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Archaeological Survey of the Proposed EMLI at Pecan Creek Housing Development Denton County, Tx

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ARCHAEOLOGICAL SURVEY OF THE PROPOSED

EMLI AT PECAN CREEK HOUSING DEVELOPMENT

DENTON COUNTY, TX

Kathryn A. Cross, MA
Principal Investigator
and
Kathryn M. Crater Gershtein, MA

Submitted to:

LIBERTY MULTIFAMILY, LLC
2010 Valley View Lane, Suite 300
Farmers Branch, Texas 75234

Submitted by:

AR CONSULTANTS, INC.
805 Business Parkway
Richardson, Texas 75081

Cultural Resources Report 2019-20
August 8, 2019

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ABSTRACT

Liberty Multifamily, LLC is proposing to develop approximately 12 acres of a 22-acre tract east of FM2931, approximately 0.4 miles north of its intersection with Ike Byrom Road in Denton County, Texas. Liberty Multifamily, LLC contracted with AR Consultants, Inc. to conduct an intensive cultural resources survey of the 12 acres slated for development. Archaeological survey of the tract was conducted on July 17-18, 2019. Based on the research conducted prior to the survey, two hypotheses were developed. AR Consultants, Inc. hypothesized that there is moderate potential for encountering prehistoric and low potential for encountering historic archaeological sites within the survey area. As expected, a single prehistoric site (41DN619) was encountered during survey. Site 41DN619 is an approximately 0.4-acre lithic scatter, similar to nearby sites along Pecan Creek and its tributaries. Based on the results of this survey, AR Consultants, Inc. is unable to make a recommendation for the site regarding its significance and eligibility for the National Register of Historic Places. AR Consultants, Inc. requests guidance from the Texas Historical Commission on this matter.

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INTRODUCTION

Liberty Multifamily, LLC is proposing to develop approximately 12 acres of a 22-acre tract east of FM2931, approximately 0.4 miles north of its intersection with Ike Byrom Road in Denton County, Texas (Figure 1). The project area is situated on the north side of an unnamed, intermittent tributary of Pecan Creek in an upland setting. A smaller drainage runs north-south near the center of the are slated for development.

Liberty Multifamily, LLC contracted with AR Consultants, Inc. (ARC) to conduct an archaeological survey of the 12 acres slated for development. The purpose of the archaeological survey was to determine if cultural materials were present, and if so, to make recommendations about their significance and how they might be impacted by construction. Archaeological survey the tract was directed by Kathryn A. Cross, M.A. on July 17-18, 2019.

The project is receiving U.S. Department of Housing and Urban Development (HUD) funding. This cultural resource survey was completed at the request of HUD and the Texas Historical Commission (THC). Though the Texas Antiquities Code is not applicable to this investigation, the THC will serve as the Section 106 review agency for HUD should a Section 106 permit be required for future construction phases.

This report is written in accordance with the guidelines for reports adopted by the Archeology Division of the Texas Historical Commission and developed by the Council of Texas Archeologists (n.d.). The following report presents a brief description of the natural setting of the project area, followed by a discussion of the culture history and previous investigations in the vicinity of the study area. A chapter on the research design and methodology employed in the investigation is then followed by the results of the field investigation. The report concludes with recommendations followed by the references cited.

