Volume 2014 Article 89

2014

An Intensive Archeological Survey For The Proposed US 87 Reliever Route In The City Of Lamesa, Dawson County, Texas

Brandon S. Young

Joseph M. Sanchez

An Intensive Archeological Survey For The Proposed US 87 Reliever Route In The City Of Lamesa, Dawson County, Texas

AN INTENSIVE ARCHEOLOGICAL SURVEY FOR THE PROPOSED US 87 RELIEVER ROUTE IN THE CITY OF LAMESA, DAWSON COUNTY, TEXAS

by

Brandon S. Young and Joseph M. Sanchez

Texas Antiquities Permit No. 4263
Principal Investigator:
Brandon S. Young

August 2014

Blanton & Associates, Inc.
ENVIRONMENTAL CONSULTING • PLANNING • PROJECT MANAGEMENT
5 LAKEWAY CENTRE COURT, SUITE 200
AUSTIN, TEXAS 78734
512.264.1095
BLANTONASSOCIATES.COM

AN INTENSIVE ARCHEOLOGICAL SURVEY FOR THE PROPOSED US 87 RELIEVER ROUTE IN THE CITY OF LAMESA, DAWSON COUNTY, TEXAS

By

Brandon S. Young and Joseph M. Sanchez

Prepared for

Texas Department of Transportation
Lubbock District
(CSJ: 0905-32-005)

and

Parkhill, Smith, & Cooper, Inc.

Texas Antiquities Permit No. 4263
Brandon S. Young, Principal Investigator

August 2014

ABSTRACT

In November 2006 archeologists from Blanton & Associates, Inc. (Blanton & Associates) conducted an intensive archeological survey of the proposed six-mile US 87 Reliever Route in the City of Lamesa, Dawson County, Texas (CSJ: 0905-32-005). The survey was performed at the request of Parkhill, Smith, & Cooper, Inc. (PSC) on behalf of the Texas Department of Transportation's (TxDOT) Lubbock District. The survey discovered one prehistoric archeological site (41DS12) within the APE. No artifacts were collected so curation was unnecessary.

Table of Contents

Figures

Table

INTRODUCTION

In November 2006, archeologists from Blanton & Associates, Inc. (Blanton & Associates), at the request of Parkhill, Smith & Cooper, Inc. (PSC) and on behalf of the Texas Department of Transportation's (TxDOT) Lubbock District, conducted an intensive archeological survey along the proposed US 87 Reliever Route in the City of Lamesa in Dawson County, Texas (Figure 1 at end of document). The proposed roadway project would construct a new-location roadway to relieve through traffic on the existing US 87, which runs through Lamesa. To accomplish this, a new four-lane divided roadway, with frontage roads likely, would be constructed east of Lamesa from FM 825 on the north to US 180/FM 2052 on the south. The planned construction will require the addition of roughly 0.5 mile of new ROW at each end of the project area, as well as approximately five miles of new location east of the current US 87 corridor.

US 87 roughly bisects Lamesa north-south via Lynn Avenue and US 87 Business (Dallas Avenue). Beginning as a four-lane divided facility it follows Lynn Avenue through Lamesa and is separated from Dallas Avenue by a city block. Both avenues are four-lane, two-way roadways. The centerline of the proposed new freeway location would extend a maximum of approximately 3,900 feet east of the centerline of the existing US 87. The proposed reliever route would be a four-lane divided highway with two, two-lane one-way frontage roads and a usual ROW width of 450 feet.

New interchanges or overpasses and some roadway extensions will be necessary for the reliever route's intersections with FM 825, FM 2592, and US 180. At the northern end of the project area, an overpass or interchange will be constructed at the US 87/FM 825 intersection. No new ROW would be necessary for FM 825, only for the proposed new location of US 87. Similar construction will occur near the southern end of the project area where the proposed reliever route will intersect the existing US 180/FM 2052. No new ROW would be necessary along the existing stretch of US 180/FM 2052 at that location.

South of FM 825, the planned construction would involve the eastward extension of FM 2592 from its current intersection with US 87 to the new reliever. To do so, the section of CR 17 that spans the roughly 0.25-mile long area from the existing US 87 to the proposed reliever route ROW would be widened and redesignated FM 2592. The existing CR 17 ROW is approximately 40 feet wide with two 12-foot wide lanes and two-foot wide shoulders. The proposed extension of FM 2592 would expand the roughly 40-foot wide ROW to 90 feet, 40 feet of which will contain the paved roadway. Thus, approximately 25 feet of new ROW on each side of the existing CR 17 ROW will be needed for the planned construction.

Near the approximate center of the study area, US 180 would be extended about 0.68 mile eastward, from its current intersection with Lynn Avenue/US 87, along 4th Street to intersect with the planned reliever route. From Lynn Avenue to Elgin Street (0.32 mile/1,665 feet), the existing 4th Street is a two-lane road that traverses a residential neighborhood with an existing 90-foot wide ROW and a paved roadway that varies from 34 to 64 feet wide. The proposed construction would only occur within the existing ROW and involve widening the paved area to 66 feet to accommodate four main lanes and one turn lane. No new ROW would be required in this section.

From Elgin Street to Iowa Street (0.28 mile/1,471 feet), the existing two-lane 4th Street ROW there is 60 feet wide with 27 to 34 feet of paved roadway in a residential area. The proposed new ROW between Elgin and Iowa Streets will be 90 feet wide and contain a 66-foot wide paved roadway containing four main lanes and one turn lane. To accommodate these plans, 30 feet (15 feet each side of the existing ROW boundaries) of new ROW will be necessary. From Iowa Street to the proposed reliever route (440 feet) there is currently no road, only undeveloped agricultural land. This 440-foot long section will be constructed with a 90-foot wide ROW and include a 66-foot wide paved roadway containing four main lanes and one turn lane.

The estimated depth of subsurface impacts for the entire project areas is 2 to 3 feet below the existing ground surface. According to plans, no detours, temporary, or permanent easements would be necessary for the project. The overall Area of Potential Effect (APE) for archeology consists therefore, of the existing and proposed new ROW. For this project then, the APE includes the entire length (6 miles/31,680 feet) and width (450 feet) of the wide proposed reliever route ROW, as well as the planned roadway improvements on FM 2592/CR 17 and US 180 for a total of approximately 350 acres.

