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Cultural Resources Survey for the Abilene Independent School District Taylor Elementary School Project, City of Abilene, Taylor County, Texas

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CULTURAL RESOURCES REPORT

Cultural Resources Survey for the Abilene Independent School District
Taylor Elementary School Project, City of Abilene, Taylor County, Texas

Prepared for:
Texas Historical Commission
Texas Antiquities Permit #8845

On Behalf of:
Abilene Independent School District

ABILENE ISD
CONNECT · LEAD · SUCCEED

May 2019

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Cultural Resources Survey for the Abilene Independent School District Taylor Elementary School Project, City of Abilene, Taylor County, Texas

by

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Cultural Resources Report
April 2019

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ABSTRACT

This report documents the substantive findings and management recommendations of a cultural resources survey conducted by Integrated Environmental Solutions, LLC (IES) for the Abilene Independent School District (ISD) Taylor Elementary School Project in the City of Abilene, Taylor County, Texas. The project area or Area of Potential Effects (APE) encompasses 14.96 acres (ac). As the Abilene ISD is a political subdivision of the State of Texas, it is required to comply with the Antiquities Code of Texas (ACT). The cultural resources survey was conducted on 17 April 2019 under Texas Antiquities Permit No. 8845. All work conformed to 13 Texas Administrative Code 26, which outline the regulations for implementing the ACT.

The goal of this survey was to locate, identify, and document any cultural resources, which included architectural and archeological resources, that could be adversely affected by the proposed development and to evaluate such resources for their potential eligibility for designation as a State Antiquities Landmark or eligibility for inclusion in the National Register of Historic Places. These investigations consisted of a records review to identify previously conducted cultural resources surveys in the area and the known archeological and architectural resources recorded by those efforts, pedestrian reconnaissance of the project area, intensive archeological survey via systematic shovel test excavation, and archival research.

No archeological resources were documented within the 14.96-ac APE as a result of this survey. Based on the results of this survey, no additional cultural resources survey efforts are recommended for the project area. It is the recommendation of IES that the State Historic Preservation Officer, represented by the Texas Historical Commission (THC), concur with these findings. However, if any cultural resources are encountered during construction, the operators should cease work immediately in that area and contact the project cultural resources consultant to initiate coordination with the THC prior to resuming any construction activities in the vicinity of the inadvertent discovery. No artifacts were collected during this survey. All field and project-related records will be temporarily stored at the IES McKinney office and permanently curated at the Center for Archaeological Research at The University of Texas at San Antonio.

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CHAPTER 1: PROJECT DESCRIPTION

1.1 Introduction

This report presents the results of a cultural resources survey conducted by Integrated Environmental Solutions, LLC (IES) on behalf of the Abilene Independent School District (ISD) for the proposed Abilene ISD Taylor Elementary School Project. As the Abilene ISD is a political subdivision of the State of Texas, it is required to comply with the Antiquities Code of Texas (ACT). A description of the proposed project area or Area of Potential Effects (APE), environmental and historical contexts, field and analytical methods, results of the investigations, and recommendations regarding the identified cultural resources are provided in this document. This report was prepared in accordance with the Council of Texas Archeologists (CTA 1992; 2002) guidelines.

1.2 Regulatory Framework

1.2.1 *Antiquities Code of Texas*

As the Abilene ISD is a political subdivision of the State of Texas, it is required to comply with the ACT. The ACT requires that the Texas Historical Commission (THC) staff review any action by a state agency or a state political subdivision that has the potential to disturb historic and archeological sites on public land. Public land is defined as property under the control of a subsidiary of the state, which includes permanent and temporary easements on private property. Examples of projects that require review include reservoirs constructed by river authorities and water districts, construction of recreational parks or the expansion of existing facilitates by city governments, energy exploration by private companies on public land, and construction by a city or county government that exceeds 5 acres (ac) or 5,000 cubic yards of soil disturbance. The ACT also requires THC review for any project less than the thresholds mentioned above that requires subsurface archeological investigations to determine the presence of absence of archeological materials on public land.

Archeological investigations were performed and documented at sufficient levels to satisfy THC requirements for determining the presence of archeologically significant properties within the APE in accordance with 13 Texas Administrative Code 26 (13 TAC 26), which outlines the regulations for implementing the ACT. The goal of the survey was to locate, identify, and assess any cultural resources that could be adversely affected by proposed development, and to evaluate such resources for their potential eligibility for listing as a State Antiquities Landmark (SAL) or eligibility for listing in the National Register of Historic Places (NRHP).

1.3 Area of Potential Effects

The APE is located approximately 500 feet (ft) southeast of the intersection of East North 10th Street and Teakwood Lane in the City of Abilene, Taylor County, Texas (**Figures 1.1** and **1.2**). The direct APE encompasses approximately 14.96 ac. Although designs for the proposed project are still in the early stages of development, potential subsurface impacts anticipated for the project include standard construction procedures associated with large-scale academic developments such as grading of the ground surface, installation of storm drains and utilities, and construction of building foundations, parking areas, and other associated infrastructure. Depths of impacts associated with the proposed project will generally be within several feet of the current ground surface, with the exception of specific project components such as the installation of water and sanitary sewer infrastructure that may exceed depths of 10 ft. Field investigations assessed to the depth of proposed construction or the depth of soils capable of containing archeological resources.