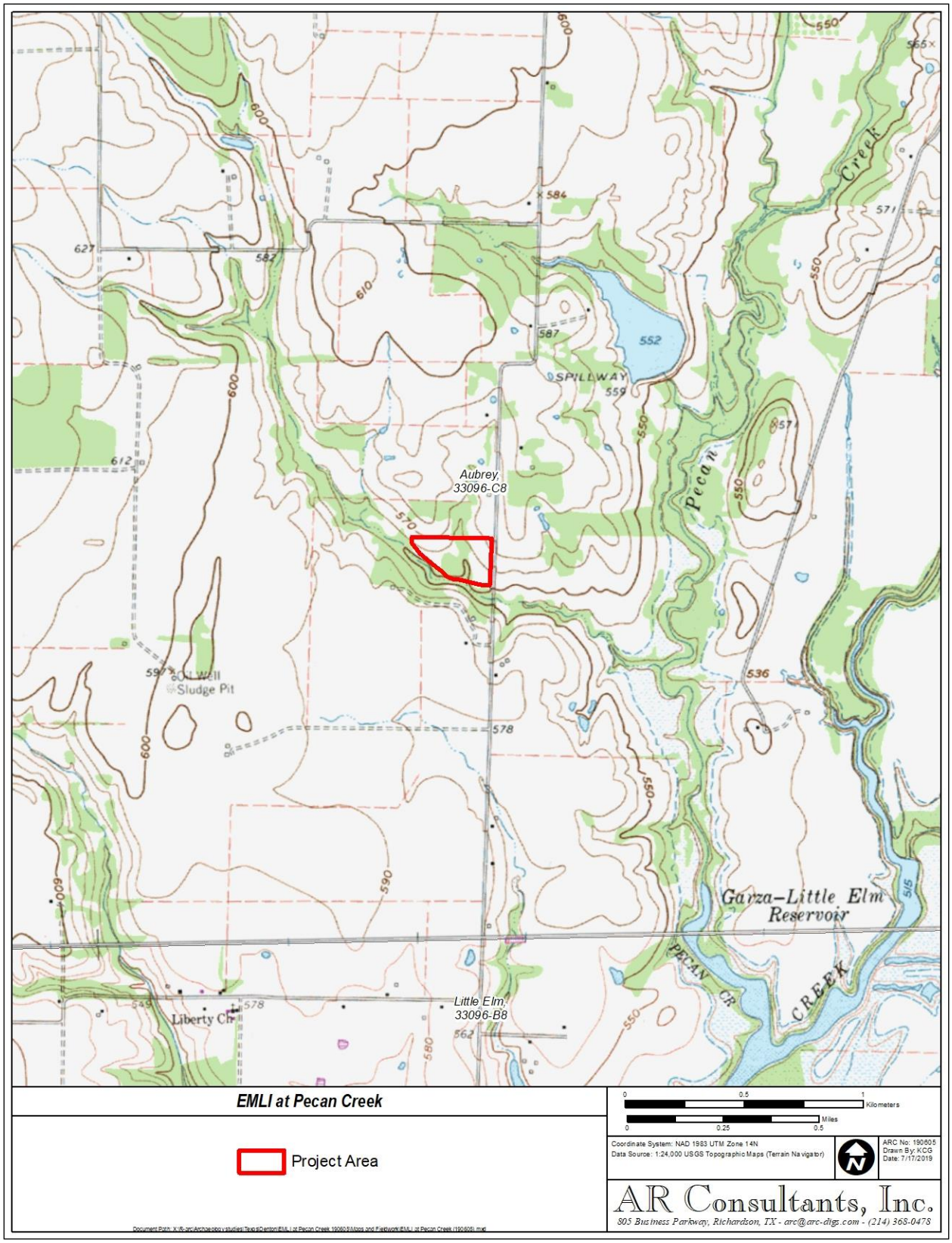

Figure 1. The EMLI at Pecan Creek survey area shown on a portion of the Aubrey, TX 1:24,000-scale USGS topographic map.

Administrative Information:

ARC Project Number:	190605
Sponsor:	Liberty Multifamily, LLC.
Review Agency:	U.S. Department of Housing and Urban Development (HUD) Texas Historical Commission (THC)
Principal Investigator:	Kathryn M. Cross, MA
Field Dates:	July 17-18, 2019
Field Crew:	Kathryn A. Cross, Rachel Thimmig
Field Person Days:	4
Acres Surveyed:	approximately 12 acres
Sites Investigated:	
Prehistoric:	1 (41DN619)
Historic:	0
Curation:	No artifacts were collected. Records will remain at AR Consultants, Inc.

NATURAL ENVIRONMENT

The property is situated in an upland setting on the north side of an unnamed, intermittent tributary of Pecan Creek. The drainage flows into Pecan Creek approximately 850 m southeast of the current project area. The property is situated in the Northern Blackland Prairie ecoregion, composed of rolling to nearly level plains that formed over Upper-Cretaceous marl, chalk, limestone, and shale (Griffith et al. 2007:61-62). Generally, the Northern Blackland Prairie is a tallgrass prairie, dominated by big and little bluestem, Indiangrass, and tall dropseed growing on the region's deep, fertile, "black waxy" soil, which gives the Prairie its name. Oak, hackberry, elm, ash, cottonwood, and pecan trees grow in the stream valleys.

The proposed project area is mapped exclusively on Quaternary-age fluvial terrace deposits consisting of gravel, sand, and silt (Bureau of Economic Geology 1967). Callisburg, Aubrey, and Gowen series soils underly the proposed project area (Ford and Pauls 1980: Sheet 17). Callisburg fine sandy loam spans most of the project area. It consists of a 15-cm-thick A horizon of yellowish brown fine sandy loam underlain by reddish yellow sandy clay subsoil. Aubrey fine sandy loam is mapped at the northeastern corner of the project area. This series has a 15-cm-thick brown fine sandy loam A horizon underlain with a red clay B horizon. Gowen clay loam is mapped at the southwestern boundary of the project area along the tributary to Pecan Creek. This series consists of a 76-cm-thick dark grayish brown to brown clay loam underlain by a dark grayish brown clay loam B horizon.

CULTURAL HISTORY

A prehistoric chronology, based on Prikryl (1990), with an added historic period, for North Central Texas is presented in Table 1 to provide the reader with a temporal framework for the culture history of the region.

Table 1. Cultural Chronology.

Time Period	Dates
Historic European	A.D. 1800-present
Protohistoric	A.D. 1600-1800
Late Prehistoric	A.D. 700-1600
Late	*A.D. 1400-A.D. 1600*
Middle	*A.D. 1000-A.D. 1400*
Early	*A.D. 700-A.D. 1000*
Archaic	6000 B.C.-A.D. 700
Paleoindian	ca. 11,000 B.C.-6000 B.C.

