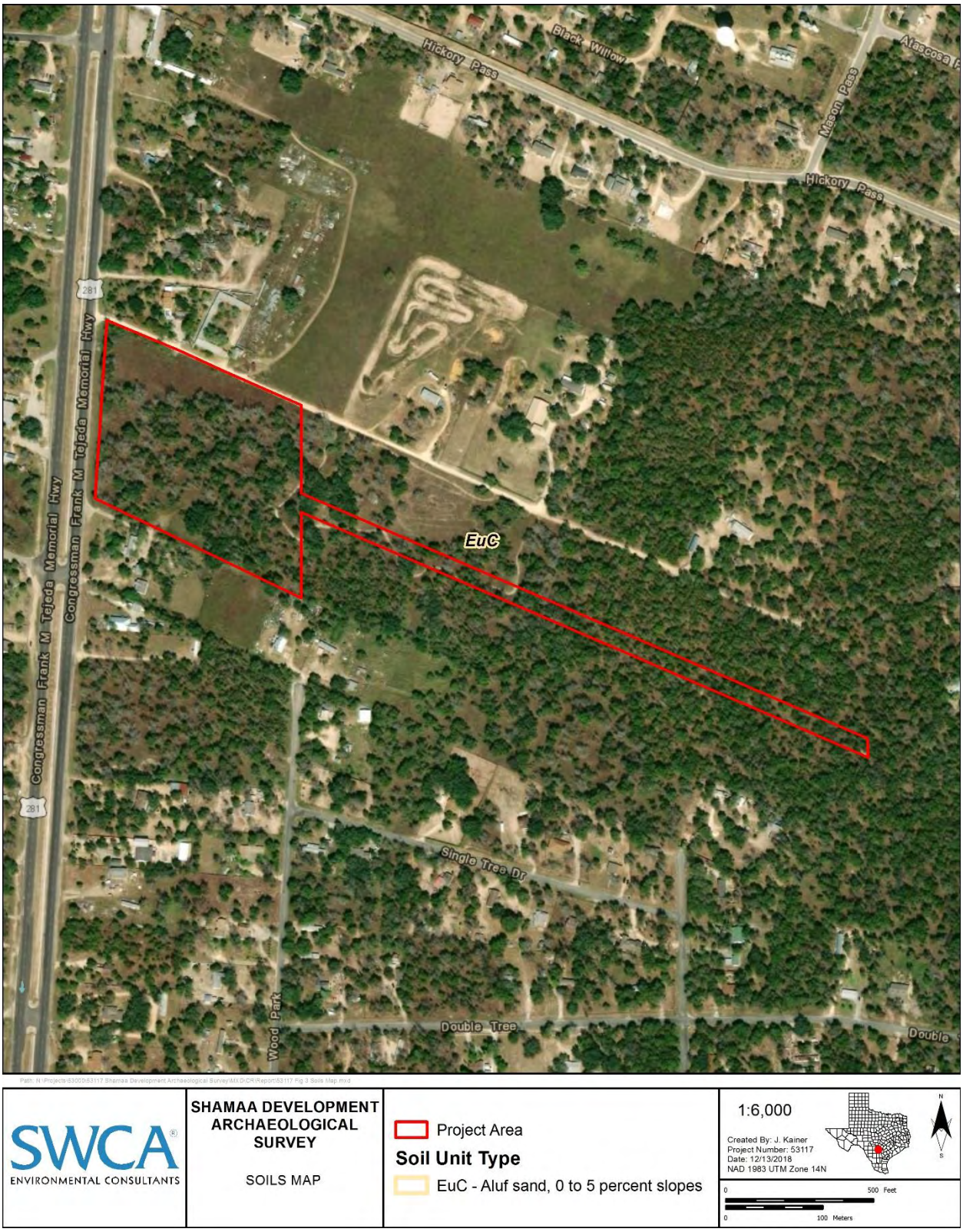
1:24,000

Created By: J. Smith
Project Number: 29260
Date: 12/12/2018
NAD 1983 StatePlane Texas South Central FIPS 4204 Feet

0 0.25 0.5 Miles
0 0.25 0.5 0.75 Kilometers

Figure 1. Project area location.

Figure 2. Project area overview and geology map.



