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**By:**

**Jeffrey D. Owens**

**HJN 140261 AR**

**Prepared for:**

**Mason Joseph Company, Inc.**
**San Antonio, Texas**

**Prepared by:**

**Horizon Environmental Services, Inc.**
**Austin, Texas**

**January 2015**

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# MANAGEMENT SUMMARY

Horizon Environmental Services, Inc. (Horizon), was selected by the Mason Joseph Company, Inc. (MJC), on behalf of a private real estate developer, to conduct an intensive cultural resources inventory and assessment for the proposed development of an apartment complex on a 4.5-hectare (11.2-acre) tract in Leander, Williamson County, Texas. The tract is located at the northeast corner of the intersection of Hero's Way and County Road (CR) 273 on an upland interfluve between the North and South Forks of Brushy Creek. The Area of Potential Effect (APE) for direct effects consists of the entire 4.5-hectare (11.2-acre) tract within which construction would occur; the APE for indirect effects would include possible viewshed impacts to any historic-age buildings (i.e., 45 years of age or older) on parcels adjacent to the construction site.

The proposed undertaking is being sponsored by a private real estate developer on privately owned land utilizing funding provided by the US Department of Housing and Urban Development (HUD); as such, the project would fall under the jurisdiction of Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. As the project represents a publicly sponsored undertaking with the potential to impact potentially significant cultural resources, the project sponsor was required to provide for a cultural resources inventory of the APE.

On December 15, 2014, Horizon archeologist Briana Nicole Smith, under the overall direction of Jeffrey D. Owens, Principal Investigator, performed an intensive cultural resources survey of the APE to locate any cultural resources that potentially would be impacted by the proposed undertaking. The cultural resources investigation consisted of an archival review, an intensive pedestrian survey of the APE, 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.

Horizon's archeologist traversed the APE and thoroughly inspected the modern ground surface for aboriginal and historic-age cultural resources. The Texas State Minimum Archeological Survey Standards (TSMASS) require a minimum of 1 subsurface probe per 2 acres for APEs between 11 and 100 acres in size; as such, a total of 6 subsurface probes would be required within the 4.5-hectare (11.2-acre) APE. Horizon exceeded the TSMASS by excavating

a total of 16 shovel tests. The APE consists of an upland interfluve situated between the North and South Forks of Brushy Creek. The majority of the APE is a limestone upland, and limestone gravels and bedrock crop out ubiquitously on the modern ground surface in many portions of the APE interspersed with a thin veneer of clay loam and gravelly clay sediments. Physiographically, the northeastern corner of the APE is mapped as falling within the floodplain of the North Fork of Brushy Creek. However, in 2013, artificial fill was applied to some portions of the property to raise the grade above the Federal Emergency Management Agency (FEMA) floodplain. These artificial fill deposits appear to have been applied selectively across the property, primarily along the northern and eastern edges nearest to the creek channel, and the maximum thickness of the fill deposits is approximately 0.3 meters (1.0 feet). The entire property had experienced extensive prior disturbances from previous vegetation clearing, grading, and application of artificial fill in the form of crushed limestone gravels to selected portions of the property.

During the survey, Horizon's archeologist observed 1 isolated prehistoric artifact consisting of a small biface fragment manufactured from white Edwards chert. This artifact is not temporally diagnostic beyond indicating a general prehistoric presence on the tract and does not, in and of itself, warrant consideration for inclusion in the National Register of Historic Places (NRHP). During a prior cultural resources survey conducted in 2009 of the proposed right-of-way (ROW) of CR 273, which has since been constructed and now forms the western margin of the current survey tract, Cox|McLain Environmental Consulting, Inc., recorded a low-density, surficial scatter of aboriginal lithic debitage, tested cobbles, and tested fossil bivalves. The site, 41WM1246, was interpreted as a lithic raw material procurement area, or "quarry," of unspecified prehistoric age. Based on the extensive disturbances observed on the site, the lack of temporally diagnostic artifacts or cultural features, and the common site type, site 41WM1246 was determined to be ineligible for inclusion in the NRHP and for designation as a State Antiquities Landmark (SAL), and the site has since been destroyed by construction of CR 273. The single biface fragment found within the current project's APE is consistent with the cultural materials observed on site 41WM1246; however, the presence of only a single artifact within the APE does not warrant extending the boundaries of 41WM1246 beyond those previously recorded within the CR 273 ROW. No other cultural materials, historic or prehistoric, were observed within the current project's APE during Horizon's survey, and no standing structures of historic age are located on the tract or within the viewshed of the property on adjacent parcels.

Based on the results of the survey-level investigations of the APE documented in this report, no potentially significant cultural resources would be affected by the proposed undertaking. In accordance with 36 Code of Federal Regulations (CFR) 800.4, Horizon has made a reasonable and good faith effort to identify historic properties within the APE. No cultural resources were identified that meet the criteria for inclusion in the NRHP according to 36 CFR 60.4, and no further archeological work is recommended in connection with the proposed undertaking. However, it should be noted that human burials are protected under the Texas Health and Safety Code. In the event that any human remains or burial furniture are inadvertently discovered at any point during construction, use, or ongoing maintenance in the APE, even in previously surveyed areas, all work should cease immediately in the vicinity of the inadvertent discovery until a qualified archeologist can assess the find, and the THC should be notified of the discovery.

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# 1.0 INTRODUCTION

Horizon Environmental Services, Inc. (Horizon), was selected by the Mason Joseph Company, Inc. (MJC), on behalf of a private real estate developer, to conduct an intensive cultural resources inventory and assessment for the proposed development of an apartment complex on an 4.5-hectare (11.2-acre) tract in Leander, Williamson County, Texas (Figures 1 and 2). The tract is located at the northeast corner of the intersection of Hero's Way and County Road (CR) 273 on an upland interfluve between the North and South Forks of Brushy Creek. The Area of Potential Effect (APE) for direct effects consists of the entire 4.5-hectare (11.2-acre) tract within which construction would occur; the APE for indirect effects would include possible viewshed impacts to any historic-age buildings (i.e., 45 years of age or older) on parcels adjacent to the construction site.

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Following this introductory chapter, Chapters 2.0 and 3.0 present the environmental and cultural backgrounds, respectively, of the project tract. Chapter 4.0 describes the results of background archival research, and Chapter 5.0 discusses archeological survey methods. Chapter 6.0 presents the results of the archeological survey, and Chapter 7.0 presents

