

## Chapter 27: Section 4(f)/6(f) Evaluation

<b>27.1</b>	<b>Introduction .....</b>	<b>27-2</b>
<b>27.2</b>	<b>Regulatory Setting .....</b>	<b>27-2</b>
27.2.1	Section 4(f) .....	27-2
27.2.2	Section 6(f) .....	27-5
<b>27.3</b>	<b>Proposed Action.....</b>	<b>27-5</b>
27.3.1	Summary of Purpose and Need .....	27-5
27.3.2	Alternatives .....	27-7
<b>27.4</b>	<b>Identification of Section 4(f) Resources.....</b>	<b>27-10</b>
27.4.1	Historic Resources.....	27-10
27.4.2	Public Parks.....	27-14
27.4.3	Public Recreation Areas .....	27-18
27.4.4	Public Wildlife or Waterfowl Refuges.....	27-25
<b>27.5</b>	<b>Avoidance Alternatives .....</b>	<b>27-28</b>
27.5.1	Introduction to Macro- and Micro-level Analyses of Avoidance Alternatives .....	27-28
27.5.2	Macro-level Analysis: Potential Overall Avoidance Alternatives .....	27-30
27.5.3	Micro-level Analysis: Potential Avoidance of Individual Section 4(f) Properties.....	27-34
<b>27.6</b>	<b>Use of and Harm to Section 4(f) Resources.....</b>	<b>27-47</b>
27.6.1	Summary of Use.....	27-47
27.6.2	Use of Historic Properties .....	27-49
27.6.3	Use of Public Parks .....	27-53
27.6.4	Use of Public Recreation Areas.....	27-60
27.6.5	Use of Wildlife or Waterfowl Refuges.....	27-65
27.6.6	Measures to Minimize Harm.....	27-69
27.6.7	Least Overall Harm .....	27-73
<b>27.7</b>	<b>Section 4(f) Coordination.....</b>	<b>27-100</b>
27.7.1	Coordination Prior to the Draft EIS .....	27-100
27.7.2	Comments on the Draft EIS and Draft Section 4(f) Evaluation.....	27-100
27.7.3	Coordination Efforts for Historic Resources .....	27-101
27.7.4	Coordination Efforts for Public Parks and Public Recreation Areas.....	27-103
27.7.5	Coordination Efforts for Wildlife and Waterfowl Refuges .....	27-103
<b>27.8</b>	<b>Final Section 4(f) Statement .....</b>	<b>27-104</b>
<b>27.9</b>	<b>References .....</b>	<b>27-105</b>

## 27.1 Introduction

This chapter addresses the requirements of Section 4(f) of the Department of Transportation Act of 1966 for the West Davis Corridor (WDC) Project. Section 4(f) applies to significant publicly owned parks, recreation areas, and wildlife and waterfowl refuges and to significant publicly or privately owned historic properties.

This chapter identifies Section 4(f) resources in the Section 4(f) impact analysis area, determines impacts to those resources, evaluates potential avoidance alternatives and measures to minimize harm where necessary, and describes the coordination efforts made to address Section 4(f) issues and concerns.

**Section 4(f) Impact Analysis Area.** The Section 4(f) impact analysis area is the area adjacent to the WDC action alternatives where resources could be affected, as generally illustrated in Figures 27-A and 27-B, Section 4(f) Series Index, in Volume IV.

### What is the Section 4(f) impact analysis area?

The Section 4(f) impact analysis area is the area adjacent to the WDC action alternatives where resources could be affected, as generally illustrated in Figures 27-A and 27-B, Section 4(f) Series Index, in Volume IV.

## 27.2 Regulatory Setting

### 27.2.1 Section 4(f)

Section 4(f) of the Department of Transportation Act of 1966 is codified at 49 United States Code (USC) 303, Policy on Lands, Wildlife and Waterfowl Refuges, and Historic Sites, and at 23 USC 138, Preservation of Parklands. It applies to significant publicly owned parks, recreation areas, and wildlife and waterfowl refuges and to significant publicly or privately owned historic properties. The requirements of Section 4(f) apply only to agencies within the U.S. Department of Transportation; for example, the Federal Highway Administration (FHWA), the Federal Transit Administration, and the Federal Aviation Administration.

Title 49 USC 303(c) states:

... the Secretary [of Transportation] may approve a transportation program or project (other than any project for a park road or parkway under Section 204 of Title 23) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of a historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if—

- (1) there is no prudent and feasible alternative to using that land; and
- (2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.