SWCA ENVIRONMENTAL CONSULTANTS

SHAMAA DEVELOPMENT ARCHAEOLOGICAL SURVEY

SOILS MAP

Project Area

Soil Unit Type

EuC - Aluf sand, 0 to 5 percent slopes

1:6,000

Created By: J. Kainer
Project Number: 53117
Date: 12/13/2018
NAD 1983 UTM Zone 14N

0 500 Feet

0 100 Meters

Figure 3. Project area overview and soils map.

ENVIRONMENTAL SETTING

Geology and Soils

The underlying geology throughout the Project area consists of Carizzo Sand of Tertiary/Eocene Age (Barnes et al. 1983) (see Figure 2). This medium to very coarse-grained sandstone is light yellow to orange and brown in appearance, and weathers to an iron-oxide banded yellowish brown.

The Project area is entirely mapped as Aluf sand (see Figure 3). Aluf sand consists of soils formed in sandy sediments that are very deep, somewhat excessively drained, rapidly permeable, sandy soils to an average depth of 6.7 feet (2.0 m) (Natural Resources Conservation Service 2018).

Flora and Fauna

The Project area is located in the Blackland Prairie vegetative region (Correll and Johnston 1979) and is located on the margin of the Balconian and Tamaulipan biotic regions as defined by Blair (1950). The Blackland Prairie has a gently rolling topography that supports a diverse assemblage including southern hackberry, cedar elm, bur oak, post oak, and blackjack oak, with an understory of bunch grasses, shrubs, laurel greenbriar, yaupon holly, American beautyberry, and coralbean (Kutac and Caran 1994; Petrides 1988; Simpson 1988). Originally, the Blackland Prairie region supported a tall grass prairie (Gould 1969).

A wide variety of species of mammals, birds, reptiles, and amphibians occupy, or historically occupied, the Balconian and Tamaulipan biotic provinces. Their distribution and densities vary considerably and are mainly dependent upon the local vegetational community and available water resources. Small mammal species of these biotic zones include opossum, raccoon, nine-banded armadillo, deer mouse, pocket mouse, white-footed mouse, southern plains woodrat, desert cottontail, and black-tailed jackrabbit. Large mammal species that occur or have the potential to occur within the Project area include white-tailed deer, coyote, bobcat, and javelina (Burt and Grossenheider 1976; Schmidly 1983). Less common are predatory mammals, including the bobcat, coyote, and gray fox. Additionally, bison, mountain lions, and black bear were present prehistorically (Davis and Schmidly 1994).

Bird species composition in the Balconian biotic zone is fairly diverse, with numerous breeding, migrant, and wintering species present (Kutac and Caran 1994). Common species found in the area include northern cardinal, tufted titmouse, Berwick's wren, mourning dove, northern mockingbird, red-tailed hawk, wild turkey, and turkey vulture (Davis and Schmidly 1994). Bird species present in the Tamaulipan biotic region are typical of the brush and scrub vegetational community. Common resident species include the mourning dove, northern mockingbird, house sparrow, olive sparrow, the northern bobwhite, red-tailed hawk, and the long-billed thrasher (Kutac and Caran 1994).

Amphibians and reptiles within these provinces include the ornate box turtle, Texas banded gecko, tree lizard, eastern grass lizard, smallmouth salamander, Blanchard's cricket frog, eastern green toad, Texas toad, common musk turtle, Guadalupe spiny softshell, blacktail rattlesnake, western diamondback rattlesnake, northern copperhead, checkered garter snake, eastern yellowbelly racer, Great Plains rat snake, Texas rat snake, Texas coral snake, broad banded copperhead, and the western cottonmouth (Conant and Collins 1998; Kutac and Caran 1994).