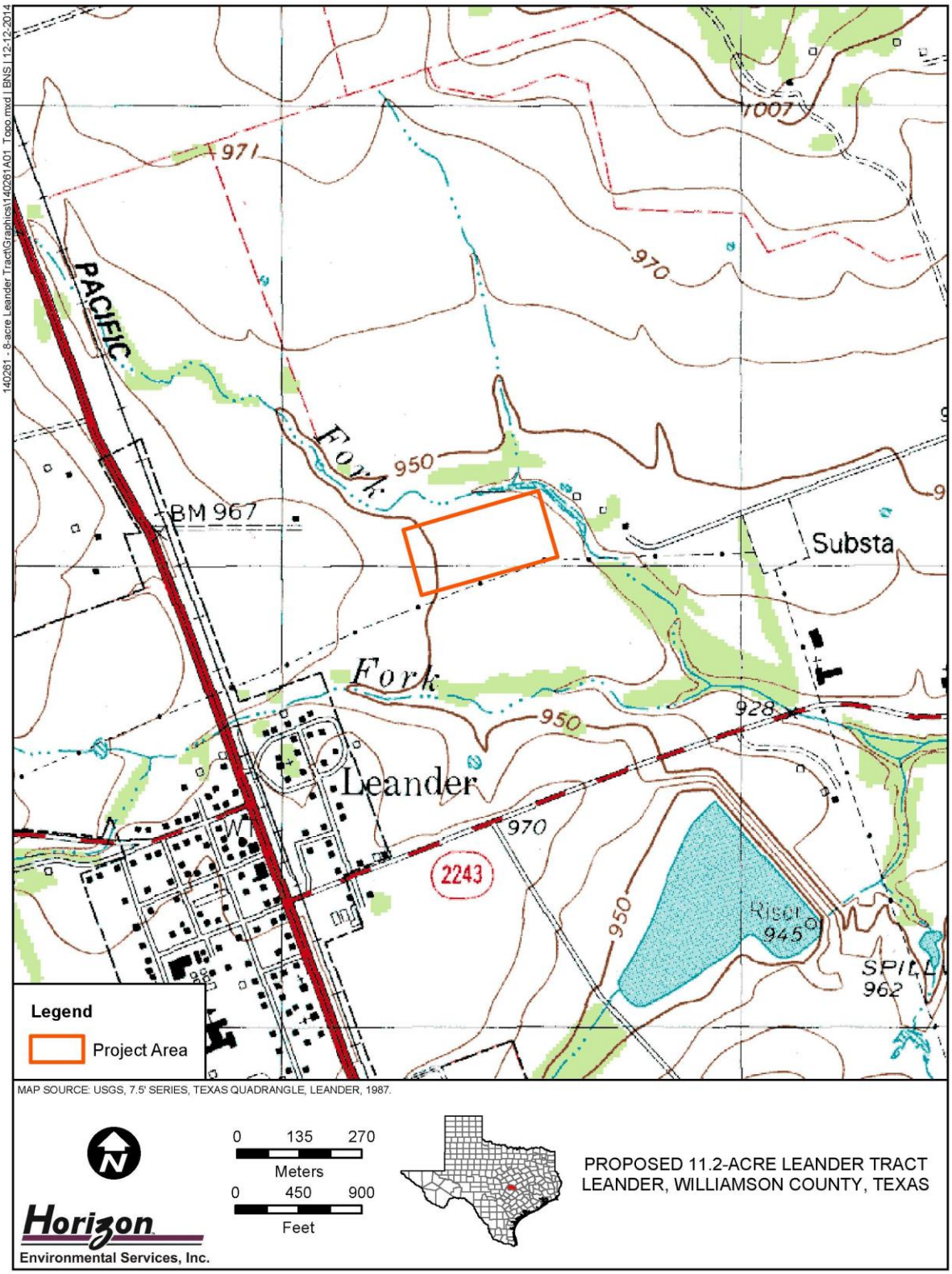


**Figure 1. Location of APE on USGS Topographic Quadrangle**


**Figure 2. Location of APE on Aerial Photograph**

archeological management recommendations for the project. Chapter 8.0 lists the references cited in the report, and Appendix A summarizes shovel test data.

# 2.0 ENVIRONMENTAL SETTING

The APE is located on the northern edge of the city of Leander within southwestern Williamson County, Texas. Williamson County is situated near the southern end of the Lampasas Cut Plain (Hill 1901; Hill and Vaughn 1900; Johnson 1931:125) in Central Texas and close to the common junction of 3 significant physiographic provinces—the Lampasas Cut Plain, the Edwards Plateau, and the Blackland Prairie. The Blackland Prairie, the narrow physiographic zone situated between the Edwards Plateau to the west, and the Gulf Coastal Plain to the east, is a low, rolling land that extends in a narrow band along the eastern edge of the Balcones fault zone from the Red River Valley in northeastern Texas to the southern edge of the Edwards Plateau. This is an area of low topographic relief and poor drainage in which water often ponds after rainstorms and streams flow at very gentle gradients. The Edwards Plateau and Balcones Escarpment are associated with a great fault system that arcs across Texas to form a distinct boundary between uplands composed primarily of limestone bedrock and lower plains composed mostly of softer rocks. In places, this boundary is marked by an abrupt scarp (the Balcones Escarpment) and in others by a more gradational ramp, but the entire length of this transition zone is a major ecotone in terms of topography, bedrock, hydrology, soil, vegetation, and animal life.

The Lampasas Cut Plain is a roughly triangular area of rolling hill country in central and north-central Texas situated between the Brazos and Colorado rivers ranging in elevation from 230.0 to 400.0 meters (754.4 to 1,312.0 feet) above mean sea level (amsl). The Lampasas Cut Plain forms a limestone upland that has been dissected by the Brazos River and its tributaries, resulting in landforms characterized by generally rounded uplands cut by moderately broad, shallow valleys. Soil is thin to absent on the bedrock and supports a mixed savanna flora, whereas soil is moderately deep in valley floors, where it supports mixed riparian woodlands and forests. Karst features include sinks, caves, and rockshelters, but such are neither common nor extensive. Edwards chert is locally abundant but not widespread across the Lampasas Cut Plain and is of high quality in some places.

Hydrologically, the study area is situated within the Brazos River basin. The APE is located on an upland paleoterrace on an interfluve between the North and South Forks of Brushy Creek, which conjoin approximately 0.5 kilometers (0.3 miles) southeast of the tract to form Brushy Creek proper. Brushy Creek flows generally northeastward to its confluence with the Little River in Milam County, which in turn flows a short distance eastward and empties into the Brazos

River. The Brazos River flows southeastward across the Blackland Prairie and Gulf Coastal Plain, ultimately discharging into the Gulf of Mexico a short distance northeast of East Matagorda Bay.

The APE is situated on an upland limestone interfluve between the North and South Forks of Brushy Creek. Natural elevations across the APE are relatively flat, ranging only from approximately 286.6 to 289.6 meters (940.0 to 950.0 feet) amsl. However, in 2013, artificial fill was applied to some portions of the property to raise the grade above the Federal Emergency Management Agency (FEMA) floodplain. These artificial fill deposits appear to have been applied selectively across the property, primarily along the northern and eastern edges nearest to the creek channel, and the maximum thickness of the fill deposits is approximately 0.3 meters (1.0 feet). Drainage within the APE is to the east and north toward the North Fork of Brushy Creek, primarily via overland sheet flow. There are no natural drainage features within the APE.

## 2.1 GEOLOGY AND GEOMORPHOLOGY

Geologically, the APE is situated on the Keys Valley Marl Formation (Kkv), which forms part of the Lower Cretaceous Fredericksburg Group, which generally consists of thick limestone and marl deposits (Barnes 1974). Geomorphologically, the APE is underlain by 4 specific soil units (Figure 3; Table 1) (NRCS 2014). Three of these 4 soil units—Doss silty clay, 1 to 5% slopes; Eckrant cobbly clay, 1 to 8% slopes; and Fairlie clay, 1 to 2% slopes—consist of pre-Holocene residuum weathered from local limestone bedrock on upland formations. Within the northeastern corner of the APE adjacent to the channel of the North Fork of Brushy Creek, a small area of Tinn clay, frequently flooded, is mapped, which consists of clayey alluvium of Holocene-age.

In Central Texas, aboriginal archeological sites are commonly located adjacent to streams as well as in upland environments. The physiographic setting of the APE on an upland terrace bench on an interfluve between the North and South Forks of Brushy suggests that the APE possesses moderate to high potential for aboriginal cultural resources. Due to the antiquity of this upland setting, any aboriginal cultural resources associated with this soil unit would be expected to occur on the modern ground surface or in relatively shallowly buried subsurface contexts. The presence of Holocene-age clayey alluvium in the northeastern corner of the APE adjacent to the channel of the North Fork of Brushy Creek suggests some potential for subsurface aboriginal cultural deposits in this area. Historic-age resources may be found in virtually any physiographic environment, but are typically most common near cities and towns as well as adjacent to roadways. The location of the APE along the northern edge of the city of tends to suggest that the APE possesses some potential to contain historic-age architectural and/or archeological resources. However, the entire property had experienced extensive prior disturbances from previous vegetation clearing, grading, and application of artificial fill in the form of crushed limestone gravels to selected portions of the property; as such, any aboriginal or historic-age cultural resources present within the APE would likely have experienced prior disturbances and lack integrity.

