



WEST DAVIS  
CORRIDOR

# Historic Properties Assessment Methodology

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Technical Report 10  
in support of the  
Environmental Impact Statement

West Davis Corridor Project

Federal Highway Administration  
Utah Department of Transportation  
in cooperation with  
Army Corps of Engineers  
Environmental Protection Agency  
Fish and Wildlife Service



UDOT Project No. SP-0067(14)0

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## 1.0 Purpose of This Technical Report

The purpose of this technical report is to document the process proposed by the Utah Department of Transportation (UDOT) and the Federal Highway Administration (FHWA) to identify historic properties within the West Davis Corridor (WDC) study area and ultimately to assess the effect of the WDC project on those properties. This report explains the methods proposed by UDOT and FHWA to analyze historic properties for the Environmental Impact Statement (EIS).

## 2.0 Project Overview

FHWA, in cooperation with UDOT, is in the process of preparing an EIS on a proposed action to address projected transportation demand in western Davis and Weber Counties, Utah.

Alternatives to be considered include:

- Taking no action (no-build)
- Transportation system management
- Build alternatives for various modes of transportation
- Other alternatives identified during the study process

The EIS is being completed in phases, with the initial phase consisting of project scoping and identifying a range of alternatives to be carried forward for detailed analysis. Later phases of the project will include more detailed assessment of specific alternatives defined during Phase 1.

The overall study area for the first phase of the West Davis Corridor EIS encompasses about 64,000 acres on the west side of Interstate 15 (I-15) from Centerville north to Marriott-Slaterville (see Figure 1). A fatal-flaw analysis is being conducted within this area to identify potential environmental constraints that could influence the placement of project alternatives. Historic properties will be taken into consideration, as described below, as part of this analysis.

FHWA and UDOT anticipate that multiple project alternatives will be carried forward for analysis in the EIS. Due to the large size of the project area, the number of alternatives that are likely to be carried forward in the EIS, and the nature of the EIS as a planning document, it is not cost effective, practical, or necessary to conduct a 100% inventory of all project alternatives for historic properties as part of the EIS. Rather, FHWA and UDOT recommend a phased approach to identifying historic properties as allowed by 36 Code of Federal Regulations (CFR) 800.4(b)(2). This approach is described in more detail in the following sections.

### 3.0 Approach for Identifying Cultural Resources in the Study Area

FHWA and UDOT propose a four-step approach to phased identification of historic properties in the WDC study area. These four steps are (1) use of existing data for initial scoping, (2) a selective reconnaissance-level survey for historic buildings, (3) a reconnaissance-level pedestrian survey for archaeological resources, and (4) an intensive-level survey of the preferred/selected alternative(s) for archaeological resources. This same approach was used successfully for the recent Mountain View Corridor EIS in Salt Lake and Utah Counties.

#### 3.1 Step 1 – Use of Existing Data for Initial Scoping

The first step will be to use existing data gathered during a records search at the State Historic Preservation Office (SHPO) and other sources such as General Land Office maps, Sanborn fire insurance maps, historic topographic maps, and plat maps to determine the locations of known and potential historic properties in the overall study area. Existing data will be used to identify avoidance (that is, fatal flaw) areas and help determine the initial locations of project alternatives. In addition to known archaeological and linear historic sites, properties and districts listed on the National Register of Historic Places as well as known and potential areas with dense concentrations of historic buildings will be identified and mapped for scoping purposes. This information will be used to screen the preliminary alternatives.

#### 3.2 Step 2 – Windshield Survey and/or Selective Reconnaissance-Level Survey (Selective RLS) for Historic Buildings

Once the range of alternatives to be carried forward for detailed analysis in the EIS has been determined, the Consultant Team will work with UDOT and the SHPO to determine an appropriate assessment area for each preliminary alternative. Because Section 4(f) of the Department of Transportation Act typically requires consideration of avoidance alternatives when a proposed alternative would affect a historic building that is worthy of preservation in place (i.e., eligible for the NRHP under Criterion C), it is important to know the locations of such buildings early enough in the alternatives development process that alternatives can be designed around them to minimize potential 4(f) use from the very beginning. Similar considerations exist under Section 4(f) for archaeological resources that are eligible for reasons other than their data potential (i.e., eligible under Criteria A, B, or C). However, since the vast majority of archaeological sites, other than linear historic resources, are eligible for the NRHP under Criterion D (data potential), it is not as critical to understand the locations of archaeological resources at this stage of the project. Rather it is more cost- and time-efficient

to wait until the alternatives are better defined before embarking on field studies for archaeology.

The Consultant Team will conduct a windshield review of the APE for historic buildings constructed 45 or more years ago. The purpose of the windshield survey is to gather sufficient information to estimate of the number of properties present. If a large number of properties are present, the Consultant Team will work with UDOT and the SHPO to determine if a sample survey of historic buildings or selective RLS for all historic buildings shall be conducted.

