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Intensive Archeological Survey For The Proposed Widening Of county Road 10 (Rio Beef Road), Willacy County, Texas

Chris Dayton

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INTENSIVE ARCHEOLOGICAL SURVEY FOR THE PROPOSED WIDENING OF COUNTY ROAD 10 (RIO BEEF ROAD), WILLACY COUNTY, TEXAS

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For
Willacy County
576 West Main St.
Raymondville, TX 78580

Under
Texas Antiquities Permit 7078

Cox|McLain Environmental Consulting, Inc. Archeological Report 089
(CMEC-AR-089)

COX | McLAIN
Environmental Consulting

January 26, 2015

Management Summary

In November 2014, an intensive archeological survey was completed in order to inventory and evaluate archeological resources in a 0.08-hectare (0.2-acre) area of potential effects (APE) along County Road (CR) 10, also known as Rio Beef or County Line Road, on the west side of Willacy County, Texas. The work was carried out for Willacy County under Texas Antiquities Permit 7078 by Chris Dayton of Cox|McLain Environmental Consulting, Inc. (CMEC).

Approximately three-quarters of the APE consists of the existing CR 10 right-of-way, which has been severely disturbed by previous drainage modification as well as road construction and maintenance. A three-meter-wide (10-foot-wide) strip of proposed right-of-way along the east side of the APE was saturated at the time of the field visit. Attempted shovel tests in the proposed right-of-way immediately filled with water. No archeological materials or deposits or soils were observed.

No further archeological work is recommended within the APE. If unanticipated archeological deposits, features, or materials are uncovered during construction, work must cease and Texas Historical Commission (THC) archeological staff must be contacted immediately to initiate accidental discovery procedures.

No artifacts were collected; project records including notes, forms, and photographs will be curated at the Texas Archeological Research Laboratory (TARL) along with notes, forms, and photographic records, per TAC 26.16 and 26.17. The Texas Historical Commission (THC) concurred with the findings and recommendations of this report on January 8, 2015 (see Appendix A).

INTENSIVE ARCHEOLOGICAL SURVEY FOR THE PROPOSED WIDENING OF COUNTY ROAD 10 (RIO BEEF ROAD), WILLACY COUNTY, TEXAS

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1.0 Introduction

Overview of the Project

Willacy County proposes to widen a 46-meter (m) or 150-foot (ft) segment of County Road (CR) 10, also known as Rio Beef or County Line Road, by approximately three meters (10 ft). The project is located on the west side of the county, approximately 0.38 kilometers (km) or 0.23 miles east of the Hidalgo County line (**Figure 1**). Impacts are expected to extend less than 0.6 m or 2 ft in depth based on standard roadway construction practices. The project footprint, and therefore the archeological area of potential effects (APE), covers approximately 0.08 hectares (0.2 acres).

The improvements to the roadway will be carried out under a Transportation Infrastructure Fund Grant administered by the Texas Department of Transportation (TxDOT). At TxDOT's request, the County is coordinating this project directly with the Texas Historical Commission (THC). No federal nexus is currently known.

