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Environmental Services, Inc.

AN INTENSIVE CULTURAL RESOURCES SURVEY OF US ARMY CORPS OF ENGINEERS JURISDICTIONAL DRAINAGES WITHIN THE PROPOSED 101-ACRE STONE OAK DEVELOPMENT LOCATED ON US 281 AT STONE OAK PARKWAY SAN ANTONIO, BEXAR COUNTY, TEXAS HJN 040133 AR

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ABSTRACT

This document reports the results of an intensive cultural resources survey of US Army Corps of Engineers (USACE) jurisdictional drainages within the proposed 101-acre Stone Oak Development located northeast of the intersection of US Highway 281 and Stone Oak Parkway in Bexar County, Texas. Development of the 101-acre property requires a Section 404 Permit issued by the USACE. As such, the project falls under the regulations of Section 106 of the National Historic Preservation Act of 1966, as amended. At the request of David Berndt Interests, Inc., Horizon Environmental Services, Inc. (Horizon), conducted an intensive pedestrian survey of the property on 23 February 2005. The purpose of the survey was to identify any cultural resources within the boundaries of the USACE jurisdictional areas within the proposed 101-acre development and, if any existed, to assess their potential eligibility for inclusion in the National Register of Historic Places.

Due to the fact that all soils within the project area consist of eroded Tarrant association soils and exposed limestone bedding planes, excavating shovel tests to any depth was unsuccessful. As such, shovel testing was not conducted along the USACE jurisdictional drainage (i.e., West Elm Creek) within the project area. An intensive surface inspection was conducted along the terraces of West Elm Creek, however, with special attention paid to any location along the creek course (e.g., bends, relic channels) where any accumulated soils might be extant.

No archeological sites or historic structures were documented within the surveyed project area. In addition, the erosional Tarrant association soils within the project area have no potential to contain buried, stratified cultural deposits. West Elm Creek is flanked on both sides by expansive, exposed limestone bedding planes that form stepped terraces. As such, it is Horizon's opinion that no significant cultural resources would be impacted by construction within the surveyed project area of the proposed Stone Oak Development. Horizon recommends that construction be allowed to proceed as planned within the surveyed USACE jurisdictional areas.

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1.0 INTRODUCTION

This document reports the results of an intensive cultural resources survey of US Army Corps of Engineers (USACE) jurisdictional drainages within the proposed 101-acre Stone Oak Development located northeast of the intersection of US Highway 281 (US 281) and Stone Oak Parkway in Bexar County, Texas. Development of the 101-acre property requires a Section 404 Permit issued by the USACE. As such, the project falls under the regulations of Section 106 of the National Historic Preservation Act of 1966, as amended. At the request of David Berndt Interests, Inc., Horizon Environmental Services, Inc. (Horizon), conducted an intensive pedestrian survey of the property on 23 February 2005. The purpose of the survey was to identify any cultural resources within the boundaries of the USACE jurisdictional areas inside the proposed101-acre development and, if any existed, to assess their potential eligibility for inclusion in the National Register of Historic Places (NRHP).

The cultural resources investigation consisted of an archival review, an intensive pedestrian survey of the property, and the production of a report suitable for review by the State Historic Preservation Officer (SHPO) in accordance with the Texas Historical Commission's (THC) Rules of Practice and Procedure, Chapter 26, Section 27, and the Council of Texas Archeologists (CTA) Guidelines for Cultural Resources Management Reports. Jeffrey D. Owens served as the Principal Investigator for the project. The field crew consisted of Rebecca Sick, Project Archeologist, and Reign Clark, Archeological Field Technician. The pedestrian survey of the USACE jurisdictional area was conducted on 23 February 2005.

2.0 PROJECT AREA

The project area is located on the US Geological Survey (USGS) Bulverde, Texas, 7.5' quadrangle map (Figure 1), northeast of the intersection of US 281 and Stone Oak Parkway in Bexar County, Texas. This area is typical of the southern Edwards Plateau, consisting of rolling clay hills and limestone terraces covered primarily by dense stands of Ashe juniper, stunted live oak, and prairie grasses. West Elm Creek runs through the southwestern portion of the project area. The creek has incised its course down to limestone bedrock. Most of the project area sheds water to West Elm Creek. Only a small eastern portion of the project area sheds water to East Elm Creek, which is located east of the project area's boundaries.