Figure 1.1
General Location Map

Area of Potential Effects

N

1 inch = 500 ft

0 500 1,000 ft

County: Taylor
State: Texas
Date map created: 4/25/2019
Source: (c) 2009 Microsoft Corporation and its data suppliers; ESRI 10.6 Streetmap
IES Project Ref: 03.037.001

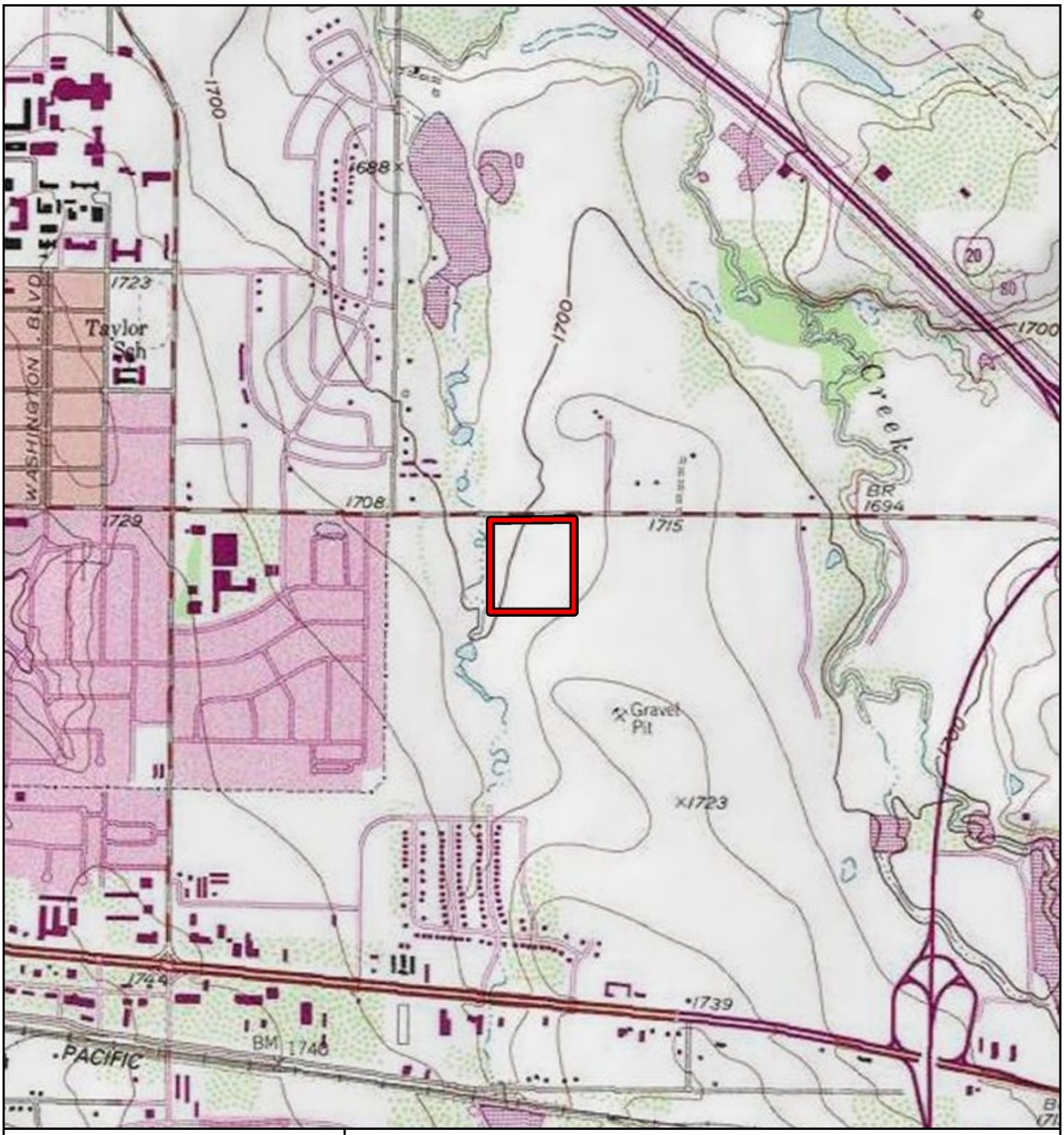

Figure 1.2
Topographic Setting

County: Taylor
State: Texas
Date map created: 4/25/2019
Source: USGS Topographic Map
7.5' Quadrangle
Abilene East 1976
IES Project Ref: 03.037.001

Area of Potential Effects

N

1 inch = 1,500 ft

0 1,500 3,000 ft

1.4 Administrative Information

Sponsor: Abilene ISD
Review Agency: THC
Principal Investigator: Christopher Goodmaster, MA, RPA
IES Project Number: 03.037.001
Days of Field Work: 17 April 2019
Area Surveyed: 14.96 ac
Resources Recommended Eligible for NRHP Under 36 Code of Federal Regulations (CFR) 60.4: None
Resources Recommended Eligible for SAL Under 13 TAC 26: None
Resources Recommended Not Eligible for NRHP Under 36 CFR 60.4: None
Resources Recommended Not Eligible for SAL Under 13 TAC 26: None
Curation Facility: No artifacts were collected. Field notes and all project-related records will be temporarily stored at the IES office in McKinney and permanently curated at the Center for Archaeological Research (CAR) at The University of Texas at San Antonio.

CHAPTER 2: ENVIRONMENTAL BACKGROUND

2.1 Environmental Setting

2.1.1 *Climate*

Taylor County lies in the low rolling plains part of the State of Texas. Annual precipitation averages between approximately 20 to 25 inches (in). About half of the precipitation usually falls as rain between May and October, with December and January being the two driest months of the year. The subtropical region tends to have a relatively mild year-round temperature with occasional exceedingly hot and cold periods (Estaville and Earl 2008).