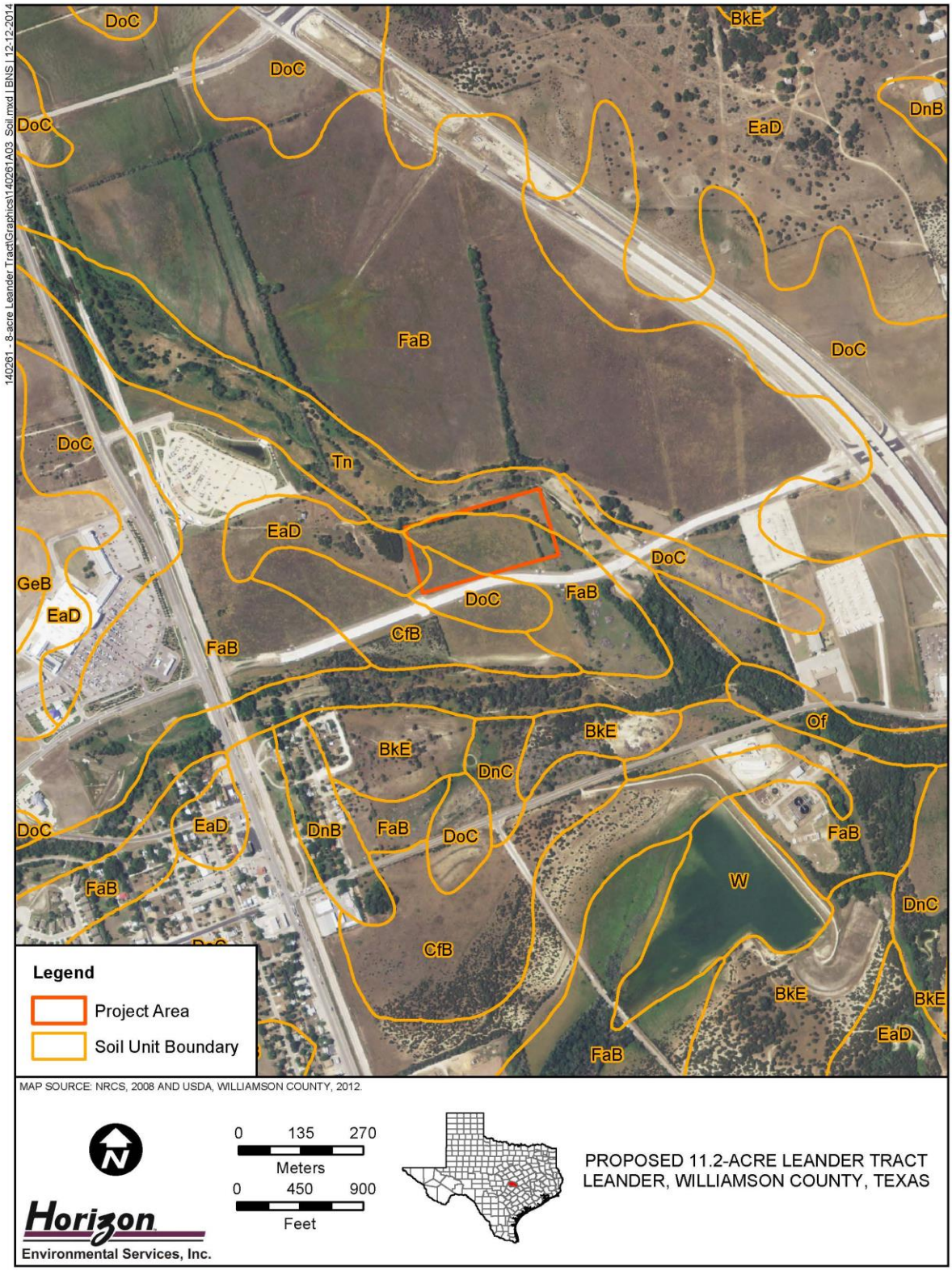


**Figure 3. Distribution of Soils Mapped within APE**

**Table 1. Mapped Soils Located within APE**

| Soil Name | Soil Description | Typical Profile/Horizon |
|---|---|---|
| Doss silty clay, 1 to 5% slopes (DoC) | Residuum weathered from limestone on hill slopes | 0-9: Silty clay (A)<br>9-17: Silty clay (Bk)<br>17-80: Bedrock (Cr) |
| Eckrant cobbly clay, 1 to 8% slopes (EaD) | Residuum weathered from limestone on hill ridges | 0-4: Cobbly clay<br>4-11: Very cobbly clay<br>11-16: Bedrock |
| Fairlie clay, 1 to 2% slopes (FaB) | Residuum weathered from Austin Chalk Formation on ridges | 0-8: Clay<br>8-46: Clay<br>46-54: Bedrock |
| Tinn clay, frequently flooded (Tn) | Clayey alluvium of Holocene-age derived from mixed sources on floodplains | 0-10: Clay<br>10-33: Clay<br>33-90: Clay |

Source: NRCS 2014

in: Inches

## 2.2 CLIMATE

Evidence for climatic change from the Pleistocene to the present is most often obtained through studies of pollen and faunal sequences (Bryant and Holloway 1985; Collins 1995). Bryant and Holloway (1985) present a sequence of climatic change for nearby east-central Texas from the Wisconsin Full Glacial period (22,500 to 14,000 B.P.) through the Late Glacial period (14,000 to 10,000 B.P.) to the Post-Glacial period (10,000 B.P. to present). Evidence from the Wisconsin Full Glacial period suggests that the climate in east-central Texas was considerably cooler and more humid than at present. Pollen data indicate that the region was more heavily forested in deciduous woodlands than during later periods (Bryant and Holloway 1985). The Late Glacial period was characterized by slow climatic deterioration and a slow warming and/or drying trend (Collins 1995). In east-central Texas, the deciduous woodlands were gradually replaced by grasslands and post oak savannas (Bryant and Holloway 1985). During the Post-Glacial period, the east-central Texas environment appears to have been more stable. The deciduous forests had long since been replaced by prairies and post oak savannas. The drying and/or warming trend that began in the Late Glacial period continued into the mid-Holocene, at which point there appears to have been a brief amelioration to more mesic conditions lasting from roughly 6,000 to 5,000 B.P. Recent studies by Bryant and Holloway (1985) indicate that modern environmental conditions in east-central Texas were probably achieved by 1,500 years ago.

Williamson County is located within the south-central climatic division. The modern climate is typically dry to subhumid with long, hot summers and short, mild winters. The climate is influenced primarily by tropical maritime air masses from the Gulf of Mexico, but it is modified by polar air masses. Tropical maritime air masses predominate throughout spring, summer, and fall. Modified polar air masses are dominant in winter and provide a continental climate characterized by considerable variations in temperature.

On average throughout the past century, precipitation and temperature manifest regional clines with mean annual precipitation totals declining fairly regularly from east to west and mean annual temperature declining equally evenly from northwest to southeast (Larkin and Bomar 1983:18, 50). Climate has fluctuated from subtropical humid to subtropical subhumid in western Williamson County. Average annual precipitation totals 81.3 centimeters (cm) (32.0 inches) and temperature averages 19°C (67°F) annually, ranging from 36°C (96°F) in August (the warmest month) to 15°C (59°F) in January (the coldest month). During this time, however, drier periods lasting from 3 to 7 years, when total annual rainfall ranged from 30.5 to 63.5 cm (12.0 to 25.0 inches), were followed by abnormally wet years with 114.3 to 127.0 cm (45.0 to 50.0 inches) of rainfall.

Two annual precipitation peaks, which typically occur in May and September, are associated with frontal storms that form when southward-moving cool air masses collide with warm, moist air masses moving inland from the Gulf of Mexico (Bomar 1983; Carr 1967). The topographic discontinuity along the Balcones Escarpment lies directly in the path of the Gulf storm trace and increases the lift in convective storms to produce extreme amounts of rainfall (Baker 1975). Two extreme examples are the excess of 91.4 cm (36.0 inches) of rain that fell within an 18-hour period in the vicinity of Thrall, Texas, in September 1921, and the 55.9-cm (22.0-inch) deluge that fell in less than 3 hours near O'Harris, Texas, in May 1935 (Baker 1975). Lower rainfall amounts are characteristic of winter and late summer. In winter, frontal storms pass so frequently that there is little time for moisture to increase, and prevailing upper-level winds from west to east often dominate over meridional flow, meaning that much of the available moisture is derived from the Pacific rather than from the Gulf of Mexico. In summer, cool fronts rarely penetrate into the region and rainfall occurs primarily as localized, thermal convective storms.

## 2.3 FLORA AND FAUNA

The APE is in the southwestern portion of the Texan biotic province (Blair 1950), an intermediate zone between the forests of the Austroriparian and Carolinian provinces and the grasslands of the Kansan, Balconian, and Tamaulipan provinces. Some species reach the limits of their ecological range within the Texan province. The boundary, characterized as "approximate," between Blair's (1950) Texan and Balconian provinces passes through western Williamson County in the vicinity of the APE.

The fauna associated with this region are represented by a mixture of species from the Austroriparian, Tamaulipan, Chihuahuan, Kansan, Balconian, and Texan biotic provinces. Common mammalian species include white-tailed deer, opossum, eastern cottontail rabbit, raccoon, striped skunk, hispid cotton rat, white-footed mouse, nine-banded armadillo, and fox squirrel. Common bird species include northern bobwhite, eastern meadowlark, mourning dove, killdeer, field sparrow, red-tailed hawk, turkey vulture, belted kingfisher, and mockingbird. Reptile and amphibian species common to this biotic zone include six-lined racerunner, rat snake, eastern hognose snake, Gulf Coast toad, Texas spiny lizard, rough green snake, copperhead, western diamondback rattlesnake, green treefrog, Blanchard's cricket frog, diamondback water snake, Houston toad, and green anole. Although small herds of bison and antelope were common during

the late prehistoric and early historic periods, these species are no longer native to this region (Jurney et al. 1989:13-14).