Also, 49 USC 303 and 23 USC 138 state requirements related to minimal impacts to a Section 4(f) resource:

[Section 4(f)] requirements] ... shall be considered to be satisfied ... if the Secretary [of Transportation] determines, in accordance with this subsection, that a transportation program or project will have a *de minimis* impact on the area.  
[49 USC 303(d)(1)(A)]

The Secretary of Transportation may make a finding of *de minimis* impact only if:

- (A) the Secretary has determined, after public notice and opportunity for public review and comment, that the transportation program or project will not adversely affect the activities, features, and attributes of the park, recreation area, or wildlife or waterfowl refuge eligible for protection under this section; and
- (B) the finding of the Secretary has received concurrence from the officials with jurisdiction over the park, recreation area, or wildlife or waterfowl refuge.  
[49 USC 303(d)(3)]

The statutory and regulatory language is similar for Section 4(f) historic properties, and a *de minimis* impact finding may be made only if there is a formal finding under the National Historic Preservation Act that a transportation project “will have no adverse effect” or there will be “no historic properties affected” and the State Historic Preservation Officer (SHPO) has concurred in the finding in writing [49 USC 303(d)(2); 23 Code of Federal Regulations (CFR) 774.5(b)].

#### **What is a *de minimis* impact?**

A *de minimis* impact means there is no adverse effect to the important activities, features, or attributes of the Section 4(f) property.

Together with the Federal Transit Administration, FHWA has issued regulations implementing Section 4(f). These regulations are codified at 23 CFR 774. In addition, FHWA has issued the *Section 4(f) Policy Paper* (FHWA 2012), a guidance document that addresses a series of questions related to compliance with Section 4(f).

The term *feasible and prudent avoidance alternative* [equivalent to the term *prudent and feasible alternative* in 49 USC 303(c), quoted above] is defined as follows in FHWA’s Section 4(f) regulations at 23 CFR 774.17:

- (1) A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property. In assessing the importance of protecting the Section 4(f) property, it is appropriate to consider the relative value of the resource to the preservation purpose of the statute.
- (2) An alternative is not feasible if it cannot be built as a matter of sound engineering judgment.
- (3) An alternative is not prudent if:
  - (i) It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
  - (ii) It results in unacceptable safety or operational problems;
  - (iii) After reasonable mitigation, it still causes:
    - (A) Severe social, economic, or environmental impacts;
    - (B) Severe disruption to established communities;
    - (C) Severe disproportionate impacts to minority or low-income populations; or
    - (D) Severe impacts to environmental resources protected under other federal statutes;
  - (iv) It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
  - (v) It causes other unique problems or unusual factors; or
  - (vi) It involves multiple factors in paragraphs (3)(i) through (3)(v) of this definition that, while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

In addition to actual, physical use of Section 4(f) property or resources, case law and FHWA regulations at 23 CFR 774.15 recognize that an impact to Section 4(f) resources can occur based on a project’s proximity, if the project substantially impairs the value of the Section 4(f) resource. This can also be a “use” and is called *constructive use*. It is defined in FHWA regulations as occurring

... when the transportation project does not incorporate land from a Section 4(f) resource, but the project’s proximity impacts are so severe that the protected activities, features, or attributes that qualify a property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes are substantially diminished.  
[23 CFR 774.15(a)]

This chapter evaluates Section 4(f) resources within and adjacent to the proposed right-of-way of the WDC action alternatives [see Figures 27-A and 27-B, Section 4(f) Series Index, in Volume IV], the impacts of the proposed action alternatives, the alternatives that could avoid use of Section 4(f) resources, and all possible measures to minimize harm to these resources.

## 27.2.2 Section 6(f)

Section 6(f) of the Land and Water Conservation Fund Act is codified at 16 USC 4601-4-11 and protects outdoor recreation properties funded through provisions of the act, specifying that any conversion from outdoor recreation use to other uses (such as transportation uses) must result in replacement of the converted property and be approved by the National Park Service. Although there are such lands in the WDC study area, no land subject to Section 6(f) of the act would be used by any of the WDC action alternatives or otherwise converted to new uses.

