

# ARCHEOLOGICAL SURVEY REPORT

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## ARCHEOLOGICAL SURVEY OF THE MODIFIED FWCC SOUTH BYPASS CHANNEL PROJECT, CITY OF FORT WORTH, TARRANT COUNTY, TEXAS

Prepared for:  
Texas Historical Commission  
Texas Antiquities Permit #31455

On Behalf of:  
CDM-Stanley Joint Venture  
&  
U.S. Army Corps of Engineer, Fort Worth District

Prepared by:



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# **ARCHEOLOGICAL SURVEY OF THE MODIFIED FWCC SOUTH BYPASS CHANNEL PROJECT, CITY OF FORT WORTH, TARRANT COUNTY, TEXAS**

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## ABSTRACT

This report documents the substantive findings and management recommendations of an archeological survey conducted by Integrated Environmental Solutions, LLC (IES) under contract by the CDM-Stanley Joint Venture on behalf of the U.S. Army Corps of Engineers (USACE) for the Modified Fort Worth Central City (FWCC) South Bypass Channel Design Project in the City of Fort Worth, Tarrant County, Texas. The Area of Potential Effects (APE) encompasses 91 acres (ac) between the Clear Fork and the West Fork of the Trinity River to the northwest of downtown Fort Worth. As the project will occur on land owned by the Tarrant Regional Water District (TRWD), a political subdivision of the State of Texas, it is required to comply with the Antiquities Code of Texas (ACT). In addition, as the project is a federal works project administered by USACE, it is subject to the provisions of the National Historic Preservation Act (NHPA) Section 106.

The survey goal was to locate archeological resources that could be adversely affected by the proposed project, and to provide an evaluation of the eligibility potential of each identified resource for listing in the National Register of Historic Places (NRHP) or for designation as a State Antiquities Landmark (SAL). All work was conducted under Texas Antiquities Permit No. 31455 and conformed to 13 Texas Administrative Code (TAC) 26 and 36 Code of Federal Regulations (CFR) 800, which outline the regulations for implementing the ACT and NHPA Section 106, respectively. The archeological survey was conducted by Senior Archeologist Adam Birge, Junior Project Archeologist Trey Lyon, and Field Technicians Ausin Cobb and Emily Zylka on 09 to 12, 17 and 18, 22, 25, and 29 to 31 January 2024, and 01 and 04 February 2024. All project-related records and field data will be temporarily stored at the IES office in McKinney, Texas, and permanently curated at the Texas Archeological Research Laboratory (TARL) at The University of Texas.

During the survey, one archeological site (41TR289) was revisited. This site was originally identified as a small-sized, low-density Late Archaic campsite at the confluence of a minor stream and the Clear Fork Trinity River. The site was documented through the identification of a large charcoal rich stratum and a rockless, charcoal-filled pit feature. During the IES survey, five trackhoe trenches were implemented in an attempt to relocate the site, but only a thin, disturbed charcoal stratum, likely from the 2016 investigation, was encountered. The site is recommended as not eligible for listing on the NRHP.

Based on the findings of this archeological survey, IES is requesting concurrence for a “no historic properties affected” determination per 36 CFR 800.4(d)(1). It is IES’s professional recommendation that the Texas Historical Commission (THC) concur with these findings and the Modified FWCC South Bypass Channel Design Project be permitted to continue without the need for further cultural resources investigations. However, if any cultural resources, other than those documented within this report, or human remains are encountered during construction, the operators should immediately cease work in the area of the inadvertent discovery. The project cultural resources consultant should then be contacted to initiate further consultation with THC and USACE prior to resuming construction activities.

## CHAPTER 4: METHODOLOGY

Prior to fieldwork, IES staff conducted a historical and archeological records review to determine the locations of previously recorded archeological resources identified directly within the APE and within a 1-mi radius of it (*see Section 3.1*). IES staff also reviewed ecological, geologic, and soils data, as well as historical and modern topographic maps and aerial photography. The methods used during this survey meet the minimum archeological survey standards for field investigations recommended by the CTA (CTA 2020), as approved by the THC.