# 3.0 CULTURAL BACKGROUND

The APE is located within the Central Texas archeological region. The indigenous human inhabitants of Central Texas practiced a generally nomadic hunting and gathering lifestyle throughout all of prehistory, and, in contrast to much of the rest of North America, mobility and settlement patterns do not appear to have changed markedly through time in this region.

## 3.1 PALEOINDIAN PERIOD (9,200 TO 6,000 B.C.)

The initial human occupations in the New World can now be confidently extended back before 10,000 B.C. (Dincauze 1984; Haynes et al. 1984; Kelly and Todd 1988; Lynch 1990; Meltzer 1989). Evidence from Meadowcroft Rockshelter in Pennsylvania suggests that humans were present in Eastern North America as early as 14,000 to 16,000 years ago (Adovasio et al. 1990), while more recent discoveries at Monte Verde in Chile provide unequivocal evidence for human occupation in South America by at least 12,500 years ago (Dillehay 1989, 1997; Meltzer et al. 1997). Most archeologists presently discount claims of much earlier human occupation during the Pleistocene glacial period.

The earliest generalized evidence for human activities in Central Texas is represented by the PaleoIndian period (9,200 to 6,000 B.C.) (Black 1989). This stage coincided with ameliorating climatic conditions following the close of the Pleistocene epoch that witnessed the extinction of herds of mammoth, horse, camel, and bison. Cultures representing various periods within this stage are characterized by series of distinctive, relatively large, often fluted, lanceolate projectile points. These points are frequently associated with spurred end scrapers, gravers, and bone foreshafts. PaleoIndian groups are often inferred to have been organized into egalitarian bands consisting of a few dozen individuals that practiced a fully nomadic subsistence and settlement pattern. Due to poor preservation of floral materials, subsistence patterns in Central Texas are known primarily through the study of faunal remains. Subsistence focused on the exploitation of plants, small animals, fish, and shellfish, even during the PaleoIndian period. There is little evidence in this region for hunting of extinct megafauna, as has been documented elsewhere in North America. Rather, a broad-based subsistence pattern appears to have been practiced throughout all prehistoric time periods. In Central Texas, the PaleoIndian stage is divided into 2 periods based on recognizable differences in projectile point styles. These include the Early PaleoIndian Period, which is recognized based on large, fluted projectile points (i.e., Clovis, Folsom, Dalton, San Patrice, and Big Sandy), and the Late PaleoIndian period, which is characterized by unfluted lanceolate points (i.e., Plainview, Scottsbluff, Meserve, and Angostura).

## 3.2 ARCHAIC PERIOD (6,000 B.C. TO A.D. 800)

The onset of the Hypsithermal drying trend marks the beginning of the Archaic stage (6,000 B.C. to A.D. 800). This climatic trend marked the beginning of a significant reorientation of lifestyle throughout most of North America, but this change was far less pronounced in Central Texas. Elsewhere, the changing climatic conditions and corresponding decrease in the big game populations forced people to rely more heavily upon a diversified resource base composed of smaller game and wild plants. In Central Texas, however, this hunting and gathering pattern is characteristic of most of prehistory. The appearance of a more diversified tool kit, the development of an expanded groundstone assemblage, and a general decrease in the size of projectile points are hallmarks of this cultural stage. Material culture shows greater diversity during this broad cultural period, especially in the application of groundstone technology.

Traditionally, the Archaic period is subdivided into Early, Middle, and Late subperiods. In Central Texas, the Early Archaic subperiod extends from 6,000 to 3,000 B.C., the Middle Archaic subperiod extends from 3,000 to 1,000 B.C., and the Late Archaic subperiod covers the 1,000 B.C. to A.D. 800 timeframe. Changes in projectile point morphology are often used as markers differentiating these 3 subperiods, though other changes in material culture occurred as well. Perhaps most markedly, burned rock middens appear during the Middle Archaic subperiod, continuing into the Late Archaic subperiod, and large cemeteries appear during the Late Archaic subperiod. In addition, the increasing density of prehistoric sites through time is often considered to constitute evidence of population growth, though differential preservation probably at least partially accounts for the lower numbers of older sites.

## 3.3 LATE PREHISTORIC PERIOD (A.D. 800 TO 1600)

The onset of the Late Prehistoric period (A.D. 800 to 1600) (Black 1989) is defined by the appearance of the bow and arrow. In Central Texas, pottery also appears during the Late Prehistoric period (though ceramics appear earlier in Southeast Texas). Use of the atlatl (i.e., spearthrower) and spear was generally discontinued during the Late Prehistoric period, though they continued to be used in the inland subregion of Southeast Texas along with the bow and arrow through the Late Prehistoric period (Patterson 1980, 1995; Wheat 1953). In Texas, unifacial arrow points appear to be associated with a small prismatic blade technology. The Late Prehistoric period is generally divided into 2 phases, the Austin and Toyah phases. Austin phase sites occur earliest to the north, which has led some researchers (e.g., Prewitt 1985) to suggest that the Austin phase populations of Central Texas were migrants from the north who lacked the ceramic industry of the later Toyah phase.

## 3.4 HISTORIC PERIOD (A.D. 1600 TO PRESENT)

The first European incursion into what is now known as Texas was in 1519, when Álvarez de Pineda explored the northern shores of the Gulf of Mexico. In 1528, Cabeza de Vaca crossed South Texas after being shipwrecked along the Texas Coast near Galveston Bay. However, European settlement did not seriously disrupt native ways of life until after 1700. The first half of the 18th century was the period in which the fur trade and mission system, as well as the first effects of epidemic diseases, began to seriously disrupt the native culture and social systems.

This process is clearly discernable at the Mitchell Ridge site, where burial data suggest population declines and group mergers (Ricklis 1994), as well as increased participation on the part of the Native American population in the fur trade. By the time that heavy settlement of Texas began in the early 1800s by Anglo-Americans, the indigenous Indian population was greatly diminished.

The earliest known historical occupants of Williamson County were the Tonkawa Indians.[1] The Tonkawa traditionally followed buffalo herds on foot and periodically set fire to the prairie to aid them in their hunts. During the 18th century, however, they made the transition to a horse-based culture and used firearms to a limited extent. Decimated by European diseases and by warfare with the Cherokee and Comanche, the Tonkawa were generally friendly toward the early settlers of Williamson County but were nevertheless removed from Central Texas by the 1850s. Lipan Apaches and Comanches were also associated with the area that would become Williamson County. Before the arrival of Europeans in the area, the Lipan Apaches ranged through the western part of present Williamson County, and, after Spanish missions were established on the San Gabriel River in the 18th century, the Indians frequently raided the missions for horses. Their enemies, the Comanches, arrived in the area in the 18th century and lived in parts of the territory of Williamson County until as late as 1838. After they were crowded out by Anglo settlers, the Comanches continued to raid settlements in the county until the 1860s. There also appear to have been small numbers of Kiowa, Yojuane, Tawakoni, and Mayeye Indians living in the county at the time of the earliest Anglo settlements.

While Álvar Núñez Cabeza de Vaca may have traveled through the area in the 16th century, it was probably first explored by Europeans in the late 17th century, when Capt. Alonso De León sought a route between San Antonio and the Spanish missions in East Texas that would serve as a drier alternative to the more southerly Camino Real. The new route passed through the area of Williamson County along Brushy Creek and the San Gabriel River and was called Camino de Arriba. In 1716, 2 explorers in the Spanish service, Louis Juchereau de St. Denis and Domingo Ramón, led an expedition that passed through the area and camped on Brushy Creek and the San Gabriel River, naming them respectively Arroyo de las Bendítas Ánimas and Rio de San Xavier. The San Xavier missions, which were founded in the mid-18th century and occupied a series of sites along the San Gabriel River, were just across the eastern border of Williamson County in present-day Milam County, and the area was extensively explored by the Spanish. During the Mexican period, parts of the county were awarded as land grants, first to several Mexican families, then as part of Robertson's colony, but no settlement resulted from these grants.