2.1.2 *Topographic Setting, Geology, and Soils*

The Abilene East 7.5-minute U.S. Geological Survey (USGS) topographic quadrangle map illustrates that the APE is located within a gently sloping upland setting on a dissected plain (see **Figure 1.2**). The overall tract consists primarily of open agricultural land. The APE is adjacent to a channelized intermittent stream located along the western boundary. The stream flows in a south-to-north direction and confluences with Rainy Creek approximately 0.88 mi northwest of the APE.

The APE lies within the Red Prairie subregion of the Central Great Plains ecoregion (Griffith et al. 2007). The Red Prairie region is distinguished from surrounding regions by gently rolling plains, red silty clay soils, and prairie vegetation (Griffith et al. 2007). Most of the native prairie has been converted to cropland or non-native pasture. Native vegetation in less disturbed areas includes midgrass and short grass species including little bluestem, Texas wintergrass, white tridens, Texas cupgrass, and sideoats grama (Griffith et al. 2007). The APE is underlain by the Permian-age Clear Fork Group (Pcf) geological formation (Brown and Goodson 1972). The Clear Fork Group is composed primarily of mudstone, calcareous clay, and thin beds of discontinuous limestone (USGS 2019; **Figure 2.1**).

As shown by the *Soil Survey of Taylor County, Texas*, there are two soil map units within the APE (Conner 1976; **Table 2.1**). The entire APE contains soils typical of *in situ* soil development in upland settings within the Red Prairie region. Soil data was viewed from the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (Web Soil Survey 2019; **Figure 2.2**).

Table 2.1: Soils Located within the APE

Soil Map Unit Description	Approximate Percentage of the APE
ToA - Tobosa clay, 0 to 1 percent slopes - This component is described as clay located on plains. Depth to a root restrictive layer or bedrock is more than 80 in. The natural drainage class is well drained.	28.5
ToB – Tobosa clay, 1 to 3 percent slopes - This component is described as clay located on plains. Depth to a root restrictive layer or bedrock is more than 80 in. The natural drainage class is well drained.	71.5

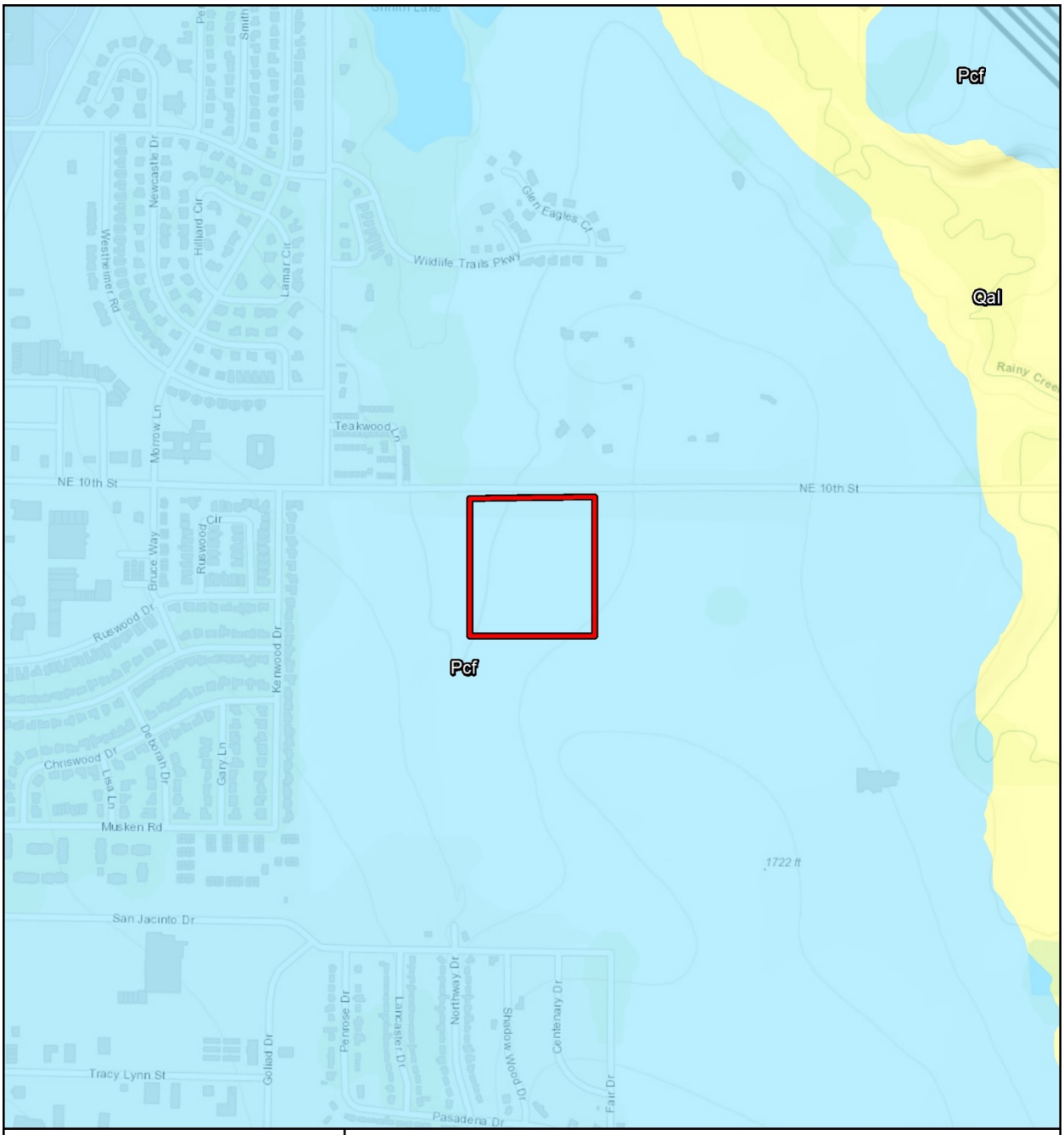

Figure 2.1
Geologic Setting

County: Taylor
State: Texas
Date map created: 4/30/2019
Source: TNRIS Geologic Atlas of Texas; Abilene Sheet
IES Project Ref: 03.037.001