As the planned construction would occur on property owned by the State of Texas and administered by TxDOT, the project is subject to the provisions of the Antiquities Code of Texas, now subsumed in Title 13, Part II of the Texas Administrative Code. This legislation defines the necessary conditions for recognition and preservation of State Archeological Landmarks (SALs) and requires that any political subdivision of the State of Texas, defined as a "local governmental entity created and operating under the laws of this state, including a city, county, school district, or special district created under the Texas Constitution, Article III, §52(b)(1) or (2), or Article XVI, §59" in 13 TAC §26.5 of the code, must identify potential SALs through survey of public lands prior to actions that could potentially damage those SALs.

It is assumed that funding for the proposed highway construction will come in part from the Federal Highway Administration (FHWA) and, as such, the proposed construction project is also subject to the provisions of Section 106 of the National Historic Preservation Act of 1966 (NHPA). The intent of the NHPA is to protect significant cultural resources that might be threatened by actions that are federally funded or permitted, or which occur on federal property. The act, which created the National Register of Historic Places (NRHP) and the Advisory Council for Historic Preservation (ACHP), states that the ACHP must be afforded the chance to comment when any cultural resources eligible for inclusion on the NRHP are present in an area affected by federal agency actions or actions funded or permitted by federal agencies.

The federal regulatory process is described in detail in the ACHP regulations (36 CFR 800) and in the regulations of the agencies and federal divisions engaged in historic preservation. Protection of cultural resources under federal law is tied to eligibility for the NRHP that depends on site significance as defined by National Park Service (NPS) rules 36 CFR 60. Although the ACHP is the final arbiter of the Section 106 process, in practice, the process is typically limited to review and concurrence by the involved agency and the State Historic Preservation Officer (SHPO), represented in Texas by the THC.

Investigations were conducted in accordance with the First Amended Programmatic Agreement (PA) among the FHWA, the THC, the ACHP, and TxDOT, as well as the Memorandum of Understanding (MOU) among TxDOT and THC. The survey was designed to comply with appropriate archeological survey methods as defined in the Department of the Interior's Standards and Guidelines (NPS 1983), the Guidelines of the Council of Texas Archeologists (1987), and the survey standards developed by the THC in conjunction with the Council of Texas Archeologists (THC n.d.). The primary intent of the survey was to identify and describe all cultural resources discovered within the APE, evaluate their potential eligibility for nomination to the NRHP or for formal SAL designation, and should significant cultural resources be located, make recommendations for future cultural resource management options such as avoidance, preservation, or further investigations.

ENVIRONMENTAL SETTING

Dawson County is situated within the southern High Plains on the southeastern edge of the Llano Estacado. Topographically, this portion of the High Plains is a virtually level plain except along the eroded margins of the Caprock Escarpment. The generally north-south trending escarpment is the southern edge of the High Plains and is located about 10 miles east of Lamesa. Isolated low-lying playa lakes are the most common surface water feature on the southern High Plains (Jordan et al. 1984). Several small drainages flow in and around Lamesa, such as Sulphur Springs Draw near the southern end of the reliever route, but the current study area does not cross any drainages. Land use on the planned reliever corridor consists of vast agricultural (i.e., cotton) fields that have been extensively plowed and contoured for drainage and erosion purposes.

GEOLOGY

Geology of the project area consists of early Pleistocene Blackwater Draw Formation, which is dotted with playas containing late Pleistocene Playa deposits (Barnes 1974). The Blackwater Draw Formation consists of fine to medium-grain silty and calcareous quartz with caliche nodules throughout. This formation is at least 50,000 years old and predates known human occupation of North America. A number of playas and playa margins will be crossed by the proposed reliever route. Playa deposits consist of clay and silt and are often covered with a veneer of eolian Holocene sand (Barnes 1974).

SOILS

Soils in the project area include Amarillo fine sandy loam, 0 to 1 percent slopes and 1 to 3 percent slopes, Mansker fine sandy loam, 1 to 3 percent slopes, Portales fine sandy loam, 1 to 3 percent slopes, and Randall clay. These high plains soils developed from unconsolidated sandy, silty, and calcareous Quaternary or late Tertiary-age parent materials that originated from the Rocky Mountains and known as Rocky Mountain outwash. Much of the outwash has been reworked by eolian processes and/or a high water table (Sanders 1957).

Amarillo fine sandy loam comprises approximately 90 percent of the study area and consists of sandy reddish soils overlying sandy clay loam. Mansker fine sandy loam, 1 to 3 percent slopes, consists of dark-brown to yellowish-brown sandy soil overlying sandy clay loam overlying chalky caliche-like sediments. Calcium carbonate concretions are common on the ground surface in areas of Mansker soils (Sanders 1957). The Portales soil is brown fine sandy loam (0 to 6 inches) overlying dark brown to brown sandy clay loam (6 to 30 inches) overlying very pale brown sandy clay loam grading to caliche (30 to 48 inches). Randall clay is found on the bottom of playas and consists of dark gray clay from 0 to 55 inches below ground surface (Sanders 1957).

VEGETATION

Dawson County lies in the Kansan biotic province where native vegetation consists of a mixed-grass plain dominated by little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*) and western wheatgrass *(Agropyron smithii)* (Blair 1950). Vegetation within and adjacent to the project area

consists of maintained highway ROW and vast cotton fields. Adjacent land use consists of urban development, residential areas, and agricultural land.

CULTURE HISTORY

The project area is located in the southeastern extent of the Southern Plains and the southwestern edge of the Rolling Plains. This area lacks the cultural syntheses that other regions of Texas have. The earliest systematic investigations in the region were conducted by E. B. Sayles (1935) during his survey of Texas archeology. The most exhaustive, long term archeological studies in the area were conducted to the north at Lubbock Lake (Johnson and Holliday 1995) and at Justiceburg Reservoir, now Lake Allan Henry (Boyd et al. 1989, 1990, 1992, 1993, and 1994; Boyd 1997). Five broad periods typically define the prehistoric cultural history of the project area. They include the Paleoindian, Archaic, Ceramic, and Protohistoric periods (Johnson and Holliday 1995). Earlier chronologies incorporate the Ceramic and Protohistoric into a single Late Prehistoric period (Suhm et al. 1954). As only prehistoric cultural resources were identified during this survey, this background is limited to a general overview of regional prehistory.

