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Intensive Archaeological Survey of the Proposed Pinewood Trails Project, Montgomery and Liberty Counties, Texas

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Antiquities Permit #9006

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Abstract

At the request of LGI Homes-Texas LLC, Pape-Dawson Engineers (Pape-Dawson) conducted an intensive archaeological survey of the proposed Pinewood Trails project located within Montgomery and Liberty Counties, Texas. The project will consist of construction of a water treatment plant, a wastewater treatment plant, well, and detention pond facility on a total of 9 acres (3.6 hectares [ha]) of land. The project also includes approximately 5.1 linear miles of connecting utility lines (8.3 km). The proposed water line will be constructed within a 10-foot (ft) (3 meter [m]) easement, while the wastewater lines will be installed within a 25 ft (7.6 m) easement. The total easement width (including temporary construction easements) will be 100 ft (30 m). Anticipated maximum depth of impacts will be approximately 4-15 ft (1.2-4.6 m) below ground surface for the lines, with approximately 1 ft (0.30 m) of subsurface impacts within the temporary construction easement. Construction will take place on both public and private lands. For the purpose of this project, the Area of Potential Effects (APE) is defined as the facilities' footprint, total easements for the utility lines, and the anticipated maximum depth of impacts.

The water treatment plant, wastewater treatment plant, and well will be owned by the City of Cleveland, and the detention pond facility will be owned by the Cleveland Municipal Utility District (MUD) #1. Therefore, the project will require compliance with the Antiquities Code of Texas (ACT). In addition, Section 404 compliance may be needed, which would require compliance with Section 106 of the National Historic Preservation Act will be necessary.

Pape-Dawson conducted an archaeological survey for the Pinewood Trails project intermittently between July 22 and August 6, 2019. This work was conducted under Texas Antiquities Permit No. 9006. Nesta Anderson served as the Principal Investigator, and was assisted in the field by Jacob Sullivan, Sheldon Smith, and Ann Marie Blackmon. The APE for the project was subjected to a pedestrian survey augmented by shovel testing. A total of 118 shovel tests were excavated, four of which were positive for cultural material. As a result of the pedestrian survey and shovel test efforts, one new archaeological site (41MQ336) and two isolated finds were recorded.

Sites 41MQ336 is a prehistoric site consisting of a low-density lithic artifact scatter of indeterminate temporal affiliation. The site is situated within the right-of-way (ROW) on the west side of Fostoria Road and appears to have been heavily disturbed by roadway construction and utility installation. No diagnostic

materials or features were observed within the APE. Given the paucity of artifacts, the absence of diagnostic material, and the heavy disturbances, Pape-Dawson recommends that site 41MQ336, is *Not Eligible* for NRHP inclusion or for SAL designation.

Based on results of the survey, Pape-Dawson recommends that no further archaeological work is necessary and that the project be allowed to proceed. However, if undiscovered cultural material is encountered during construction, it is recommended that all work in the vicinity should cease and that the discovery be evaluated by a qualified archaeologist who can provide guidance on how to proceed in accordance with federal and state regulations. Field records and artifacts will be curated at the University of Texas at San Antonio (UTSA) Center for Archaeological Research (CAR) in accordance with Texas Historical Commission (THC) guidelines.

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Introduction

LGI Homes – Texas, LLC proposes to construct several utility infrastructure improvements including a water treatment plant, a wastewater treatment plant, water well, detention pond, and associated connecting pipelines in Montgomery and Liberty Counties, Texas (Figures 1 and 2). The project will entail construction of the treatment plants, well, and detention pond facility on a total of 9 acres (3.6 hectares [ha]) of land, while the connecting lines will include approximately 5.1 linear miles (8.3 km). The proposed water line will be constructed within a 10-foot (ft) (3 meter [m]) easement, while the wastewater lines will be installed within a 25 ft (7.6 m) easement. The total easement width (including temporary construction easements) will be 100 ft (30 m). Anticipated maximum depth of impacts will be approximately 4-15 ft (1.2-4.6 m) below ground surface for the lines, with approximately 1 ft (0.30 m) of subsurface impacts within the temporary construction easement.

The proposed water well, which serves as the northern terminus of the APE, is situated on the southern side of SH 105, approximately 1.3 miles (2 km) east of the intersection of SH 105 and Fostoria Road. From this point the water line extends west to the intersection where it turns south into the western right-of-way (ROW) of Fostoria Road, paralleling the road until its intersection with Pecan Grove's northern ROW. The line proceeds west within the northern ROW of Pecan Grove and extends the length of Pecan Grove before it proceeds north onto undeveloped land. The line extends 0.12 miles (0.19 km) north before trending west-southwest for another 0.29 miles (0.47 km) and splitting into northern and southern routes to connect with the proposed wastewater and water treatment facilities, respectively. The proposed wastewater line parallels the north-south water line connecting these two facilities. A detention pond will be constructed approximately 0.12 miles (0.19 km) northeast of the wastewater treatment plant.

The water treatment plant, wastewater treatment plant, and well will be owned by the City of Cleveland, and the detention pond facility will be owned by the Cleveland Municipal Utility District (MUD) #1. Therefore, the project will require compliance with the Antiquities Code of Texas (ACT). In addition, Section 404 compliance may be needed, which would require compliance with Section 106 of the National Historic Preservation Act will be necessary.

Pape-Dawson's investigations of the APE included a pedestrian survey supplemented by shovel testing. Fieldwork took place intermittently between July 22 and August 6, 2019. This work was conducted under Texas Antiquities Permit No. 9006. Nesta Anderson served as the Principal Investigator, and was assisted in the field by Jacob Sullivan, Sheldon Smith, and Ann Marie Blackmon. The goals of the investigation were to: (1) locate all prehistoric and historic cultural resources, if present, within the APE; (2) establish vertical

and horizontal site boundaries, as appropriate with respect to the APE; (3) evaluate the significance of recorded cultural resources with regard to National Register of Historic Places (NRHP) and State Antiquities Landmark (SAL) eligibility.