The national database of Section 6(f) properties is located here:

- [waso-lwcf.ncrc.nps.gov/public/index.cfm](http://waso-lwcf.ncrc.nps.gov/public/index.cfm)

A list of Section 6(f) resources is located here:

- [www.environment.fhwa.dot.gov/guidebook/results.asp?selSub=122](http://www.environment.fhwa.dot.gov/guidebook/results.asp?selSub=122)

A state database and map of Section 6(f) properties is located here:

- [stateparks.utah.gov/resources/grants/land-and-water-conservation-fund/](http://stateparks.utah.gov/resources/grants/land-and-water-conservation-fund/)

## 27.3 Proposed Action

### 27.3.1 Summary of Purpose and Need

The major transportation needs in the WDC study area are a result of rapidly growing population and employment projected to continue in this area. The existing road network in the study area west of Interstate 15 (I-15) consists primarily of arterial and collector streets that are not intended to accommodate a high volume of long-distance trips and freight movements. In addition, the existing roadway infrastructure west of I-15 does not support efficient use of the FrontRunner commuter-rail line or bus services.

#### **What are the WDC study area and the needs assessment study area?**

The WDC study area, also referred to as the needs assessment study area, is the area described in Section 1.2, Description of the Needs Assessment Study Area.

The summary presented here is based on the detailed purpose and need description in Section 1.4, Summary of Purpose and Need. The Utah Department of Transportation (UDOT) and FHWA have identified the following primary purposes of the project:

- **Improve Regional Mobility.** Improve regional mobility in the WDC needs assessment study area for automobile, transit, and freight trips by substantially reducing user delay on the road system compared to the No-Action conditions through the consideration of all transportation modes. (For more information about the No-Action conditions, see Section 1.7, Needs Assessment.)
- **Enhance Peak-Period Mobility.** Substantially enhance mobility in the WDC needs assessment study area during the AM and PM peak periods for the main travel direction (north-south) to help accommodate the projected travel demand in the needs assessment study area in 2040. (For a detailed discussion of peak-period travel direction, see Section 1.7.3, Travel Patterns.)

#### What are peak periods?

Peak periods are the periods of the day with the greatest amounts of traffic. The AM (morning) peak period is from 6 AM to 9 AM, and the PM (afternoon) peak period is from 3 PM to 6 PM. Peak periods are looked at by transportation officials when examining the need for a transportation improvement.

#### What is travel demand?

Travel demand is the expected number of transportation trips in an area.

The WDC Project will also evaluate the following secondary objectives:

- **Increase the Interconnection between Transportation Modes.** Improve regional mobility in the WDC needs assessment study area by improving the connections between transportation modes such as automobile, transit, bicycle, and pedestrian travel compared to the No-Action conditions.
- **Support Local Growth Objectives.** Support the objectives of the adopted local land-use and transportation plans for communities west of I-15 in Weber and Davis Counties.
- **Increase Bicycle and Pedestrian Options.** Increase bicycle and pedestrian options consistent with the adopted local and regional plans in the parts of the needs assessment study area in Weber and Davis Counties.

The need for the project is based on existing and projected transportation problems. Existing collector and arterial conditions in the communities west of I-15, coupled with projected population growth in these areas, are expected to result in the following transportation deficiencies in the needs assessment study area in 2040:

- Decreased mobility and increased traffic congestion in the AM and PM peak-period travel period (inadequate roadway capacity).
- Lack of adequate north-south transportation capacity to serve the main travel direction (north to south) in the AM and PM peak-period travel period. This will lead to increased east-west congestion.
- Increased user delay and lost productivity.
- Inadequate interconnection of transportation modes.
- Lack of continuous pedestrian/bicycle facilities.

Another way to look at the purpose of and need for this project is that the alternatives must be designed and located to attract enough traffic to (1) reduce current and projected AM and PM peak-period travel congestion on I-15 and the major arterials west of I-15 and (2) reduce current and projected AM and PM peak-period travel congestion on the east-west arterials that channel traffic onto and off of I-15. This is a key point, because the northern termini of the alternatives (discussed in Section 27.3.2 below) were determined based on how well each alternative would attract traffic.