Paleoindian Period

The earliest well-documented evidence of human occupation in the region appears in the Paleoindian period during the Late Pleistocene around 9,500 B.C. at the Blackwater Draw, Miami, and Lubbock Lake sites (Johnson and Holliday 1995:552). During the Late Pleistocene the environment was humid with mild winters and summers and the mean temperature was lower than it is today (Johnson 1986). Grasslands covered much of the plains, and many small streams crossed the countryside (Johnson and Holliday 1995:552).

Megafauna such as mammoth, *Bison antiquus*, camel, giant turtle, horse, short-faced bear, giant beaver, and peccary inhabited this landscape (Hester 1972). The common view is that paleoindians were nomadic hunter-gathers who followed large game and lacked many semi-permanent or permanent structures (Johnson and Holliday 1995), but recent evidence suggests that a more diversified and complex lifeway may have existed. The tool kit from this time included large, intricately worked, fluted, lanceolate stone points that were probably hafted on a spear-like weapon. These points include *Clovis*, *Folsom*, *Midland*, *Plainview*, and *Firstview* styles.

Archaic Period

As the cooler and wetter climates of the Late Pleistocene gave way to the warmer and drier Holocene, there were marked changes in fauna and flora of the region. The large mammals vanished from the landscape, possibly aided by overhunting. In the midst of this dramatic environmental shift, a range of cultural changes mark the beginning of the long Archaic period (6,500 B.C. to 700–900 A.D.). With the majority of the large mammals gone and the environment drier, Southern Plains cultures became more sedentary and dependent on *B. bison*, which had replaced the larger *B. antiquus*, and smaller game such as deer and rabbit. While lanceolate projectile point forms remained in use during the Early Archaic, stemmed dart points began to proliferate and eventually replace the lanceolate forms altogether. The dart points were better suited to the lightweight shafts propelled by the atlatl, and the entire toolkit was better adapted to small game. Ground-stone artifacts found at sites of this age may be indicative of a more generalized diet containing more plant material.

Population grew during the Archaic despite the changing climates and resource base. Boyd et al. (1989:44) discuss a number of climatic "shifts" during the Archaic that are marked primarily by drier episodes. Each shift indicates a potential change in priorities between plant and animal resources. Shift 1 (6,500 B.C. to 4,400 B.C.) roughly corresponds with the Early Archaic of the Central Texas chronologies. Bison were the most important food and plants less important. Shift 2 (4,400 B.C. to 3,500 B.C.) correlates with the Hypsithermal, or Drought 1. The Hypsithermal was a global phenomenon during which warmer, drier conditions and prolonged, severe droughts affected much of North America. During this time, the parched grasslands and warmer temperatures of the Southern Plains became less attractive to bison (Johnson and Holliday 1995:526). Bison herds traveled south into the area less frequently, and people became more dependent on plant resources (Dillehay 1974). Water became critical during the prolonged droughts of the Hypsithermal. At the Mustang Springs Site, seven wells that date to this time were documented by Meltzer (1991). Shift 3 (3,500 to 3,000 B.C.) marked a return to more mesic conditions. Bison returned to the area in greater numbers and once again became an important food resource.

Between 3,000 B.C and 2,500 B.C, Johnson and Holliday (1995:526) postulate another prolonged hot and dry period (their Shift 4 or Drought 2) that was less severe than the earlier Hypsithermal. As bison ranged the cooler northern plains, plant resources again became a dietary staple. Shifts 2, 3, and 4 overlap with Middle Archaic (ca. 3,500 B.C. to 1,100 B.C) dates from adjacent cultural chronologies. The final climate shift (Shift 5) occurred between 2,500 and 1,000 B.C. and is once again identified with a reliance on bison as the primary diet. Shift 5 overlaps with the beginning of the Late Archaic (ca. 1,100 B.C to 600–700 A.D.), during which time the climate stabilized and conditions developed that have remained to the modern era (Johnson and Holliday 1995:528).

Ceramic and Protohistoric Periods

The Ceramic Period (ca. 600–700 A.D. to 1540 A.D.) is denoted by the appearance of two technologies important to the area: ceramics and the bow and arrow. Arrow points, dart points, and coarse-tempered cord-marked ceramics were found associated with each other at Deadman's Shelter. This seems to indicate that there was a transition between technologies rather than an abrupt switch (Hughes and Wiley 1978). Diagnostic materials for the period are corner-notched *Scallorn* points and ceramic trade items from the Mogollon and Puebloan cultures (Perttula et al. 1995).

The Protohistoric period (1540 A.D. to 1750 A.D.) was defined by Johnson and Holliday (1995:530) as the presence of Europeans in the New World but the apparent lack of European items in the archeological record. The typical arrow point associated with this time period is the triangular, often serrated *Garza* point (Turner and Hester 1999:215). Very little is known about this period, but Hickerson (1994:24) believes that the area was populated by the Jumano Indians by the time of the Coronado expedition. By the early 1700s, the Jumanos were eradicated by disease and the Apache, whom they had been battling with for decades or more (Hickerson 1994). Later the Apache were supplanted by the Comanche, who controlled the area until the 1870s (Lowry et al. 2002:5).

PREVIOUS ARCHEOLOGICAL INVESTIGATIONS

A review of records at the Texas Archeological Research Laboratory (TARL) and data available on the Texas Archeological Sites Atlas was conducted to determine the presence of any previously recorded sites or previous project areas within a 1,000-meter radius of the project area. The review revealed that several cultural resource projects have been conducted in the Lamesa area, though none are in or immediately adjacent to the project area.

The nearest previous survey area is located roughly 2 kilometers northwest of the existing US 87/US 180 intersection at the southern end of the project and was done in 1998 for the proposed expansion of the City of Lamesa landfill, which resulted in the discovery of one prehistoric lithic scatter (41DS8) (Katz 1998). In 2001, the ROW of a 3,000-mile long previously installed (1947–1948) AT&T telecommunications cable was recorded as a site prior to new cable installation. The portion of this cable documented near Lamesa is on the west side of SH 137 approximately 4.0 kilometers northwest of the planned reliever route (Kearns et al. 2003). In 2004, an archeological survey of the City of Lamesa's wastewater treatment plant discovered no cultural resources (Kibbler 2004).

Approximately 850 meters east of the proposed reliever route's intersection with CR 20 is the Lamesa Farm Workers Community Historic District that encompasses the community of Los Ybanez. Designed with 50 residential and three institutional frame buildings, the district remains relatively intact. In addition to the historic district and site 41DS8, there is a historical marker located roughly 0.25 mile east of the existing US 87 and 0.25 mile north of US 180 near the southern project terminus. The marker (THC No. 1183) commemorates the creation of Dawson County in 1858.