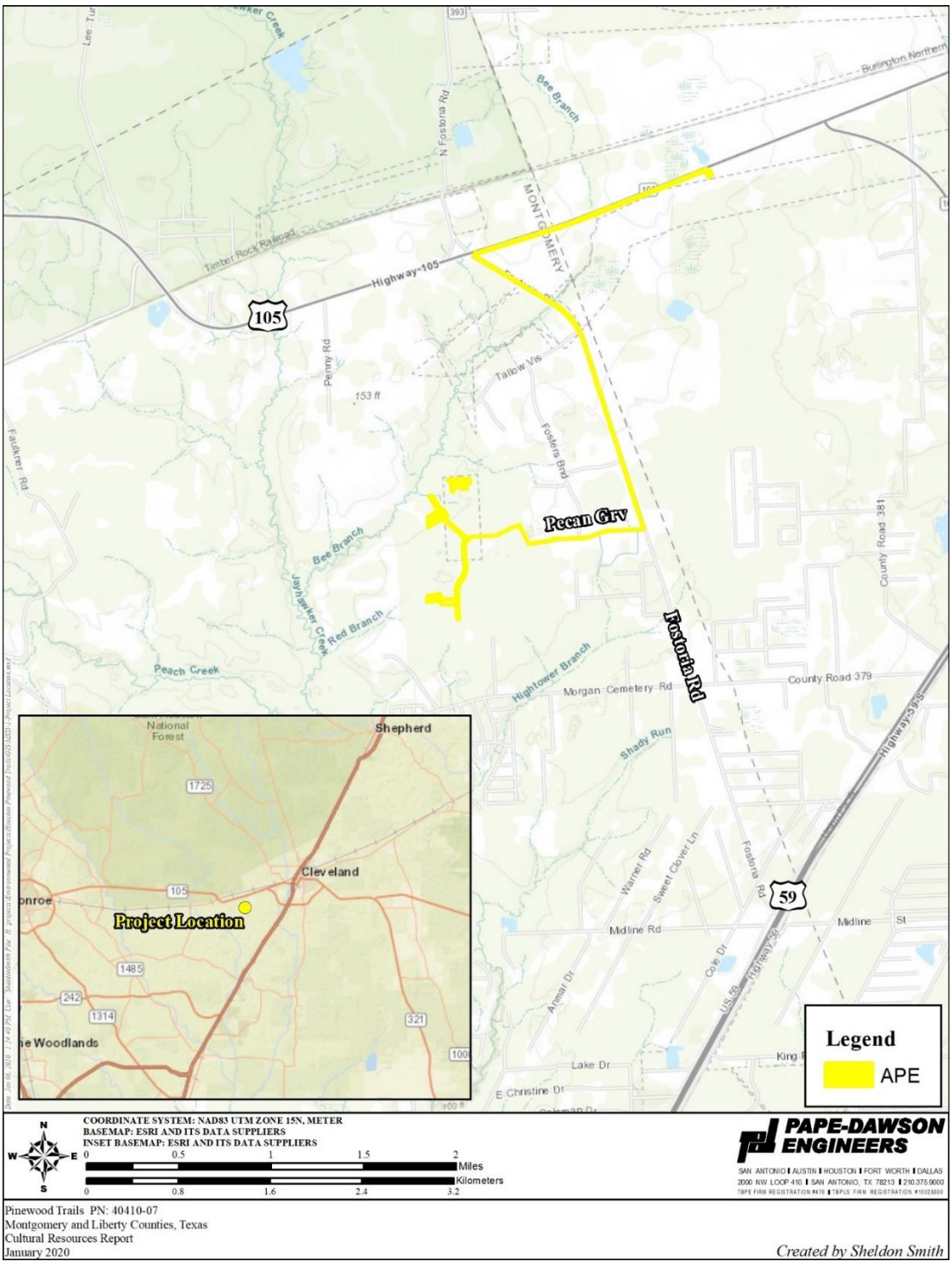

Figure 1: Project Location Map

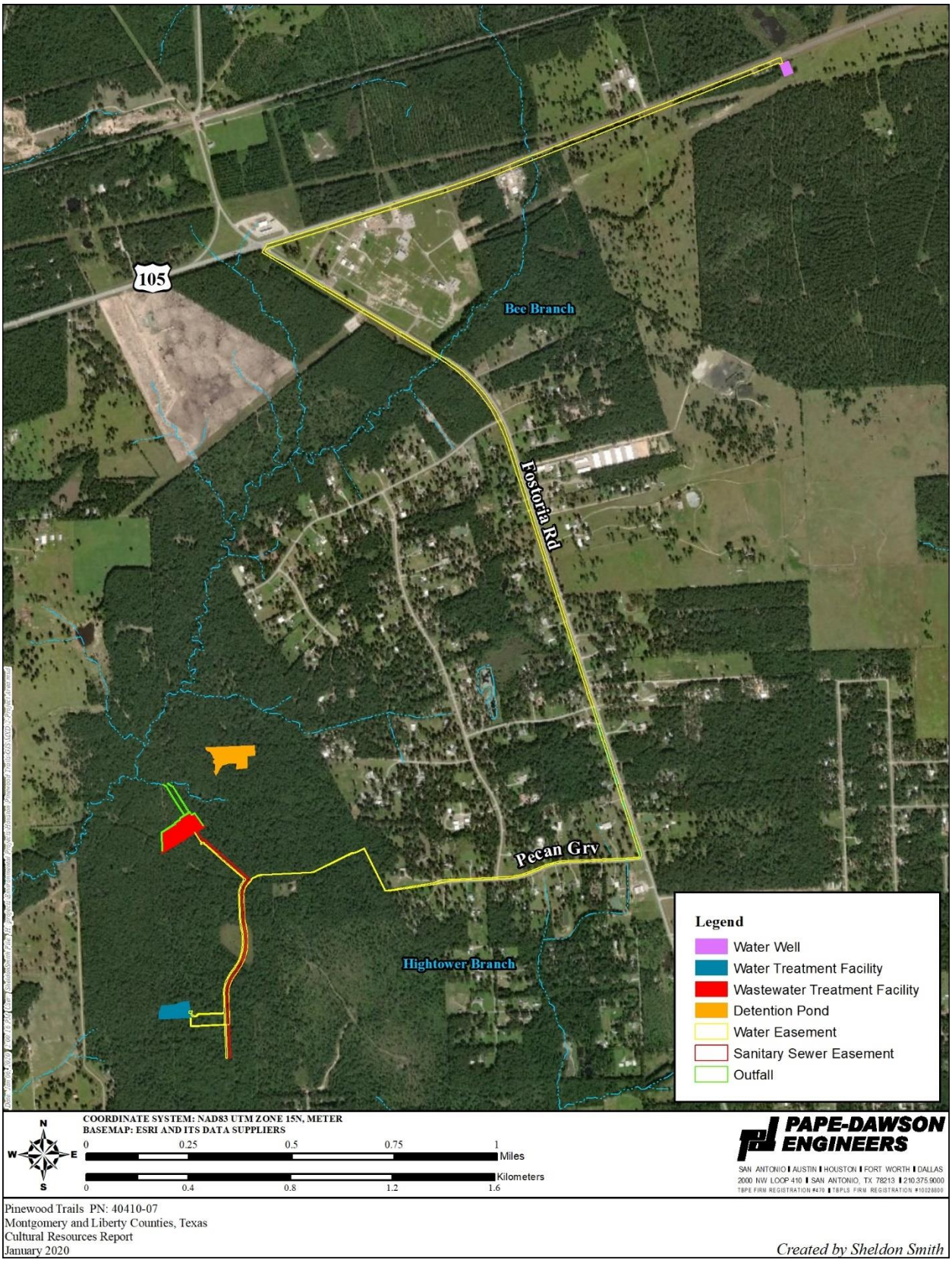

Figure 2: Area of Potential Effects (APE) Map

Project Setting

The proposed APE is situated partially within the Cleveland city limits, in a semi-rural area near the intersection of SH 105 and Fostoria Road. Most of the APE is situated within road ROW in areas of recent residential development. Bee Branch Creek crosses east-west across the northern portion of the APE and adjoins the outfall at the wastewater treatment plant, while Hightower Branch Creek intersects the portion of the APE along Pecan Grove road. The western portion of the APE, where the treatment facilities, detention pond, and wastewater line will be located, is situated in undeveloped, rural land.

Located in the Coastal Prairies region of southwest Texas (Wermund 1996), the project landscape is characterized by nearly level to gently sloping uplands and stream terraces. The underlying geology of the APE is mapped as Pleistocene-age Lissie Formation (Ql), which includes sand, silty, clay, and a minor amount of gravel (Bureau of Economic Geology [BEG] 1992). Eight soil units are mapped within the APE, (Table 1, Figure 3) including Segno-Urban land complex (1 to 3 percent slopes), Segno fine sandy loam (1 to 3 percent slopes), Splendora-Urban land complex (0 to 2 percent slopes), Splendora fine sandy loam (0 to 2 percent slopes), Sorter-Tarkington complex (0 to 1 percent slopes), Westcott very fine sandy loam (0 to 1 percent slopes), Hatliff-Pluck-Kian complex (0 to 1 percent slopes and frequently flooded), and Lelavale silt loam (0 to 1 percent slopes and frequently ponded) (Natural Resources Conservation Service, United States Department of Agriculture [NRCS-USDA] 2019).

Table 1: Soils within the APE

Soil Series	Characteristics	Parent Material	Landform	Soil depth to reach B horizon
Segno (SueB & SegB)	Very deep, well drained	Loamy fluviomarine deposits	Nearly level to gently sloping interfluves	A Horizon – 0-11 centimeters (cm) E Horizon – 11-42 cm
Splendora (SpmA & SplB)	Very deep, moderately well to somewhat poorly drained	Loamy fluviomarine deposits	Nearly level interfluves	A Horizon – 0-15 cm E Horizon – 15-38 cm
Sorter (SosA)	Very deep, poorly drained	Loamy fluviomarine deposits	Nearly level flats	A Horizon – 0-8 cm
Tarkington (SosA)	Very deep, moderately well drained	Loamy fluviomarine deposits	Nearly level flats	A Horizon – 0-14 cm E Horizon – 14-90 cm
Westcott (WesA)	Very deep, moderately well drained	Fluviomarine deposits	Nearly level interfluves	A Horizon – 0-13 cm E Horizon – 13-30 cm
Hatliff (HatA)	Very deep, well drained	Loam alluvial deposits	Nearly level floodplains	A Horizon – 0-8 cm
Pluck (HatA)	Very deep, poorly drained	Loamy alluvial deposits	Nearly level floodplains	A Horizon – 0-15 cm
Kian (HatA)	Very deep, poorly drained	Loamy alluvial deposits	Nearly level floodplains	A Horizon – 0-8 cm
Lelavale (LelA)	Very deep, very poorly drained	Loamy fluviomarine deposits	Nearly level closed depression	A Horizon – 0-10 cm E Horizon – 10-31 cm