### 27.3.2 Alternatives

The proposed alternatives for the WDC Project consist of four alternatives: Alternatives A1 and A2 and Alternatives B1 and B2. The A Alternatives are located farther west in the West Point and Syracuse areas than the B Alternatives. To attract enough traffic to address the congestion and mobility problems identified in the project's purpose and need, Alternative A2, the westernmost alternative, must terminate farther north (at 5500 South in Weber County) than Alternative A1 and the B Alternatives. Alternative A1 has a northern terminus farther east than Alternative A2. Both Alternatives B1 and B2 have an alignment farther east between Gentile Street and 1800 North. These more easterly alignments, compared to Alternative A2, are more accessible to more neighborhoods from both sides of the alignment and satisfy the purpose of and need for the project by extending north only as far as 1800 North. The northern termini of the alternatives were selected using sophisticated regional traffic-modeling software.

The WDC alternatives were re-evaluated and revised between the release of the Draft EIS and the Final EIS to incorporate the latest version of the Wasatch Front Regional Council's Regional Transportation Plan and the updated regional traffic-modeling software. The notable changes to the alternatives between the release of the Draft EIS and the Final EIS are changes to the northern termini (the Final EIS alternatives have northern termini located farther south than the Draft EIS alternatives), the elimination of the Shepard Lane southern interchange option for the Final EIS due to its having traffic operation and signing violations of *Manual*

on *Uniform Traffic Control Devices* standards and not meeting engineering design standards, and the addition of two wetland avoidance options that are included with the Final EIS alternatives. Elimination of the Shepard Lane interchange option left only the Glovers Lane interchange option as the WDC connection to I-15 and Legacy Parkway in Farmington.

The alternatives also now include a 146-foot-wide, two-lane highway typical section on their northern segments. In the Draft EIS, all of the alternatives included a 112-foot-wide, five-lane arterial typical section on their northern segments. Other minor design changes are also included with the Final EIS alternatives based on comments on the Draft EIS and input from property owners. These design changes include the addition of parkway design features, additional trail segments, lowering the profile of the WDC alternatives in some locations, and other minor design shifts to minimize property impacts. These design changes are described in detail in Section 2.3.8, Changes to Alternatives after the Release of the Draft EIS, of this Final EIS.

As described in detail in Chapter 2, Alternatives, Alternative A is the more westerly alternative and consists of two separate but overlapping alternatives: Alternatives A1 and A2. These alternatives are described in Table 27-1.

**Table 27-1. Components of Alternatives A1–A2**

Alternative	I-15 Connection	Four-Lane Highway	Two-Lane Highway	West Point/ Hooper Cities Segment	North Terminus
A1	Glovers Lane	I-15 to 2000 West	2000 West to 1800 North	4100 West	1800 North (West Point)
A2	Glovers Lane	I-15 to 2000 West	2000 West to 5500 South	5400 West	5500 South (Hooper)

As described in detail in Chapter 2, Alternatives, Alternative B is the more easterly alternative and consists of two separate but overlapping alternatives: Alternatives B1 and B2. These alternatives are described in Table 27-2.

**Table 27-2. Components of Alternatives B1–B2**

Alternative	I-15 Connection	Four-Lane Highway	Two-Lane Highway	West Point City Segment	North Terminus
B1	Glovers Lane	I-15 to Antelope Drive	Antelope Drive to 1800 North	4100 West	1800 North (West Point)
B2	Glovers Lane	I-15 to Antelope Drive	Antelope Drive to 1800 North	4800 West	1800 North (West Point)

The alternatives overlap for major portions of their alignments and are distinct in other areas. These similarities and differences are described below from south to north.

- The major similarity in the alternatives is a segment nearly 11 miles long that goes from the system-to-system interchange at I-15 and Legacy Parkway up to the Layton–Syracuse boundary near Gentile Street.
- The major difference in alignments is in Syracuse and West Point, where the two A Alternatives follow a western alignment (parallel to Gentile Street and 4500 West) and the two B Alternatives are farther east (generally paralleling Bluff Road and the Old Emigration Trail).
- There is a segment about 1,500 feet long in West Point south of 300 North where all four alternatives overlap with minor differences in their alignments. North of this area is where the two A Alternatives diverge and the two B Alternatives diverge.
- There are three northern termini: Alternatives A1 and B1 terminate at 4100 West 1800 North in Davis County, Alternative A2 terminates at 5400 West 5500 South in Hooper (Weber County), and Alternative B2 terminates at 4800 West 1800 North in Davis County.