The project area is located within Blair's (1950) Balconian biotic province on the southeastern fringes of the Edwards Plateau. Blair (1950) notes that the climate of this region's eastern half is classified as dry subhumid. The region's average temperature is 18 degrees Celsius (°C) (64 degrees Fahrenheit [°F]) and can range from an extreme low of 4°C (39°F) to an extreme high of 36°C (96°F). Total average precipitation in the region is approximately 79 centimeters (cm) (31 inches [in]) annually, and the growing season averages 265 days.

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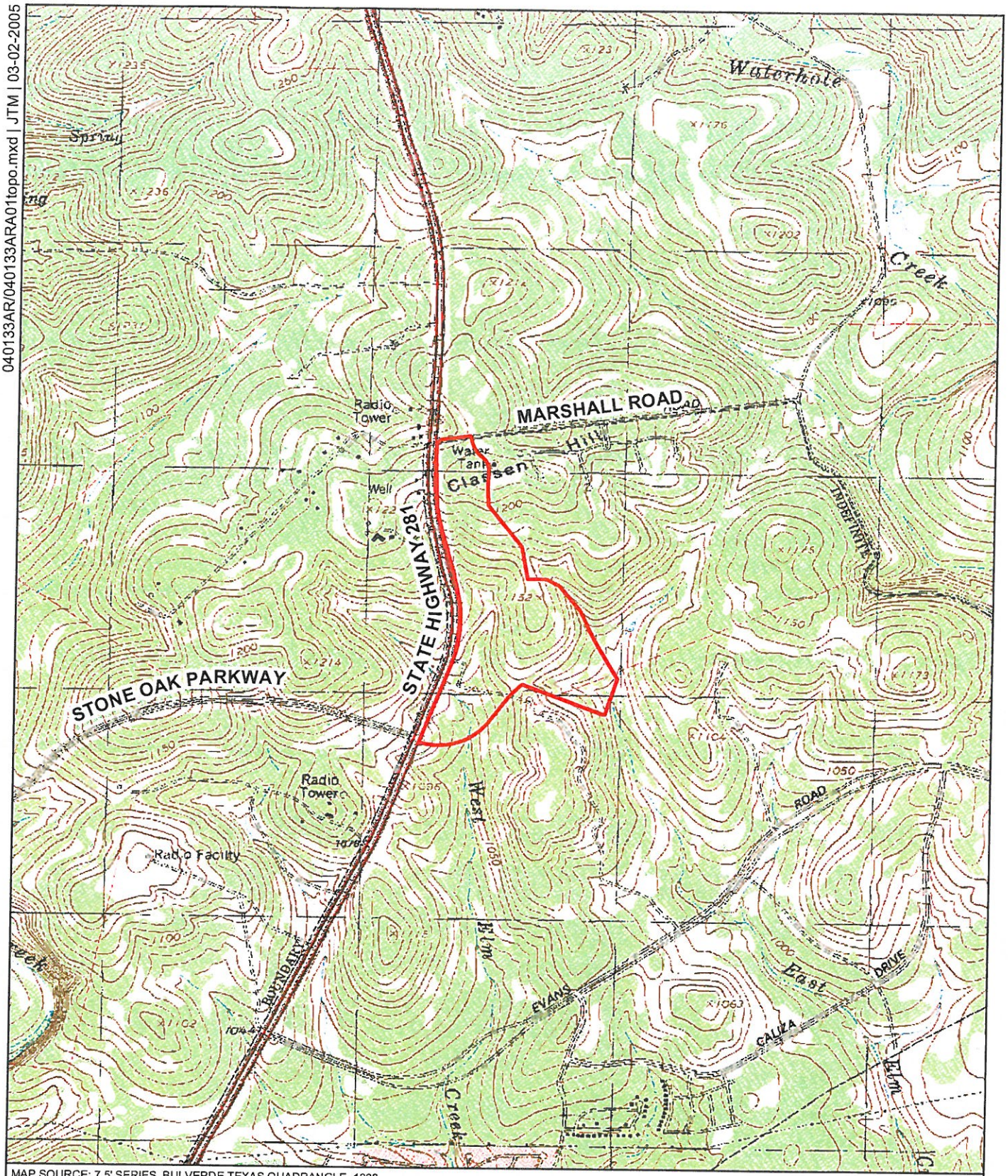

MAP SOURCE: 7.5' SERIES, BULVERDE TEXAS QUADRANGLE, 1988.

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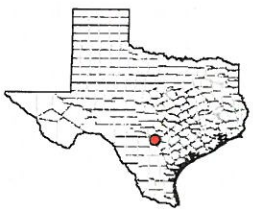

Horizon Environmental Services, Inc.