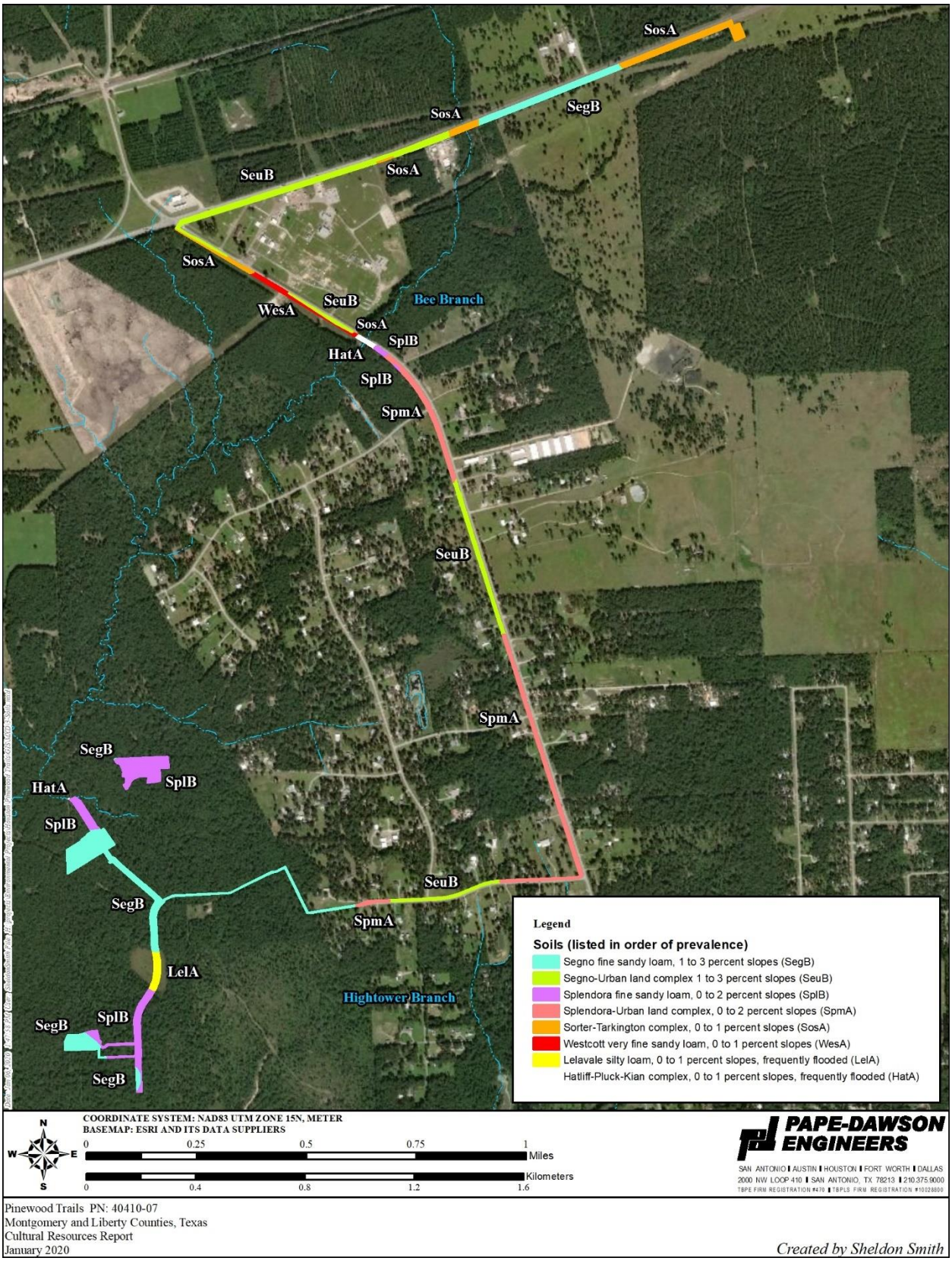

Figure 3: Soils Map

Cultural Chronology

Montgomery and Liberty Counties fall within the Southeast Texas archaeological region of the Eastern Planning Region as delineated by the Texas Historical Commission (THC) (Kenmotsu & Perttula 1993). Cultural developments in this region are typically classified by archaeologists according to four primary chronological time periods: Paleoindian, Archaic, Late Prehistoric, and Historic. These classifications have been defined primarily by changes in material culture and subsistence strategies over time as evidenced through information and artifacts recovered from archaeological sites. This cultural chronology provides a brief summary of each major prehistoric cultural period with reference to significant archaeological work that has occurred within the region.

Paleoindian (11,500 B.P. – 8,800 B.P.)

Although there is some debate about whether pre-Clovis Paleoindian peoples lived in Texas, there is evidence of Paleoindian occupation within Texas by 11,500 B.P. Collins (1995:376, 381) has proposed dividing this period into early and late phases, with Dalton, San Patrice, and Plainview possibly providing the transition between them. Research has shown Paleoindians were gathering wild plants and hunting large mammals (mammoth, bison, etc.) as well as smaller terrestrial and aquatic animals (Collins 1995:381; Bousman et al. 2004:75). Coastal Paleoindian sites represent inland occupations as the coastline during this time extended 30-40 km beyond its present-day location (Ricklis 2004). Generally, temporal associations are based on stone tool assemblages including unifacial side scrappers, gravers, and lanceolate projectile points.

As the climate warmed, the Paleoindian people began to shift away from hunting large animals. The changing environment, which led to extinction of the megafauna, likely influenced their decision to focus more on hunting small game animals, including deer and rabbit, as well as gathering edible roots, nuts, and fruits (Black 1989). This change in food supply, as well as a different set of stone tools, marks the transition into the Archaic Period.

Archaic (8,800 B.P. – 1,200 B.P.)

Usually divided into early, middle, late, and sometimes transitional sub-periods, the Archaic marks a gradual shift from hunting Megafauna and some smaller animals supplemented with wild plants to a focus on hunting and gathering medium and small animals and wild plants, and an eventual transition to agriculture. Very few Early Archaic (8,800 B.P. to 5,000 B.P.) sites have been identified in the region possibly due to lower population densities during this transitional period, though since sea levels had not reached modern levels by this time, it is probable that coastal sites associated with the Early Archaic are

underwater and/or deeply buried. Those Early Archaic sites identified tend to be located along the inner coastal plain (Story 1990). The changing environmental conditions during this period were the impetus for a growing new ecosystem exploited by early inhabitants of the region who are thought to have relied heavily upon the hunting of smaller animals, gathering of plant resources, and the exploitation of marine resources. As demonstrated by a number of shell middens dating to this period documented in the middle Texas Gulf Coast (Ricklis 2004). As diets changed, so did the stone tool technology used to procure and process these new plants and animals. In general, Archaic people began to make their projectile points with stems and points as the lanceolate form fell from use. These changes in stone tool technology are evident on the Early Archaic points found in the region: Bell, Trinity, and Carrolton points (Patterson 1995).

It is postulated that during the Middle Archaic (5,000 to 3,000 B.P.), population increases, and the ubiquitous variety of artifact assemblages denote emerging social and exchange relationships based on group territoriality (Aten 1983) and some limiting of group mobility. New points associated with this expansion in technology include Bulverde, Lange, Pedernales, Williams, and Travis. Middle Archaic sites are more frequent along the coast and shell middens are an important expression of subsistence activities during this period. Organized mortuary practices first appear at this time in the western part of southeast Texas, though it did not reach full development until the Late Archaic (Ricklis 2004)

During the Late Archaic (3,000 to 1,200 B.P.), population increased significantly, as evidenced by an increase in the number of sites as well as intra-site artifacts (Aten 1983). This corresponds to the development of modern climactic conditions leading to the stabilization of sea levels, and expansion of coastal woodlands. Hall (1981) noted the development of trade with Woodland cultures to the east during the Late Archaic as seen in the various artifact assemblages from multiple sites in the region. Limited evidence suggests a settlement system for the Late Archaic which may have included a seasonal round with group dispersal in coastal areas during summer months (Aten 1983). However, the occurrence of shell middens at Late Archaic sites is not as common as at later sites (Patterson 1995). Cemeteries located along major streams from this period seem to indicate a higher degree of territoriality (Story 1985). Projectile points diagnostic of Late Archaic occupations includes Gary, Kent, Yarbrough, Ellis, Darl, Fairland, Palmillas, and Refugio types (Patterson 1995).

Late Prehistoric (1,200 B.P. – 250 B.P.)

As the Archaic transitioned into the Late Prehistoric period, several technological changes become apparent. The most notable change is the use of the bow and arrow rather than the spear and atlatl, evidenced by smaller dart points. Another significant innovation is the creation and use of ceramic vessels.

Some groups began to practice consistent agriculture during this time as well. Also, during this period, there are possible indications of major population movements, changes in settlement patterns and perhaps lower population densities (Black 1989). Archaeologists divide the Late Prehistoric into two phases: the Austin phase, followed by the Toyah phase.

The period is characterized by the appearance of sandy-paste pottery across the region referred to as the Mossy Grove Tradition (Aten 1983, Story 1990). The primary characterization of this tradition is the plain, sandy-paste Goose Creek pottery found in this region from the Early Ceramic through Early Historic periods (Story 1990). Another important innovation was the development of the bow and arrow. However, Patterson (1995) postulates that the bow and arrow were in use in Southeast Texas as early as the Middle Archaic. Stone tool technology evolved in step with this innovation and Late Prehistoric people made their stone points smaller and more diverse in form depending on the game animals hunted. Some of these stone arrow points include Edwards, Scallorn, Zavala, Perdiz, Cuney, Padre and Alba types. Settlement patterns shifted during this time as sedentary and horticultural communities became more common. With the emergence of social and ritual ceremonies, and more defined intraregional differences resulting in the establishment of group territories along major streams (Aten 1983, Patterson 1987). Clear Creek falls within the western margin of one such territory termed the Galveston Bay area (Aten 1983).

Methods

Records Review

Prior to fieldwork, Pape-Dawson archaeologists conducted a thorough background literature review and records search of the proposed APE. This research included searching the Texas Historical Commission's (THC) Texas Archeological Sites Atlas (THC 2019) online database for any previously recorded archaeological surveys and historic or prehistoric archaeological sites located within a 1-km (0.62-mile) radius of the APE. The review included information on National Register of Historic Places (NRHP)-listed properties and districts, State Antiquities Landmarks (SAL), Official Texas Historical Markers (OTHM), Recorded Texas Historic Landmarks (RTHL), and cemeteries. Pape-Dawson archaeologists also examined the Natural Resources Conservation Service (NRCS) Web Soil Survey, the Geologic Atlas of Texas-Beaumont Sheet (BEG 1992), and historic maps and aerials that depict the APE (Nationwide Environmental Title Research Online [NETR Online] 2019).