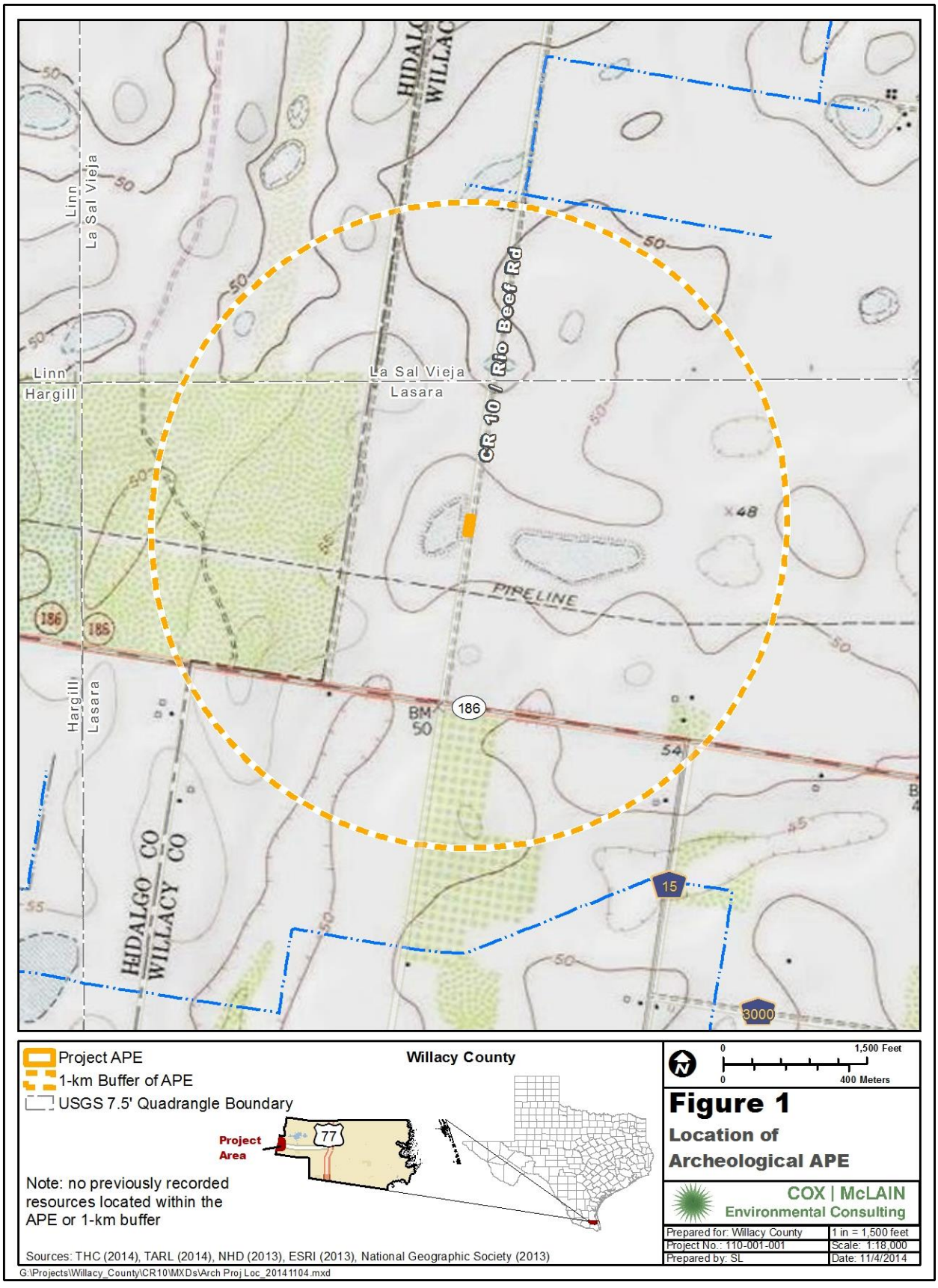
The goal of the investigation was to carry out a survey for previously unidentified resources, attempt to revisit any previously identified resources, and evaluate the eligibility of identified resources for inclusion in the National Register of Historic Places (NRHP) and for listing as State Antiquities Landmarks (SALs) (9 TRNC 191; 13 TAC 26).

Methodological and Logistical Considerations

Chris Dayton of Cox|McLain Environmental Consulting, Inc. (CMEC) performed the fieldwork for this project in November 2014. Full right-of-entry was available and the weather was cool and overcast. No major logistical constraints were encountered. Fieldwork was conducted according to guidelines established by the Council of Texas Archeologists (CTA) and approved by the THC.

Structure of the Report

Following this introduction, Chapter Two presents environmental and cultural background; Chapter Three discusses research goals, relevant methods, and the underlying regulatory considerations; and Chapter Four presents the results of the survey and summarizes the implications of the investigations. References are in Chapter Five.


Linn
La Sal Vieja
Hargill
Lasara
CR 10 / Rio Beef Rd
PIPELINE
186
BM 50
HIDALGO CO
WILLACY CO
15
3000
Project APE
1-km Buffer of APE
USGS 7.5' Quadrangle Boundary
Willacy County
Project Area
77
Note: no previously recorded resources located within the APE or 1-km buffer
Sources: THC (2014), TARL (2014), NHD (2013), ESRI (2013), National Geographic Society (2013)
G:\Projects\Willacy_County\CR10\MXDs\Arch Proj Loc_20141104.mxd
0
1,500 Feet
0
400 Meters
Figure 1
Location of Archeological APE
COX | McLAIN Environmental Consulting
Prepared for: Willacy County
1 in = 1,500 feet
Project No.: 110-001-001
Scale: 1:18,000
Prepared by: SL
Date: 11/4/2014

2.0 Environmental and Cultural Context

Topography, Geology, Soils, and Land Use

The APE is located at an approximate elevation of 15 m (50 ft) above mean sea level on the margin of a shallow depression typical of the drainage regime in Willacy County. The closest major water feature is La Sal Vieja, approximately 6.4 km (four miles) to the northeast.