### **4.1 Survey Methods**

#### *4.1.1 Pedestrian Survey*

The pedestrian reconnaissance survey consisted of visual examination of the ground surface and existing subsurface exposures for evidence of archeological sites within the APE. Due to the scale and intensity of disturbances to near surface contexts throughout the APE, the multi-transect pedestrian survey was implemented only within select portions of the APE. Transects were generally configured to align with proposed trenching locations, which were generally parallel to modern and historical streets or to the banks of the Clear Fork Trinity River within the APE and did not exceed 30 m in width. During the pedestrian survey, areas with the potential for the preservation of archeological deposits were investigated through intensive survey methods. Areas identified as previously disturbed were tested to verify and assess the limits of disturbances. Other documentation methods included narrative notes and annotated maps.

#### *4.1.2 Intensive Survey*

During the intensive survey, the APE was subject to discretionary shovel testing to evaluate subsurface conditions. All shovel tests were excavated to a depth of at least 80 cmbs, to the extent of soils capable of containing archeological deposits (typically the Bw subsoil horizon in this area), or to an impasse of concrete or brick fragments. Each shovel test was at least 30 cm in diameter and manually excavated in arbitrary levels not exceeding 20 cm in thickness. Excavated soil was screened using 0.25 in. (0.64 cm) hardware cloth to facilitate the recovery of artifacts. If clay content was high and could not be efficiently screened, the excavated soil was manually troweled and inspected for cultural materials. Additionally, the physical properties of each natural soil stratum were recorded. All shovel test locations were recorded using handheld GPS units with a minimum 3-m accuracy. Investigators documented the results of each shovel test on standardized forms.

Due to the scale and intensity of disturbances to near surface contexts throughout the APE, this proposed project only used discretionary shovel testing to evaluate subsurface disturbances and the presence of intact strata. This was done prior to trenching to better determine the location of trenches. As such, the number of shovel tests will vary based on the conditions of the APE.

#### *4.1.3 Mechanical Trenching*

The entire APE has been exposed to significant near surface disturbances through demolition of structures and broadcasting of earthen fill, as well as periodic flooding. As such, extensive fill and/or alluvial deposition was anticipated throughout the APE. Based on these conditions, trenching via trackhoe was the primary method for assessing cultural materials and features. Trackhoe trenches averaged 7 m (23 ft) in length and were excavated to a maximum depth of 6.4 m (21 ft). Trench excavation ceased once the trench reached the vertical extent of the APE, pre-Holocene soil, water table, or approached the maximum depth the trackhoe can safely excavate. Each excavated trench was photographed, backfilled, and geospatially recorded using a GPS unit. When each trench was excavated to a depth of approximately 1.5 m (5 ft), an Occupational Safety and Health Administration (OSHA) competent field supervisor assessed the stability of the trench prior to entering and recording soil data. If the soil exposed were deemed stable, the trench was then widened through benching to maintain a safe workspace for examination and detailed documentation of the exposed soil profile. All benching was conducted in accordance with OSHA

excavation regulations (29 CFR 1926 Subpart P) or to the closest extent practicable. Excavation, benching, and profile examination of each trench continued to a depth of 4.3 m (14 ft) if the trench and benches were deemed safe for entry. Per OSHA standards for Type-B soils, which were anticipated, a 1:1 slope must be maintained to safely excavate a trench to 4.3 m (14 ft); as such, the trench must be approximately 14 ft wide. The remaining 2.1 m (6.9 ft) of excavation required to reach the targeted 21-ft APE depth were conducted without entering the trench to avoid the need for additional benching and to maintain a safe work zone.

To assess the presence of cultural deposits, trackhoe trench profiles and excavated fill were monitored. Per CTA standards, approximately 20 liters (L; 5 gallons [gal]) of excavated fill was screened through 0.25 in. hardware mesh from every third excavator bucket during trench excavation up to 4.3 m (14 ft) below surface and where trench profile examination could occur. The remaining excavated soil was visually inspected as it is placed on the spoil pile. For depths below 4.3 m (14 ft) or if a trench was already deemed unsafe to enter, soil screening was increased to compensate for the lack of detailed profile inspection and documentation of the remaining 2.1 m (6.9 ft) of trench excavation. As such, approximately 20 L (5 gal) of excavated fill was screened through 0.25 in. hardware mesh from every other excavator bucket.