Regardless of whether a sample or selective RLS is conducted, each alternative will be subjected to the same level of inspection for historic buildings. The preliminary National Register evaluations for each property will be compiled into a draft table shortly after fieldwork is completed. UDOT will review the evaluations with the SHPO and resolve any discrepancies. The consensus evaluations will then be used to refine the project alternatives to avoid or minimize impacts to historic properties. Changes in the locations or designs of the alternatives over the course of the EIS process could require supplemental surveys for historic buildings. The results of the selective RLS will be presented in a technical report that meets the standards of the Utah Division of State History's Preservation Department.

### 3.3 Step 3 – Reconnaissance-Level Survey for Archaeological Resources

Once individual project alternatives have been refined based on the results of the buildings inventory, a reconnaissance-level pedestrian survey of all open, undeveloped areas along all alternatives will be conducted. Undeveloped areas include agricultural fields and other locations not currently paved or covered with lawn grasses or other ornamental vegetation. The reconnaissance-level survey will consist of archaeologists walking parallel transects spaced between 30 and 60 meters (100 and 200 feet) apart within the direct impact areas of each alternative. The goal of the inventory will be to ensure that between 20% and 30% of the total survey corridor width is inventoried along the entire length of each alternative alignment. For example, if the survey corridor width is 305 meters (1000 feet) wide and each survey transect covers 15 meters (50 feet), then between 4 and 6 evenly spaced transects would be walked along the length of the corridor, resulting in visual inspection of between 61 and 91 meters (200 and 300 feet) of the 305-meter (1000-foot) wide corridor. Individual project alternatives are likely to encompass different amounts of undeveloped land. As such, the total acreage of each alternative inspected through the reconnaissance-level archaeological survey may differ as well; however, every effort will be made to ensure that the relative percentage of each alternative that is inspected in this manner is equal between alternatives.

All archaeological sites encountered during the reconnaissance-level survey will be documented on standardized IMACS site forms, and each site will be evaluated for its eligibility to the National Register. Previously documented sites located along the survey transects for each alternative will be revisited and updated as necessary to indicate their current condition. Minor adjustments to project alternatives over the course of the EIS may

not require supplemental fieldwork if the relative ratio of survey coverage between alternatives is maintained; however, major adjustments that result in disproportionate survey coverage between alternatives are likely to necessitate additional fieldwork. The results of the reconnaissance-level survey will be reported in a summary technical report with accompanying site forms.

Conducting a sample survey (through a reconnaissance-level inventory) of all alternatives carried forward for analysis will allow a valid comparison of alternatives for the National Environmental Policy Act (NEPA) process. It will provide enough data for such a comparison but will not unnecessarily expend time and money at this stage in the planning process. This method was used for the recent Mountain View Corridor project and was highly effective in identifying historic properties and allowing an adequate comparison of alternatives. In fact, subsequent intensive-level surveys for the selected alternatives did not reveal any substantive archaeological resources that were not identified during the reconnaissance-level survey.