The Paleoindian period is characterized as having small, nomadic bands of hunter-gatherers whose primary emphasis was the exploitation of now-extinct megafauna, such as mammoth and bison. Smaller game and plant gathering likely supplemented the Paleoindian diet (Meltzer and Bever 1995:59). As such, the archaeological record for the region consists of several distinctive styles of projectile points, such as the Clovis, Plainview, and Folsom. Currently, four Clovis points have been reported from Denton County, and numerous have been found in surrounding counties (Bever and Meltzer 2007:67-70). Subsistence patterns began to change as a general drying climatic trend swept the region, leading to extinction of many of the area's large mammals toward the end of the Paleoindian period.

The Archaic period is characterized by increased alluviation of water channels and a generally wetter environment than the previous period. This change in climate resulted in modification of Native American subsistence patterns, with broad exploitation of bottomland food resources. This, in turn, resulted in clusters of seasonal settlements along large drainages, including the Trinity River and its various forks and tributaries, and a marked increase in population density. With the advent of repeated, seasonal occupation of sites along drainages came a perceived increase in territorial constrictions among different groups in the region, with several authors citing the limited use of regional lithic resources as evidence of this trend (Prewitt 1983; Skinner 1981).

The Late Prehistoric period is interpreted as a dryer period, with a focus on procurement of faunal resources, agriculture, and food preservation. The appearance of pottery and the bow and arrow help date artifact assemblages to this period (Shafer 1977). The Protohistoric period is characterized by Native American abandonment of North Central Texas in the period around 1500/1600, with almost no archaeological evidence found in the region dating to this time (Skinner 1988).

The Historic European period saw widespread Anglo settlement of North Central Texas beginning in the 1830s. This expansion often resulted in brutal conflicts between settlers and nomadic bands of Native Americans (Garrett 1972:24). These early conflicts gave way to various Anglo strategies

aimed at cohabitation, including peace treaties signed as early as 1843. Eventually, the entirety of North Central Texas was settled, with numerous Anglo military installations established in the region. After Texas became part of the United States in 1845, peace was short lived. The Civil War took its toll on the North Central Texas population, as most of the able-bodied men left to fight for the Confederacy.

The first established European settlement in Denton County began before the mid-1800s with the establishment of the Peter's Colony after Texas independence. These early settlers were farmers who selected bottomland along the Elm Fork of the Trinity (Bridges 1978). There is very little evidence of historic-era Native American occupation anywhere in Dallas or Denton County, although historic accounts indicate that groups were present in the early 1800s. Beginning in the 1830s and continuing into the 1840s, the aboriginal inhabitants continued to play a role in the regional history. Garrett (1972:24) states, "Indian hostilities almost depopulated North Texas (of Anglo dwellers) after 1839. It dwindled to less than half." Hostilities continued until the Republic of Texas and ten Native American tribes signed the Treaty of 1843. This treaty provided the impetus for settlement of several North Central Texas counties.

Commercial farming was not important until after the Civil War, and the early settlers were essentially self-sufficient. Besides domestic plants and animals, wild animals and plants were commonly consumed. Denton became the county seat in 1856. By 1875, cotton, corn, and wheat were the main cash crops. Up to half of these crops were grown by tenant farmers who either paid rent to the landowner for their house, tools, and seed or by tenants who gave the landowner a third of the grain and a quarter of the cotton or other cash crops. By the turn of the century, all of the major communities had been established (Odom 2016).

Previous Investigations

A search of TASA (2019) revealed that there are no historical markers, cemeteries, National Register of Historic Places (NRHP) properties, State Antiquities Landmarks (SALs), recorded archaeological sites, or previous cultural resources surveys in the proposed project area. The Lake Lewisville Archaeological Survey, conducted in 1986, recorded three archaeological sites within a mile of the project area. Site 41DN366 is located approximately 0.75 miles northeast of the current project area on an upland ridge above Pecan Creek. This site is recorded as a surface scatter of prehistoric and historic artifacts. The artifact assemblage consists of chert and Ogallala Quartzite lithic debris, historic churn crockery, iron stove parts, whiteware, and miscellaneous iron fragments. Similarly, site 41DN367 is located on an upland ridge above Pecan Creek. This location is downstream from 41DN366 and approximately 0.8 miles southeast of the project area. The site is described as a multi-component artifact scatter. The assemblage includes a prehistoric dart point fragment and lithic debris found near a historic house from the 1930s. Other architectural features were encountered near the house including a pen, barn, and fence line. Finally, a single chert uniface-sidescraper was encountered approximately 0.2 miles east of 41DN367 near Little Elm Creek. This isolated find was assigned site number 41DN368.

Historic Map & Aerial Review

Historic maps and aerial imagery were examined to determine if any historic structures and features existed in the proposed project area. The 1918 Denton County Soils Map, the 1936, 1938,

and 1961 Denton County Highway maps, and the 1960 1:24,000-scale Aubrey, TX USGS topographic map were reviewed as part of this research. While several structures appear along FM2931, none appear within the project area. Additionally, aerial imagery from 1952 to the present were reviewed. These photographs show the area remaining undeveloped, except for a residence constructed north of the project area sometime after 1981. The aerial imagery reveals that over the years, the landscape was modified to create pastures between the wooded areas north of the drainage.