Anglo settlement began during the Texas Revolution and the early days of the Republic of Texas, when the area was part of Milam County. In 1835, in an attempt to strengthen the frontier against Indian attack, a military post was built near the headwaters of Brushy Creek in what would become southwestern Williamson County and was named for Capt. John J. Tumlinson, Jr., the commander of the company of Texas Rangers who garrisoned the post. The post was abandoned in February of 1836, when its garrison was withdrawn to deal with the

[1] The following discussion of Williamson County history is adapted from TSHA (2014).

Mexican invasion. In 1838, the first civilian settlement was established by Dr. Thomas Kenney and a party of settlers who built a fort, named Kenney's Fort, on Brushy Creek near the site of the present-day crossing of the Missouri-Kansas-Texas Railroad. Several other sites on Brushy Creek were settled soon after, but Indian raids kept Anglo settlement in check, and a number of the early pioneers, including Kenney, were killed by Indians over the next few years.

In 1842, many of the early farms were abandoned when Governor Sam Houston advised settlers to pull back from the frontier. The Indian threat eased after 1846, and part of the influx of settlers who came to Texas after its annexation traveled to the frontier along Brushy Creek and the San Gabriel River. By 1848, there were at least 250 settlers in what was then western Milam County, and in the early months of that year 107 of them signed a petition to organize a new county. Recognizing that the petitioners needed a seat of local government that was considerably closer to them than Milam County, the Texas legislature established Williamson County on 13 March 1848, naming it for prominent judge and soldier Robert M. Williamson. Georgetown, the county seat, was laid out during the summer of that year, and the district court was in session by October. According to the census of 1850, Williamson County had a population of 1,379 Anglos and 155 slaves living in agricultural communities on Brushy Creek and the San Gabriel. As was common in other frontier counties, most of the improved acreage was used to grow corn. Three families owned 15 or more slaves in 1850, but family farms and subsistence agriculture remained the norm prior to the Civil War. While most of the settlers had moved to Texas from other southern states, particularly Tennessee, a substantial contingent came from Vermilion County, Illinois, and this latter group remained pro-Union and Republican in its political orientation during the secession crisis.

On the eve of the Civil War, Williamson County had moved beyond the frontier stage and was a populous, agriculturally diverse county. The Anglo population tripled between 1850 and 1860 to 3,638, while the slave population grew even more dramatically to 891, six times the number of slaves in 1850. Agricultural pursuits were quite varied and reflected the county's geographical diversity. Farmers used the rich blackland soils in the eastern half of the county to grow wheat and corn. Cotton was introduced in the 1850s, but only 271 bales were grown in 1860, and it was not an important cash crop for most farmers. The early settlers had found large herds of wild cattle in the 1840s, and cattle ranching for both home consumption and the market was widespread throughout the county by 1860. The number of cattle on county ranches had more than tripled from 11,973 head in 1850 to 38,114 head in 1860. Similarly, the number of sheep grew from 2,937 producing 3,499 pounds of wool in 1850 to 16,952 sheep and 32,994 pounds of wool in 1860.

Williamson County was marked by political divisions during the secession crisis, divisions that were carried over into the Civil War and Reconstruction. Unionist sentiment was strong in the county, and a resolution denouncing secession was adopted by a Texas Constitutional Union party meeting in Round Rock in 1860. One of the county's delegates to the secession convention, Thomas Proctor Hughes, was among the 8 who voted against the ordinance of secession. When the ordinance was referred to a statewide election, Williamson County was one of 19 counties to oppose it, rejecting secession by 480 to 349 votes. When the war came, most of the citizens of Williamson County supported the Confederate cause, and at least 5 companies were raised in

the county: an independent "spy" company under James O. Rice, a company of Texas Rangers for border defense under William C. Dalrymple, and companies in the Fourth, Seventh, and Sixteenth Texas Cavalry regiments. While some of those who had opposed secession became active Confederate supporters, others remained loyal to the Union and fled to Mexico or the North, and a number enlisted in the Union army. In July 1863, 8 Williamson County men were caught by Confederate troops while traveling to Mexico and were hanged near Bandera, Texas, and other Unionists were persecuted during the war. The pattern of violence within the community continued into the summer following the end of the war, when several men were arrested for "flagrant crimes" and "illegal persecution of Union men." In September 1865, a mass meeting of the citizens of Williamson County was held on the San Gabriel River near Georgetown, and the gathering set a general tone of reconciliation, which seems to have characterized the Reconstruction period in Williamson County, a period that ended with the return of county government to conservative Democratic control in 1869. Freed slaves formed several new communities, and the county seems to have been free of much of the political and racial strife that occurred in other Texas counties during Reconstruction. On the other hand, there was a great deal of crime, much of it violent, in the latter 19th century. Horse and cattle thieves and some of the more famous outlaws of the day, such as Sam Bass and John Wesley Hardin, preyed on the property of citizens, and long-term family feuds and drunken brawls at the various saloons in the towns added to the toll of homicides.

Though the Civil War had caused little material damage in the area, the county was a much poorer place in 1870 than it had been in 1860. The total value of farms had fallen from $833,418 to $389,239 and the value of livestock from $823,653 to $341,794. The economic recovery in the 1870s was aided by the growth of the cattle and sheep industries and a dramatic expansion of cotton farming. Various feeder routes to the Chisholm Trail passed through Williamson County, and many cattle drives passed through or originated in the county from the 1860s through the early 1880s. With the coming of the railroads to the county in the 1870s, Taylor, in the eastern part of the county, became an important rail center for the cattle trade. Cattle-raising, after declining somewhat in importance in the early 20th century, was again a major part of the agricultural economy by 1950, and in 1969 ranchers owned a record 65,093 cattle. Sheep- and goat-raising followed a similar pattern. Sheep ranching recovered its pre-war level by 1880 and peaked at 39,961 sheep and 171,752 pounds of wool in 1890, then declined in the late 19th and early 20th centuries to 13,397 sheep and 39,458 pounds in 1920. The industry revived in the 1930s and reached a new high of 59,919 sheep and 336,494 pounds of wool in 1959. Mohair became a significant agricultural product by 1930 and reached a peak in 1959, when 44,668 goats produced 209,098 pounds of mohair. Cotton, the second boom industry in Williamson County, developed at about the same time as the cattle industry. As early as 1869, the editor of the Georgetown *Watchman* was advising farmers to "make cotton, but do not, by any means, neglect the grain crop-diversity." Cotton production, which had been insignificant before the war, rose to successive heights of 4,217 bales in 1880, 33,945 bales in 1890, and 80,514 bales in 1900. In 1900 to 1901, Williamson County ginned more cotton than any county in Texas except Ellis County. The number of improved acres increased almost tenfold from 1870 to 1880 and doubled again to 306,881 acres by 1890. The proportion of cropland used for cotton production moved from about 1/3 of the total in 1880 to a high of 77% in 1910, and cotton was

grown on 73% of the cropland as late as 1930. Dramatic changes in land tenure attended the shift to cotton production. As late as 1880, 1,183 of the 1,538 farms, or 77%, were still worked by owners. By 1890, only 43% of the farms were operated by owners, and the percentage of owner-operators remained at 40% until the 1920s, when it dropped still further to 29% in 1930. Farm tenancy rates began to decline during the Great Depression with the shift away from cotton and other staple crops and by 1959 had dropped to 36% of the county's farmers.

Both the cattle and the cotton booms were aided by the improved communications available in the county in the later 19th century. The International-Great Northern Railroad, which later was consolidated with the Missouri Pacific, was built across the eastern part of the county in 1876 and led to the founding of Taylor (now Williamson County's third largest city) and Hutto and to the relocation of Round Rock. It also opened up large areas in eastern Williamson County to commercial farming. The Taylor, Bastrop, and Houston Railway, which was eventually consolidated with the Missouri, Kansas, and Texas Railway, was built in the 1880s and aided in the development of Taylor, Granger, and Bartlett. Roads were generally poor throughout the county in the early 20th century. There were 11,882 automobiles in the county by 1930, and extensive improvements, including blacktopping, of all major roads took place in the 1930s.