Fieldwork

Pape-Dawson archaeologists conducted an intensive cultural resources survey of the proposed 9-acre facilities footprint and the 5.1-mile linear utility line installation that comprise the APE. This included a 100-percent pedestrian survey augmented with shovel testing. Survey methods followed the Council of Texas Archeologists' Archeological Survey Standards for Texas. Archaeologists examined the entire ground surface along transects spaced no more than 30 m (98 ft) apart and any erosional exposures for cultural resources. The survey corridor width for the proposed wastewater lines was 25 ft. Subsurface investigations were placed in settings with the potential to contain buried cultural materials and within areas with less than 30 percent ground surface visibility. A total of 118 shovel tests were excavated to investigate the APE, exceeding the state's minimum standards, which require 2 shovel tests per acre for APEs >3-10 acres in size and 16 shovel tests per mile for linear projects. Shovel tests measured approximately 30 centimeters (cm) (11.8 inches) in diameter and were excavated in 10-cm (3.9-inch) levels into sterile, pre-Holocene-age clay, bedrock, or to a maximum of 80 cm below the current ground surface. All soils were screened through ¼-inch mesh, except for soils with high clay content, which were sorted by hand. All shovel tests were recorded, visually described, plotted by a Global Positioning System (GPS) unit, and backfilled upon completion.

Archaeological site boundaries located on the property during the current survey were defined within the proposed project APE. These sites were then recorded using TexSite forms in the field. Completed forms were submitted to the Texas Archeological Research Laboratory (TARL). Artifacts observed during the

survey were photographed and documented in the field, but not collected. Project records and photographs are kept at the Pape-Dawson office located at 2000 NW Loop 410 in San Antonio, Texas 78213, and will also be curated at the Center for Archaeological Research at the University of Texas at San Antonio (CAR-UTSA), following their specific standards of preparation.

Results

Records Review

The background review revealed that no previously documented NRHP-listed properties or districts, SALs, OTHMs, RTHLs, or archaeological sites exist within 1 kilometer (km) of the APE. One previously recorded cemetery is located approximately 0.26 miles (0.42 km) northeast of the APE. The cemetery, called Fostoria Cemetery #1 (Atlas) appears to be a mid-nineteenth through late-twentieth century cemetery associated with the nearby community of Fostoria (Keppler 2016).

Pape-Dawson examined recent and historic-age topographic maps (2016, 2013, 2000, 1978, 1973, and 1959) and aerial photographs (2014, 2012, 2010, 2009, 2008, 2004, 1995, and 1957) to identify historic high probability areas (HHPAs) where historic-age archaeological resources may exist within or directly adjacent to the APE. In addition, archaeologists sought to identify previous impacts that may have occurred within the APE.

The aerial photograph and topographic map research did not identify any HHPAs within or directly adjacent to the APE. According to the maps and aerial imagery, SH 105 and Fostoria Road have been present within the APE since at least 1957. At that time, the only development seems to have been a pipeline compressor station at the southeast corner of the intersection of SH 105 and Fostoria Road, which is still present today. Pecan Grove road was constructed between 1978 and 1995. The remainder of the area remained undeveloped until sometime between 1995 and 2004, when residential development began to occur on the west side of Fostoria Road.

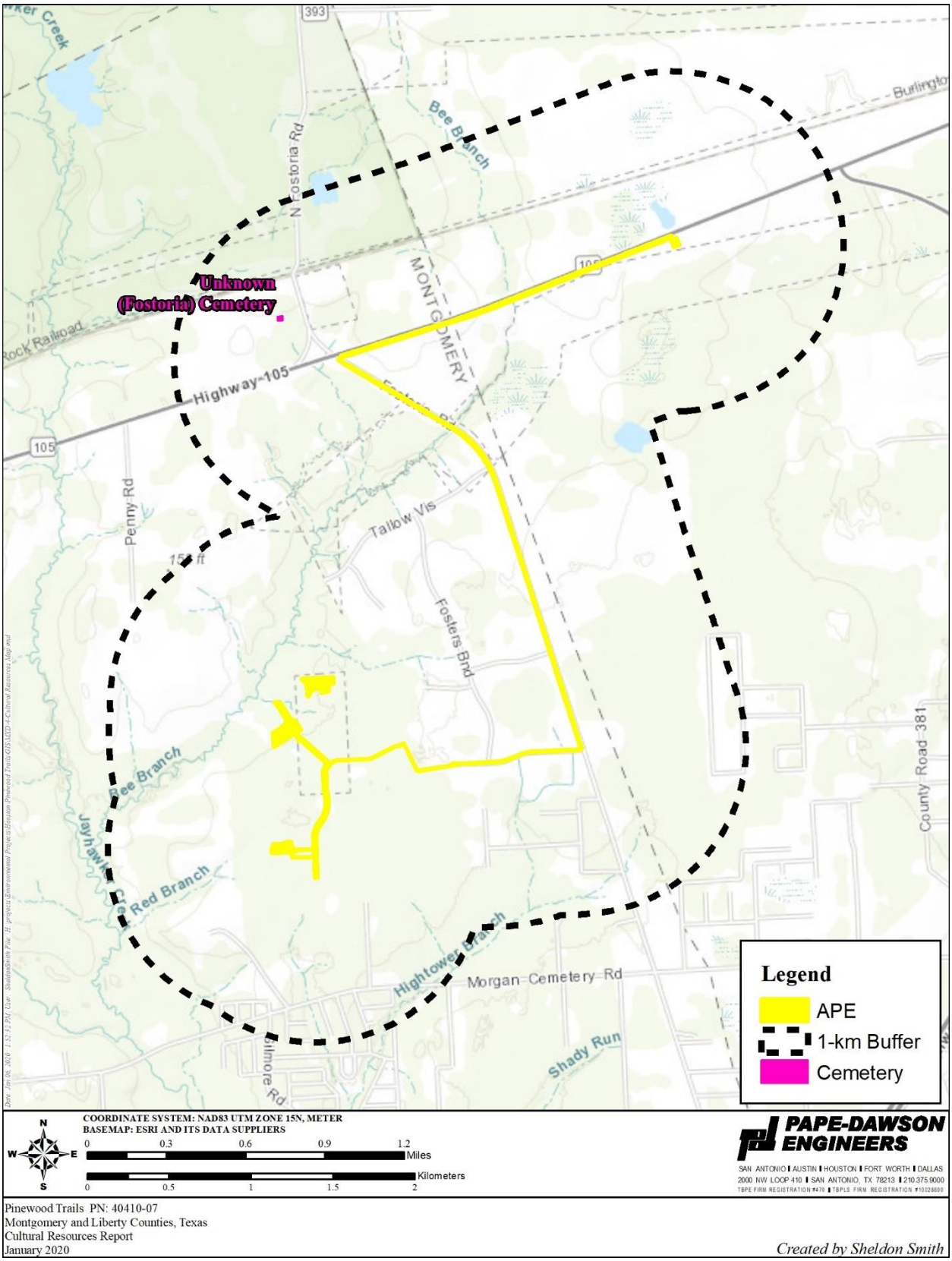

Figure 4: Previously Recorded Cultural Resources within 1 km of the APE

Fieldwork

Pape-Dawson archaeologists conducted a pedestrian, cultural resources survey of the proposed 9-acre facilities footprint and the 5.1-mile linear utility line installation between July 22 and August 6, 2019. Archaeologists walked the APE along transects spaced no more than 30 m (98 ft) apart, visually inspecting the ground surface for artifacts and features. The pedestrian survey was augmented with shovel tests, placed at THC required intervals, and at the volition of Pape-Dawson archaeologists in the field, throughout the APE. While the proposed facilities footprint area is primarily located on private property, much of the proposed utility line installation is situated within the existing road ROWs of Pecan Grove, Fostoria Road., and State Highway 105.

Prior to the current survey, most of the APE was cleared of vegetation in anticipation of construction (Figure 5). However, the areas of a proposed detention pond, outfall lines for the wastewater treatment facility, and sections of the water easement were still undisturbed. Vegetation in these areas consisted of dense pine trees, green briar, and low forbs (Figure 6). Flora observed within the proposed water easement along existing ROWs included wild flowers and low forbs and grasses (Figure 7). Ground surface visibility (GSV) was limited to less than 30 percent across much of the APE. however, the GSV in the artificially cleared areas was as high as 90 percent. Two creeks, Bee Branch and Hightower Branch, intersect the APE at several different points. Hightower Branch also extends into the project APE for approximately 0.6 km (0.4 miles), near the intersection of Pecan Grove and Fostoria Road. At the time of the current survey, Bee Branch contained water at the crossings and its channel was both wide and deep. Hightower Branch had a much smaller channel and appears to only flow intermittently within the APE.

Within the APE, shovel tests were placed in areas with low GSV (<30 percent) and a high perceived potential to contain intact soils. Most of these shovel tests encountered sandy clay or sandy loam, which varied greatly in color. Shovel tests ranged in depth from 10 to 90 cmbs and, were terminated due to the presence of compact subsoil, pre-Holocene-age clay, impenetrable gravels, or were excavated to a maximum depth of 90 cmbs (Figure 8; Appendix B). A total of 118 shovel tests was excavated during fieldwork (Figure 9). Of those, four shovel tests were positive for cultural material. The positive shovel tests were exclusively located within the existing ROWs of Fostoria Road and SH 105. Pape-Dawson archaeologists also identified and recorded one new archaeological site (41MQ336) and two isolated finds during these investigations.

Figure 5: Overview of APE within the proposed Wastewater Treatment Facility, facing northwest

Figure 6: Overview of APE within the proposed Detention Pond Facility, facing east

Figure 7: Overview of APE within ROW of Fostoria Road, facing south

Figure 8: SS07 Profile, facing east

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Site Description

Site 41MQ336

Setting and Description

Site 41MQ336 is a newly recorded prehistoric lithic scatter of unknown temporal affiliation. It is situated on a gently sloping, upland landform, 0.17 miles (0.27 kilometers (km)) northeast of Bee Branch Creek. It is in the west ROW of Fostoria Road. The site measures 36 ft (11 meters (m)) northeast-southwest by 118 ft (36 m) northwest-southeast, encompassing a 0.1-acre area.