RESEARCH DESIGN AND METHODOLOGY

Research Design

Based on the research conducted prior to the survey, two hypotheses were developed. First, it was hypothesized that there is moderate potential for encountering prehistoric archaeological sites within the survey area. Three prehistoric sites have been encountered in similar settings within a mile of the project area. Additionally, according to the Texas Department of Transportation's Hybrid Potential Archeological Liability Map (HPALM), the majority of the project area is mapped as moderate potential with high shallow potential for encountering archaeological material (Abbott and Pletka 2014).

The second hypothesis states that there is low potential for encountering historic sites. Though the eastern edge of the project area is located along FM2931, historic maps and aerials show no structures within or immediately adjacent to the project area. However, historic trash scatters are sometimes found at locations along roadways and/or near drainages. Thus, there is a possibility for encountering historic trash.

Methodology

Survey of the property was conducted in accordance with the standards set forth by the THC (2014). Field personnel walked transects spaced no more than 30 m across the survey area. As they walked transects, the crew made notes about the ground exposure, drainages, soil types, and disturbed areas where subsoil was exposed. Photographs were taken during the survey using a digital, GPS-equipped camera. Shovel tests were placed at a rate of one per every two acres across the 12-acre survey area. Their locations and the location of any other relevant features were marked with a handheld GPS receiver. Shovel tests averaged 30 cm in diameter. Any clay fill was inspected visually and broken into smaller chunks in order to determine if cultural materials were present. Any other fill was screened through ¼-inch mesh. Shovel test soil matrices were described on the basis of composition, texture, and color. The Munsell Soil Color Chart (2009) was used to identify soil colors. Any shovel tests that were positive for cultural materials were delineated in cardinal directions at 10-meter intervals. Site boundaries were defined with at least six shovel tests. Artifacts were photographed, but not collected.

RESULTS

This chapter is divided into two sections. The first describes the project area's natural setting along with results of the pedestrian survey. Conclusions derived from the survey close the chapter. Shovel tests are described generally throughout the text and detailed in Table 1 at the end of the chapter.

Survey Results

Six transects were surveyed east-west across the roughly 12-acre survey area (Figure 2). Much of the area consists of flat to gently sloping terrain covered in dense grasses and thistles (Figure 3). Many areas are mowed and maintained, including pathways for driving and along an existing gas pipeline (Figure 4). The areas surrounding the small drainage running north-south across the center of the survey area and Pecan Creek tributary running along the southwestern border are wooded (Figure 5). The woods are relatively open, consisting of Oak, Bois d'Arc, greenbriar, vines, and poison ivy. Ground visibility is low in grassy areas, at roughly 0-5%, but slightly higher in the woods, at about 0-15%. The smaller drainage flows into the Pecan Creek tributary near the center of the southern survey area boundary. The tributary appeared to be filled with water (Figure 6). Portions of the small drainage were shallow and filled with water, whereas other sections were more deeply incised and dry (Figure 7). There were some low, marshy areas near this confluence (Figure 8). Where possible, the field crew observed drainage bank profiles. No cultural resources were observed during pedestrian survey of the transects or during observation of the bank profiles.

Initial shovel testing was focused around the small, north-south drainage and along the southwestern border near the Pecan Creek tributary (Table 2). ST01, ST03, and ST06 were placed along the southwest border near the tributary. The first stratigraphic layer in these shovel tests varied from 19-39 cm in depth and from brown to dark gray fine sand to fine sandy loam. The subsoil in these shovel tests ranged from dark yellowish brown to dark grayish brown sandy loam to sandy clay. ARC expected to encounter soils matching the NRCS descriptions for Gowen clay loam and Callisburg fine sandy loam along the Pecan Creek tributary, but this was not observed in any of these shovel tests. ST02, ST04, and ST05 were placed along the smaller, north-south drainage. The first stratigraphic layer in these shovel tests ranged from 12-28 cm in depth and from brown to dark gray fine sand to fine sandy loam. The subsoil in these shovel tests ranged from yellowish red to very dark gray sandy loam to sandy clay. ST07 was placed near the confluence of the drainage and Pecan Creek tributary. It yielded 42 cm of dark grayish brown fine sand underlain by brown sandy clay loam. The soil profiles for these shovel tests align with the NRCS descriptions for Callisburg and Aubrey fine sandy loam. No cultural resources were observed in or around these shovel tests.

ST08 and ST09 were also part of this initial shovel testing. These shovel tests yielded artifacts and triggered delineation of site 41DN619. They are described in the next section. In total, 37 shovel tests were placed across the EMLI at Pecan Creek survey area. Cultural materials were encountered in 13 of the 37 shovel tests.