Two wetland avoidance options are being evaluated in this Final EIS and Section 4(f) evaluation, as shown in Table 27-3. The purpose of these options is to avoid wetland impacts per guidance from the U.S. Army Corps of Engineers on wetland avoidance. These options are also used by FHWA to comply with Executive Order 11990, Protection of Wetlands, which closely follows the requirements of the Clean Water Act in that it requires federal agencies to avoid to the extent possible long- and short-term impacts to wetlands and requires agencies to implement all practicable measures to minimize harm to wetlands when there is no practicable alternative to avoiding wetland impacts. Either wetland avoidance option could be implemented with any of the A or B Alternatives.

**Table 27-3. Components of the Wetland Avoidance Options**

Option	Location	City	Description
Farmington	Prairie View Drive and West Ranches Road	Farmington	Shift the A and B Alternatives in Farmington about 150 feet east to the southwest side of the intersection of Prairie View Drive and West Ranches Road.
Layton	2200 West and 1000 South	Layton	Shift the A and B Alternatives in Layton about 500 feet east to the northeast side of the intersection of 2200 West and 1000 South.

The wetland avoidance options would have different uses of Section 4(f) resources than Alternatives A1, A2, B1, and B2. Section 27.5.3, Micro-level Analysis: Potential Avoidance of Individual Section 4(f) Properties, and Section 27.6, Use of and Harm to Section 4(f) Resources, describe the Section 4(f) uses of Alternatives A1, A2, B1, and B2 and the wetland avoidance options. Therefore, for the purpose of this Section 4(f) evaluation, there are eight alternatives evaluated: Alternatives A1, A2, B1, and B2; and Alternative A1 with the wetland

avoidance options, Alternative A2 with the wetland avoidance options, Alternative B1 with the wetland avoidance options, and Alternative B2 with the wetland avoidance options.

In this Section 4(f) evaluation, if the Section 4(f) use is applicable to the wetland avoidance options, the alternative is identified as “Alternative A1 with the wetland avoidance options.” If the text “with the wetland avoidance options” is not included, the discussion is referring to the alternative **without** the wetland avoidance options.

## 27.4 Identification of Section 4(f) Resources

This section discusses the Section 4(f) resources in the WDC study area that could be affected by the proposed alternatives. This section also includes a discussion regarding the resources that were evaluated for Section 4(f) eligibility that ultimately were determined to not be Section 4(f) resources. The text after Table 27-4 on page 27-12 discusses these resources.

This section discusses historic resources followed by public parks, recreation areas, and wildlife or waterfowl refuges. As used in this chapter, the term *historic resource* includes archaeological resources.

Section 4(f) applies only to parks, recreation areas, wildlife and waterfowl refuges, and historic resources of “national, state, or local significance,” according to the definition of *Section 4(f) property* in 23 CFR 774.17. However:

Consideration under Section 4(f) is not required when the official(s) with jurisdiction over a park, recreation area, or wildlife refuge determine that the property, considered in its entirety, is not significant. In absence of such a determination, the Section 4(f) property will be presumed to be significant. [23 CFR 774.11(c)]

None of the Section 4(f) properties discussed in this Section 4(f) evaluation have been declared by officials with jurisdiction to be not significant.

### 27.4.1 Historic Resources

Historic resources for this project include archaeological sites, houses and farmstead buildings, and historic linear features such as canals, utilities, and railroads. Section 4(f) protections apply to historic resources that are listed on or eligible for listing on the National Register of Historic Places (NRHP). A detailed description of the process used under Section 106 of the National Historic Preservation Act to determine eligibility is provided in Chapter 16, Historic, Archaeological, and Paleontological Resources.

To identify historic resources, cultural resource surveys were conducted in the WDC study area. These studies documented all of the archaeological sites and architectural buildings in the study area that are a minimum of 45 years old and identified which sites and buildings are eligible for listing on the NRHP. The Utah Division of State History criteria for architectural buildings states that properties are potentially eligible if they are 50 years old or older and retain most of their original appearance without major changes to the structures (UDSH 2017). UDOT identifies properties 45 years or older to be conservative and account for the

time needed between the completion of the environmental studies and the construction of the project. Between the release of the Draft EIS and the Final EIS, the architectural building survey was updated to identify any eligible buildings that were built during or prior to 1972.

An intensive-level cultural resources inventory (Class III) for archaeological resources was also conducted between the release of the Draft EIS and the Final EIS for Alternative B1, UDOT's locally preferred alternative from the Draft EIS. This intensive-level survey also included the Shepard Lane Option from the Draft EIS and the areas around the wetland avoidance options discussed in this Section 4(f) evaluation. This Section 4(f) evaluation includes the results from updated architectural building survey and intensive-level cultural resources inventory.