Vegetation within the site consists of low-medium forbs, weeds, and grasses (Figure 10). At the time of recording, ground surface visibility ranged between zero and eighty percent, due the density of surface vegetation. The site is currently located within an existing ROW, and as such, has been repeatedly disturbed by construction activities associated with Fostoria Road. Additionally, the site has likely been impacted by the pipeline corridor located directly southeast of the current boundary. Furthermore, subsurface deposits have potentially shifted due to interactions between environmental and geological processes and the loose sandy soils noted throughout the site.

Figure 9: Overview of 41MQ336, facing north-northwest

Work Performed and Recommendations

Investigations at 41MQ336 included intensive pedestrian survey supplemented by shovel testing. Archaeologists excavated a total of six shovel tests, two of which was positive for cultural materials. Soils encountered in shovel tests typically consisted of a brown loamy sand overlying a pale brown sandy clay loam, terminating at a sandy clay 50-65 cmbs (Figure 11). Four shovel tests contained modern debris (bottle/container glass shards and plastics) within the first 10 cm. Artifactual material observed at the site included lithic debitage (1 chert secondary flake, 1 chert tertiary flake, and 2 pieces of chert shatter) recovered from between 20 and 40 cmbs (Figure 12). Two shards of colorless glass were recorded below prehistoric materials in ST03, however these materials may have fallen from an earlier excavated level. Due to the paucity of artifacts, lack of diagnostic artifacts or intact buried features, and heavily jumbled soils noted throughout the site, 41MQ336 is recommended *Not Eligible* for either SAL or NRHP listing. No further work is recommended at the site.

Figure 10: ST05 profile, facing east

Figure 11: Artifacts recovered from ST05

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Isolated Finds

A total of two isolated finds were recovered from the shovel test investigations during the current survey effort. Isolated find (IF) 01 was identified within the west ROW of Fostoria Road. It consists of one secondary flake (Figure 14) that was recovered from between 20 and 30 cmbs. IF02 was recovered from a shovel test in the southern ROW of SH 105. IF02 is represented by a single tertiary flake (Figure 15) recovered from between 20 and 30 cmbs. A lightly patinated aqua glass shard was also observed at this same level, suggesting the soil has been disturbed. Further shovel tests were placed around both IFs to investigate the extent of the sub-surficial cultural deposits. No subsequent cultural materials were identified as a result of this additional testing and both lithics were recorded as isolates, rather than archaeological sites. Both IFs are Not Eligible for listing as a SAL or on the NRHP.

Figure 12: IF01, secondary flake from level 3 (20-30 cmbs)

Figure 13: IF02, tertiary flake and lightly patinated aqua glass shard, recovered from level 3 (20-30 cmbs)

Summary and Recommendations

Pape-Dawson conducted an archaeological investigation of the proposed Pinewood Trails project located within Montgomery and Liberty counties, Texas. The APE is defined as the facilities' footprint, total easements for the utility lines, and the anticipated maximum depth of impacts proposed for this project. The facilities will encompass 9 acres (3.6 hectares [ha]) of land, while the connecting lines will include approximately 5.1 linear miles (8.3 km). The total easement width (including temporary construction easements) will be 100 ft (30 m). Anticipated maximum depth of impacts will be approximately 4-15 ft (1.2-4.6 m) below ground surface for the lines, with approximately 1 ft (0.30 m) of subsurface impacts within the temporary construction easement. Survey and shovel testing were conducted intermittently between July 22 and August 6, 2019,

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The goals of the investigation were to: (1) locate all prehistoric and historic cultural resources, if present, within the APE; (2) establish vertical and horizontal site boundaries, as appropriate with respect to the APE; (3) evaluate the significance of recorded cultural resources with regard to National Register of Historic Places (NRHP) and State Antiquities Landmark (SAL) eligibility. To reach these goals the APE was subjected to pedestrian survey and shovel testing. A total of 118 shovel tests were excavated, four of which were positive for cultural materials. As a result of these investigations, one new archaeological site (41MQ336) and two isolated finds were recorded.

Site 41MQ336 is a prehistoric, low-density, lithic artifact scatter of indeterminate temporal affiliation. The site is situated within the west right-of-way (ROW) of Fostoria Road and appears to have been heavily disturbed by roadway construction and utility installation. No diagnostic cultural materials or features were identified within the APE. Artifactual material observed was limited to 4 pieces of chert debitage, and broken glass, possibly of modern age. Given the paucity of artifacts, the absence of diagnostic cultural materials or features, and the heavy ground disturbance in the APE, Pape-Dawson recommends that site 41MQ336, is *Not Eligible* for NRHP inclusion or for SAL designation.

Based on the results of the survey, Pape-Dawson recommends that no further archaeological work is necessary and that the project be allowed to proceed as designed. If additional cultural materials are inadvertently encountered during construction, it is recommended that all work in the vicinity of finds temporarily cease and that the discovery be evaluated by a qualified archaeologist who can then provide guidance on proceeding in accordance with applicable federal and state regulations. Field records and artifacts will be permanently curated at the Center for Archaeological Research (CAR) at the University of Texas-San Antonio (UTSA) in accordance with Texas Historical Commission (THC) guidelines.

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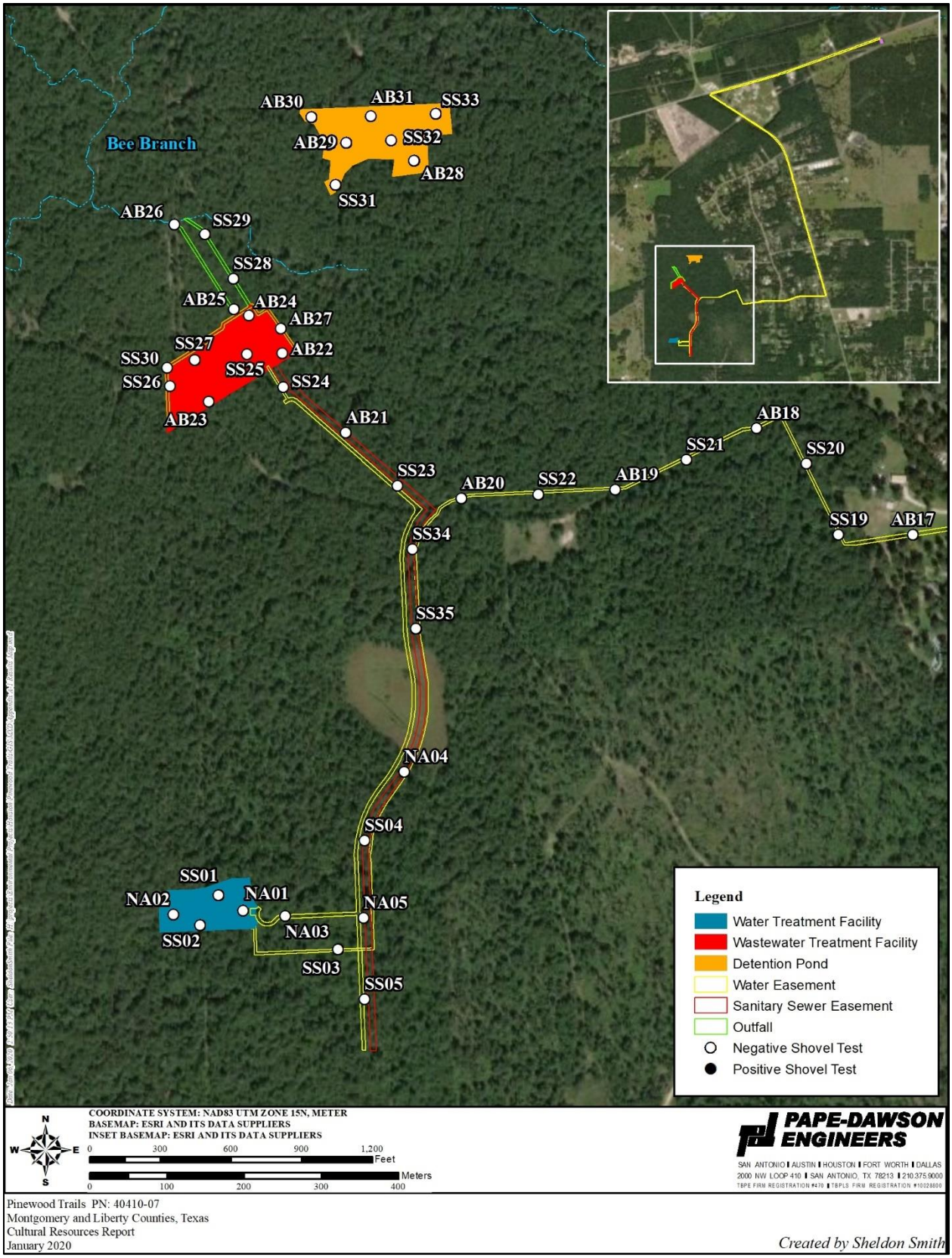
Appendix A