Just east of Elgin Street on the north side of 2nd Street is a 1964 Texas historical marker (No. 4025) for the local Pioneer Cemetery (no other data available). Near the northern end of the project area (about 780 meters west of the proposed FM 2592 extension) at the intersection of FM 2592 and 22nd Street, a third Texas historical marker (No. 4754) sits on part of the 1889 community of Chicago, which originated as the Oto Ranch in 1887. Approximately 20 historic structures in Lamesa have been recorded during various Neighborhood Surveys. The majority of these are located west of the existing US 87 southbound (Dallas Avenue) lanes, east of SH 137, and south of US 180/4th Avenue. None of the structures are within the APE for this project.

METHODS

The intensive archeological survey involved surface and subsurface investigations of sufficient intensity to determine the nature, extent, and if possible, the significance of any discovered cultural resources. Investigations adhered to THC survey standards (n.d.), as well as the guidelines of the Council of Texas Archeologists (1987), and the Secretary of the Interior's Standards and Guidelines (NPS 1983). Moreover, the survey was designed and executed in accordance with the PA among the FHWA, the THC, the ACHP, and TxDOT, as well as the MOU between TxDOT and the THC.

Surface investigations consisted of an intensive 100 percent pedestrian survey of the study area by two archeologists systematically examining the ground surface within the APE, as well as what could be observed on private property outside of, and adjacent to, newly proposed and existing ROWs. Ground surface exposure was excellent, with the majority of the study area exhibiting almost 100 percent surface visibility, except for the residential yards along 4th Street that exhibited at about 50 to 60 percent visibility. Subsurface investigations involved judgmental shovel testing in high probability areas, which consisted of all playas and playa margins crossed by, or in close proximity to, the proposed ROW, as well as any discovered archeological sites.

Shovel tests were 30 to 40 centimeters in diameter and excavated with a round head shovel or spade until clayey subsoil was encountered. Shovel tests were excavated in 20-centimeter levels with all soil screened through ¼-inch wire mesh and all appropriate data was recorded on a Blanton & Associates shovel test form. Shovel test locations were plotted with hand-held global positioning system (GPS) receiver and all investigations were thoroughly photographed. No cultural materials were collected so curation was unnecessary.

Site documentation involved the recording of the horizontal and vertical extent of the archeological site (41DS12) identified within the APE. Site data included a description of the site's environment, cultural materials noted within the APE, and observations on the continuance of the site outside of the APE. The one recorded site was evaluated with respect to its eligibility for inclusion to the NRHP (as per eligibility criteria set forth in National Park Service regulations 36 CFR 60.4.) or for formal designation as a SAL (as per criteria established in Chapter 26.8 of the Texas Antiquities Code).

RESULTS OF INVESTIGATIONS

Investigations indicated that the proposed US 87 Reliever Route APE has been disturbed by development and intensive agricultural plowing, as well as field contouring and terracing for water and erosion control (Figures 2.1 and 2.2 at end of document). Ground surface exposure was excellent throughout the project area as the majority occupies fallow plowed cotton fields with almost 100 percent surface visibility (Figure 3 at end of document). Residential yards along 4th Street typically exhibited about 50 to 60 percent ground surface visibility or greater. Survey efforts along the planned extension of FM 2592 and 4th Street encountered similar conditions in the plowed fields within, and adjacent to, the proposed new ROW (Figures 4 and 5 at end of document). Similarly investigations in the roadside rest stop and park at the southern end of the APE also discovered no cultural resources (Figure 6 at end of document).

Shovel testing of high probability areas within the APE resulted in the excavation of 12 shovel tests (ST). Shovel Tests 1–10 were located at or near playas while STs 11 and 12 were excavated on the one site discovered during the survey (see below). Subsurface tests revealed sand and clay loam overlaying sandy clay (Table 1; see Figures 2.1 and 2.2). The majority of the shovel tests were terminated between 40 and 50 centimeters below ground surface at the sandy clay subsoil. The intensive survey resulted in the discovery of one prehistoric site (41DS12) and one prehistoric Isolated Occurrence (IO-1) in the southern end of the study area. In addition to site 41DS12 and IO-1, investigations observed several homes and standing structures along 4th Street that appear to be 50 years old or greater that should be assessed by an architectural historian (Figures 7 through 13 at end of document).

Table 1. Shovel Test Results

Shovel Test	Depth (cm)*	Soil Description	Artifacts	Site	Comments
1	0 to 21	Red medium to coarse grain sand	None	No	Plowzone
	21 to 28	Reddish brown sandy clay loam	None	No	Sticky and moist
	28 to 40	Reddish brown sandy clay	None	No	Very firm and dense clay subsoil
2	0 to 32	Reddish brown sandy loam	None	No	Eolian veneer and plowzone
	32 to 50	Reddish brown sandy clay	None	No	Moist and firm clay subsoil
3	0 to 24	Reddish brown medium grain sand	None	No	Plowzone
	24 to 40	Red sandy clay	None	No	Moist and very firm clay subsoil
4	0 to 27	Loose reddish brown sand	None	No	Plowzone
	27 to 44	Brownish red sandy clay	None	No	Clay subsoil
5	0 to 30	Brown sand	None	No	Plowzone
	30 to 47	Brown sandy clay loam	None	No	Slightly sticky with clay content increasing with depth
	47 to 60	Reddish brown sandy clay	None	No	Clay subsoil
6	0 to 19	Brown sand	None	No	Plowzone
	19 to 44	Reddish brown sandy clay	None	No	Clay subsoil
7	0 to 34	Brown sand	None	No	Plowzone
	34 to 45	Reddish brown sandy clay loam	None	No	Clay content increasing with depth
	45 to 55	Reddish brown sandy clay	None	No	Firm and sticky clay subsoil