Table 27-4 below lists the NRHP-eligible historic resources in the WDC study area that could be affected by any of the alternatives. Note that all but one of the historic buildings listed were rated Eligible/Contributing (EC) under the Utah SHPO criteria, and are "good" (but not necessarily "excellent") examples of historic architecture or integrity.<sup>1</sup> The Joseph Hill Family Cabin at 2133 West 1000 South in Layton was the only historic building rated Eligible/Significant (ES). For more information about the process that was used to identify historic buildings, see Chapter 16, Historic, Archaeological, and Paleontological Resources. Historic buildings rated Eligible/Contributing (EC) or Eligible/Significant (ES) under the Utah SHPO criteria are considered Section 4(f) resources.

There are many historic residences and farms in the project area. The figures for this chapter (see Volume IV) illustrate those within about 0.25 mile of the alignments; Table 27-4 lists those affected by the alternatives or potentially affected because of immediate adjacency. Figures 27-A and 27-B, Section 4(f) Series Index, in Volume IV illustrate all Section 4(f) properties addressed in this chapter. Detailed figures are indicated in Table 27-4. For detailed descriptions and photographs of the historic houses listed in Table 27-4, see *Historic Buildings Assessment for the Proposed West Davis Corridor Project, Davis and Weber Counties* (UDOT 2012; Garnett and Keen 2017).

The Utah SHPO concurred with the effects determinations made by FHWA and UDOT in the Determination of Eligibility and Finding of Effect. Copies of both the Determination of

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<sup>1</sup> Utah SHPO ratings are for architectural properties only. Historic buildings rated Eligible/Contributing (EC) or Eligible/Significant (ES) under the Utah SHPO criteria are considered Section 4(f) resources. The Utah SHPO architectural property ratings are:

- **SHPO ES – Eligible/Significant:** built within the historic period and retains integrity; excellent example of a style or type; unaltered or only minor alterations or additions; individually eligible for the NRHP under Criterion C; also includes buildings of known *historical* significance.
- **SHPO EC – Eligible/Contributing:** built within the historic period and retains integrity; good example of a style or type, but not as well-preserved or well-executed as "ES" buildings; more substantial alterations or additions than "ES" buildings, though overall integrity is retained; eligible for the NRHP as part of a potential historic district or primarily for historical, rather than architectural, reasons (which might not be known at the time of the reconnaissance-level survey inventory).
- **SHPO NC – Ineligible/Non-contributing:** built during the historic period but has had major alterations or additions; no longer retains integrity.
- **SHPO OP – Out-of-Period:** built after the historic period.

Eligibility and Finding of Effect and the Programmatic Agreement are provided in Appendix 27A, Section 4(f) Correspondence, and Appendix 16B, Correspondence Pertaining to Historic, Archaeological, and Paleontological Resources.

This Section 4(f) evaluation examines only those properties that would be directly affected by the alternatives. Section 106 resources for which the Section 106 process found no effect are not discussed in the Section 4(f) evaluation. (For more information about the Section 106 process, see Chapter 16, Historic, Archaeological, and Paleontological Resources.)