The county also became more ethnically diverse in the later 19th and early 20th centuries. While there were only 111 inhabitants of foreign birth out of a population of 6,368 in Williamson County in 1870, significant numbers of Scandinavians, Germans, Czechs, Wends, and Austrians moved to the county in the 1880s and 1890s. The proportion of foreign-born in the county population remained at about 10% from 1890 to the 1930s. Mexican immigration reached a significant level by about 1910, just as Europeans stopped arriving in the county. There were 294 Hispanics in 1900, 732 in 1910, and 4,967, or 11% of the population, in 1930. In 1980, 9,693 residents, or again 11%, were of Hispanic origin. The immigrants added their distinctive customs and architectural styles to the mix of county life and introduced new religious denominations. By the time of the Civil War, Williamson County had a number of Baptist and Methodist churches and several different factions of the Presbyterian Church. Churches of other denominations were built after the war, and the new immigrants established Lutheran, Catholic, and Czech Moravian congregations. By 1930, Williamson County had a culturally diverse population of 44,146 inhabitants. The economy was still overwhelmingly agricultural; only 29 manufacturing establishments employed 347 workers that year. While cotton production was near its peak in terms of percentage of cropland, the cotton industry was already undergoing a rapid transformation.

The combined effects of soil depletion, overproduction, and the influx of the boll weevil had already injured the profitability of the industry by the late 1920s, and the situation of cotton growers was further worsened by the depression. The black population seems to have been particularly hard hit by the depression. Of the 944 county families on relief in 1933, 442, almost half, were black, though blacks constituted only 16% of the population. Various federal relief programs benefited farmers with farm loans and subsidies, and in 1936 a total of $204,000 in subsidy checks were issued. The Depression encouraged diversification among farmers and a shift away from staple crops to livestock. Between 1930 and 1940, the number of acres used for cotton-growing fell by almost half, and cotton production went from 68,266 to 36,890 bales.

Cropland acreage used for corn production increased over the same period by about half, and wool and mohair production more than doubled to 342,983 and 102,517 pounds, respectively. While cotton continued to be an important crop in eastern Williamson County, farmers increasingly turned to other crops like sorghum and wheat and to livestock-raising in the latter 20th century. Along with such traditional livestock as sheep and cattle, poultry farming played a significant role in the economy by 1950, when the county was fifth in the state in the production of eggs and chickens. In 1980, it was 10th in the state in the production of turkeys.

The agricultural diversification of the middle decades of the 20th century was followed by significant social and economic changes in the 1960s, 1970s, and 1980s. The black population, which had remained at between 15 and 18% of the total in the early and mid-20th century, began to decline, both proportionately and in real numbers, from the 1940s on and had fallen to 4,111, or about 5%, by 1980. As in other areas of Texas, blacks were relegated to segregated and inferior housing and educational facilities until the 1960s, when some improvements were brought about by federal desegregation policies. Along with changes in racial composition, Williamson County experienced a dramatic increase in population during this period, growing from 37,305 inhabitants in 1970 to an estimated 85,700 inhabitants in 1982, making it 34th in population growth among counties in the US in the 1970s.

# 4.0 ARCHIVAL RESEARCH

Prior to initiating fieldwork, Horizon personnel reviewed existing information on file on the THC's online *Texas Archeological Sites Atlas* (Atlas), the National Park Service's (NPS) online *National Register Information System* (NRIS), and the Texas State Historical Association's (TSHA) *Handbook of Texas Online* for information on previously recorded archeological sites and previous archeological investigations conducted within a 1.6-kilometer (1.0-mile) radius of the APE (NPS 2014; THC 2014; TSHA 2014). Archival research indicated the presence of 16 previously recorded archeological sites within a 1.6-kilometer (1.0-mile) radius of the APE (Figure 4; Table 2). Eight of the 16 previously recorded sites represent the remnants of aboriginal lithic artifact scatters and lithic raw material procurement areas (i.e., "quarries") of undetermined prehistoric age, and the remaining 8 known sites represent the remains of late 19th- to early 20th-century farmsteads. One of the 16 previously recorded archeological sites have been determined to be eligible for inclusion in the National Register of Historic Places (NRHP), 13 sites are ineligible for inclusion in the NRHP, and the remaining 2 sites are of undetermined eligibility. One of the 16 known sites, 41WM1246, was recorded within the ROW of CR 273, which forms the western margin of the current project's APE. As mapped on the THC's Atlas, this site is shown as circular in shape and extends just within the western boundary of the APE; however, the prior survey of the CR 273 ROW during which this site was recorded did not actually extend onto the current property, so the mapped site boundary is slightly in error. Site 41WM1246 has since been destroyed via construction of CR 273. The remaining previously recorded sites are located well beyond the boundaries of the current APE and would have no potential to experience disturbances in connection with the proposed undertaking.

Numerous prior cultural resources surveys have been conducted in the general vicinity of the APE, though only 2 of these prior surveys are of direct relevance to the current study. First, the current APE falls within the boundaries of a larger cultural resources survey conducted in 2004 by Lopez-Garcia Group, Inc., in connection with the proposed development of the Leander Park and Ride Facility for the Capital Metropolitan Transportation Authority (Sundermeyer and DeFreece 2005). Thus, the entirety of the current APE had been previously surveyed for cultural resources, and no cultural resources were recorded within the current APE during this prior survey. A second survey was conducted in 2009 by Cox|McLain Environmental Consulting, Inc., of the proposed ROW of CR 273, which has since been constructed and now runs along the western margin of the current APE (Dayton 2010). Site 41WM1246, discussed above, was recorded during this survey.

*Sensitive site data omitted*

**Figure 4. Previously Recorded Cultural Sites and Surveys within 1 Mile of APE**

**Table 2. Previously Recorded Cultural Sites within 1 Mile of APE**

| Site No./Name | Site Type | NRHP/SAL Eligibility Status | Distance/Direction from APE | Potential to be Impacted by Project? |
|---|---|---|---|---|
| ***Archeological Sites*** | | | | |
| 41WM691 | Aboriginal lithic scatter (unknown prehistoric) | Ineligible | 0.8 miles northeast | No |
| 41WM692 | Aboriginal lithic scatter (unknown prehistoric) | Ineligible | 0.9 miles northeast | No |
| 41WM693 | Aboriginal lithic scatter (unknown prehistoric) | Ineligible | 0.5 miles north-northeast | No |
| 41WM694 | Historic-era artifact scatter (early 20th century) | Ineligible | 0.1 miles northwest | No |
| 41WM695 | Historic-era farmstead (early 20th century) | Ineligible | 0.6 miles northwest | No |
| 41WM696 | Historic-era farmstead (early to mid-20th century) | Ineligible | 0.8 miles northeast | No |
| 41WM697 | Aboriginal lithic scatter (unknown prehistoric) | Ineligible | 0.3 miles east | No |
| 41WM698 | Aboriginal lithic scatter (unknown prehistoric) | Ineligible | 0.3 miles north | No |
| 41WM699 | Aboriginal isolated artifact (unknown prehistoric) | Ineligible | 0.3 miles northwest | No |
| 41WM1003 | Historic-era farmstead (unknown historic) | Undetermined | 0.8 miles west-southwest | No |
| 41WM1004 | Aboriginal lithic scatter (unknown prehistoric) | Ineligible | 0.6 miles west-southwest | No |
| 41WM1007 | Historic-era farmstead (unknown historic) | Ineligible | 0.1 miles east | No |
| 41WM1111 | Historic-era farmstead (unknown historic) | Ineligible | 0.2 miles south | No |
| 41WM1114 | Historic-era farmstead (late 19th to 20th centuries) | Eligible (overall)/ portions ineligible | 0.8 miles north | No |
| 41WM1116 | Historic-era farmstead (early 20th century) | Undetermined | 0.7 miles north | No |
| 41WM1246 | Aboriginal lithic scatter (unknown prehistoric) | Ineligible | Western boundary of APE | Possibly |

NRHP National Register of Historic Places

SAL State Antiquities Landmark

# 5.0 SURVEY METHODOLOGY

On December 15, 2014, Horizon archeologist Briana Nicole Smith, under the overall direction of Jeffrey D. Owens, Principal Investigator, performed an intensive cultural resources survey of the APE to locate any cultural resources that potentially would be impacted by the proposed undertaking. Horizon's archeologist traversed the APE in roughly parallel, linear transects spaced approximately 30.5 meters (100.0 feet) apart and thoroughly inspected the modern ground surface and stream cutbanks of the North Fork of Brushy Creek for cultural resources. The APE consists of an upland interfluve situated between the North and South Forks of Brushy Creek. The majority of the APE is a limestone upland, and limestone gravels and bedrock crop out ubiquitously on the modern ground surface interspersed with a thin veneer of clay loam and gravelly clay sediments. Physiographically, the northeastern corner of the APE is mapped as falling within the floodplain of the North Fork of Brushy Creek. However, in 2013, artificial fill was applied to some portions of the property to raise the grade above the FEMA floodplain. These artificial fill deposits appear to have been applied selectively across the property, primarily along the northern and eastern edges nearest to the creek channel, and the maximum thickness of the fill deposits is approximately 0.3 meters (1.0 feet). The entire property had experienced extensive prior disturbances from previous vegetation clearing, grading, and application of artificial fill in the form of crushed limestone gravels to selected portions of the property (Figures 5 to 8). Vegetation within the APE was largely limited to discontinuous patches of overgrown grasses and weeds, and ground surface visibility was generally excellent (80 to 100%).