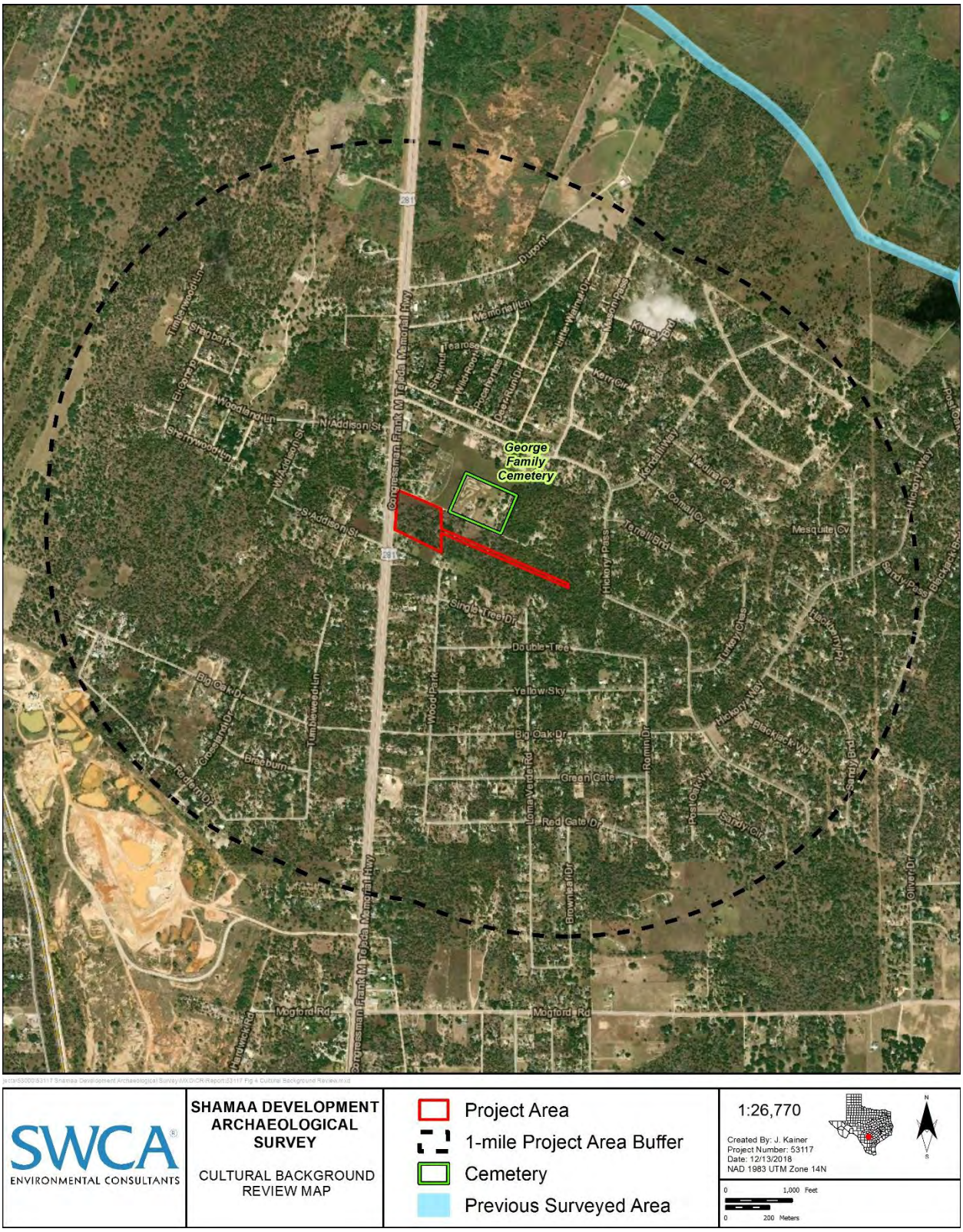
BACKGROUND LITERATURE AND HISTORIC MAP REVIEW

SWCA performed a cultural resources background literature and historic map review on December 13, 2018, to determine if the Project area was previously surveyed for cultural resources or if any cultural resources were previously recorded within or immediately adjacent to the Project area. To conduct the review, an SWCA archaeologist examined the *Losoya, Texas* (2998-123) USGS 7.5-minute quadrangle map on the THC's Texas Archeological Sites Atlas (Atlas) restricted database. This source provided information on the nature and location of previously conducted cultural resources investigations, previously recorded archaeological sites, locations of National Register of Historic Places districts and properties, sites designated as State Antiquities Landmarks, Official Texas Historical Markers, Recorded Texas Historic Landmarks, cemeteries, and local neighborhood surveys. Previous cultural resources investigations listed on the Atlas are limited to projects under purview of the Antiquities Code of Texas or the National Historic Preservation Act; therefore, the Atlas does not necessarily list all previous work conducted within a specific area. In addition, projects completed under these regulations may not be posted to the Atlas due to a delay between the completion of fieldwork and the completion of reports.