Geologically, the APE is underlain by clay, sand, sandstone, and other sedimentary deposits of the Miocene-age Goliad Formation (BEG 1976; Stoeser et al. 2007). According to Natural Resources Conservation Service (NRCS) data, soil in the APE is mapped as occasionally ponded Tiocano clay on 0 to 1 percent slopes (NRCS 2014).

Land within the APE is currently devoted to transportation and drainage.

Previous Investigations and Previously Identified Resources

A search of the *Texas Archeological Sites Atlas* maintained by the Texas Historical Commission (THC) and the Texas Archeological Research Laboratory (TARL) was conducted in order to identify archeological sites, historical markers (Recorded Texas Historic Landmarks or RTHLs), properties or districts listed on the National Register of Historic Places (NRHP), State Antiquities Landmarks (SALs), cemeteries, or other cultural resources that may have been previously recorded in or near the APE, as well as previous surveys undertaken in the area. According to current Atlas data, no resources have been recorded in or near the APE and no previous surveys have been conducted in the vicinity. The closest previously recorded resources are sites 41WY149, 150, and 151, located approximately 5.8 km (3.6 miles) to the northeast. All three sites are surface and near-surface scatters of burned clay and lithics (THC 2014).

3.0 Research Goals and Methods

Purpose of the Research

The present study was carried out to accomplish three major goals:

1. To identify all historic and prehistoric archeological resources located within the APE defined in Chapter One;

2. To perform a preliminary evaluation of the identified resources' potential for inclusion in the NRHP and/or for designation as a SAL (typically performed concurrently); and

3. To make recommendations about the need for further research concerning the identified resources based on the preliminary NRHP/SAL evaluation and with guidance on methodology and ethics from the THC and CTA.

Section 106 of the National Historic Preservation Act

The project does not currently have a federal nexus and is therefore not subject to Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (16 USC 470; 36 CFR 800), under which federal agencies and entities using federal funds must "take into account the effect of their undertakings on historic properties" (36 CFR 800.1a), with "historic property" defined as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior" (36 CFR 800.16).

Despite the lack of a federal nexus for the present project, detailed discussion of Section 106 and the NRHP is still warranted; the THC's Rules of Practice and Procedure (13 TAC 26) for investigations carried out under the Antiquities Code of Texas (9 TNRC 191) make direct reference to NRHP eligibility as a component of state-level resource identifications and evaluations, which are discussed further in the next section.

In order to determine the presence of historic properties (with this phrase understood in its broad Section 106 sense) an APE is first delineated. The APE is the area in which direct impacts (and in a federal context, indirect impacts as well) to historic properties may occur. Within the APE, resources are evaluated to determine if they are eligible for inclusion in the NRHP, and to determine the presence of any properties that are already listed on the NRHP. To determine if a property is significant, cultural resource professionals and regulators evaluate the resource using these criteria:

> …The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, material, workmanship, feeling, and association and
>
> a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b. that are associated with the lives of persons significant in our past; or
>
> c. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d. that have yielded or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

Note that significance and NRHP eligibility are determined by two primary components: integrity *and* one of the four types of association and data potential listed under 36 CFR 60.4(a-d). The criterion most often applied to archeological sites is the last—and arguably the broadest—of the four; its phrasing allows regulators to consider a broad range of research questions and analytical techniques that may be brought to bear (36 CFR 60.4[d]).

Occasionally, certain resources fall into categories which require further evaluation using one or more of the following Criteria Considerations. If a resource is identified and falls into one of these categories, the Criteria Considerations listed below may be applied in conjunction with one or more of the four National Register criteria listed above.

a. A religious property deriving primary significance from architectural or artistic distinction or historical importance, or

b. A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event, or

c. A birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his or her productive life, or

d. A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events, or

e. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived, or

f. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance, or

g. A property achieving significance within the past 50 years if it is of exceptional importance (36 CFR 60.4).

Resources that are listed in the NRHP or are recommended eligible are treated the same way under Section 106, and are generally treated the same at the state level as well.

After cultural resources within the APE are identified and evaluated, effects evaluations are completed to determine if the proposed project has no effect, no adverse effect, or an adverse effect on these resources. Effects are determined by assessing the impacts that the proposed project will have on the characteristics that make the property eligible for listing in the NRHP as well as its integrity. Types of potential adverse effects considered include physical impacts, such as the destruction of all or part of a resource; property acquisitions that adversely impact the historic setting of a resource, even if built resources are not directly impacted; noise and vibration impacts evaluated according to accepted professional standards; changes to significant viewsheds; and cumulative effects that may occur later in time. If the project will have an adverse effect on cultural resources, measures can be taken to avoid, minimize, or mitigate this adverse effect. In some instances, changes to the proposed project can be made to avoid adverse effects. In other cases, adverse effects may

be unavoidable, and mitigation to compensate for these impacts will be proposed and agreed upon by consulting parties.