**Table 27-4. NRHP-Eligible Historic Resources in the Section 4(f) Impact Analysis Area**

Resource Name, Address, or Site Number (County <sup>a</sup> )	Figure Number 27-__	Description of Historic Resources	Potential Use by Alternative
<b><i>Architectural Historic Properties</i></b>			
?1016 N. 2000 W., Kaysville (D)	8, 9	One-and-a-half-story Crosswing residence exhibiting Victorian Eclectic style; 1900.	All
776 S. 2200 W., Layton (D)	10	One-story Clipped Gable Cottage residence exhibiting Clipped Gable Cottage style; 1937.	All
984 S. 2200 W., Layton (D)	10	One-story Ranch/Rambler residence exhibiting Ranch/Rambler style; 1960.	Wetland avoidance options
992 S. 2200 W., Layton (D)	10	One-story Early Ranch residence exhibiting Early Ranch and Minimal Traditional styles; 1957.	All
Joseph Hill Family Cabin, 2133 W. 1000 S., Layton (D)	10	One-story Single Cell cabin exhibiting vernacular style; clad in notched logs, chinking, and board-and-batten siding; 1895. Cabin was listed on the NRHP in 2015.	Wetland avoidance options
3178 S. 3000 W., Syracuse (D)	12	One-story Early Ranch residence exhibiting Early Ranch style; 1957.	A1, A2
3807 W. 2700 S., Syracuse (D)	13	One-story Ranch/Rambler residence exhibiting Ranch/Rambler and Contemporary styles; 1966.	A1, A2
3901 W. 2700 S., Syracuse (W)	13	One-story Split Level residence exhibiting Split Level and Ranch/Rambler styles; 1963.	A1, A2
2622 W. 1700 S., Syracuse (D)	15	One-story Early Ranch residence exhibiting Minimal Traditional and Early Ranch styles; 1938.	B1, B2
2664 W. 1700 S., Syracuse (D)	15	One-story World War II–Era Cottage residence exhibiting Minimal Traditional style; ca. 1940.	B1, B2
2678 W. 1700 S., Syracuse (D)	15	One-story Clipped Gable Cottage residence exhibiting Clipped Gable Cottage style; ca. 1930.	B1, B2
1653 S. Bluff Rd., Syracuse (D)	15	Bi-level Ranch residence; 1971.	B1, B2
1595 S. Bluff Rd., Syracuse (D)	15	One-story World War II–Era Cottage residence exhibiting Minimal Traditional style; ca. 1948.	B1, B2
1573 S. Bluff Rd., Syracuse (D)	15	One-story World War II–Era Cottage residence exhibiting Minimal Traditional style; 1949.	B1, B2
1441 S. Bluff Rd., Syracuse (D)	15	One-story Ranch/Rambler residence exhibiting Ranch/Rambler style; ca. 1965.	B1, B2
1297 S. Bluff Rd., Syracuse (D)	15	One-story Clipped Gable residence exhibiting Clipped Gable Cottage style; ca. 1930.	B1, B2

(continued on next page)

**Table 27-4. NRHP-Eligible Historic Resources in the Section 4(f) Impact Analysis Area**

Resource Name, Address, or Site Number (County <sup>a</sup> )	Figure Number 27-__	Description of Historic Resources	Potential Use by Alternative
1002–1054 S. 3000 W. and 1068 S. 3000 W., Syracuse (D)	15, 17	One-story residence of indeterminate type exhibiting Victorian, Other, Classical: Other, and Minimal Traditional Styles; ca. 1897/1955. Three contributing outbuildings.  One-story Central Block with Projecting Bays residence exhibiting Victorian Eclectic style; ca. 1890/1950.	B1, B2
4469 W. 300 N., West Point (D)	18	Two eligible structures on this parcel: one-story Minimal traditional World War II–Era cottage from 1950 and one-story cottage from 1915.	A2
4428 W. 800 N., West Point (D)	18	One-story Ranch/Rambler residence exhibiting Ranch/Rambler style; 1964.	B2
1309 N. 4500 W., West Point (D)	19	One-story Early Ranch residence exhibiting Minimal Traditional and Early Ranch styles; 1950.	All
4750 W. 2425 N., Hooper (D)	19, 20	One-story World War II–Era Cottage residence exhibiting Minimal Traditional and Period Revival styles; ca. 1935.	A2
5721 S. 5500 W., Hooper (W)	19, 20	One-story Ranch/Rambler residence exhibiting Ranch/Rambler style; 1965.	A2
<b><i>Non-architectural Historic Properties</i></b>			
Farmington archaeological (42DV70) <sup>b</sup>	Not public	Prehistoric artifact scatter.	See note b
Denver & Rio Grande Western Railroad (42DV86)	3	Historic railroad corridor.	See note b
Union Pacific Railroad (42DV87)	1, 2	Historic railroad corridor.	See note b
Lake Shore Resort site (42DV89)	Not public	Historic artifact scatter with features.	See note b
Grace-Terminal Transmission Line Corridor (42DV110)	3, 4, 6, 8, 9, 10	Historic electrical transmission lines from hydroelectric plants in Idaho to Utah; ca. 1917.	See note b
Hooper Canal (42DV158/42WB425)	13, 14, 16, 18, 20	Historic irrigation/drainage canal, Weber & Davis Canal Co.	See note b

The NRHP criteria are defined in Section 16.2.1, Laws and Regulations.

ca. = circa (approximately)

<sup>a</sup> (D) = Davis County; (W) = Weber County.