To perform the historic map review, SWCA reviewed maps contained in the Texas Department of Transportation (TxDOT) Historic Overlay Map, a mapping/geographic information system (GIS) database with historic maps and resource information covering most portions of the state (Foster et al. 2006). SWCA also reviewed historical USGS topographic maps available on USGS TopoView (USGS 2018), as well as Bexar County and City of San Antonio-specific data sources (i.e., Stoner Map System maps). These sources contain information on potential historic resources and the general history of development in the Project area.

The current SWCA review identified one previously recorded cultural resource within 300 feet (91.4 m) of the Project area (Figure 4). The George Family Cemetery is mapped 141 feet (43 m) northeast of the Project area. The cemetery has 37 interments, the earliest of which date to the early to mid-nineteenth century (Find A Grave 2009). The cemetery is located on a different property, north of a gravel road, and will not be impacted by the Project activities. No trace of the cemetery was visible in the Project area.

SWCA also reviewed historic USGS TopoView maps and Stoner Map System maps dating from 1836 to 1975 to determine if any potentially historic-age resources were located within the Project area (Foster et al. 2006; USGS 2018). Overall, the maps revealed information regarding early land assignments/ ownership information and the development of the area. No potentially historic structures were identified within the Project area during the review.



SWCA® ENVIRONMENTAL CONSULTANTS	**SHAMAA DEVELOPMENT ARCHAEOLOGICAL SURVEY** CULTURAL BACKGROUND REVIEW MAP	Project Area 1-mile Project Area Buffer Cemetery Previous Surveyed Area	1:26,770 Created By: J. Kainer Project Number: 53117 Date: 12/13/2018 NAD 1983 UTM Zone 14N 0 1,000 Feet 0 200 Meters

Figure 4. Background review results.

METHODOLOGY

SWCA's investigations consisted of an intensive pedestrian survey augmented with shovel testing. Archaeologists examined the ground surface and extensive exposures for cultural resources. Subsurface investigations consisted of systematic shovel test excavations. For project areas between 3 and 10 acres (1.2 and 4.0 ha) in size, the THC survey standards minimally require two shovel tests per acre and 16 per mile for linear surveys. For this Project size (a 10-acre [4-ha] area and 0.4-mile [0.6-km] easement), the shovel test investigations minimally required 26 shovel tests. SWCA archaeologists exceeded this, excavating a total of 30 shovel tests.

SWCA archaeologists employ both metric (centimeters and meters) and English (inches and feet) units of measurement when conducting investigations within a project area. In compliance with archaeological standard practices, investigations such as shovel tests, auger probes, and backhoe trenches are recorded using metric units. Prehistoric archaeological resources, such as campsites, features, and artifacts, are also recorded using metric units, whereas historic resources, such as farmsteads and associated historic features, are recorded using English units.

SWCA primarily utilized systematic shovel testing throughout the entire Project area. The amount of shovel tests decreased depending on the level of previous disturbances and the nature of the soils. SWCA did not conduct shovel testing in areas where impervious substrates (i.e., asphalt, concrete, compact gravel, and/or caliche) were present, within 16.4 feet (5 m) of any paved/gravel road edges or identified buried utility markers, or where evidence of extensive ground surface disturbance was observed. Shovel tests, measuring approximately 1-foot (30 centimeters [cm]) in diameter, were excavated in arbitrary 0.7-foot (20-cm) levels to culturally sterile deposits or compact soils, whichever was encountered first.