Results Maps



Appendix A-1 Results Map

Appendix A-2 Results Map

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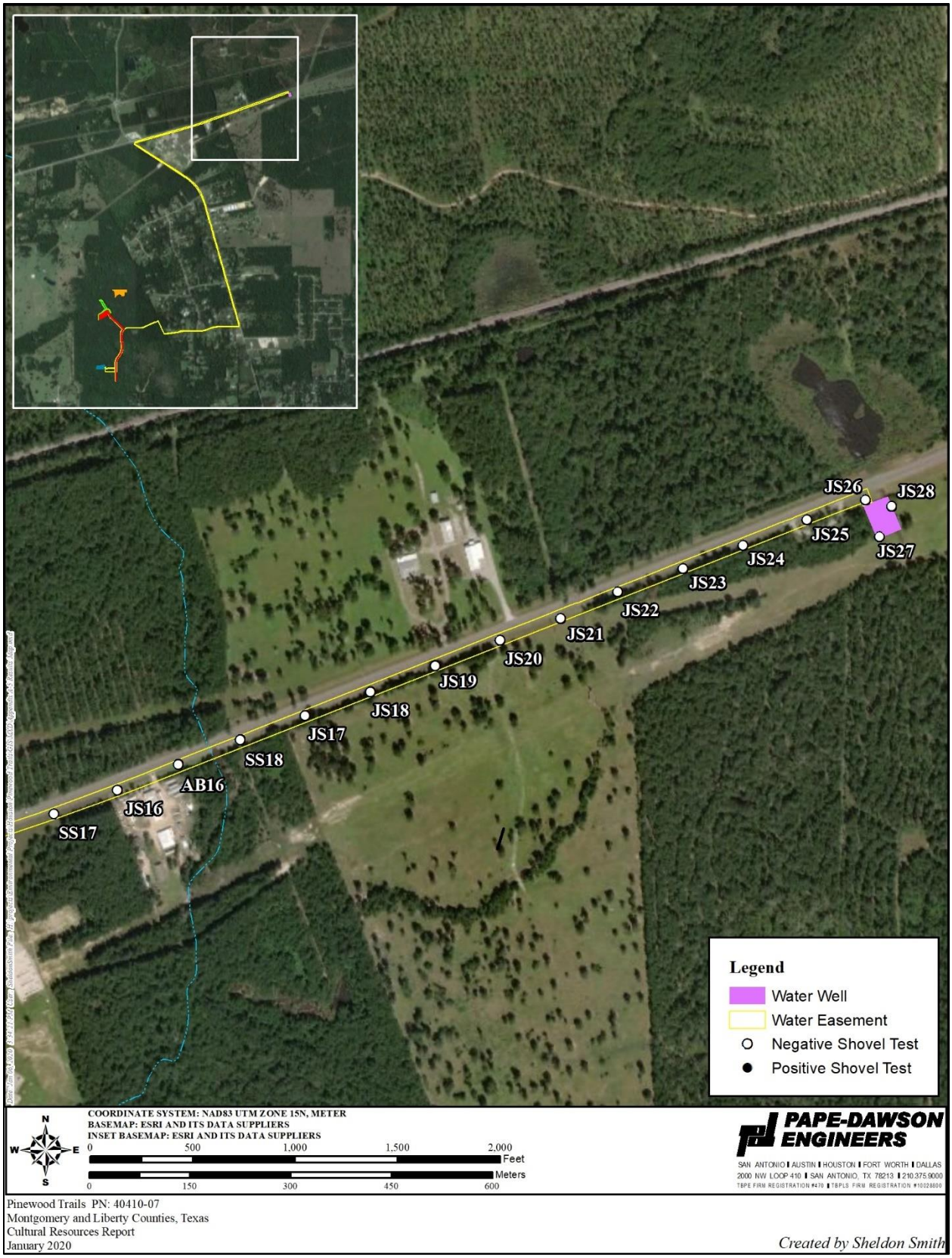

Appendix A-5 Results Map

Appendix B

Shovel Test Logs

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
NA01			1-2	0-18	N	very pale brown	sand	none	sterile subsoil
			2-4	18-40		light yellowish brown	sandy loam		
			4-6	40-58		yellowish brown	sandy clay		
NA02			1-2	0-12	N	yellowish brown	sandy loam	none	sterile subsoil
			2-3	12-29		grayish brown			
			3-5	29-46		grayish brown w/ yellowish brown mottles	sandy clay loam		
NA03			1-4	0-34	N	brown	sandy loam	none	sterile subsoil
			4-5	34-46		brown w/ yellowish brown mottles	sandy clay loam		
NA04			1-5	0-45	N	brown	sandy loam	none	sterile subsoil
			5-7	45-70		brown w/ yellowish brown mottles	sandy clay loam		
NA05			1	0-8	N	yellowish brown	sandy loam	none	Large roots
			1-4	8-32		grayish brown	sandy clay loam		
NA06			1	0-5	N	dark yellowish brown	sandy loam	1 colorless glass shard, 1 aqua glass shard, 1 plastic, 1 aluminum foil (0-10 cmbs).	sterile subsoil
			1-3	5-26		pale brown		none	
			3-4	26-36		yellowish brown w/ yellowish brown mottles	sandy clay		

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
NA07			1-2	0-12	N	dark yellowish brown	sandy loam	2 pieces of leather (0-10 cmbs); 1 amber glass shard, 1 colorless glass shard, 1 FCR (10-20 cmbs).	compact sandy clay
			2-3	12-28		brown w/ yellowish brown mottles and dark yellowish mottles		none	
			3-4	28-37		yellowish brown			
			4	37-40		yellowish brown w/ dark yellowish brown mottles	sandy clay		
NA08			1-2	0-12	N	dark yellowish brown	silty sandy loam	1 colorless glass shard (10-20 cmbs).	sterile subsoil
			2-4	12-36		brown w/ dark yellowish brown and yellowish brown mottles	sandy loam clay	none	
			4-5	36-46		yellowish brown	sandy clay		
NA09			1-3	0-30	N	dark yellowish brown mixed with yellowish brown, brown, and black	wet sandy loam	3 colorless glass shards, 1 amber glass shard (0-10 cmbs).	sterile subsoil
			3-5	30-50		brown w/ yellowish mottles	sandy clay	none	

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
JS01			1-2	0-12	N	brown	sand	none	sterile subsoil
			2-6	12-55		brownish yellow	loamy sand		
			6-7	55-70			gravelly sandy clay		
JS02			1-2	0-20	N	brown	sandy gravel road base	none	compact clay
			3-4	20-40		light yellowish brown w/ strong brown mottles	sandy clay		
JS03			1-2	0-20	N	brown	sandy gravel road base	none	compact clay
			3-5	20-45		light yellowish brown w/ strong brown mottles	sandy clay		
JS04			1-2	0-15	N	brown	sandy gravel road base	none	compact clay
			2-3	15-30		light yellowish brown w/ strong brown mottles	sandy clay		
JS05			1	0-8	N	grayish brown	sandy loam	none	compact clay
			1-2	8-20		brown	loamy sand		
			3	20-30		light yellowish brown			
			4	30-40		yellowish brown	sandy clay		
JS06			1-2	0-15	N	grayish brown	sandy loam	1 unidentified bullet, 2 colorless glass shards.	compact clay
			2-3	15-30		brown	loamy sand	none	
			4	30-35	N	strong brown	gravelly sandy clay		

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
JS07			1	0-5	N	grayish brown	sandy loam	none	compact clay
			1-3	5-30		brown	loamy sand		
			4-5	30-50			sandy clay		
JS08			1	0-8	N	very dark grayish brown	sandy loam	none	compact clay
			1-4	8-40	N	pink	sand		
			5-7	40-65	N	brownish yellow	sandy clay		
JS09	IF01		1	0-5	N	very dark grayish brown	sandy loam	none	compact clay
			1-3	5-30	**P**	pink	loamy sand	**1 secondary flake (20-30 cmbs).**	
			4-5	30-50	N	brownish yellow	sandy clay	none	
JS10			1	0-10	N	very dark grayish brown	sandy loam	none	compact clay
			2-3	10-30		brown			
			4-6	30-60		brown w/ yellowish brown mottles			
			7-8	60-75			sandy clay		
JS11			1	0-10	N	very dark grayish brown	sandy loam	none	depth
			2	10-19		yellowish brown w/ red mottles	clay loam		
			2-3	19-27		very pale brown	sand		
			3-5	27-45		dark gray			
			5-9	45-83		light yellowish brown	silty sand		

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
JS12			1	0-4	N	brown	loamy sand	none	sterile subsoil
			1-4	4-40		light yellowish brown	sand		
			5-6	40-55		yellow	silty sand		
			6-7	55-66			sandy clay		
JS13			1	0-5	N	very dark grayish brown	sandy loam	none	depth
			1-2	5-18		brown w/ brownish yellow mottles	clay loam		
			2-9	18-85		very pale brown	sand		
JS14	IF02		1	0-4	N	very dark grayish brown	sandy loam	none	depth
			1	4-7	N	very pale brown	gravel road base		
			1-2	7-20	N	reddish brown	sandy loam		
			3-7	20-70	**P**	pale brown	sand	**1 aqua glass shard with patina; 1 tertiary flake (20-30 cmbs).**	
			8	70-80	N	brownish yellow	clay loam	none	
JS15			1-2	0-20	N	very dark grayish brown	gravelly sandy loam	none	depth
			3-7	20-65		grayish brown	sand		
			7-8	65-80		brownish yellow	clay loam		
JS16			1-3	0-25	N	grayish brown	sand	none	depth
			3-8	25-80		yellowish brown			