Table 1. Shovel Test Results

Shovel Test	Depth (cm)*	Soil Description	Artifacts	Site	Comments
8	0 to 23	Brown sand	None	No	Plowzone
	23 to 46	Reddish brown sandy clay loam	None	No	Sticky and moist; clay conent increasing with depth
	46 to 57	Reddish brown sandy clay	None	No	Clay subsoil
9	0 to 30	Reddish brown sand	None	No	Plowzone
	30 to 48	Brown sandy clay loam	None	No	Sticky; clay content increasing with depth
	48 to 57	Reddish brown sandy clay	None	No	Sticky; clay subsoil
10	0 to 28	Brown sand	None	No	Plowzone
	28 to 45	Reddish brown sandy clay loam	None	No	Clay content increasing with depth
	45 to 59	Reddish brown sandy clay	None	No	Clay subsoil
11	0 to 36	Light brown sand	None	41DS12	Plowzone
	36 to 56	Reddish brown silty clay	None		Clay subsoil
12	0 to 25	Light brown sand	None	41DS12	Plowzone
	25 to 42	Brown sandy clay loam	None		Slightly sticky with clay content increasing with depth
	42 to 54	Brown sandy clay	None		Clay subsoil
* Excavated in 20-centimeter levels					

41DS12

This site is a prehistoric open camp discovered in a plowed cotton field in the southern part of the study area just north of the US 87/US 180 interchange and along the eastern edge of the proposed new ROW (Figure 14). Site boundaries within the APE extend approximately 90 feet northwest-southeast by 45 meters northeast-southwest (Figure 15). The site extends an unknown distance north and east of the proposed ROW into adjacent private property. Included within the site boundaries is an existing overhead transmission line ROW that indicates the area has been disturbed to some degree by non-agricultural impacts. The surface scatter within the proposed ROW extends outside of the APE towards a playa located approximately 600 meters north-northeast. Ground surface visibility across the site was 100 percent.

The artifact assemblage on 41DS12 within and immediately adjacent to the APE consisted of 25 specimens of chipped-stone chert debitage, one 25-millimeter by 40-millimeter by 7-millimeter fragment of a two-bevel knife (Artifact 3) manufactured from a tan glossy fine-grained chert, one two-sided quartzite mano and possible hammerstone (Artifact 4), and a surface scatter of burned caliche nodules (Figures 16 and 17).

In addition to the mano/hammerstone and the knife fragment, additional plotted artifacts included an Alibates tertiary flake (Artifact 1), two unidentified chert flakes (Artifacts 2 and 7), one secondary flake of Potter chert (Artifact 5), and one chert core fragment (Artifact 6). Potter chert is a tool quality raw material that occurs on the High Plains as gravel or bedrock spalls and was utilized by prehistoric groups

(Lintz 2002, citing Holliday and Welty 1981 and Lintz 1997). The assemblage suggests that late stage lithic reduction and retouch/retooling occurred on site. In terms of chronology, the presence of the two-bevel knife suggests the site was utilized at least sometime between approximately AD 1,300 to 1750 or later; a broad span of time that includes the Ceramic (ca. AD 600–700 to 1540), Protohistoric (ca. AD 1540 to 1750), and Historic (AD 1750 +) periods.

Two shovel tests (nos. 11 and 12) were excavated on site to determine the presence or absence of a buried component, but no subsurface cultural materials were found, only disturbed sandy eolian deposits within the upper plow zone overlying sandy clay loam and sandy clay.

Considering the extensive surface and subsurface impacts to the APE at the site, as well and the lack of intact cultural features, it is the opinion of Blanton & Associates that the part of site 41DS12 located within the proposed ROW has little research value and, as such, is not recommended as eligible for the NRHP or for formal SAL designation. However, the integrity and eligibility of the part of the site that extends east and north of the APE into private property is unknown as investigations there were not possible.

ISOLATED OCCURRENCE

The medial fragment of a chert biface (IO-1) was discovered on the ground surface north of CR 20. The biface was manufactured from a whitish-gray chert and was thin and well made (Figure 18). Only a one centimeter long edge along the margins appeared intact. The remainder of the artifact's lateral edges exhibited plow damage. Additional surface examination and subsurface testing in the area discovered no additional artifacts.

SUMMARY AND RECOMMENDATIONS

Intensive archeological survey for the proposed US 87 Reliever Route resulted in the discovery of one previously unrecorded prehistoric archeological site (41DS12) and one isolated prehistoric biface fragment (IO-1) within the APE. Additionally, investigations observed a number of houses and other standing structures along 4th Street that appear to be 50 or more years in age. The survey indicated that the APE has been disturbed by development (along existing surface roads) and decades of intensive agricultural plowing, as well as extensive field contouring and terracing for water and erosion control. Given such conditions, there is little potential that intact archeological deposits would be impacted within the APE by the planned highway construction.

Prehistoric site 41DS12 represents the remains of an open camp with a surface scatter of lithic artifacts exposed on the ground of a plowed cotton field. Because of agricultural plowing, the surface artifacts observed on site are in secondary contexts and shovel testing revealed no buried site component. The two-bevel knife on 41DS12 suggests that the site was utilized sometime during the Ceramic (ca. AD 600–700 to 1540), Protohistoric (ca. AD 1540 to 1750), or early Historic (AD 1750 +) periods. Given the significant horizontal and vertical disturbances 41DS12 has experienced, as well as the lack of evidence for a subsurface component and cultural features within the planned ROW, it is the opinion of Blanton & Associates that the part of site 41DS12 located in the APE has little research potential and is not recommended as eligible for listing on the NRHP or for formal SAL designation.

Blanton & Associates also believes that the part of site 4DS12 within the ROW would not contribute to the site's NRHP and SAL eligibility if the parts of the site outside of the APE were determined at a later time to be eligible for such designations. However, as the part of 41DS12 that continues east and north outside of the APE could not be investigated, the integrity of those remains is unknown, as is their significance. If it is determined that TxDOT requires additional ROW or workspace at 41DS12 or other locations for the proposed or future projects, then additional archeological survey is recommended in those areas prior to construction.

Due to the project area's low potential for containing intact subsurface prehistoric and historic cultural deposits that could contribute new or important data to our understanding of local and regional prehistory and history, Blanton & Associates recommends that the proposed construction be allowed to proceed as planned within the proposed new ROW, including the part of 41DS12 located within the APE, without additional archeological investigations. However, it is recommended that, as many of the standing structures along 4th Street are located within the proposed ROW and would be demolished prior to construction, they should be evaluated by a professional architectural historian prior to the planned construction.

In the event that previously unidentified cultural materials are discovered during construction, work in the immediate area would cease and the TxDOT archeological staff would be contacted to initiate accidental discovery procedures in accordance with the aforementioned PA and MOU.