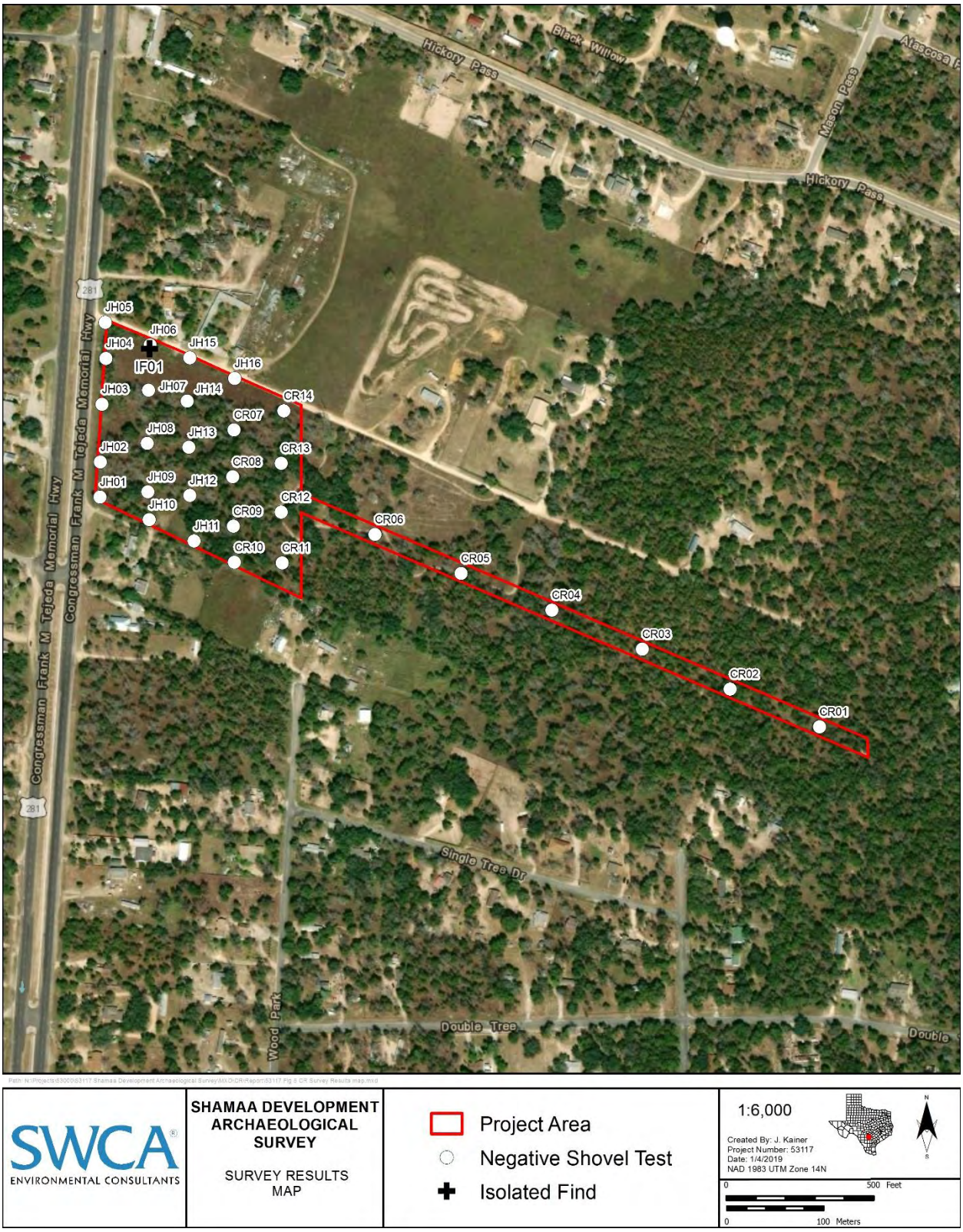
Archaeologists screened the matrix through ¼-inch mesh. The location of each shovel test was plotted using a hand-held sub-meter accurate global positioning system (GPS) receiver and was recorded on appropriate Project forms in SWCA's field tablets. Artifacts encountered were tabulated, analyzed, and documented in the field.

SURVEY RESULTS

On December 11 and 12, 2018, SWCA archaeologists conducted an intensive pedestrian survey augmented with shovel testing of the Project area (Figure 5). Visual examination revealed that the Project area has been moderately disturbed by vegetation clearing and two track roads (Figures 6 and 7). The vegetation within the Project area consists of mesquite, thorny shrubs, short to medium grasses, live oak, and scrub brush. Ground surface visibility ranged from 0 to 100 percent with dense vegetative litter present on most of the ground surface (Figure 8). Previous impacts and disturbances to the Project area include erosion, vegetation clearing, and two-track roads.

SWCA personnel excavated a total of 30 shovel tests (JH001–JH016, CR001–CR014) throughout the Project area. The investigation exceeded the THC's standards for shovel testing for projects of this size (see Figure 5; Appendix A). Shovel tests typically contained a light yellowish brown (10YR 6/4) loamy sand.