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
JS17			1-2	0-17	N	grayish brown	sand	1 stoneware sherd, 1 green glass shard, 1 rubber fragment (10-17 cmbs).	depth
			2-8	17-80		yellowish brown		none	
JS18			1-6	0-55	N	grayish brown	sand	none	depth
			6-8	55-80		yellowish brown	loamy sand		
JS19			1-3	0-25	N	grayish brown	sand	none	compact sand
			3-5	25-50		yellowish brown	gravelly loamy sand		
JS20			1-5	0-48	N	grayish brown	sand	none	depth
			5-9	48-86		light yellowish brown	loamy sand		
JS21			1-6	0-52	N	grayish brown	sand	1 asphalt, 1 colorless glass bottle base shard (0-10 cmbs).	depth
			6-9	52-81		light yellowish brown	loamy sand	none	
JS22			1-2	0-12	N	brown	loamy sand	none	compact clay
			2-3	12-22		yellow	sandy clay		
JS23			1-5	0-45	N	grayish brown	sand	none	compact sand
			5-6	45-60		light yellowish brown	gravelly sandy loam		
JS24			1-3	0-30	N	brown	loamy sand	none	compact clay
			4-5	30-50		yellow	sandy clay		
JS25			1-2	0-18	N	brown	loamy sand	none	compact clay
			2-3	18-30		brown w/ brownish yellow mottles	sandy clay		

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
JS26			1-5	0-42	N	light brownish gray w/ strong brown mottles	sandy clay	none	sterile clay
JS27			1-6	0-51	N	light brownish gray w/ strong brown mottles	sandy clay	none	sterile clay
JS28			1-6	0-55	N	brown	loamy sand	none	compact clay
			6-7	55-70	N	yellow	sandy clay		
JS29			1	0-8	N	very dark grayish brown	sandy loam	none	compact clay
			1-3	8-25		pink	loamy sand		
			3-5	25-45		brownish yellow	sandy clay		
JS30			1	0-5	N	very dark grayish brown	sandy loam	none	compact clay
			1-4	5-40		pink	loamy sand		
			5-6	40-60		brownish yellow	sandy clay		
JS31			1	0-10	N	very dark grayish brown	gravelly road base	none	compact clay
			2-4	10-40		pink	loamy sand		
			5	40-50		brownish yellow	sandy clay		
JS32			1	0-5	N	very dark grayish brown	sandy loam	none	compact clay
			1-3	5-25		pink	loamy sand		
			3	25-30		brownish yellow	sandy clay		
JS33	41MQ336	ST06	1	0-5	N	dark grayish brown	loamy sand	none	compact sand
			1-5	5-50		pale brown	sand		

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
JS34	41MQ336	ST04	1-2	0-20	N	brown	sand	none	compact clay
			3-6	20-55		light yellowish brown w/ yellowish red mottles	sandy clay		
JS35			1	0-10	N	very dark gray	loam	none	compact sand
			2-3	10-30		brown	loamy sand		
			4-5	30-50		dark brown	gravelly sand		
JS36			1-2	0-18	N	dark grayish brown	loam	none	depth
			2-7	18-70		pale brown w/ yellowish brown mottles	sand		
			8	70-80		brownish yellow	sandy loam		
SS01			1-2	0-20	N	light gray	sand	none	sterile subsoil
			3	20-30		very pale brown			
			4-5	30-50		light yellowish brown w/ brownish yellow mottles	sandy clay loam		
SS02			1	0-10	N	very pale brown	sand	none	sterile subsoil
			2-3	10-30		grayish brown		1 plastic fragment (10-20 cmbs).	
			4	30-40		light yellowish brown w/ brownish yellow mottles	sandy clay loam	none	

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
SS03			1	0-10	N	light gray	loamy sand	none	sterile subsoil
			2-3	10-30		light yellowish brown w/ brownish yellow mottles			
			4	30-35			sandy clay loam		
SS04			1	0-5	N	very pale brown	silty sand	none	sterile subsoil
			1-2	5-20		light gray	loamy sand		
			3-4	20-40		pale brown	sand		
SS05			1	0-5	N	very pale brown	sand	none	compact clay
			1	5-10		brownish yellow w/ gray & red mottles	sandy clay loam		
			2-3	10-25		dark gray			
			3-5	25-45		light yellow brown w/ brownish yellow mottles			

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
SS06			1	0-10	N	dark grayish brown	sandy loam	1 rubber fragment, 1 colorless glass shard (0-10 cmbs).	compact clay
			2	10-20		brownish yellow	gravelly sandy loam	1 wire nail/bolt, 1 colorless glass shard, 1 amber glass shard, 1 plastic fragment (10-20 cmbs).	
			3-5	20-45		light yellowish brown	sandy clay	1 rubber fragment, 1 styrofoam fragment (20-45 cmbs).	
SS07			1	0-10	N	dark grayish brown	sandy loam	2 plastic fragments (0-10 cmbs).	sterile subsoil
			2-4	10-40		light yellowish brown	sand	1 colorless glass shard, 1 amber glass shard (10-20 cmbs).	
			5	40-50		brownish yellow w/ gray mottles	sandy clay	none	

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
SS08			1	0-10	N	dark grayish brown	sandy loam	3 green glass shards, 1 amber glass shard, 3 plastic fragments, 1 aluminum fragment (0-10 cmbs).	depth
			2	10-20		light yellowish brown w/ brownish yellow mottles		3 green glass shards, 2 plastic fragments (10-20 cmbs).	
			3	20-30		dark grayish brown		1 amber glass shard, 1 colorless glass shard (20-30 cmbs).	
			4-6	30-60		light yellowish brown	sand	none	
			7-8	60-80		light yellowish brown w/ brownish yellow mottles			
SS09			1	0-10	N	very dark gray	sandy loam	none	sterile subsoil
			2	10-20		light yellowish brown	sand		
			3	20-30		yellowish brown w/ dark brown mottles			
			4	30-40			sandy clay		

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
SS10			1	0-10	N	light yellowish brown	sandy loam	1 colorless glass shard, 1 amber glass shard (0-10 cmbs).	sterile subsoil
			2-3	10-30		gray w/ brownish yellow mottles	sandy clay	none	
SS11			1	0-10	N	dark grayish brown	sandy loam	none	sterile subsoil
			2-6	10-55		gray w/ brownish yellow mottles	sandy clay loam	2 amber bottle glass shards (10-20 cmbs).	
SS12			1	0-10	N	dark grayish brown	sandy loam	1 possible chert shatter, 1 green glass shard, 2 plastic fragments, 1 styrofoam fragment, 1 mirror fragment (0-10 cmbs).	depth
			2	10-20		dark gray		1 aluminum foil fragment (10-20 cmbs).	
			3-8	20-80		light yellowish brown w/ brownish yellow mottles	sand w/ clay mottles	none	

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
SS13			1-2	0-20	N	dark grayish brown	sandy loam	1 plastic fragment, (0-10 cmbs); 4 amber bottle glass shards (10-20 cmbs).	sterile subsoil
			3-5	20-50		light yellowish brown		none	
			3	20-30		very dark gray		1 styrofoam fragment, 2 amber bottle glass shards (20-30 cmbs).	
			6	50-60		light yellowish brown w/ brownish yellow and gray mottles	sandy clay	none	
SS14			1-4	0-35	N	brown	sandy loam	concrete slab (35 cmbs).	concrete slab
SS15			1-2	0-20	N	dark grayish brown	sandy loam	none	sterile subsoil
			2-5	20-50		light yellowish brown	sand		
			6	50-55		brownish yellow and gray mottles	sandy clay		
SS16			1-2	0-20	N	dark grayish brown	sandy loam	none	sterile subsoil
			3-7	20-65		light yellowish brown	sand		
			7	65-70		brownish yellow w/ gray mottles	sandy clay		

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
SS17			1-4	0-40	N	dark grayish brown	sandy loam	4 asphalt chunks, 1 colorless bottle glass shard (0-10 cmbs)	depth
			5-8	40-80		light yellowish brown w/ brownish yellow mottles	sand	none	
SS18			1-3	0-30	N	dark grayish brown	sandy loam	2 amber bottle glass shards (10-20 cmbs); 3 amber bottle glass shards (20-30 cmbs).	depth
			4-9	30-90		pale brown	sand	none	
SS19			1-3	0-30	N	brown	sandy loam	none	sterile subsoil
			4	30-40		light yellowish brown	sand		
			5-6	40-65		brownish yellow			
SS20			1-3	0-30	N	brown	sandy loam	none	sterile subsoil
			4-5	30-50		light yellowish brown	sand		
			6	50-60		brownish yellow			
SS21			1-2	0-15	N	dark grayish brown	sandy loam	none	sterile subsoil
			2-3	15-30		pale brown w/ brownish yellow & gray mottles	sandy clay		

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
SS22			1-2	0-20	N	light brownish gray	sandy loam	none	sterile subsoil
			3	20-30		pale brown w/ brownish yellow & gray mottles			
			4	30-40			sandy clay		
SS23			1-3	0-25	N	dark grayish brown	sandy loam	none	sterile subsoil
			3-5	25-45		pale brown			
			5-6	45-60		pale brown w/ brownish yellow mottles			
			7	60-65		brownish yellow w/ gray mottles	sandy clay loam		
SS24			1	0-10	N	light yellowish brown	sandy loam	none	sterile subsoil
			2	10-20		brownish yellow w/ gray mottles	sandy clay loam		
			3-4	20-40		brownish yellow w/ gray mottles	sandy clay		
SS25			1-2	0-20	N	light yellowish brown	sandy loam	none	sterile subsoil
			3-5	20-50		light yellowish brown w/ brownish yellow mottles	sandy clay loam		
			6	50-60		brownish yellow w/ gray mottles	sandy clay		