REFERENCES CITED

Blair, W. F.

1950 The Biotic Provinces of Texas. *The Texas Journal of Science* 2(1):93–117.

Boyd, D. K.

1997 *Caprock Canyonlands Archeology: A Synthesis of the Late Prehistory and History of Lake Alan Henry and the Texas Panhandle Plains*. Reports of Investigations No. 110 (2 vols.), Prewitt & Associates, Inc., Austin, Texas.

Boyd, D. K., M.D. Freeman, M.D. Blum, E.R. Prewitt, and M. Quigg

1989 *Justiceburg Reservoir, Garza and Kent Counties, Texas: Phase I Cultural Resource Investigations on the Double Mountain Fork of the Brazos River*. Reports of Investigations 66. 2 Vols. Prewitt and Associates, Inc., Austin.

Boyd, D. K., J.T. Abbott, W.A. Bryan, C.M. Garvey, S.A. Tomka, and R.C. Fields

1990 *Phase II Investigations at Prehistoric and Rock Art Sites, Justiceburg Reservoir, Garza and Kent Counties, Texas*. Reports of Investigations 71. 2 Vols. Prewitt and Associates, Inc., Austin.

Boyd, D. K., S.A. Tomka, C.B. Bousman, K.M. Gardner, and M.D. Freeman

1992 *Data Recovery at Justiceburg Reservoir (Lake Alan Henry), Garza and Kent Counties, Texas: Phase III, Season 1*. Reports on Investigations No. 84. Prewitt and Associates, Inc., Austin.

Boyd, D. K., J. Peck, S.A. Tomka, and K.W. Kibler

1993 *Data Recovery at Justiceburg Reservoir (Lake Alan Henry), Garza and Kent Counties, Texas: Phase III, Season 2*. Reports of Investigations No. 88. Prewitt and Associates, Inc., Austin.

Boyd, D. K., J. Peck, S.A. Tomka, K.W. Kibler, and M.D. Freeman

1994 *Data Recovery at Lake Alan Henry (Justiceburg Reservoir), Garza and Kent Counties, Texas: Phase III, Season 3.* Reports of Investigations No. 93. Prewitt and Associates, Inc., Austin.

Council of Texas Archeologists

1987 Guidelines for Professional Performance Standards. Austin.

Dillehay, T. D.

1974 Late Quaternary Bison Population Changes on the Southern Plains. *Plains Anthropologist* 19(65):180-196.

Hester, J.J.

1972 *Blackwater Locality No. 1: A Stratified, Early Man Site in Eastern New Mexico*. Publication of the Ft. Burgwin Research Center 8. Southern Methodist University, Dallas.

Hickerson, N. P.

1994 *The Jumanos: Hunters and Traders of the South Plains*. University of Texas Press, Austin.

Holliday, V. T., and C. M. Welty

1981 Lithic Tool Resources of the Eastern Llano Estacado. *Bulletin of the Texas Archaeological Society* 52:201-214.

Hughes, J. T. and P.S Willey (editors)

1978 *Archeological at MacKenzie Reservoir*. Archeological Survey Report 24. Office of the State Archeologist, Texas Historical Commission, Austin.

Johnson, E., and V. T. Holliday

1995 Archeology and Late Quaternary Environments of the Southern High Plains. *Bulletin of the Texas Archeological Society* 66:519-540.

Jordan, T. G., J. L. Bean, and W. M. Holmes

1984 *Texas: A Geography*. Westview Press, Boulder, Colorado.

Lintz, C.

1997 The Occurrence and Prehistoric Aboriginal Utilization of Opalite in the Palo Duro Creek Vicinity of the Texas Panhandle. *Bulletin of the Oklahoma Anthropological Society* 46: 107-126.

2002 Radiocarbon Dates from the Chalk Hollow Site, A Stratified Archaic-Early Ceramic Period Locale in Randall County, Texas. *Oklahoma Archeology* Vol. 50, No. 3: 14–45.

Lowry, C., C. Burt, and V. Gibbs

2002 *Cultural Resource Survey of 16 Anticipated Section 404 Permit Locations for a Proposed Kinder Morgan Pipeline in Dawson, Borden, and Scurry Counties, Texas*. Geo-Marine, Inc. El Paso, Texas.

McMahan, C. A., R. G. Frye, and K. L. Brown.

1984. *The Vegetation Types of Texas, Including Cropland*. Texas Parks and Wildlife Department, Wildlife Division, Austin.

Mallouf, R. J.

1985 *A Synthesis of Eastern Trans-Pecos Prehistory*. Unpublished Master's Thesis, Department of Anthropology, University of Texas at Austin, Austin.

Meltzer, D. J.
1991 Altithermal Archaeology and Paleoecology at Mustang Springs on the Southern High Plains of Texas. *American Antiquity* 56:236-267.

National Park Service
1983 Archeology and Historic Preservation: Secretary of the Interior's Standard's and Guidelines. *Federal Register* 48 (190):44734-44742.

Perttula, T. K., M. R. Miller, R. A. Ricklis, D. J. Prikryl, and C. Lintz
1995 Prehistoric and Historic Aboriginal Ceramics in Texas. *Bulletin of the Texas Archeological Society* 66:175-238.

Sayles, E. B.
1935 *An Archaeological Survey of Texas*. Private printing for the Medallion, Gila Pueblo, Globe, Arizona.

Spearing, D.
1991 *Roadside Geology of Texas*. Mountain Press Publishing Compnay. Missoula, Montana.

Suhm, D. A., A. D. Krieger, and E.B. Jelks
1954 An Introductory Handbook of Texas Archeology. *Bulletin of the Texas Archeological Society* 25.

Turner, E. S., and T. R. Hester
1999 *A Field Guide to Stone Artifacts of Texas Indian*. Gulf Publishing, Field Guide Series. New York, New York.