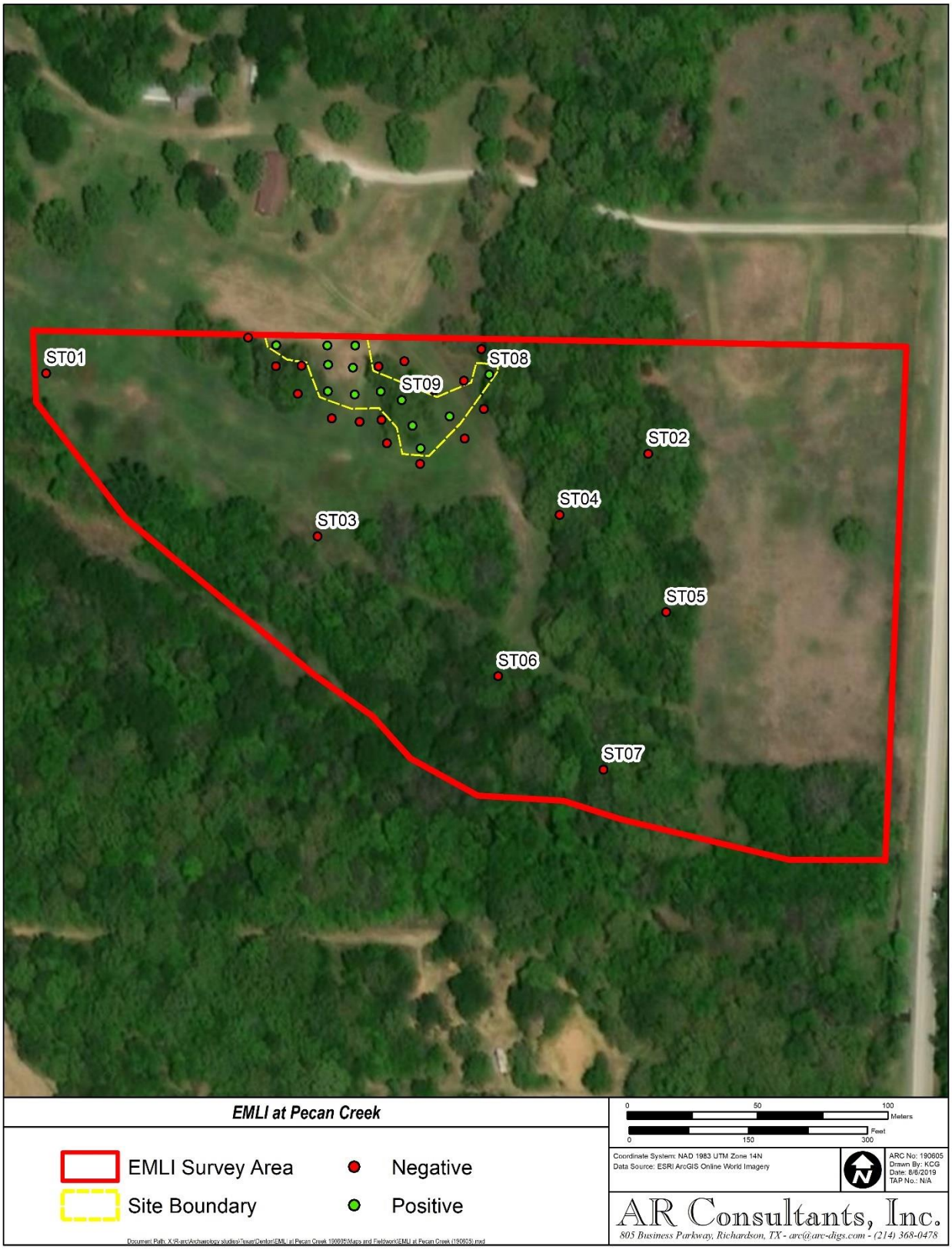

Figure 2. EMLI at Pecan Creek Survey Area with shovel tests and 41DN619 boundary.

Figure 3. View of field at eastern edge of survey area, facing west.

Figure 4. Mowing visible along marked petroleum pipeline, facing east.

Figure 5. View of small, north-south drainage and woods, facing northeast.

Figure 6. Confluence of drainage and tributary of Pecan Creek, facing south.

Figure 7. Dry segment of the north-south drainage, facing north.

Figure 8. Marshy area near the confluence, facing west.

Site 41DN619

41DN619 was encountered during the excavation of ST08 and ST09 (Figure 9). The site is located on the side of a gently sloping hill, north of the confluence of the drainage and Pecan Creek tributary. The hill is covered in small, relatively open patches of woods and mowed grassy areas. The northern extent of the site is limited by the property boundary. The site likely extends onto the adjacent landowner's property. The drainage provides a natural boundary at the eastern edge. The boundaries were determined via delineation (STs21-37).

ST08 was placed at the edge of the woods bordering the north-south drainage (Figure 10). It contained 16 cm of light brownish gray and dark yellowish brown fine sandy loam underlain by a sandy clay loam subsoil that was similar in appearance. A single chert flake was encountered at 10 cmbs. ST08 was delineated in 10-meter intervals with four shovel tests (ST26-27, ST30, and ST34). All delineations were negative for cultural materials.