Shovel testing extended to a maximum depth of approximately 3 feet (100 cm) below surface. None of the 30 shovel tests were positive for subsurface cultural resources. SWCA identified and recorded one isolated find, IF01, within the Project area. This cultural resource is discussed further below.



SWCA ENVIRONMENTAL CONSULTANTS

SHAMAA DEVELOPMENT ARCHAEOLOGICAL SURVEY

SURVEY RESULTS MAP

Project Area
Negative Shovel Test
Isolated Find

1:6,000
Created By: J. Kainer
Project Number: 53117
Date: 1/4/2019
NAD 1983 UTM Zone 14N
0 500 Feet
0 100 Meters

Figure 5. Project area survey results.

Figure 6. Overview of a two-track within Project area near shovel test CR006, facing east.

Figure 7. Overview of the easement within the Project area, facing west.

Figure 8. Ground surface overview

IF01

IF01 is an isolated find located in the northwest corner of the Project area (see Figure 5). It consists of a single orange-red brick (Figure 9). Activities likely associated with vegetation clearing caused small fragments of the brick to break off (see Figure 9). The brick has a maker's mark, but only an "S" remains on the brick fragment. The brick appears heavily weathered. A single shovel test, JH006, was excavated next to the brick and was negative for cultural materials. The area in the vicinity of the artifact (Figure 10) has been disturbed by vegetation-clearing activities, and no other cultural materials are present. SWCA recorded a GPS point and photographs of the find, but no further work is warranted at this location.

Figure 9. IF01 – Brick with "S" makers mark.

Figure 10. IF01- Area overview facing west.

SUMMARY AND RECOMMENDATIONS

At the request of Shamaa Development, LLC, SWCA conducted a cultural resources investigation of the Shamaa Development Subdivision Project area, which is located within southern San Antonio, Bexar County, Texas. The Project area is surrounded by substantial residential and commercial development on three sides (north, south, and west). The Project involves the construction of a new 10-acre (4.0-ha) subdivision, as well as an associated 60-foot (18-m) access easement. The total size of the area of investigation was 12.78 acres (5.17 ha) in extent, which represents the APE for the Project. The proposed Project is located on private property and is subject to review under the Historic Preservation and Design Sections of the City of San Antonio's UDC (Article VI 35-360 to 35-634).

Investigations included a background literature and historic map review, and an intensive pedestrian survey augmented with systematic shovel testing within the Project area. The background review identified one previously recorded cultural resource (i.e., the George Family Cemetery) within 300 feet (91.4 m) of the Project area (THC 2018). The Project area is located 141 feet (43 m) west of the George Family Cemetery. This cemetery is located on a different property on the other side of a gravel road, and will not be impacted by the Project activities (THC 2018).

The intensive pedestrian survey revealed a sandy plain setting. Previous impacts and disturbances to the Project area include erosion, vegetation clearing, and two-track roads. The cultural resources field investigation consisted of a visual inspection of the entire 12.78-acre (5.17-ha) Project area augmented by the excavation of 30 shovel tests. During this investigation, SWCA identified a single isolated find, IF01, consisting of a single brick. This cultural resource does not meet the criteria for designation as an archaeological site, and no further work is warranted at this location. SWCA archaeologists did not encounter any other archaeological sites or cultural material during the remainder of the pedestrian survey.

In accordance with the City of San Antonio UDC, SWCA made a reasonable and good faith effort to identify cultural resources properties within the APE. No properties were identified within the APE that meet the criteria for listing as a Historic Landmark or District according to the UDC. Therefore, SWCA recommends that no additional cultural resources investigations are warranted within the Project area, as currently defined.

REFERENCES CITED

Barnes, V. E., Shell Development Co., Amerada Petroleum Corp., T.E. Brown, N.B. Waechter, and R.L. Dillon
1983 Geologic Atlas of Texas. Bureau of Economic Geology. The University of Texas at Austin.

Blair, W. F.
1950 The Biotic Provinces of Texas. *The Texas Journal of Science.* 2(1):93–117.

Burt, W. H., and R. P. Grossenheider
1976 *Peterson Field Guides: Mammals.* Third Edition. Houghton Mifflin Company, Boston and New York.