Through coordination with USACE, it was determined that intensive archeological survey would not be required for APE portions that had been adequately surveyed. Through review of previous survey reports and other available data, it was determined that 62 ac within the overall 91 ac APE would require archeological survey. Based on CTA professional survey standards, approximately 29 trackhoe trenches should be excavated within this area (CTA 2020). The total number of trenches excavated was also contingent upon the identification and delineation of archeological sites within the APE. In addition, trenches were excavated to further delineate and document 41TR289. Although the exact placement of the trenches was determined through subsequent analysis prior to the survey, trenching frequency was weighted to the area between the Clear Fork Trinity River and the left bank levee. Additional trenches were placed between the levees in areas that are or were devoid of building foundations or other substantial infrastructure. Trenches were not be excavated within 50 ft (15 m) of the toe slopes of existing levees.

## **4.2 Resource Evaluation**

### *4.2.1 National Register of Historic Places Evaluation Criteria*

The assessment of significance of a cultural resource is based on federal guidelines and regulations. The criteria for evaluating resources for inclusion in the NRHP are codified under the authority of the NHPA of 1966, as amended (36 CFR 60.4 [a–d]), and the Advisory Council on Historic Preservation (ACHP) has set forth guidelines to use in determining site eligibility. Federal regulations indicate that “[t]he term ‘eligible for inclusion in the National Register’ includes both properties formally determined as such by the Secretary of the Interior and all other properties that meet National Register listing criteria” (36 CFR 800.2[e]). Based on ACHP guidelines, any cultural resource that is included in or eligible for inclusion in the NRHP is a historic property.

After the identification of relevant historical themes and related research questions, four criteria for eligibility are applied. 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:

- Criterion A: That are associated with events that have made a significant contribution to the broad patterns of our history; or
- Criterion B: That are association with the lives of persons significant in our past; or
- Criterion 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

Criterion D: That has yielded, or may be likely to yield, information important in prehistory or history. [36 CFR 60.4(a–d)]

The principal objective is to determine whether a resource possesses the potential to contribute to one or more of the preceding criteria. Adequate information regarding site function, context, and chronological placement from both archeological and, if appropriate, historical perspectives is essential for cultural resources investigations. As research questions vary based on geography, temporal period, and project design, determination of site context and chronological placement of cultural resources is a particularly important objective during the inventory and evaluation processes. Criteria A, B, and C typically reflect association with historic-age resources, rarely with prehistoric sites. Criterion D is generally associated with prehistoric, but also historic-age, archeological sites. The objective of the current project was to locate and define both the horizontal and vertical extents of any cultural resources, document and describe those resources, and then, when adequate data were present, evaluate each for NRHP eligibility.

#### *4.2.2 State Antiquities Landmark Evaluation Criteria*

For purposes of implementing the ACT, the THC is the statutorily created body responsible for protecting and preserving SALs under 9 TNRC 191. A SAL is an archeological site, archeological collection, ruin, building, structure, cultural landscape, site, engineering feature, monument or other object, or district that is eligible to be designated as a landmark or is already officially designated as a landmark. Some archeological sites may not possess research value sufficient to warrant long-term preservation or investigations beyond survey level documentation, and some historic buildings and structures retain minimal integrity due to damage or deterioration. Therefore, the issue of whether cultural resources are significant and warrant preservation and/or further research (such as archeological testing and data recovery level investigations) is addressed through official landmark designation, permit issuance, and rules associated with enforcement of the ACT. TNRC Sections 191.091 and 191.092 provide that archeological sites and historic buildings and structures on lands belonging to state agencies or political subdivisions of the state of Texas are landmarks or may be eligible to be designated as landmarks. Also protected under the TNRC (Section 191.094) are specially designated landmarks on private property [preceding information compiled from TAC, Title 13, Part 2, Chapter 26, Subchapter A, Section 26.2].