ST09 was placed in a patch of woods on the hill, southeast of the adjacent property owner's home. The shovel test was placed at this location because the adjacent property owner mentioned finding artifacts there (Figure 11). He stated that he had collected artifacts from that location, where his father or grandfather formerly maintained a garden. He shared a portion of his collection with us, which contained several projectile points and preforms. Though we did not observe them, he stated that he also collected flakes from the site. The points in his collection appear to be Archaic through Late Prehistoric in age. The association of the collected artifacts to the site, however, is unclear. It is likely that this site has been collected for decades. ST09 contained 34 cm of brown fine sand underlain by yellowish brown fine sand subsoil. A single chert flake was encountered at 15 cmbs. Delineation of ST09 occurred at approximately 10-meter intervals and resulted in the placement of 24 more shovel tests across the knoll (Figure 12). An additional 11 of these 24 shovel tests were positive for cultural materials. ST10-20 yielded cultural materials between 10 and 80 cm in depth (see Table 2). Most of the artifact assemblage (n = 28) consists of relatively small chert and quartzite flakes. ST12 yielded a chert projectile point base at 40 cm in depth (Figure 13). This point compares well to Morrill and Gary projectile points, which roughly date to the Middle to Late Archaic, though it is difficult to assess given that it is broken (Turner et al. 2011). These shovel tests generally contained 16-60 cm of brown to light brownish gray fine sand to fine sandy loam underlain by strong brown to yellowish red sandy clay loam to sandy clay subsoil. The remaining delineation shovel tests (ST21-37) generally contained 15-51 cm of dark yellowish brown to grayish brown fine sand to fine sandy loam underlain by yellowish red to very dark grayish brown sandy clay to fine sandy loam subsoil. Sandstone and concretions were encountered in the bottom of some of these shovel tests. No artifacts or features were observed. Overall, the soil profiles of these shovel tests were deeper than expected, with few exceptions (see Table 2). According to Ford and Pauls (1980), the crew should have encountered subsoil around 15 cm in depth for both Callisburg and Aubrey soils. In most cases, its depth was much greater.

In general, artifacts seemed to be relatively sparse and dispersed horizontally and vertically (10-80 cm in depth) across the 0.4-acre site. No evidence of cultural features, such as charcoal or fire cracked rock, or clearly defined occupation layers was encountered during shovel testing. Based on the results of the shovel testing, 41DN619 seems to be a relatively small, but buried prehistoric lithic scatter, similar to nearby sites along Pecan Creek. Whether it is single or multicomponent is unknown.