FIGURE 1

TOPOGRAPHIC MAP OF PROJECT AREA
101-ACRE SUBJECT SITE
HWY 281 AND STONE OAK PARKWAY
SAN ANTONIO,
BEXAR COUNTY, TEXAS

The soils within the 101-acre project area are classified as Steep Rocky range (USDA 1962). In Bexar County, this classification consists entirely of Tarrant association soils, which are shallow, rocky soils with high clay content and areas of exposed limestone bedrock at the surface. The most prolific vegetation types in the Rocky Upland range are scrub, live oak and Ashe juniper. Also common are prairie grasses such as little and big bluestem, indiangrass, and green sprangletop (USDA 1962).

3.0 REGIONAL ARCHEOLOGICAL CHRONOLOGY

The archeological record of Central Texas spans the known cultural-historical sequence, including the Paleo-Indian (9200 to 6000 BC), Archaic (6000 BC to AD 800), Late Prehistoric (AD 800 to 1600), and Historic (AD 1600 to 1870) periods.

The Paleo-Indian period is believed to be the earliest cultural occupation in the Central Texas region. This stage is characterized typologically by the occurrence of distinctive lanceolate projectile points and highly mobile settlement and exploitation patterns. These populations probably practiced a foraging (i.e., hunting and gathering) type of subsistence (Prewitt 1981; Weir 1976), although the best-known sites exhibit a focus on the exploitation of large mammals, including *Mammuthus* sp. and *Bison antiquus.* Investigations at sites such as the Kincaid Rockshelter, Wilson-Leonard, and Gault have shown that, during the early part of the Paleo-Indian period, the Clovis stage, subsistence included large herbivores (e.g., mammoth, bison, and horse), as well as smaller animals such as water turtles, badgers, and raccoons. A multitude of plants are presumed to have also been an important part of the aboriginal diet. During the latter part of the Paleo-Indian period, the Folsom stage, however, subsistence seems to have depended more heavily on the specialized hunting of big game, particularly bison. This presumption is based on the fact that only camps, stone-working locations, and kill sites, mostly in or near grassland habitats, are all that have been documented (Collins 1995:382). This change was most likely attributable to the climate, which had become warmer and drier than during the previous Clovis stage.

The beginning of the Archaic period in Texas represents a similar transition found world-wide at approximately the same time, the most noted indicators of which are the extinction of Pleistocene megafauna and climatic changes. In Texas, there was a gradual decrease in moisture and humidity, reflecting the intensification of warming and drying trends first noted during the Clovis-Folsom transition. An often-quoted response to these climatic changes was a greater and more varied use of local resources; in actuality, this was already the case in most places. Plant-processing implements, such as manos, metates, and earth ovens, become more evident in the archeological record, while game hunting continued. Although still nomadic, Archaic populations restricted their travel to smaller areas than did the Paleo-Indian groups.

The Archaic period, which covers 2/3 of Central Texas prehistory (Collins 1995), is divided into 3 subperiods—Early (6000 to 3000 BC), Middle (3000 to 1000 BC), and Late (1000 BC

to AD 800 [Hester 1986]). Each period is represented by specific projectile point styles. The Early Archaic, the least understood period, is distinguished by the switch from Paleo-Indian lanceolate-shaped points to notched and stemmed points. Overall, Early Archaic patterns in Texas are fairly similar throughout the state. Hester (1989) notes that, prior to 3000 BC, the late Holocene hunters and foragers were essentially indistinguishable in terms of subsistence strategies across the Central Texas Plateau Prairie, South Texas Plains, and Lower Pecos Canyonlands. After this date, regionally distinctive projectile point styles emerge. Hughes (1991) also notes similarities among the Early Archaic typological developments on the Texas High Plains and developments in Central and Southwestern Texas, as well as in other bordering regions.

Although settlement patterns for the Early Archaic are little known, it is assumed that population density was low and that people were organized into small bands practicing a mobile, generalized subsistence and settlement pattern. The wide distribution of artifacts suggests that mobility was high and that territories were relatively undefined. McKinney (1981), among others, notes that distribution of Early Archaic sites was apparently concentrated along the Balcones Escarpment. This phenomenon may reflect the greater availability of water resources along this feature during an arid, climatic interval (Hester 1989), though the widespread availability of tool stone along the scarp may also have been a factor.