The Antiquities Code of Texas

Because the project currently involves at least two political subdivisions of the State of Texas, TxDOT and Willacy County, the project is subject to the Antiquities Code of Texas (9 TNRC 191), which requires consideration of effects on properties designated as—or eligible to be designated as—SALs, which are defined as:

> ...sites, objects, buildings, structures and historic shipwrecks, and locations of historical, archeological, educational, or scientific interest including, but not limited to, prehistoric American Indian or aboriginal campsites, dwellings, and habitation sites, aboriginal paintings, petroglyphs, and other marks or carvings on rock or elsewhere which pertain to early American Indian or other archeological sites of every character, treasure imbedded in the earth, sunken or abandoned ships and wrecks of the sea or any part of their contents, maps, records, documents, books, artifacts, and implements of culture in any way related to the inhabitants, prehistory, history, government, or culture in, on, or under any of the lands of the State of Texas, including the tidelands, submerged land, and the bed of the sea within the jurisdiction of the State of Texas. (13 TAC 26.2)

Guidelines for the evaluation of cultural resources as SALs and/or for listing on the NRHP, which is also explicitly referenced at the state level, are detailed in 13 TAC 26. An archeological site identified on lands owned or controlled by the State of Texas may be of sufficient significance to allow designation as a SAL if at least one of the following criteria applies:

1. the site has the potential to contribute to a better understanding of the prehistory and/or history of Texas by the addition of new and important information;
2. the site's archeological deposits and the artifacts within the site are preserved and intact, thereby supporting the research potential or preservation interests of the site;
3. the site possesses unique or rare attributes concerning Texas prehistory and/or history;
4. the study of the site offers the opportunity to test theories and methods of preservation, thereby contributing to new scientific knowledge;
5. the high likelihood that vandalism and relic collecting has occurred or could occur, and official landmark designation is needed to ensure maximum legal protection, or alternatively further investigations are needed to mitigate the effects of vandalism and relic collecting when the site cannot be protected (13 TAC 26.10).

For archeological resources, the state-level process requires securing and maintaining a valid Texas Antiquities Permit from the THC, the lead state agency for Antiquities Code compliance, throughout all stages of investigation, analysis, and reporting.

Survey Methods and Protocols

With the goals and guidelines above in mind, CMEC personnel conducted an intensive survey in November 2014, per category 6 of 13 TAC 26.15 and using the definitions in 13 TAC 26.3, searching for previously identified and unidentified archeological resources. Field methods complied with the requirements of relevant subsections of 13 TAC 26, as elaborated by the THC and CTA.

Meaningful shovel tests could not be excavated due to saturation and a high level of disturbance of the project area. The testing protocol detailed in the approved scope of Texas Antiquities Permit

7078 called for radial shovel tests to be placed at 5-m (16-ft) intervals around each shovel test positive for cultural material, but this point proved to be moot.

No artifacts were collected; project records including notes, forms, and photographs will be curated at the Texas Archeological Research Laboratory (TARL) along with notes, forms, and photographic records, per TAC 26.16 and 26.17. The Texas Historical Commission (THC) concurred with the findings and recommendations of this report on January 8, 2015 (see Appendix A).

4.0 Results and Recommendations

Field Observations

In November 2014, CMEC personnel conducted an intensive survey of the APE. The weather was cool and overcast with sporadic mist and light rain. Approximately three-quarters of the APE was found to consist of the existing CR 10 caliche roadway, which has been severely disturbed by the original construction of the road as well as continued maintenance (see **Figure 2**).

Figure 2. View north along CR 10 from south end of APE.

A three-meter-wide (10-foot-wide) strip of additional right-of-way is proposed along the east side of the APE. However, the bulk of the proposed right-of-way was flooded at the time of the field visit, as it is contained within a pond/wetland area filled with giant bulrush (see **Figure 3**).

Even though the south end of the APE was less obviously flooded, the ground surface was characterized by large hummocks indicating an unstable landscape (see **Figure 4**).

Shovel tests were attempted in parts of the proposed right-of-way that appeared less saturated, but all were unsuccessful, revealing highly odoriferous, saturated clays and immediately filling with water (see **Figure 5**).

Figure 3. View east-northeast from existing right-of-way into proposed right-of-way.

Figure 4. View northeast into proposed right-of-way; note hummocky, uneven surface with up to 0.5 m in variation.

Figure 5. View of attempted shovel test; note saturated clays and water beneath shovel.