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
SS26			1-3	0-30	N	light yellowish brown	sandy loam	none	sterile subsoil
			4-5	30-50		light yellowish brown w/ brownish yellow mottles	sandy clay loam		
			6	50-55		brownish yellow w/ gray mottles	sandy clay		
SS27			1	0-10	N	light yellowish brown	sandy loam	none	sterile subsoil
			2-3	10-30		grayish brown w/ brownish yellow mottles	sandy clay loam		
			4	30-40		grayish brown	sandy clay		
SS28			1	0-10	N	dark grayish brown	sandy loam	none	depth
			2-8	10-80		pale brown			
SS29			1-4	0-35	N	pale brown	sandy loam	none	large root
SS30			1-5	0-50	N	light yellowish brown	sandy loam	none	sterile subsoil
			6	50-60		brownish yellow w/ gray mottles	sandy clay		

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
SS31			1-4	0-40	N	brown	loamy sand	none	sterile subsoil
			5-8	40-80		light yellowish brown	sandy clay loam		
			9	80-85		light yellowish brown w/ brownish yellow mottles	sandy clay		
SS32			1	0-10	N	brown	loamy sand	none	depth
			2-8	10-80		light yellowish brown	sandy clay loam		
SS33			1-4	0-40	N	brown	loamy sand	none	sterile subsoil
			5-6	40-60		brown w/ brownish yellow mottles	sandy clay loam		
SS34			1-3	0-30	N	light yellowish brown	sandy clay loam	none	sterile subsoil
			4	30-40		brownish yellow w/ gray mottles	sandy clay		
SS35			1-3	0-30	N	brown	loamy sand	none	large root
SS36	41MQ336	ST02	1	0-10	N	brown	loamy sand	1 colorless glass shard; 1 possible chert shatter (0-10 cmbs).	sterile subsoil
			2-6	10-60		light yellowish brown w/ brownish yellow mottles	sandy clay loam	1 colorless glass shard (10-20 cmbs).	
			7	60-65			sandy clay	none	

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
SS37			1-3	0-25	N	dark grayish brown	sandy loam	2 amber bottle glass shards, one colorless glass shard (0-10cmbs); 1 amber bottle glass shard (10-20cmbs).	sterile subsoil
			3-7	25-70		light yellowish brown	sandy clay loam	none	
			8	70-75		brownish yellow	sandy clay		
SS38			1	0-10	N	grayish brown	gravelly sand	none	impenetrable gravel
AB01			1-4	0-40	N	very pale brown	sand	none	sterile subsoil
			5-6	40-60		yellowish brown	sandy loam		
			7	60-70			sandy clay		
AB02			1-2	0-20	N	yellowish brown	sand	none	sterile subsoil
			3-5	20-50			sandy loam		
			6	50-60			sandy clay		
AB03			1-2	0-15	N	dark yellowish brown	sand	none	compact sand
			2-3	15-30		pale brown	sandy loam		
AB04			1-4	0-40	N	brown	sand	none	compact sand
AB05			1-4	0-35	N	dark grayish brown	sand	1 colorless glass shard (35 cmbs).	sterile subsoil
			4-6	35-55		yellowish brown	sandy clay	none	
AB06			1-2	0-20	N	grayish brown	sand	6 amber glass shards (10-20 cmbs).	compact sand
			3-4	20-35		yellowish brown	sandy clay	none	

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
AB07			1-2	0-20	N	dark grayish brown	sand	3 amber glass shards, 2 colorless glass shards (0-10 cmbs); 12 amber glass shards, 4 colorless glass shards (10-20 cmbs).	compact sand
			3-4	20-35		brown	sandy clay	none	
AB08			1	0-10	N	brown	sand	none	compact clay
			2-3	10-30		light yellowish brown	sandy loam		
			4-5	30-50			sandy clay		
AB09			1	0-3	N	very dark grayish brown	sandy clay	2 porcelain ceramic sherds (0-3 cmbs).	compact clay
			1	3-10		yellowish brown w/ dark gray mottles		none	
			2-5	10-50		yellowish brown w/ brownish yellow mottles			

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
AB10			1-2	0-20	N	very dark grayish brown	sand	1 colorless glass shard (10-20 cmbs).	compact clay
			3-4	20-40		yellowish brown	sandy loam	none	
			5	40-45		yellowish brown w/ red mottles			
			5	45-50		very pale brown	sandy clay		
AB11	41MQ336	ST05	1	0-10	N	brown	sand	18 amber glass shards (0-5 cmbs).	sterile subsoil
			2	10-20		very pale brown		none	
			3	20-30	**P**		sandy loam	**1 tertiary chert flake, 2 chert shatter (20-30 cmbs).**	
			4-5	30-50	N	pale brown w/ strong brown mottles		none	
			6	50-60		light grayish brown	sandy clay		

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AB12			1	0-10	N	dark grayish brown	sand	none	compact clay
			2-5	10-50		pale brown	sandy loam		
			6	50-60		light yellowish brown	sandy clay		
AB13			1	0-5	N	pale brown	sand	none	depth
			1	5-10		dark grayish brown	sandy loam		
			2-8	10-80		light yellowish brown			
AB14			1-2	0-20	N	dark grayish brown	sandy loam	none	compact clay
			3-5	20-50		pale brown			
			6	50-60		light gray w/ yellow mottles	sandy clay		
AB15			1-2	0-20	N	dark grayish brown	sand	none	compact clay
			3-5	20-50		pale brown	sandy loam		
			6	50-55		light gray w/ yellow mottles	sandy clay		
AB16			1-2	0-20	N	dark grayish brown	sand	9 amber glass shards (10-20 cmbs).	depth
			3-5	20-50		pale brown	sandy loam	none	
			6-8	50-80		light gray w/ yellow mottles	sandy loam		
AB17			1-5	0-45	N	pale brown w/ yellowish brown mottles	sandy clay	none	compact clay
AB18			1-8	0-80	N	brown	sand	none	depth
AB19			1	0-10	N	brownish yellow	sand	none	compact sand and gravel

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
AB20			1	0-10	N	light grayish brown	sand	none	compact clay
			2-4	10-35		dark grayish brown	sandy loam		
			4-5	35-50		gray	sandy clay		
AB21			1-3	0-30	N	yellowish brown	sandy loam	none	compact clay
			4	30-40		grayish brown	sandy clay		
AB22			1	0-5	N	light gray	sand	none	compact clay
			1-2	5-20		pale brown	sandy clay		
			3-4	20-35		light brownish gray w/ brownish yellow mottles			
AB23			0-2	0-20	N	grayish brown	sandy loam	none	compact clay
			3-5	20-55		light brownish gray w/ brownish yellow mottles	sandy clay		
AB24			1	0-10	N	dark grayish brown	sandy loam	none	large root
			2-3	10-30		light grayish brown w/ brownish yellow mottles	sandy clay		
AB25			1	0-10	N	grayish brown	sandy loam	none	compact clay
			2-3	10-30		very pale brown			
			4-7	30-70		light grayish brown w/ brownish yellow mottles	sandy clay		

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
AB26			1	0-10	N	dark grayish brown	sandy loam	none	compact clay
			2-7	10-70		light grayish brown	sandy clay		
AB27			1-3	0-30	N	light gray	sandy loam	none	large root
AB28			1-5	0-50	N	pale brown	sand	none	compact clay
			6	50-60		yellowish brown w/ strong brown mottles	loamy sand		
			7	60-70		pale brown	sandy clay		
AB29			1-8	0-80	N	pink	sandy loam	none	depth
AB30			1-3	0-30	N	light brown	sandy loam	none	compact clay
			4-5	30-45		pale brown	sandy clay		
AB31			1	0-3	N	dark grayish brown	sand	none	sterile subsoil
			1-6	3-60		pale brown	sandy loam		
AB32			1	0-10	N	very dark grayish brown	sandy loam	none	compact clay
			2-3	10-30		pink	loamy sand		
			4	30-40		brownish yellow	sandy clay		
AB33	41MQ336	ST01	1-2	0-20	N	grayish brown	sand	14 green glass shards, 2 amber glass shards (0-10 cmbs).	compact clay
			3-5	20-50		pale brown w/ dark yellowish brown mottles	sandy loam	none	
			5-7	50-65		light yellowish brown	sandy clay		

ST #	Site	Site ST #	Level	Depth	Positive/ Negative	Soil Color	Soil Texture	Cultural Material	Comments/Reason for Termination
AB34	41MQ336	ST03	1-2	0-20	N	light yellowish brown	sand	3 colorless glass shards (0-10 cmbs)	compact clay
			3-4	20-40	**P**	light yellowish brown w/ yellowish brown and black mottles	sandy loam	**1 secondary flake (30-40 cmbs).**	
			4-7	40-61	N	light yellowish brown	sandy clay	possibly fallen from zone 1: 2 colorless glass shards (40-50 cmbs).	
AB35			1-2	0-20	N	dark grayish brown	sand	2 colorless glass shards (0-10cmbs).	depth
			3-6	20-60		pale brown and yellowish brown		none	
			7-8	60-80			sandy loam		