Area of Potential Effects

Geologic Formation

Pcf - Clear Fork Group

Qal - Alluvium

N

1 inch = 1,000 ft

0 1,000 2,000 ft

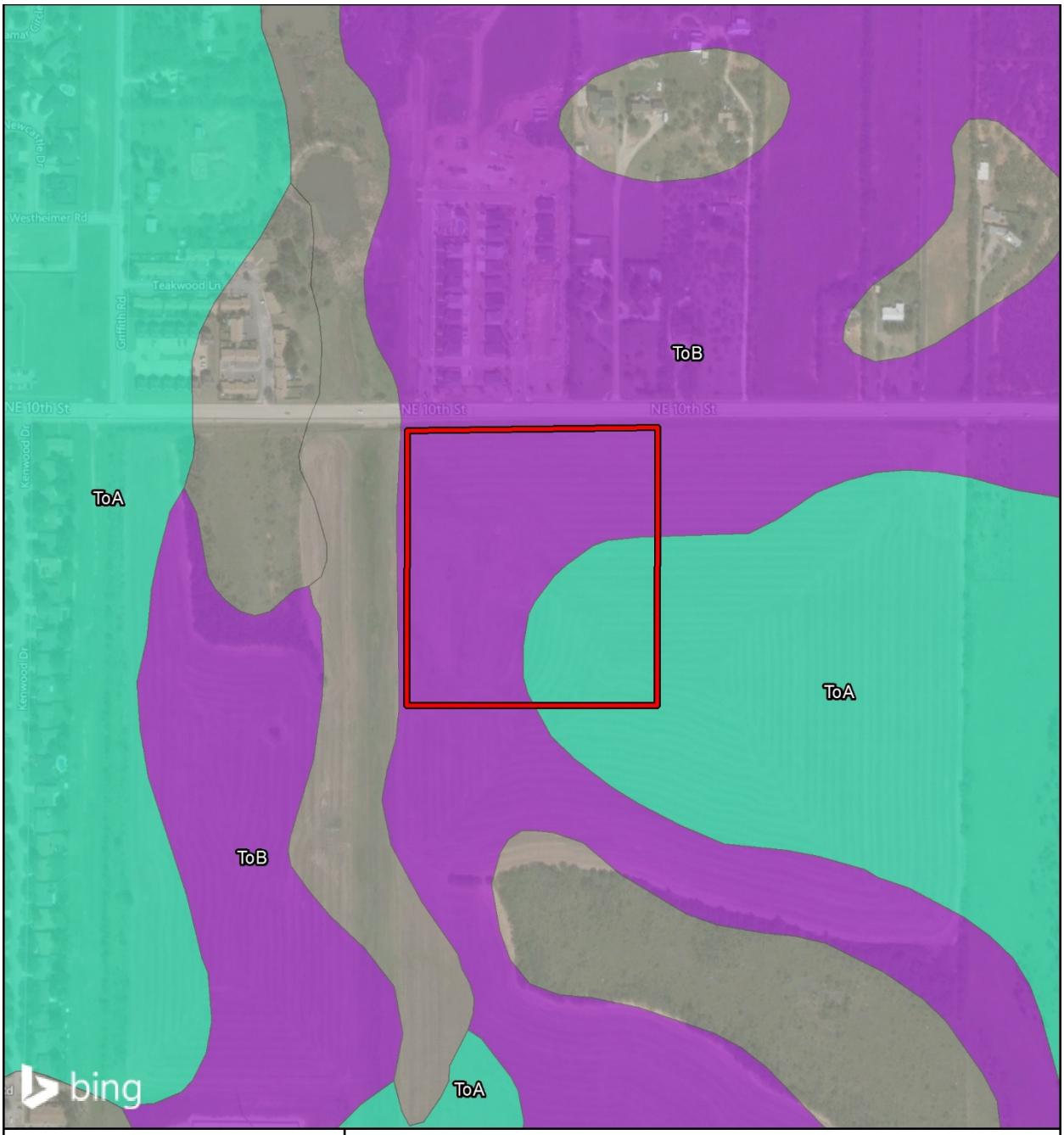

Figure 2.2
Soil Map Units Located Within and Adjacent to the APE

County: Taylor
State: Texas
Date map created: 4/30/2019
Source: 2007 USDA
NRCS Digital Soils Database
IES Project Ref: 03.037.001

Area of Potential Effects

Soil Description

ToA - Tobosa clay, 0 to 1 percent slopes

ToB - Tobosa clay, 1 to 3 percent slopes

Other values outside of APE

N

1 inch = 500 ft

0 500 1,000 ft

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CHAPTER 3: CULTURAL BACKGROUND

3.1 Previous Investigations

The Texas Archeological Sites Atlas (TASA) and Texas Historic Sites Atlas (THSA) databases, maintained by the THC, indicate that there are no previously recorded archeological sites, historical markers, or cemeteries located within the APE (TASA 2019, THSA 2019). The TASA database review identified one previously conducted professional cultural resources survey within 1 mi of the APE (**Table 3.1; Figure 3.1**). This survey was performed along Judge Ely Boulevard on the east side of the Abilene Christian University campus.