In addition, the Texas State Minimum Archeological Survey Standards (TSMASS) require the excavation of 2 shovel tests per acre for APEs of this size; as such, a total of 6 subsurface probes would be required within the 4.5-hectare (11.2-acre) APE. Horizon exceeded the TSMASS by excavating a total of 16 shovel tests (Figure 9). Shovel tests measured 30.0 centimeters (11.8 inches) in diameter and were excavated to a target depth of 1.0 meters (3.3 feet) below surface, to the top of pre-Holocene deposits, or to the maximum depth practicable. In practice, shovel tests were terminated at depths of 3.0 to 30.0 centimeters (1.2 to 11.8 inches) below surface due to the presence of limestone bedrock or artificial fill across portions of the site and pre-Holocene clay sediments adjacent to the North Fork of Brushy Creek. In many areas, dense gravel deposits and fossils are exposed on the modern ground surface. All sediments were screened through 6.35-millimeter (0.25-inch) hardware cloth. The Universal Transverse Mercator (UTM) coordinates of all shovel tests were determined using hand-held Garmin

**Figure 5. Overview of APE *(Note Discontinuous Artificial Fill)* (Facing North)**

**Figure 6. Overview of APE *(Note Lack of Artificial Fill)* (Facing South)**

**Figure 7. Artificial Fill on North Side of Tract near North Fork of Brushy Creek (Facing West)**

**Figure 8. Close-up of Artificial Fill Mound in Western Portion of Tract (Facing Northwest)**

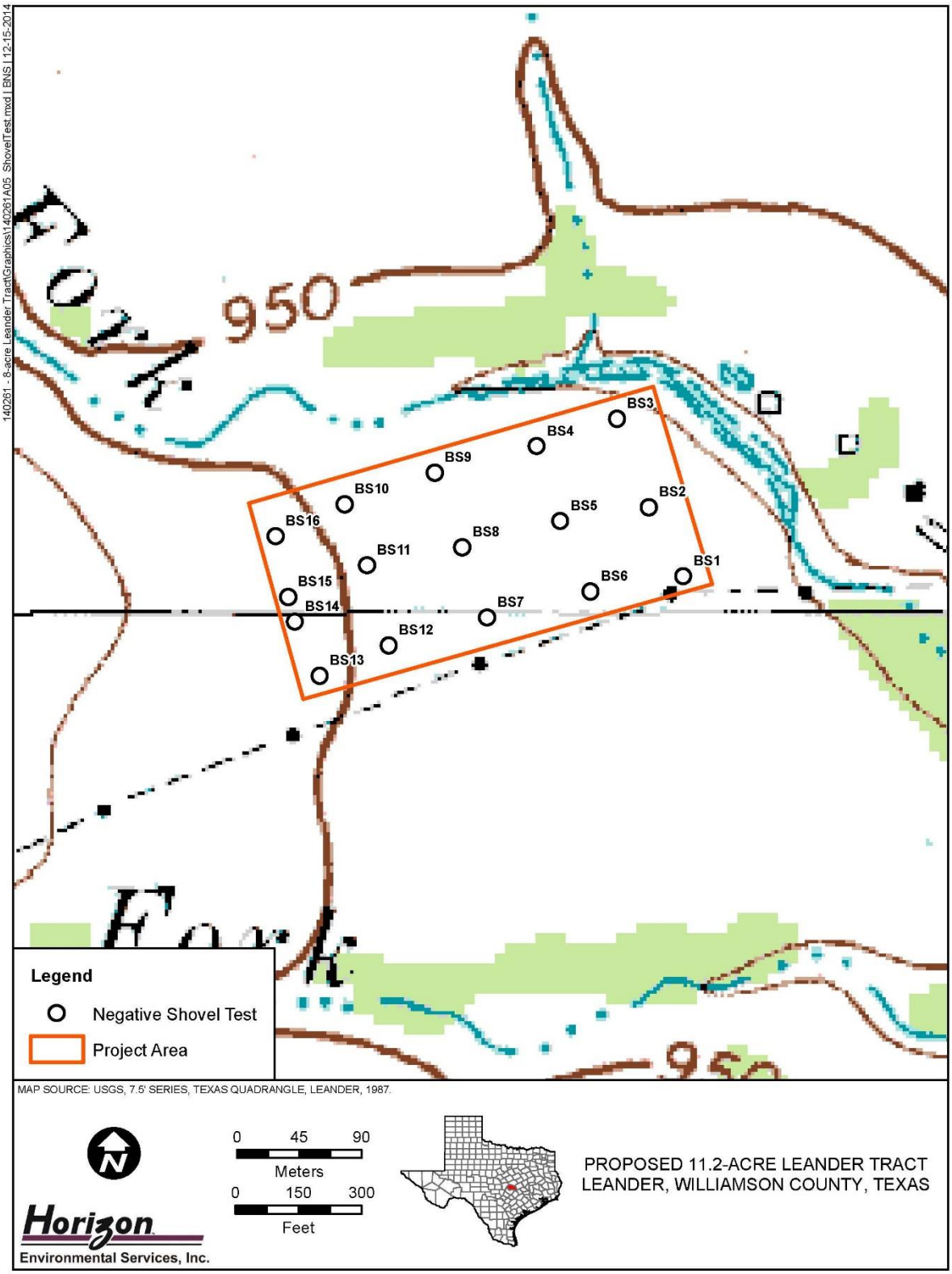


**Figure 9. Locations of Shovel Tests Excavated within APE**

ForeTrex Global Positioning System (GPS) devices based on the North American Datum of 1983 (NAD 83). Specific shovel test data for all 16 shovel tests excavated within the APE are summarized in Appendix A.

The TSMASS also require backhoe trenching in stream terraces and other areas with the potential to contain buried archeological materials at depths below those that shovel tests are capable of reaching (approximately 1.0 meters [3.3 feet] below surface). No deep, Holocene-age alluvial deposits with the potential to contain deeply buried archeological deposits were observed within the APE, and shovel tests were capable of penetrating sediments with the potential to contain archeological resources. As such, shovel testing is considered to constitute an adequate and effective survey technique for identifying archeological resources within the APE, and mechanical trenching consequently was not employed as a site-prospecting technique.

This cultural resources survey employed a non-collection policy for archeological materials. Diagnostic artifacts (e.g., projectile points, ceramics, historic materials with maker's marks) and non-diagnostic artifacts (e.g., lithic debitage, burned rock, historic glass, and metal scrap) were described, sketched, and/or photo-documented in the field and replaced in the same location in which they were found.

The survey methods employed during the survey represented a "reasonable and good-faith effort" to locate significant archeological sites within the APE as defined in 36 Code of Federal Regulations (CFR) 800.3.

# 6.0 RESULTS OF INVESTIGATIONS

During the survey, Horizon's archeologist observed 1 isolated prehistoric artifact consisting of a small biface fragment manufactured from white Edwards chert (Figure 10). The artifact exhibits a deep hinge fracture along 1 lateral edge, suggesting that flintknapping error caused this artifact to be abandoned before manufacture was complete. This artifact is not temporally diagnostic beyond indicating a general prehistoric presence on the tract and does not, in and of itself, warrant consideration for inclusion in the NRHP.

During a prior cultural resources survey conducted in 2009 of the proposed ROW of CR 273, which has since been constructed and now forms the western margin of the current survey tract, Cox|McLain Environmental Consulting, Inc., recorded a low-density, surficial scatter of aboriginal lithic debitage, tested cobbles, and tested fossil bivalves (Figure 11) (Dayton 2010). The site, 41WM1246, was interpreted as a lithic raw material procurement area, or "quarry," of unspecified prehistoric age. Based on the extensive disturbances observed on the site, the lack of temporally diagnostic artifacts or cultural features, and the common site type, site 41WM1246 was determined to be ineligible for inclusion in the NRHP and for designation as an SAL, and the site has since been destroyed by construction of CR 273. The single biface fragment found within the current project's APE is consistent with the cultural materials observed on site 41WM1246; however, the presence of only a single artifact within the APE does not warrant extending the boundaries of 41WM1246 beyond those previously recorded within the CR 273 ROW.