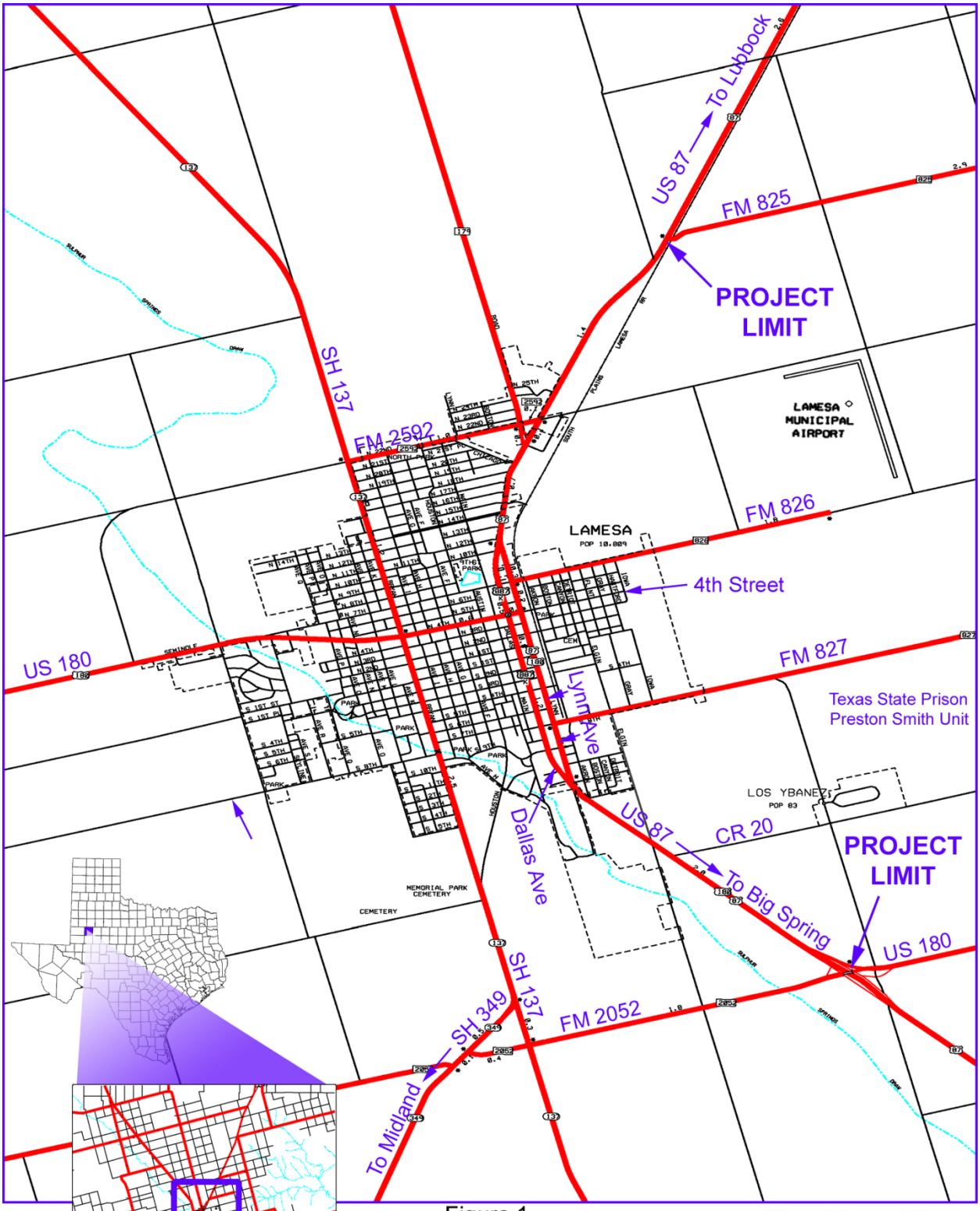

Figure 1
Project Location on
County Map Base
US 87 Reliever Route
Dawson County
CSJ: 0905-32-005