Table 3.1: Previous Surveys within 1 Mile of the APE

Agency	ACT Permit #	Firm/Institution	Date	Survey Type	Location (Approximate)
Texas Department of Highways and Public Transportation	No data	No data	1990	Linear	0.62 mi northwest of the APE

3.2 Cultural Resources Potential

In addition to the TASA review, several additional sources were referenced to determine the overall potential for encountering cultural resources within the APE. These sources included the USGS topographic map, the *Soil Survey of Taylor County, Texas*, the NRCS digital soil database for Taylor County, the Geologic Atlas of Texas – Abilene Sheet, the National Archives and Records Administration's (NARA) 1940 Census Enumeration District Maps for Taylor County, the Texas Historic Overlay (THO) georeferenced maps, and both past and current aerial photography.

3.2.1 *Disturbance Analysis*

During background review, it was determined that properties within and adjacent to the APE had historically been used for agricultural or ranching purposes since 1953 and presumably since the late 19th and early 20th centuries. Historical aerial photographs dating to the mid-20th century depict the agricultural fields within the APE as being contoured with a series of irrigation ditches relative to the natural topography of the property. The small stream west of the APE was channelized between 1976 and 1994. During that period, it appears the system of irrigation ditches were filled or graded to create a flat, continuous field. In 2015 or 2016, a portion of the western half of the APE was disturbed, although it is unclear for what purpose or the extent of the impacts. As a result of this disturbance, current aerial imagery depict areas lacking any vegetation growth.

3.2.2 *Prehistoric Resource Potential*

Previously conducted surveys within the region indicate that previously recorded prehistoric sites in the region are primarily located along streams. Prehistoric sites recorded in the greater Abilene area consist mostly of ephemeral campsites. These sites are represented by low-density lithic scatters with few, if any, diagnostic stone tools. As the majority of past prehistoric groups preferred to more routinely utilize areas adjacent to major perennial streams, the project area is considered to have a low potential for containing intact prehistoric resources.

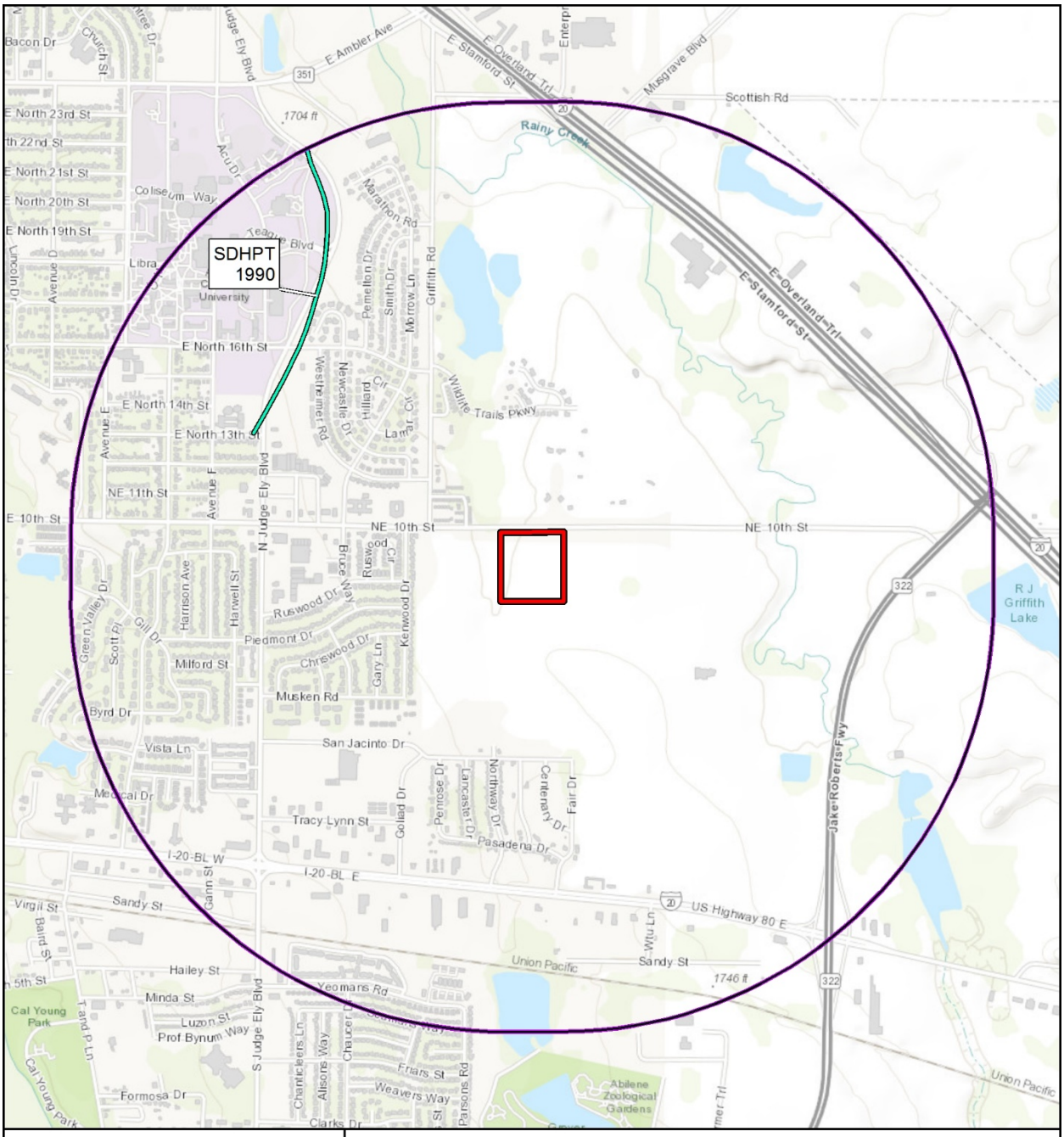

Figure 3.1
Previous Investigations Within
1 Mile of the APE

County: Taylor
State: Texas
Date map created: 4/30/2019
Source: (c) 2009 Microsoft Corporation and its data suppliers; ESRI 10.6
IES Project Ref: 04.037.001