No other cultural materials, historic or prehistoric, were observed within the current project's APE during Horizon's survey, and no standing structures of historic age are located on the tract or within the viewshed of the property on adjacent parcels.


**Figure 10. Isolated Biface Fragment Observed within APE**

**Figure 11. View of Former Location of Site 41WM1246 Located in CR 273 ROW beyond Western Boundary of APE (Facing West)**

# 7.0 SUMMARY AND RECOMMENDATIONS

## 7.1 CONCEPTUAL FRAMEWORK

The archeological investigations documented in this report were undertaken with 3 primary management goals in mind:

- Locate all historic and prehistoric archeological resources that occur within the designated survey area.
- Evaluate the significance of these resources regarding their potential for inclusion in the NRHP.
- Formulate recommendations for the treatment of these resources based on their NRHP eligibility.

At the survey level of investigation, the principal research objective is to inventory the cultural resources within the APE and to make preliminary determinations of whether or not the resources meet one or more of the pre-defined eligibility criteria set forth in the state and/or federal codes, as appropriate. Usually, management decisions regarding archeological properties are a function of the potential importance of the sites in addressing defined research needs, though historic-age sites may also be evaluated in terms of their association with important historic events and/or personages. Under the NHPA, archeological resources are evaluated according to criteria established to determine the significance of archeological resources for inclusion in the NRHP.

Analyses of the limited data obtained at the survey level are rarely sufficient to contribute in a meaningful manner to defined research issues. The objective is rather to determine which archeological sites could be most profitably investigated further in pursuance of regional, methodological, or theoretical research questions. Therefore, adequate information on site function, context, and chronological placement from archeological and, if appropriate, historical perspectives is essential for archeological evaluations. Because research questions vary as a function of geography and temporal period, determination of the site context and chronological placement of cultural properties is a particularly important objective during the inventory process.

## 7.2 ELIGIBILITY CRITERIA FOR INCLUSION IN THE NATIONAL REGISTER OF HISTORIC PLACES

Determinations of eligibility for inclusion in the NRHP are based on the criteria presented in the Code of Federal Regulations (CFR) in 36 CFR §60.4(a-d). The 4 criteria of eligibility are applied following the identification of relevant historical themes and related research questions:

> The quality of significance in American history, architecture, archeology, 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. [T]hat are associated with events that have made a significant contribution to the broad patterns of our history; or,
>
> b. [T]hat are associated with the lives of persons significant in our past; or,
>
> c. [T]hat embody the distinctive characteristics of a type, period, or method of construction, or that represent a significant and distinguishable entity whose components may lack individual distinction; or,
>
> d. [T]hat have yielded, or may be likely to yield, information important in prehistory or history.

The first step in the evaluation process is to define the significance of the property by identifying the particular aspect of history or prehistory to be addressed and the reasons why information on that topic is important. The second step is to define the kinds of evidence or the data requirements that the property must exhibit to provide significant information. These data requirements in turn indicate the kind of integrity that the site must possess to be significant. This concept of integrity relates both to the contextual integrity of such entities as structures, districts, or archeological deposits and to the applicability of the potential database to pertinent research questions. Without such integrity, the significance of a resource is very limited.

For an archeological resource to be eligible for inclusion in the NRHP, it must meet legal standards of eligibility that are determined by 3 requirements: (1) properties must possess significance, (2) the significance must satisfy at least 1 of the 4 criteria for eligibility listed above, and (3) significance should be derived from an understanding of historic context. As discussed here, historic context refers to the organization of information concerning prehistory and history according to various periods of development in various times and at various places. Thus, the significance of a property can best be understood through knowledge of historic development and the relationship of the resource to other, similar properties within a particular period of development. Most prehistoric sites are usually only eligible for inclusion in the NRHP under Criterion D, which considers their potential to contribute data important to an understanding of prehistory. All 4 criteria employed for determining NRHP eligibility potentially can be brought to bear for historic sites.

## 7.3 SUMMARY OF INVENTORY RESULTS

During the survey, Horizon's archeologist observed 1 isolated prehistoric artifact consisting of a small biface fragment manufactured from white Edwards chert. This artifact is not

temporally diagnostic beyond indicating a general prehistoric presence on the tract and does not, in and of itself, warrant consideration for inclusion in the NRHP. During a prior cultural resources survey conducted in 2009 of the proposed ROW of CR 273, which has since been constructed and now forms the western margin of the current survey tract, Cox|McLain Environmental Consulting, Inc., recorded a low-density, surficial scatter of aboriginal lithic debitage, tested cobbles, and tested fossil bivalves. The site, 41WM1246, was interpreted as a lithic raw material procurement area, or "quarry," of unspecified prehistoric age. Based on the extensive disturbances observed on the site, the lack of temporally diagnostic artifacts or cultural features, and the common site type, site 41WM1246 was determined to be ineligible for inclusion in the NRHP and for designation as an SAL, and the site has since been destroyed by construction of CR 273. The single biface fragment found within the current project's APE is consistent with the cultural materials observed on site 41WM1246; however, the presence of only a single artifact within the APE does not warrant extending the boundaries of 41WM1246 beyond those previously recorded within the CR 273 ROW.

No other cultural materials, historic or prehistoric, were observed within the current project's APE during Horizon's survey, and no standing structures of historic age are located on the tract or within the viewshed of the property on adjacent parcels.

## 7.4 MANAGEMENT RECOMMENDATIONS

Based on the results of the survey-level investigations of the APE documented in this report, no potentially significant cultural resources would be affected by the proposed undertaking. In accordance with 36 CFR 800.4, Horizon has made a reasonable and good faith effort to identify historic properties within the APE. No cultural resources were identified that meet the criteria for inclusion in the NRHP according to 36 CFR 60.4, and no further archeological work is recommended in connection with the proposed undertaking. However, it should be noted that human burials are protected under the Texas Health and Safety Code. In the event that any human remains or burial furniture are inadvertently discovered at any point during construction, use, or ongoing maintenance in the APE, even in previously surveyed areas, all work should cease immediately in the vicinity of the inadvertent discovery until a qualified archeologist can assess the find, and the THC should be notified of the discovery.

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# APPENDIX A:

## Shovel Test Data

## Table A-1. Shovel Test Summary Data

| ST No. | UTM Coordinates[1] | | Depth (cmbs) | Soils | Artifacts |
|---|---|---|---|---|---|
| | Easting | Northing | | | |
| BS1 | 610565 | 3384224 | 0-25 | Very dark grayish-brown clay loam | None |
| | | | 25-30+ | Very dark grayish-brown clay | None |
| BS2 | 610540 | 3384274 | 0-25 | Very dark grayish-brown clay loam | None |
| | | | 25-30+ | Very dark brown clay | None |
| BS3 | 610517 | 3384338 | 0-30 | Very dark brown clay loam | None |
| | | | 30+ | Limestone gravels | None |
| BS4 | 610459 | 3384318 | 0-5+ | Artificial fill | None |
| BS5 | 610476 | 3384264 | 0-10+ | Artificial fill | None |
| BS6 | 610498 | 3384213 | 0-5+ | Artificial fill | None |
| BS7 | 610423 | 3384194 | 0-3+ | Artificial fill | None |
| BS8 | 610405 | 3384245 | 0-5+ | Artificial fill | None |
| BS9 | 610385 | 3384299 | 0-3+ | Artificial fill | None |
| BS10 | 610320 | 3384276 | 0-10+ | Very dark grayish-brown gravelly clay | None |
| BS11 | 610336 | 3384232 | 0-5+ | Artificial fill | None |
| BS12 | 610352 | 3384174 | 0-35 | Very dark brown gravelly clay | None |
| | | | 35+ | Limestone gravels | None |
| BS13 | 610302 | 3384152 | 0-25 | Very dark brown clay | None |
| | | | 25-30+ | Mottled very dark brown, dark yellowish-brown, and dark grayish-brown clay | None |
| BS14 | 610284 | 3384191 | 0-3+ | Artificial fill | None |
| BS15 | 610279 | 3384209 | 0-5+ | Artificial fill | None |
| BS16 | 610270 | 3384253 | 0-5+ | Artificial fill | None |

[1] All UTM coordinates are located in Zone 14 and utilize the North American Datum of 1983 (NAD 83)

cmbs = Centimeters below surface

ST = Shovel test

UTM = Universal Transverse Mercator