CMEC ecological staff with extensive experience in the area interpret the wetland features on each side of CR 10 as artificial. Additional background investigation supports this contention; a 1950 aerial photograph clearly shows mechanical drainage modification associated with orchards that are no longer present (see **Figure 6**).

Figure 6. Extract from 1950 General Land Office aerial photograph with APE in yellow at center. In this view the APE appears to be shifted to the east relative to CR 10, but GIS staff report that this is most likely due to variations in georeferencing of older photosets. Note extensive drainage modification, likely to provide irrigation water to support orchards that are no longer extant. Image used via CMEC's Google Earth Pro license.

No archeological materials or deposits or soils with high archeological potential were observed at any point during the survey. Given the surficial nature of sites in the area (e.g., 41WY149, 41WY150, 41WY151), the high level of previous disturbance by previous road construction/maintenance and drainage modification, and extensive flooding in and near the APE, soils within the APE are unlikely to contain archeological materials, features, or deposits with intact contexts.

Recommendations

No evidence was found of preserved deposits with a high degree of integrity; associations with distinctive architectural and material culture styles; rare materials and assemblages; the potential to yield data important to the study of preservation techniques and the past in general; or potential attractiveness to relic hunters (13 TAC 26.8). Therefore, the proposed construction is unlikely to cause any effects to archeological resources. No further archeological study is recommended. If unanticipated archeological deposits, features, or materials are uncovered during construction, work must cease and THC archeological staff must be contacted immediately to initiate accidental discovery procedures.

No materials were collected; therefore, this project generated no archeological materials to be curated. Notes, forms, and other project data will be made permanently available to future researchers via an appropriate public facility per 13 TAC 26.16-17.

5.0 References

Bureau of Economic Geology (BEG)

1976 *Geologic Atlas of Texas*. McAllen-Brownsville Sheet. University of Texas at Austin. Available at http://www.twdb.state.tx.us/groundwater/aquifer/GAT/mcallen-brownsville.htm. Accessed October 29, 2014.

Natural Resources Conservation Service (NRCS)

2014 NRCS SSURGO and STATSGO soil data viewed through SoilWeb KMZ interface for Google Earth, available at http://casoilresource.lawr.ucdavis.edu/soilweb/. U.S. Department of Agriculture and California Soil Resource Laboratory, University of California, Davis. Accessed October 29, 2014

Stoeser, D. B., N. Shock, G. N. Green, G. M. Dumonceaux, and W. D. Heran

2007 *Geologic Map Database of Texas*. United States Geological Survey, Department of the Interior. Available online at: http://pubs.usgs.gov/ds/2005/170/. Downloaded February 9, 2010.

Texas Historical Commission (THC)

2014 *Texas Archeological Sites Atlas Data Sets*. Texas Historical Commission and the Texas Archeological Research Laboratory. Available at http://nueces.thc.state.tx.us, accessed November 5, 2014.

Appendix A –Regulatory Correspondence

COX | McLAIN
Environmental Consulting

TRANSMITTAL MEMO	To: David Camarena – THC Archeology Division CC: Veronica Escalante – GrantWorks
Cox|McLain Environmental Consulting, Inc. 6010 Balcones Drive, Suite 210 Austin, TX 78731 www.coxmclain.com (512) 338-2223	From: Chris Dayton – Cox|McLain
	Date: 01/06/15
	RE: Draft Report Submittal: *Intensive Archeological Survey for the Proposed Widening of CR 10 (Rio Beef Road), Willacy County, Texas* (Permit 7078)

Dear Mr. Camarena:

Please find enclosed one (1) unbound copy of the draft report *Intensive Archeological Survey for the Proposed Widening of CR 10 (Rio Beef Road), Willacy County, Texas*. The work was carried out for Willacy County and GrantWorks under Texas Antiquities Permit 7078.

Approximately three-quarters of the 0.08-hectare (0.2-acre) area of potential effects (APE) consists of the existing CR 10 right-of-way, which has been severely disturbed by previous drainage modification as well as road construction and maintenance. A three-meter-wide (10-foot-wide) strip of proposed right-of-way along the east side of the APE was saturated at the time of the field visit. Attempted shovel tests in the proposed right-of-way immediately filled with water. No archeological materials or deposits or soils were observed.

No further archeological work is recommended within the APE.

Please do not hesitate to call or email if you have any questions or comments.

Sincerely,

JAN 07 2015

Chris Dayton, PhD, RPA
chris@coxmclain.com
(512) 338-2223

CODE OF TEXAS REVIEW
SIGNIFICANT SITES
ROJECT MAY PROCEED
Wolfe
ve Director, THC
1/8/15
20150206