Sites containing Early Archaic components include open campsites such as the Loeve-Fox, Wilson-Leonard, Richard Beene, Sleeper, Landslide, Granberg II, Jetta Court, and Hall's Cave sites. Lithic materials found within these components include grinding implements, hammerstones, projectile points, a variety of unifacial and bifacial chipped stone instruments, and Clear Fork and Guadalupe bifaces. The Clear Fork tools, although indicative primarily of the Early Archaic, actually appeared during the Late Paleo-Indian period and, in some regions, lingered into Late Archaic and Late Prehistoric times (Hughes 1991).

The Middle Archaic is marked by an increased number of sites, which may reflect an expanding population distribution, the development of regionally distinct cultural patterns, and/or changes in settlement, technology, social systems, and territorial boundaries (Black and McGraw 1985:38). Hester (1986) suggests that, during this period, the inhabitants of the Balcones Escarpment region developed specialized adaptations to the hunting and gathering of abundant regional resources, particularly acorns and white-tailed deer.

Site types include open campsites located near streams or tributaries, lithic workshops in upland areas, and special-activity sites such as hunting camps or food-processing stations (Black and McGraw 1985). The large, burned rock features (hearths as well as rock ovens) of the early part of the Middle Archaic give way in the later Middle Archaic to burned-rock middens (Collins 1995). The latter features are variously interpreted. For example, Hester (1986) proposes that they reflect intensive utilization of acorns, while Johnson and Goode (1994:26) suggest that they were more frequently used to cook xerophytes such as sotol. Middle Archaic projectile points include the

Nolan, Travis, Langtry, and Pedernales styles (Black 1989), the latter of which is considered by Hester (1986) to be diagnostic of this time period in the Balcones Escarpment region.

The Late Archaic is represented by a continuation, and possibly intensification, of the subsistence patterns seen in the Middle Archaic (Collins 1995; Hester 1986). The use of burned rock midden sites continued throughout the Middle Archaic, peaking during the latter part of this period (Collins 1995).

Large cemetery sites are first noted during the Late Archaic and may reflect the establishment of territories and subsistence schedules (Black 1989:30; Black and McGraw 1985; Story 1985:49). Hester (1986) suggests that wide-ranging trade contacts may have also developed around this time. Characteristic projectile points include triangular types such as Montell, Castroville, and Marcos, along with the smaller, expanding-stemmed points such as Ensor, Frio, Darl, and Fairland.

The Late Prehistoric period is distinguished from the preceding Archaic by the introduction of the bow and arrow and ceramics. Two phases are recognized within this period—the Austin (ca. AD 800 to 1300) and Toyah (ca. AD 1300 to 1600) phases. The Austin phase is characterized by the transition from the use of the atlatl and dart to that of the bow and arrow and arrow points, particularly the expanding-stemmed Scallorn type. This phase is also distinguished by a decline in population and changes in settlement practices in which a shift from open to protected (e.g., rockshelter) sites occurred (Black 1989:32; Collins 1995:385). In spite of these changes, most archeologists agree that Late Archaic subsistence practices and settlement patterns appear to have continued during the Austin phase (Black 1989; Collins 1995; Prewitt 1974).

The Toyah phase is characterized by relatively rapid changes in technology, notably the introduction of pottery (both local and imported from the Caddo area); large, thin bifaces; Perdiz (contracting-stemmed) arrow points; and prismatic blades (Black 1989; Collins 1995). Limited horticulture may also have begun during this time. The Toyah tool kit is associated with the hunting of bison, deer, and antelope, and, although nearly all sites dating to this phase have yielded bison bones, deer was the most significant faunal resource during this time (Black 1989:32). Evidence for horticulture is seen in the occasional corn cob found at such sites as the Timmeron Rockshelter in Hays County. Of course, the corn could also be attributed to the same trade network that was bringing in Caddoan pottery.

The Historic period, which began with the arrival of Europeans into the region, can be divided into early, middle, and late subperiods. Only a brief overview of the period is provided here. For a more detailed essay, see Newcomb (1993:1-63).

The first documented arrival of Europeans into Central Texas dates to the early 18th century. Their influence, however, preceded their arrival. In the late 17th century, natives from northern Mexico and southern Texas began migrating into Central Texas to escape forced

occupation and labor in the Spanish mines and missions and on Spanish ranches. At approximately the same time, horses stolen from the Spanish became an integral part of the Apache way of life. These mounted, nomadic bison hunters of the High Plains enjoyed a tremendous advantage over their pedestrian enemies. They terrorized native groups to the east and southeast of their High Plains homeland, forcing many to flee, some into Central Texas (Newcomb 1993:2). Thus, the first Europeans into the region encountered native groups fragmented by the growth of the Spanish missions, the raids of the Apache, and the diseases that swept before the physical presence of Europeans. Their accounts, therefore, do not provide direct analogs to prehistoric lifeways, but rather represent a time of drastic cultural change (Collins 1995). A few indigenous cultural patterns may have prevailed through time. Along with large, diffuse encampments composed of peoples with mixed ethnic affiliations, small band-sized residential camps dating to this period are found in Central Texas (Collins 1995:386). The latter sites may represent indigenous groups.