3.2.3 *Historic-Period Resource Potential*

Historic-period resources in the region are primarily related to farmsteads, houses, and associated outbuildings and structures that date from the mid-19th to the mid-20th centuries. Typically, these types of resources are located along old roadways, but can be located along railroads, streams, and open pastures. Although determining the presence of the earliest of these buildings and structures is problematic, maps depicting these features are available as early as 1890. Based on a review of historical maps and aerial photographs, the potential for the presence of historic-period archeological resources within the APE is low.

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CHAPTER 4: METHODOLOGY

Prior to fieldwork, IES staff conducted historical and archeological records reviews to determine previously recorded resources within the APE and within a 1-mi radius of the direct APE (see **Section 3.1**). IES staff also reviewed ecological, geological, and soils data, as well as historic and modern maps and aerial photography of the APE. The methods utilized during this survey exceed the minimum archeological survey standards requirements for field investigations recommended by the CTA (CTA 2002), as approved by the THC.

4.1 Survey Methods

4.1.1 *Pedestrian Survey*

The pedestrian survey consisted of visual examination of the ground surface and existing subsurface exposures for evidence of archeological sites within the APE. The pedestrian survey consisted of multiple transects in 30-meter (m) intervals and was implemented across 100 percent of the APE. Areas displaying high levels of disturbance were photographed to document the lack of potential for intact archeological deposits. Other documentation methods included narrative notes, maps, and shovel test records.

4.1.2 *Intensive Survey*

In areas with the potential for buried archeological materials, shovel tests were excavated to depths of 80 centimeters (cm) or the extent of soils capable of containing cultural deposits, typically the argillic soil horizon (Bss) in this region. Each shovel test was at least 30 cm in diameter and was hand-excavated in levels not exceeding 20 cm in thickness. Excavated soil was screened using 0.25-in hardware mesh to facilitate the recovery of artifacts. When clay content was high and could not be efficiently screened, the excavated soil was troweled through by hand and inspected for cultural deposits. Based on CTA guidelines, a 14.96-ac APE project displaying little to no previous surface disturbances require the excavation of approximately eight shovel tests (one shovel test per 2 ac). All shovel test locations were recorded on maps and plotted using handheld Global Positioning System (GPS) units. Investigators documented the results of each shovel test on standardized forms.

Standards for archeological methods typically require that measurements be recorded in metric units. For this reason, while general distances and engineering specifications are recorded and described in imperial units (e.g., in, ft, mi) within this report, archeological measurements and observations are listed in metric units (e.g., cm, m, km), unless historic-period artifact or architectural elements are more appropriately recorded in imperial units.

4.2 Curation

The survey employed a non-collection, in-field analysis strategy. Records, files, field notes, forms, and other project-related documentation were organized and catalogued according to curation facility standards. All project-related documents were temporarily stored at the IES office and permanently curated at the CAR at The University of Texas at San Antonio.

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CHAPTER 5: RESULTS

During this survey, the APE was subjected to reconnaissance survey transects and an intensive archeological survey. Pedestrian reconnaissance was conducted across portions of the APE to confirm the extent of prior ground disturbances and assess the likelihood of encountering cultural resources. Ground surface visibility was highly variable and irregular across the APE, ranging from 30 to 100 percent. Intensive survey with shovel test sampling was conducted in portions of the APE with the potential to contain archeological resources within the shallow subsurface. A photograph location map and representative photographs of the APE are presented in **Appendix A.**

5.1 Archeological Survey

5.1.1 *General Survey Observations*

The entire APE encompassed an active agricultural field (**Appendix A, Photographs 1** through **4**). The APE occupied a gently sloping upland setting dissected by a shallow, channelized drainage adjacent to the APE (**Appendix A, Photographs 5** and **6**). Field investigations verified the disturbances depicted in historical aerial photographs and documented that the APE has been exposed to various forms of disturbance that would have affected near-surface archeological deposits. The western portion of the APE appeared to have been disturbed through recent activities along the drainage channel. Soil erosion as a result of this disturbance and water runoff from the field has left open areas of deflated surficial soils (**Appendix A, Photographs 7** through **10**). These areas were inspected thoroughly during the pedestrian survey for artifacts.

5.1.2 *Pedestrian Reconnaissance and Intensive Survey*

Pedestrian reconnaissance survey was conducted across the entire APE and was augmented by intensive survey via shovel testing within areas with the potential to contain cultural resources. Areas previously impacted by significant ground disturbances were assessed through reconnaissance survey to determine the potential for intact archeological deposits. Pedestrian survey transects were spaced at 30-m intervals across the APE.

During intensive survey, nine shovel tests were excavated within the 15-ac APE (**Figure 5.1**). Shovel testing within the APE revealed a predominant soil type containing a dark reddish brown (7.5YR 2.5/3, 3/2, or 3/4) clay loam to depths of approximately 40 to 60 cm below surface (cmbs) across much of the APE. Shovel tests performed near the drainage channel exposed soils containing fine gravels and higher silt or sand content than shovel tests excavated farther east within the APE. No cultural materials were encountered within shovel tests excavated within the APE.