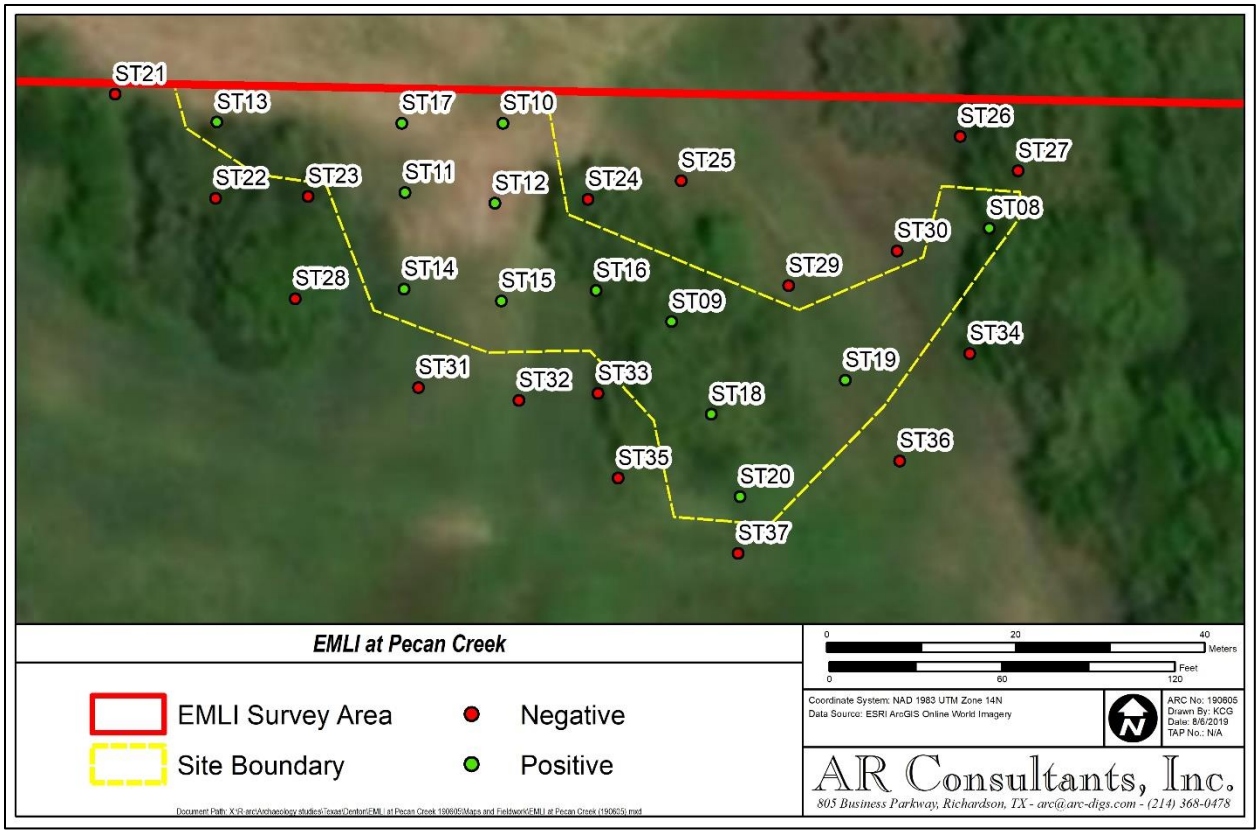

Figure 9. Map of 41DN619 on recent aerial imagery.

Figure 10. View of site 41DN619 from ST08, facing east.

Figure 11. Location of ST09 at 41DN619, facing northeast.

Figure 12. Overview of 41DN619, facing south.

Figure 13. Projectile point base and flakes from ST12 at 41DN619.

Table 2. Shovel Test Descriptions.

ST#	Depth (cm)	Description	Comments/Artifacts
ST01	0-19 19-37	Brown (10YR4/3) fine sandy loam Dark yellowish brown (10YR3/4) sandy loam	No artifacts.
ST02	0-15 15-34	Brown (10YR5/3) fine sand Yellowish red (5YR4/6) sandy clay	No artifacts.
ST03	0-23 23-48	Dark gray (10YR4/1) fine sandy loam Brown (10YR4/3) sandy loam	No artifacts.
ST04	0-12 12-36	Dark gray (10YR4/1) fine sandy loam Very dark gray (10YR3/1) sandy clay	No artifacts.
ST05	0-5 5-28 28-40	Yellowish brown (10YR5/4) fine sandy loam Brown (7.5YR4/4) sandy loam Dark yellowish brown (10YR4/4) sandy loam	No artifacts.
ST06	0-39 39-51	Light brownish gray (10YR6/2) fine sand Dark grayish brown (10YR4/2) with 25% dark yellowish brown (10YR4/6) sandy clay	No artifacts.
ST07	0-42 42-96	Dark grayish brown (10YR4/2) fine sand Brown (7.5YR4/4) sandy clay loam	No artifacts.
ST08 **41DN619**	0-16 16-45	Light brownish gray (10YR6/2) with 25% dark yellowish brown (10YR3/6) fine sandy loam Light brownish gray (10YR6/2) with 10% dark yellowish brown (10YR3/6) sandy clay loam	1 chert flake at 10 cmbs.
ST09 **41DN619**	0-34 34-60	Brown (10YR4/3) fine sand Yellowish brown (10YR5/4) fine sand	1 chert flake at 15 cmbs.
ST10 **41DN619**	0-59 59-74	Brown (10YR4/3) fine sand Strong brown (7.5YR5/6) sandy clay loam	1 chert flake.
ST11 **41DN619**	0-52 52-65	Brown (10YR4/3) fine sand Yellowish red (5YR5/8) sandy clay	2 chert flakes at 30 cmbs.
ST12 **41DN619**	0-65 65-82	Brown (10YR4/3) fine sandy loam Yellowish red (5YR5/8) sandy clay	2 chert flakes at 25 cmbs. 1 chert point base at 40 cmbs.
ST13 **41DN619**	0-40 40-60	Brown (10YR4/3) fine sand Strong brown (7.5YR5/8) sandy clay	1 chert and 1 quartzite flake at 15 cmbs and 1 quartzite flake at 40 cmbs.
ST14 **41DN619**	0-45 45-60	Brown (10YR4/3) fine sandy loam Yellowish red (5YR4/6) sandy clay	1 quartzite flake at 35 cmbs.
ST15 **41DN619**	0-36 36-53	Brown (10YR4/3) fine sandy loam Yellowish brown (10YR5/6) with yellowish brown (10YR5/8) fine sand	1 chert flake at 25 cmbs.
ST16 **41DN619**	0-30 30-43	Brown (10YR4/3) fine sand Strong brown (7.5YR5/6) sandy clay	1 chert flake at 28 cmbs.
ST17 **41DN619**	0-66 66-86	Brown (10YR4/3) fine sand Strong brown (7.5YR5/8) sandy clay loam	1 chert flake at 15 cmbs, 2 chert flakes at 30 cmbs, 2 chert flakes at 48 cmbs, 1 chert flake at 66 cmbs, and 1 chert flake at 80 cmbs.
ST18 **41DN619**	0-60	Brown (10YR4/3) fine sand	1 quartzite flake at 15 cmbs and 1 chert flake at 40 cmbs. Terminated at root.