The middle Historic subperiod began about 1730 and ended about 1800 as the mission system was failing (Collins 1995:386; Hester 1989). Historical documents of this period make reference to remnants of native groups living in the missions, primarily in Bexar County (Collins 1995). Toward the end of this subperiod, the Comanche began to move into Northwestern Texas from the High Plains. Records of their presence in Central Texas at this time tend to be highly biased since they were written mostly from the hostile perspective of Anglo settlers (Collins 1995).

The late Historic subperiod is composed of small numbers of mission Indians, "far flung nomadic native groups (primarily the Comanche)" (Collins 1995:387), and an archeological record of the European presence. The Comanche presence began fading in the mid- to late 19th century. Their final demise heralded the end of Native American presence in Central Texas.

4.0 ARCHIVAL SEARCH

Archival research conducted on the Texas Historical Commission's (THC's) online *Texas Archeological Sites Atlas* indicates that a minimum of 42 archeological sites occur within a 2-kilometer (km) (1.2-mile) radius of the project area, including 20 aboriginal lithic scatters, 13 aboriginal open camps, 7 aboriginal lithic procurement sites, and 2 aboriginal burned-rock middens. Many of these sites occur within a 0.5-mile radius of the project area, and 3 occur within the boundaries of the proposed 101-acre Stone Oak Development (but beyond the USACE jurisdictional areas) (Figure 2). All of the sites that occur within the proposed Stone Oak Development boundaries and many of the sites located near the project area were first recorded by the University of Texas at San Antonio (UTSA) during the Encino Park survey of 1977. The sites occurring within the boundaries of the project area consist of 1 aboriginal lithic scatter (41BX105), 1 aboriginal lithic procurement site (41BX107), and 1 lithic scatter with a possible associated burned-rock midden (41BX106).

Site 41BX105 was not recommended for further work by its initial recorder due to the sparse nature of lithic material and lack of soil deposits. Site 41BX106 is a lithic scatter with a

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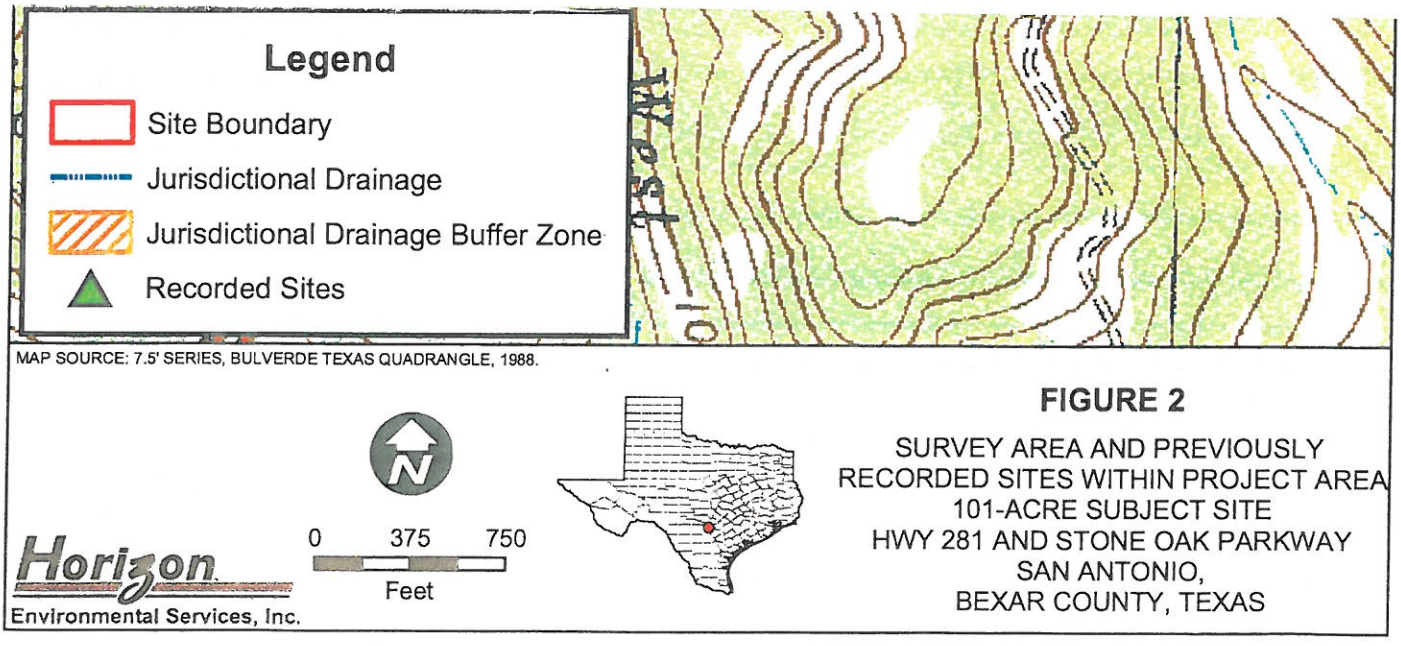