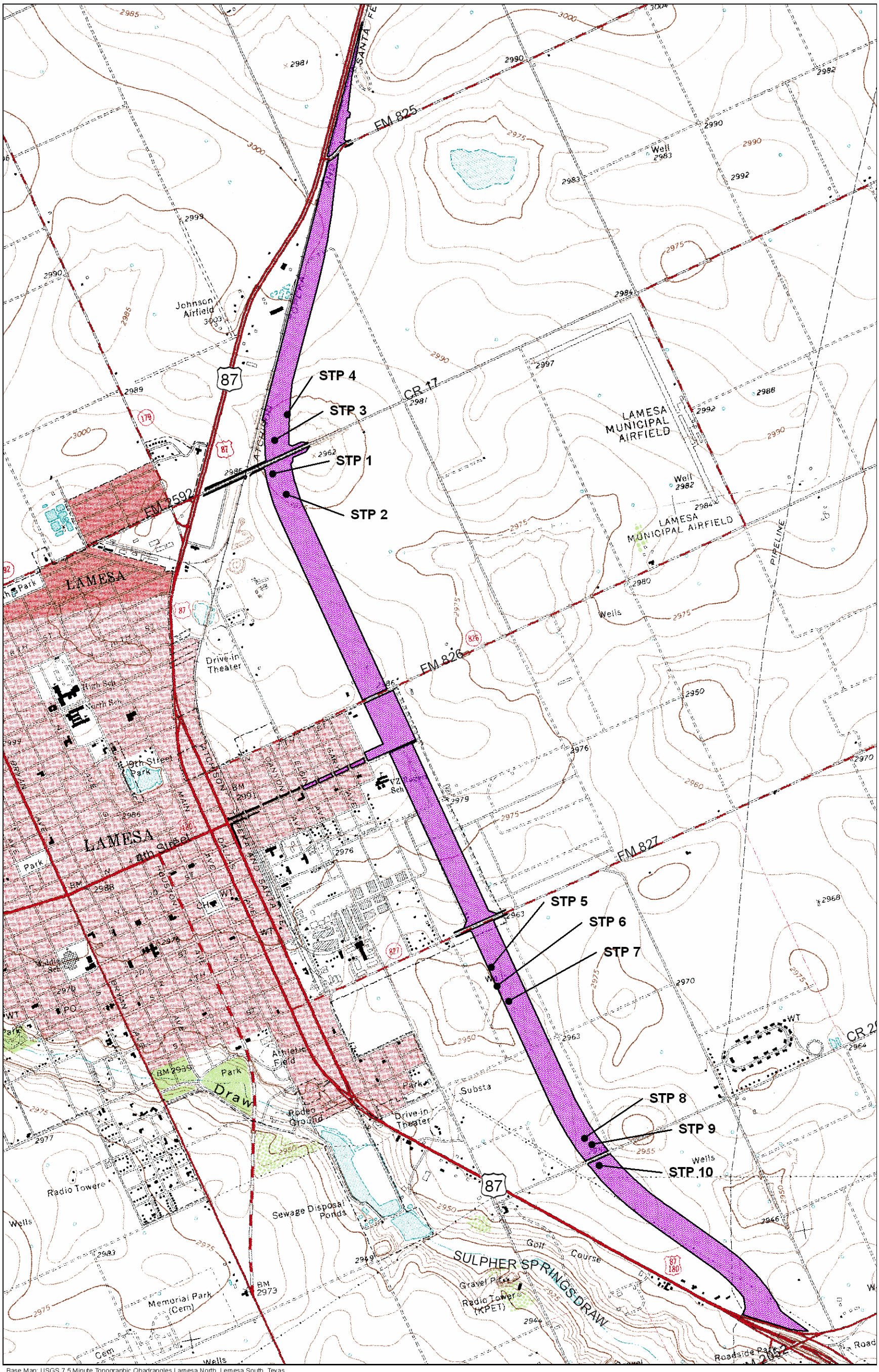

Figure 2.1. Project area map with shovel test locations on USGS 7.5-minute topographic quadrangle base

Figure 2.2. Project area map with shovel test locations on aerial base

Figure 3. Typical conditions of the majority of the proposed ROW in plowed cotton fields

Figure 4. View east along CR 17/proposed ROW for the extension of FM 2592 from US 87

Figure 5. View east across Iowa Street from its intersection with 4th Street. The proposed US 87 reliever ROW traverses the plowed fields in the background from left to right (north to south).

Figure 6. View of the rest stop/roadside park at the southern end of the APE

Figure 7. Structure in the northeast quadrant of the 4th Street and Boston Street intersection

Figure 8. Houses on 4th Street near Boston Street.

Figure 9. House and outbuilding in the southeast quadrant of the 4th Street and Canyon Street intersection

Figure 10. Houses at 4th Street and Elgin Street

Figure 11. Structure at in the southeast quadrant of the 4th Street and Elgin Street intersection

Figure 12. Structures on 4th Street between Gary Street and Hartford Avenue

Figure 13. Structure at 4th Street and Hartford Avenue. Iowa Street is visible in the background (frame left).

Figure 14. Conditions of site 41DS12 within the proposed ROW

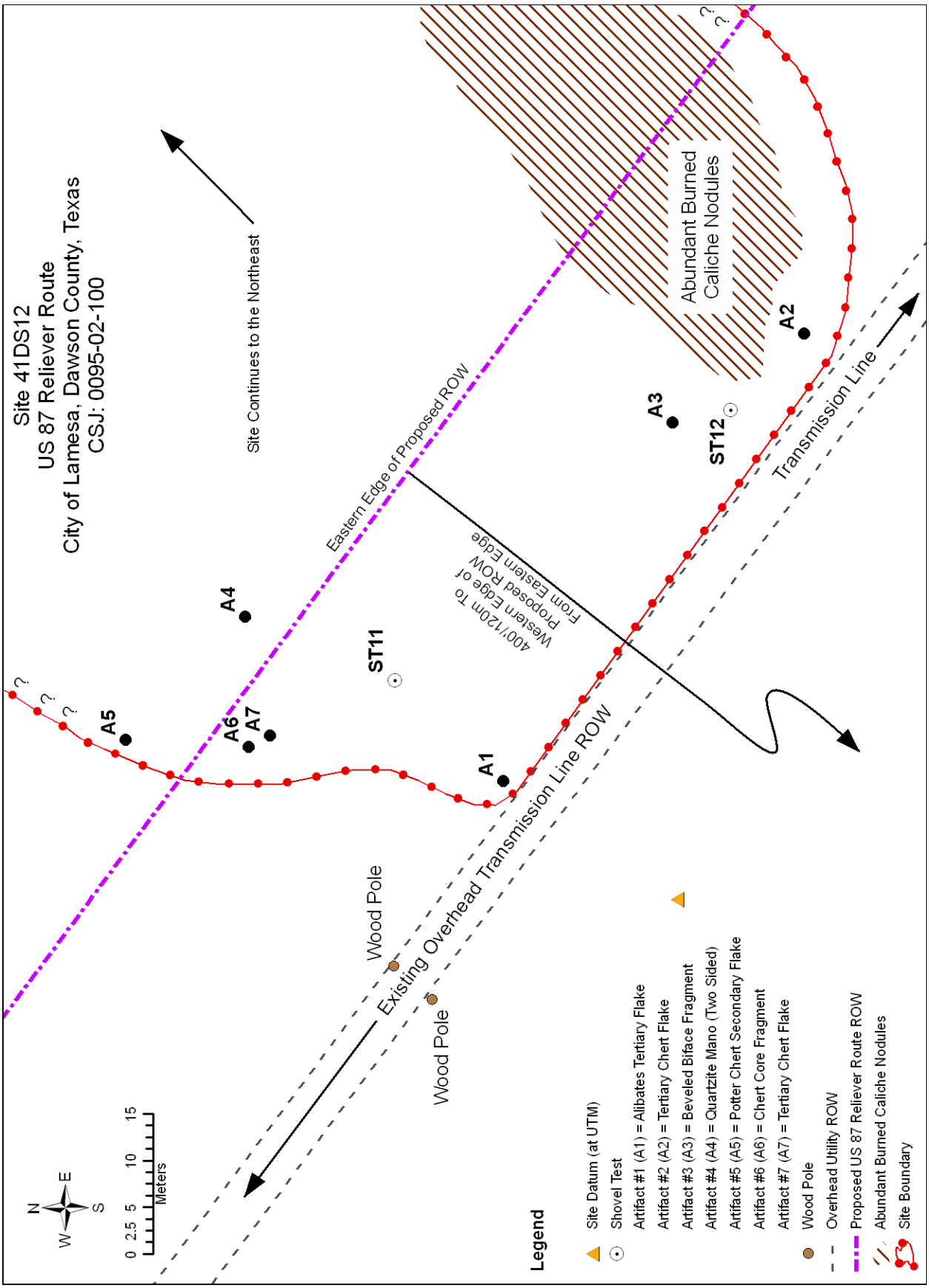

Figure 15. 41DS12 site map

Figure 16. Two-bevel knife fragment (Artifact 3) from 41DS12

Figure 17. Hammer stone/mano (Artifact 4) from 41DS12

Figure 18. Isolated Occurrence 1 (IO-1)