ST#	Depth (cm)	Description	Comments/Artifacts
ST19 **41DN619**	0-60 60-70	Brown (10YR4/3) fine sandy loam Dark gray (10YR4/1) with yellowish brown (10YR5/8) wet sand with sandstone	4 chert flakes at 10 cmbs.
ST20 **41DN619**	0-38 38-50	Brown (10YR4/3) fine sand Dark yellowish brown (10YR4/4) fine sand with concretions	1 chert flake at 20 cmbs.
ST21	0-35 35-47	Brown (10YR4/3) fine sand Strong brown (7.5YR5/8) sandy clay	Delineation. No artifacts.
ST22	0-23 23-35	Brown (10YR4/3) fine sand Yellowish red (5YR4/6) sandy clay	Delineation. No artifacts.
ST23	0-20 20-40	Brown (10YR4/3) fine sand Strong brown (7.5YR4/6) sandy clay	Delineation. No artifacts.
ST24	0-51 51-73	Dark yellowish brown (10YR4/4) fine sand Dark yellowish brown (10YR3/4) loamy sand	Delineation. No artifacts.
ST25	0-46 46-72	Brown (10YR4/3) fine sandy loam Dark yellowish brown (10YR4/4) fine sandy loam	Delineation. No artifacts.
ST26	0-45 45-59	Brown (10YR4/3) fine sand Dark yellowish brown (10YR4/4) with dark yellowish brown (10YR4/6) fine sandy loam	Delineation. No artifacts.
ST27	0-25 25-42	Grayish brown (10YR5/2) fine sand Very dark grayish brown (10YR3/2) sandy clay	Delineation. No artifacts.
ST28	0-15 15-35	Brown (10YR4/3) fine sand Strong brown (7.5YR4/6) sandy clay	Delineation. No artifacts.
ST29	0-50 50-60	Brown (10YR4/3) fine sand Strong brown (7.5YR5/8) sandy clay	Delineation. No artifacts.
ST30	0-22 22-65	Brown (10YR4/3) fine sand Very dark grayish brown (10YR3/2) fine sand	Delineation. No artifacts.
ST31	0-22	Yellowish red (5YR4/6) sandy clay	Delineation. No artifacts.
ST32	0-30 30-45	Brown (10YR4/3) fine sand Yellowish red (5YR4/6) with yellowish red (5YR5/8) sandy clay	Delineation. No artifacts.
ST33	0-36 36-51	Brown (10YR4/3) fine sand Yellowish brown (10YR5/6) with yellowish brown (10YR5/8) sandy clay	Delineation. No artifacts.
ST34	0-38 38-50	Brown (10YR5/3) with 10% yellowish brown (10YR5/6) fine sand Very dark grayish brown (10YR3/2) sandy clay	Delineation. No artifacts.
ST35	0-35 35-50	Brown (10YR4/3) fine sandy loam Dark yellowish brown (10YR3/6) sandy clay	Delineation. No artifacts.
ST36	0-48 48-63	Brown (10YR4/3) sandy loam Dark gray (10YR4/1) wet sand	Delineation. No artifacts.
ST37	0-40	Brown (10YR4/3) fine sandy loam	Delineation. No artifacts. Terminated at impenetrable sandstone.

Conclusions

Based on a review of historic maps and aerial imagery, as well as TASA (2019), ARC hypothesized that there was little potential for encountering historic cultural resources in the EMLI at Pecan Creek survey area. However, ARC hypothesized that there was moderate potential for encountering prehistoric archaeology in the survey area. A review of TASA (2019) and geoarchaeological predictive models (Abbott and Pletka 2014) demonstrated that there are recorded prehistoric sites in similar locations on the landscape and that the soils in the survey area exhibit moderate potential for preserving shallowly buried deposits. Nearby recorded sites consist of small prehistoric lithic scatters and isolated finds located on upland ridges along Pecan Creek and its tributaries. As expected, ARC encountered and recorded one prehistoric archaeological site (41DN619). Like nearby sites, 41DN619 seems to be a sparse, relatively dispersed lithic scatter. A total of 13 shovel tests yielded 28 artifacts, including chert and quartzite flakes and a single chert projectile point base similar to a Middle to Late Archaic Morrill or Gary. Artifacts were found in shovel tests from 10-80 cmbs over an area of approximately 0.4 acres. The site has been disturbed through decades of surface collecting, driving, mowing, and gardening/plowing. The adjacent landowner (north) has known about and reportedly collected from the site location since his childhood. The artifacts that he shared with us appear to be Archaic through Late Prehistoric in age, though their exact association with the site is unclear. No material evidence of cultural features, such as charcoal or fire cracked rock, or distinct occupation layers was observed during shovel testing. No other sites, features, or artifacts were observed during pedestrian survey or shovel testing of the EMLI at Pecan Creek project area.

RECOMMENDATIONS

The purpose of this investigation was to determine if significant cultural resources are present in the 12-acre area slated for impact as a part of the EMLI at Pecan Creek project in Denton County, Texas. A single prehistoric lithic scatter (41DN619) was identified and recorded. Based on the results of this cultural resources survey, ARC concludes that it is unable to make a recommendation regarding the significance of 41DN619 and its eligibility for the National Register of Historic Places at this time. ARC is requesting the guidance of the THC on this matter. If any buried cultural materials are discovered during project activities, the Archeology Division of the THC and HUD should be notified.

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