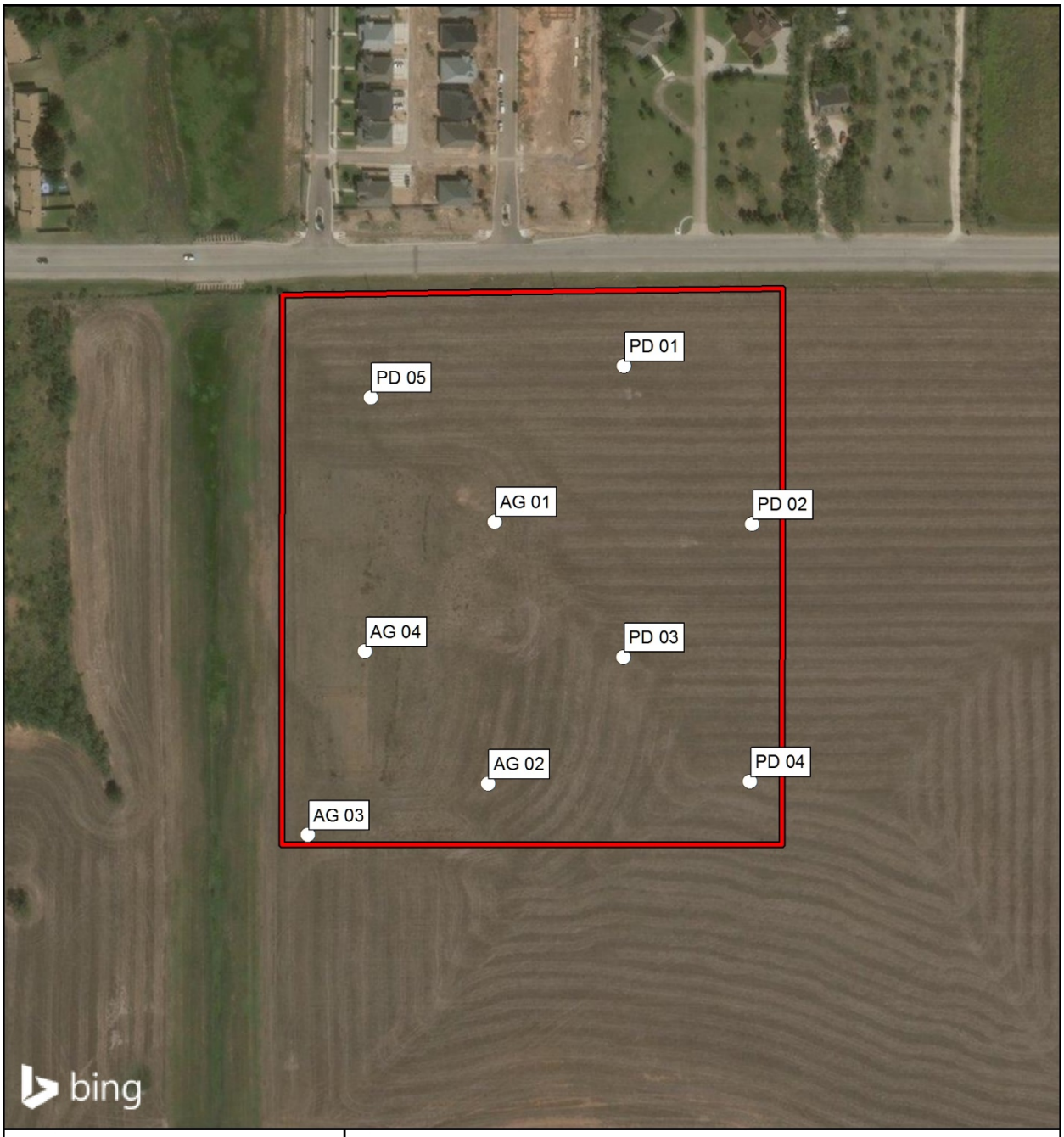

Figure 5.1
Shovel Test Location Map

County: Taylor
State: Texas
Date map created: 4/30/2019
Source: (c) 2009 Microsoft Corporation and its data suppliers; ESRI 10.6
IES Project Ref: 03.037.001

Area of Potential Effects
Shovel Test Location

N

0 250 500 ft
0 90 180 m

CHAPTER 6: SUMMARY AND RECOMMENDATIONS

During this cultural resources survey for Abilene ISD Taylor Elementary School project, the entire 14.96-ac APE was inspected through pedestrian reconnaissance and intensive survey. Nine shovel tests were excavated within the APE. All shovel tests were negative for artifacts or cultural deposits. No archeological sites were encountered during this survey.

Based on the results of this survey, it is the recommendation of IES that Abilene ISD Taylor Elementary School project be permitted to continue without the need for further cultural resources investigations. However, if any cultural resources are encountered during construction, the operators should immediately stop construction activities in the area of the inadvertent discovery. The project cultural resources consultant should then be contacted to initiate further consultation with the THC prior to resuming construction activities. In addition, if project designs change, and areas outside the APE defined within this report are to be impacted, additional field investigations may be required.

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CHAPTER 7: REFERENCES CITED

Brown, L. F. and J. L. Goodson
1972 *Geological Atlas of Texas, Abilene Sheet*. The University of Texas at Austin.

Conner, Nathaniel R.
1976 *Soil Survey of Taylor County, Texas.* United States Department of Agriculture, Soil Conservation Service, in cooperation with Texas Agricultural Experiment Station.

Council of Texas Archeologists (CTA)
1992 Guidelines for Cultural Resource Management Reports. *CTA Newsletter* 16(1).
2002 Revised Archeological Survey Standards for Texas. *CTA Newsletter* 26(1).

Griffith, Glenn, Sandy Bryce, James Omernik, and Anne Rogers
2007 *Ecoregions of Texas*. Texas Commission on Environmental Quality, Austin.