FIGURE 2

SURVEY AREA AND PREVIOUSLY RECORDED SITES WITHIN PROJECT AREA
101-ACRE SUBJECT SITE
HWY 281 AND STONE OAK PARKWAY
SAN ANTONIO,
BEXAR COUNTY, TEXAS

possibly associated midden feature. The midden was deemed "suspect" by the original recorder due to a lack of obviously burned rock. The overall site is described as deflated with little potential for deep deposits and with areas of exposed bedrock on the ground surface. Further survey-level work was recommended by the original recorders. Site 41BX107 is a rather extensive lithic procurement site that was recommended for further survey-level work to better fix the location and boundaries of the site. The original recorder indicates that the site has little potential for soil depth but that "some is possible." These sites are located within the proposed Stone Oak Development, but beyond the current USACE jurisdictional survey area. No sites currently listed on the NRHP or designated as State Archeological Landmarks (SALs) occur within the boundaries of the project area.

5.0 SURVEY PROCEDURES

Due to the fact that the ground surface over the vast majority of the USACE jurisdictional areas within the project area consists of exposed limestone bedrock or rocky clay, the Texas State Minimum Survey Standards (TSMSS) for shovel testing were not met. Shovel tests were not excavated due to a lack of alluvial deposition along the jurisdictional drainage that was surveyed. Rather, the survey procedures consisted of thorough inspection of the modern ground surface with in a 30-meter (98-foot) radius of the channelized bed and banks of West Elm Creek. The survey was conducted by a 2-person crew walking roughly 15- to 30-meter transects along the jurisdictional drainage (i.e., West Elm Creek) within the project boundaries. Field notes were maintained on terrain, vegetation, soils, and natural and artificial impacts. Photographs with a photo log were completed (Appendix A). Locational data were acquired via a handheld Global Positioning System (GPS) unit (Garmin Rino) using the Universal Transverse Mercatur (UTM) coordinate system and map datum NAD 27.

6.0 RESULTS AND RECOMMENDATIONS

No archeological sites or historic structures were observed within the USACE jurisdictional areas within the proposed Stone Oak Development. The surveyed jurisdictional drainage (i.e., West Elm Creek) was flanked on both sides by extensive, exposed limestone bedding planes that form stepped terraces. In addition, the thin, erosional Tarrant association soils found in pockets within the surveyed area had no potential to contain buried, intact cultural deposits. No shovel testing was conducted during the pedestrian survey. Visual inspection of the ground surface was used to determine the presence/absence of cultural materials upon the limestone terraces of West Elm Creek. Surface visibility was nearly 100% in all areas surveyed. As no cultural materials were encountered within the USACE jurisdictional areas, it is Horizon's opinion that no significant cultural resources will be impacted by the construction of the proposed Stone Oak Development within the jurisdictional area surveyed. Horizon recommends that construction be allowed to proceed as planned within these areas.

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APPENDIX A

PROJECT AREA PHOTOGRAPHS

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PHOTO 1
Bridge overpass at south edge of project area. Facing north.

PHOTO 2
Rocky slope edge of West Elm Creek. Facing southeast.

040133ARVArch\Stone Oak Pics\040133p2.cdr | CNL | 02-28-05

PHOTO 3

Exposed limestone terrace and creek bed of West Elm Creek. Facing northwest.

PHOTO 4

North end of West Elm Creek on east project area boundary. Facing southeast.