Under the ACT at the state level, archeological sites may be considered significant and be recognized or designated as a SAL. The THC uses one or more of the following criteria when assessing the appropriateness of official landmark designation, and/or the need for further investigations under the permit process:

- Criterion 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;
- Criterion 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;
- Criterion 3: The site possesses unique or rare attributes concerning Texas prehistory and/or history;
- Criterion 4: The study of the site offers the opportunity to test theories and methods of preservation, thereby contributing to new scientific knowledge; or
- Criterion 5: There is a 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].

Buildings, structures, cultural landscapes, and non-archeological sites, objects, and districts may be designated as landmarks provided that the following conditions are met:

Condition 1: The property fits within at least one of the following criteria:

- (a) The property is associated with events that have made a significant contribution to the broad patterns of our history, including importance to a particular cultural or ethnic group;
- (b) The property is associated with the lives of persons significant in our past;
- (c) The property embodies the distinctive characteristics of a type, period, or method of construction, represents the work of a master, possesses high artistic value, or represents a significant and distinguishable entity whose components may lack individual distinctions; or
- (d) The property has yielded, or may be likely to yield, information important in Texas culture or history;

Condition 2: The property retains integrity at the time of the nomination, as determined by the executive director of the commission; and

Condition 3: For buildings and structures only, the property must be listed in the National Register of Historic Places, either individually, or as a contributing property within a historic district as determined by the Keeper of the National Register or the executive director of the commission [13 TAC 26.19].

### **4.3 Curation**

This survey employed a non-collection, in-field analysis strategy. No artifacts were observed on the ground surface or recovered within excavations. Records, files, field notes, forms, and other project documentation will be organized and temporarily stored at the IES office in McKinney, Texas and permanently curated at the TARL at The University of Texas.

## CHAPTER 6: SUMMARY AND RECOMMENDATIONS

### 6.1 Summary

During the archeological survey for the Modified FWCC South Bypass Channel Design Project, 62 ac of the 91-ac project area was inspected through pedestrian reconnaissance and intensive archeological survey. In total, 16 shovel tests and 31 trackhoe trenches were excavated during the survey. Through this survey, 41TR289 was revisited and delineated using trackhoe trenches. A summary of the encountered archeological site and NRHP/SAL eligibility recommendations are provided within this chapter and summarized within **Table 6.1**.

**Table 6.1:** Summary of NRHP Eligibility Recommendations

<b>Resource ID</b>	<b>NRHP Eligibility Recommendations</b>
41TR287	Not Eligible
41TR289	Not Eligible

### 6.2 NRHP Recommendations

**41TR287** are the remains of demolition from an early to mid-twentieth century domestic occupation located on the surface and 30 cmbs. This site was recommended as not eligible for listing on the NRHP as the site had already been impacted by previous construction, was not unique, and could not reveal more information about the historic development of Fort Worth or Tarrant County. During the IES investigation, the surface was inspected but no diagnostic, early to mid-twentieth century material was located. As such, 41TR287 is recommended to remain not eligible for listing on the NRHP under Criteria A, B, C, or D. No further investigations are recommended.

**41TR289** is a deeply buried, small, low-density Late Archaic Period campsite located at the confluence of a minor stream and the Clear Fork Trinity River. Previous investigations excavated two adjacent trenches and found a large charcoal stratum between 75 and 265 cmbs with a rockless charcoal filled pit feature. This artifact assemblage consisted of mussel shells with some FCR. During the IES investigations, 41TR289 was revisited through the excavation of five trenches. No cultural resources were encountered during the revisit. As such, 41TR289 is recommended to remain not eligible for listing on the NRHP under Criteria A, B, C, or D. No further investigations are recommended.

### 6.3 Conclusions

IES is recommending concurrence for the project area and a “no historic properties affected” determination per 36 CFR 800.4(d)(1). It is IES’s professional recommendation that the THC concur with these findings and the Modified FWCC South Bypass Channel Design Project be permitted to continue without the need for further archeological investigations. However, if any cultural resources, other than those documented within this report, or human remains are encountered during construction, the operators should immediately cease work in the area of the inadvertent discovery. The project cultural resources consultant should then be contacted to initiate further consultation with the THC and USACE prior to resuming construction activities.