Conant, R., and J. T. Collins
1998 *Peterson Field Guides: Reptiles and Amphibians Eastern and Central North America*. Third Edition. Houghton Mifflin Company, Boston and New York.

Correll, D. S., and M. C. Johnston
1979 *Manual of the Vascular Plants of Texas*. University of Texas at Dallas.

Davis, W. B., and D. J. Schmidly
1994 *The Mammals of Texas*. University of Texas Press, Austin.

Find A Grave
2009 *George Family Cemetery*. Available at: https://www.findagrave.com/cemetery/2313090/george-family-cemetery. Accessed December 13, 2018

Foster, T. R., T. Summerville, and T. Brown
2006 The Texas Historic Overlay: A Geographic Information System of Historic Map Images for Planning Transportation Projects in Texas. Prepared for the Texas Department of Transportation by PBS&J, Austin.

Gould, F. W.
1969 *Texas Plants: A Checklist and Ecological Survey*. Texas Agricultural Extension Service, Texas A&M University, College Station.

Kutac, Edward A., and S. Christopher Caran
1994 *Birds and Other Wildlife of South Central Texas*. University of Texas, Austin.

Natural Resources Conservation Service (NRCS)
2018 Soil Survey Staff, Natural Resources Conservation Service, U.S. Department of Agriculture. *Web Soil Survey of Bexar County*. Available at: http://websoilsurvey.nrcs.usda.gov/. Accessed on December 13, 2018.

Petrides, G. A.
1988 *Peterson Field Guides: A Guide to Eastern Trees.* Houghton Mifflin Company, Boston and New York.

Schmidly, D. J.
1983 *Texas Mammals East of the Balcones Fault Zone.* Texas A&M Press, College Station.

Simpson, B. J.
1988 *A Field Guide to Texas Trees.* Texas Monthly Field Guide Series. Texas Monthly Press, Austin, Texas.

Texas Historical Commission (THC)
2018 Texas Archeological Sites Atlas restricted database, Texas Historical Commission. Available at: http://pedernales.thc.state.tx.us/. Accessed on December 13, 2018.

U.S. Geologic Survey (USGS)
2018 TopoView. https://ngmdb.usgs.gov/topoview/viewer/#4/39.98/-100.24. Accessed December 13, 2018.

Appendix A

Shovel Test Data

Shovel Test No.	Depth (cmbs)	Munsell	Soil Color	Soil Texture	Inclusions	Positive/ Negative	Comment/Reason for Termination
CR01	0-100	10YR 6/4	light yellowish brown	Sand	–	Negative	No cultural material encountered. Terminated at depth.
CR02	0-100	10YR 6/4	light yellowish brown	Sand	–	Negative	No cultural material encountered. Terminated at depth.
CR03	0-100	10YR 6/4	light yellowish brown	Sand	–	Negative	No cultural material encountered. Terminated at depth.
CR04	0-100	10YR 6/4	light yellowish brown	Sand	–	Negative	No cultural material encountered. Terminated at depth.
CR05	0-30	10YR 4/4	dark yellowish brown	Loamy Sand	–	Negative	No cultural material encountered.
	30-70	10YR 6/4	light yellowish brown	Sand	–	Negative	No cultural material encountered. Terminated at hydric soil with large 5YR 5/8 oxidation.
CR06	0-30	10YR 4/4	dark yellowish brown	Loamy Sand	–	Negative	No cultural material encountered.
	30-100	10YR 6/4	light yellowish brown	Sand	–	Negative	No cultural material encountered. Terminated at hydric soil with large 5YR 5/8 oxidation.
CR07	0-30	10YR 4/4	dark yellowish brown	Loamy Sand	–	Negative	No cultural material encountered.
	30-100	10YR 6/4	light yellowish brown	Sand	10-20% Small 5YR 5/8 oxidations	Negative	No cultural material encountered. Terminated at depth.
CR08	0-100	10YR 6/4	light yellowish brown	Sand	–	Negative	No cultural material encountered. Terminated at depth.
CR09	0-30	10YR 4/4	dark yellowish brown	Loamy Sand	–	Negative	No cultural material encountered.
	30-100	10YR 6/4	light yellowish brown	Sand	10-20% Small 5YR 5/8 oxidations	Negative	No cultural material encountered. Terminated at depth.
CR10	0-30	10YR 4/4	dark yellowish brown	Loamy Sand	–	Negative	No cultural material encountered.
	30-100	10YR 6/4	light yellowish brown	Sand	10-20% Small 5YR 5/8 oxidations	Negative	No cultural material encountered. Terminated at depth.