### 3.4 Step 4 – Intensive-Level Survey for Archaeological Resources

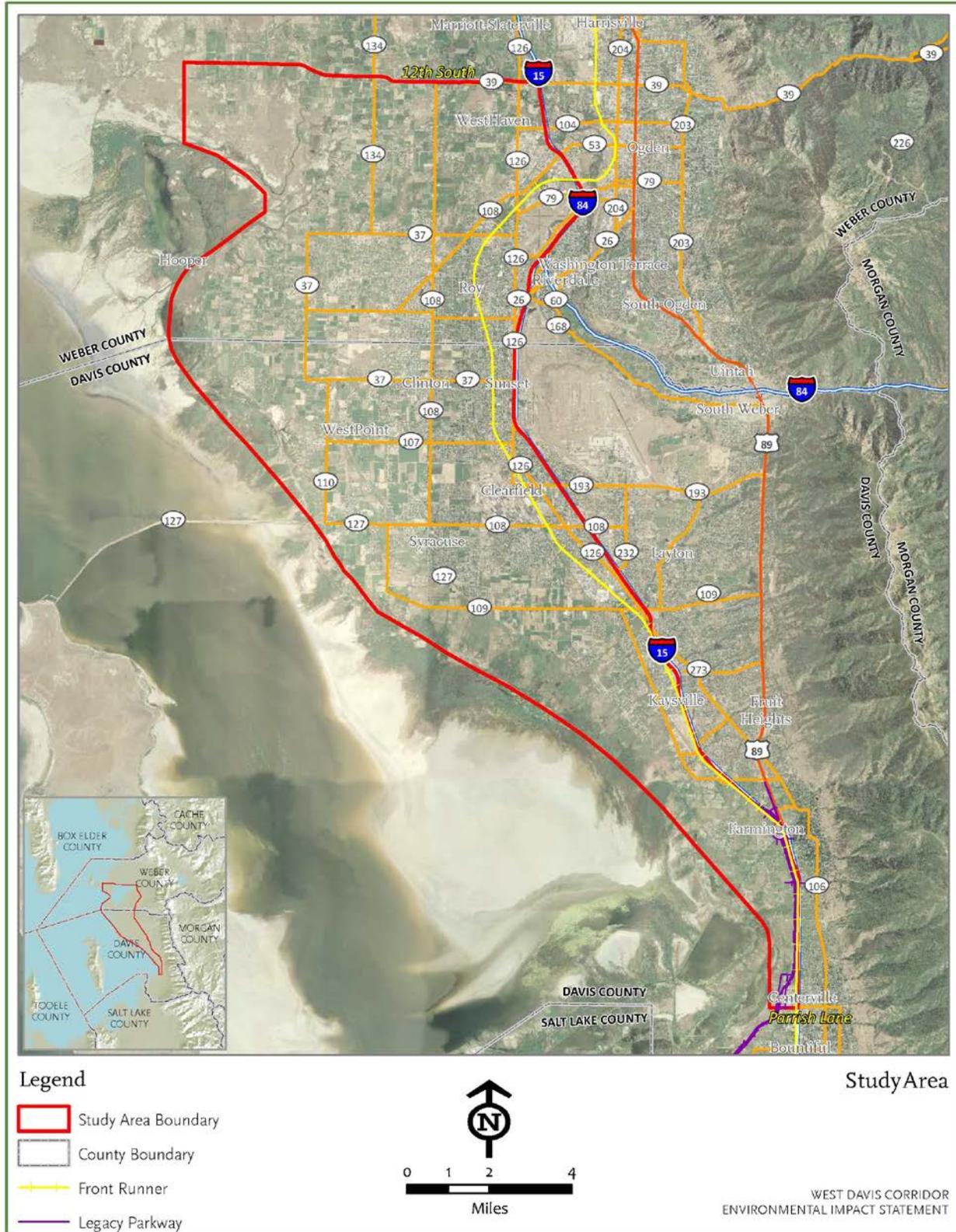
After a preferred alternative is identified or selected (assuming it is an action alternative), UDOT and FHWA will ensure that an intensive-level pedestrian survey is conducted for the preferred alternative. The intensive-level survey will include only the preferred/selected alternative and will follow standard intensive-level survey procedures, including transect spacing of no greater than 15 meters (50 feet). Any new sites identified during the intensive-level survey will be documented on the appropriate site form (that is, IMACS or ILS form). A summary technical report will be prepared to disclose the results of the inventory.

The intensive-level archaeological survey and any necessary mitigation involving data recovery or documentation of historic buildings or structures will be completed before any construction related to the project, and all consulting parties, including the SHPO, will have the opportunity to review and comment on the final area of potential effects (APE), Determinations of Eligibility, and Findings of Effect related to the survey. As necessary, UDOT and FHWA will execute a Memorandum of Agreement with the appropriate parties to resolve any identified adverse effects.

### 3.5 Conclusion

A meeting was held on March 23, 2010 between UDOT, FHWA, and the SHPO to discuss this technical memorandum (see attached). The SHPO concurred with the methodology identified in this technical memorandum.

Figure 1. Cultural Resources Phase 1 Study Area



## MEETING NOTES

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**Meeting Name:** Utah SHPO Methodology Meeting  
**Meeting Date:** Tuesday, March 23 2010  
**Meeting Time:** 1:00 PM – 2:00 PM  
**Meeting Location:** SHPO office, Salt Lake City  
**Meeting Organizer:** Reed Soper, UDOT  
**Meeting Purpose:** Discuss WDC Cultural Resources Methodologies

**Attendees (see attached sign-in sheet):**

Barbra Murphy, SHPO	Cory Jensen, SHPO
Vince Izzo, HDR	Reed Soper, UDOT
Lori Hunsaker, SHPO	James Beers, UDOT
Paul Ziman, FHWA	Sheri Ellis, SWCA

Notes taken by: Vince Izzo

The following meeting notes are based on my personal observations and notes from the meeting.

**Discussion:**

- Vince Izzo and Reed Soper provided a project overview. It was noted there is only funding to complete the EIS. No funding had been identified for construction.
- Sheri provided an overview of the proposed methodology that was provided to the SHPO on March 1, 2010. For the WDC EIS process a detailed architectural survey will be completed and a reconnaissance level archaeological survey. The data from these surveys would be use to conduct the analysis for the alternatives carried forward for detailed study. Once funding has been identified for construction a detailed archaeological survey would be conducted for the selected alternative.
- It was noted this was the same methods used for the MVC EIS.
- The SHPO agreed to the approach and had no comments on the Technical Memorandum that outlined the methods to be used.
- The SHPO noted that there was a greater potential to find archaeological resources near the lake shore and that most sites would likely be buried. The SHPO noted that monitoring would likely be required during construction. This process would be documented in a Memorandum of Agreement or Programmatic Agreement.
- The SHPO noted there may be historic farmsteads in the study area.

## **MEETING NOTES**

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### **Action Items**

- None