Texas Archeological Sites Atlas (TASA)
2019 "Texas Archeological Sites Atlas." s.v. "Taylor County" http://nueces.thc.state.tx.us/ (accessed April 2019).

Texas Historic Sites Atlas (THSA)
2019 "Texas Historic Sites Atlas." s.v. "Taylor County" http://nueces.thc.state.tx.us/ (accessed April 2019).

U.S. Geological Survey
2019 U.S. Department of the Interior Mineral Resources On-Line Spatial Data Website. http://mrdata.usgs.gov/sgmc/tx.html (accessed April 2019).

Web Soil Survey
2019 U.S. Department of Agriculture – Natural Resource Conservation Service Website: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey (accessed April 2019).

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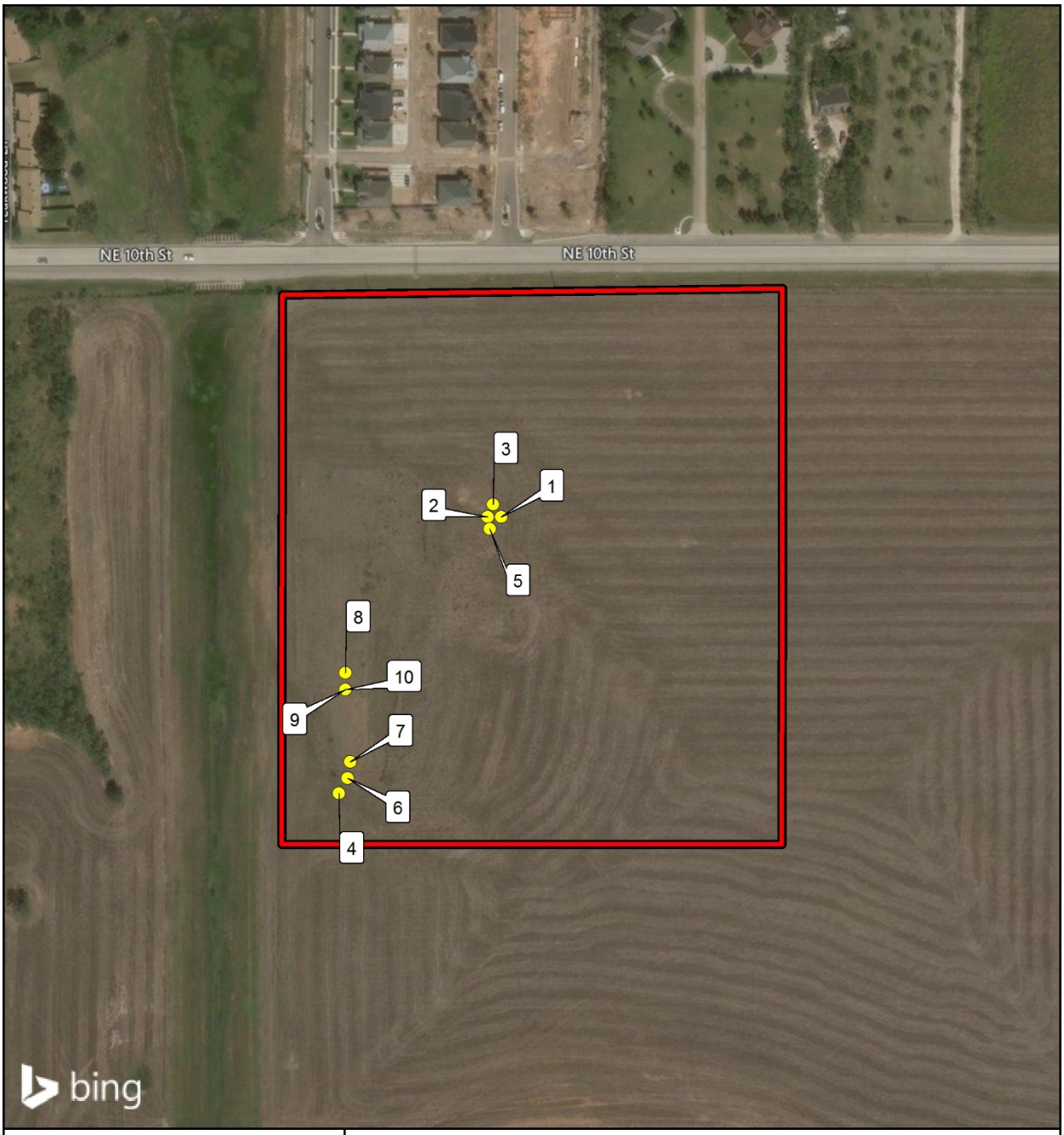
APPENDIX A
Photograph Location Map and General Photographs



Attachment A
Photograph Location Map

County: Taylor
State: Texas
Date map created: 4/29/2019
Source: (c) 2009 Microsoft Corporation and its data suppliers; ESRI 10.6
IES Project Ref: 03.037.001

Area of Potential Effects
Photograph Location

N

1 inch = 250 ft

0 250 500 ft

Photograph 1 – Agricultural field, view to the east.

Photograph 2 – Agricultural field, view to the south.

Photograph 3 – Agricultural field, view to the north.

Photograph 4 – Agricultural field, view to the north.

Photograph 5 – Agricultural field and drainage channel, view to the west.

Photograph 6 – Agricultural field and drainage channel, view to the west.

Photograph 7 – Erosion from water runoff, view to the west.

Photograph 8 – Disturbed area, view to the north.

Photograph 9 – Disturbed area, view to the south.

Photograph 10 – Disturbed, eroded surface.