Shovel Test No.	Depth (cmbs)	Munsell	Soil Color	Soil Texture	Inclusions	Positive/ Negative	Comment/Reason for Termination
CR11	0-30	10YR 4/4	dark yellowish brown	Loamy Sand	–	Negative	No cultural material encountered.
	30-100	10YR 6/4	light yellowish brown	Sand	10-20% Small 5YR 5/8 oxidations	Negative	No cultural material encountered. Terminated at depth.
CR12	0-100	10YR 8/2	very pale brown	Sand	10-20% Small oxidations	Negative	No cultural material encountered. Terminated at depth.
CR13	0-30	10YR 4/4	dark yellowish brown	Loamy Sand	–	Negative	No cultural material encountered.
	30-65	10YR 6/4	light yellowish brown	Sand	10-20% Small 5YR 5/8 oxidations	Negative	No cultural material encountered. Terminated at an impenetrable root.
CR14	0-100	10YR 6/4	light yellowish brown	Sand	–	Negative	No cultural material encountered. Terminated at depth.
JH01	0-100	10YR 4/4	dark yellowish brown	Loamy Sand	1-5% Cobbles	Negative	No cultural material encountered. Terminated at depth.
JH02	0-100	10YR 4/4	dark yellowish brown	Loamy Sand	1-5% Cobbles	Negative	No cultural material encountered. Terminated at depth.
JH03	0-88	10YR 4/4	dark yellowish brown	Loamy Sand	1-5% Pebbles	Negative	No cultural material encountered.
	88-94	7.5YR 5/6	strong brown	Sandy Clay Loam	–	Negative	No cultural material encountered. Terminated at compact soil.
JH04	0-100	10YR 4/4	dark yellowish brown	Loamy Sand	–	Negative	No cultural material encountered. Terminated at depth.
JH05	0-20	7.5YR 4/4	brown	Loamy Sand	1-5% Pebbles	Negative	No cultural material encountered.
	20-60	7.5YR 5/6	strong brown	Sandy Clay Loam	5-10% Asphalt chunk at 40 cm	Negative	No cultural material encountered. Terminated at compact soil.
JH06	1-100	10YR 4/4	dark yellowish brown	Loamy Sand	1-5% Pebbles	Negative	No cultural material encountered. Terminated at depth.
JH07	0-100	10YR 4/4	dark yellowish brown	Loamy Sand	1-5% Pebbles	Negative	No cultural material encountered. Terminated at depth.
JH08	0-100	10YR 4/4	dark yellowish brown	Loamy Sand	1-5% Gravels, Pebbles	Negative	No cultural material encountered. Terminated at depth.

Shovel Test No.	Depth (cmbs)	Munsell	Soil Color	Soil Texture	Inclusions	Positive/ Negative	Comment/Reason for Termination
JH09	0-100	10YR 4/4	dark yellowish brown	Sandy Loam	–	Negative	No cultural material encountered. Terminated at depth.
JH10	0-88	10YR 4/4	dark yellowish brown	Sandy Loam	–	Negative	No cultural material encountered. Terminated at compact soil.
JH11	1-100	10YR 4/4	dark yellowish brown	Loamy Sand	10-20% Mottles	Negative	No cultural material encountered. Terminated at depth.
JH12	0-100	10YR 5/8	yellowish brown	Loamy Sand	–	Negative	No cultural material encountered. Terminated at depth.
JH13	0-100	10YR 5/4	yellowish brown	Loamy Sand	–	Negative	No cultural material encountered. Terminated at depth.
JH14	0-100	10YR 4/4	dark yellowish brown	Loamy Sand	–	Negative	No cultural material encountered. Terminated at depth.
JH15	0-100	10YR 4/4	dark yellowish brown	Loamy Sand	–	Negative	No cultural material encountered. Terminated at depth.
JH16	0-100	10YR 4/4	dark yellowish brown	Loamy Sand	–	Negative	No cultural material encountered. Terminated at depth.