<sup>b</sup> FHWA has determined that sites 42DV70, 42DV86, 42DV87, 42DV89, 42DV110, and 42DV158/42WB425 are not Section 4(f) properties. See the discussion following this table.

Section 4(f) applies to archaeological sites that are listed on or eligible for listing on the NRHP and that warrant preservation in place. An exception to the requirement for Section 4(f) evaluation in 23 CFR 774.13(b)(1) states that Section 4(f) does not apply if FHWA determines, after consultation with the SHPO and the Advisory Council on Historic Preservation (if it is participating), that "... the archeological resource is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place."

The linear resources and site 42DV89 do not have value for preservation in place, and site 42DV70 (an archaeological scatter site), which is eligible for listing on the NRHP, qualifies under Criterion D because of its ability to provide information through data recovery, and it has minimal value for preservation in place. Therefore, all of these archaeological resources would qualify for the exception in 23 CFR 774.13(b)(1), and there would be no Section 4(f) use of archaeological sites by any of the WDC alternatives.

UDOT and FHWA have notified the Utah SHPO of their findings regarding the information potential of these sites and their minimal value for preservation in place in the Determination of Eligibility and Finding of Effect with which the Utah SHPO concurred on May 10, 2017. The six archaeological resources listed above in Table 27-4 (42DV70, 42DV86, 42DV87, 42DV89, 42DV110, and 42DV158/42WB425) are not considered Section 4(f) resources and are not considered further in this Section 4(f) evaluation.

## 27.4.2 Public Parks

Section 4(f) applies to publicly owned parks that are open to the public. Existing and planned publicly owned parks that overlap with or are close to the alternatives are shown in Figures 27-A and 27-B, Section 4(f) Series Index, in Volume IV and are listed in Table 27-5 below. FHWA considered the potential for proximity effects on parks within 0.25 mile of the alternatives. Proximity effects considered included changes to access and noise levels. Parks located farther than 0.25 mile away from the alternatives were not considered for proximity effects since there would be no potential for changes to access or noise levels at these distances. The table also lists the detailed figures illustrating these parks.

**Table 27-5. Section 4(f) Parks in the Section 4(f) Impact Analysis Area**

Name	Owner/Management	Size (acres)	Attributes	Address/ Location	Figure 27-__	Use by Alternative
South Park	Farmington City	6.4	Two basketball courts, one volleyball court, playground equipment, one softball diamond, open playing field, skate bowl, pavilion/restroom, short trail, parking.	1384 S. Frontage Rd., Farmington	1	A1, A2, B1, B2 with or without wetland avoidance options
Bus Park	Board of Education of Davis School District	24	Two baseball diamonds, extensive lawns, restrooms in southwest corner, large parking lot in southeast corner. Legacy Parkway Trail access.	400 W. Glovers Ln., Farmington	2	A1, A2, B1, B2 with or without wetland avoidance options (60 ft away)
1100 West Park	Farmington City	10.7	Three soccer fields and a parking area.	1100 W. Glovers Ln., Farmington	3	A1, A2, B1, B2 with or without wetland avoidance options
Kays Creek Park	Layton City	16.5	Large, green, open, mowed area. City has begun moving in material for berms between homes and central portion of park.	~1100 W. Weaver Ln., Layton	9	Immediately adjacent
Jensen Nature Park	Syracuse City and U.S. government	30.4	Fishing pond, picnic area, walking paths with scenic bridge, lawns, parking.	3176 S. Bluff Rd., Syracuse	11	Immediately adjacent
Outwest Park	Syracuse City	6.97	None. Undeveloped. Syracuse City recreation plans identify the parcel for future park purposes.	~2600 W. 2300 S., Syracuse	15	Immediately adjacent
Fremont Park	Syracuse City Corporation	42.5	Playground, picnic area, sand volleyball court, playground, soccer field, lawns/landscaping at south end. Additional 38 acres (to north and to southeast along Old Emigration Trail) are undeveloped park land. See further discussion about Fremont Park and Syracuse Arts Academy following this table.	1950 S. 3000 W., Syracuse	15	B1, B2 with or without wetland avoidance options
Rock Creek Park	Syracuse City	10	Playground, picnic area, athletic fields. City received Land and Water Conservation Fund Act monies for purchase of this property.	700 S. 3850 W., Syracuse	16, 17	B1, B2 with or without wetland avoidance options (185 ft away)

ft = feet

The following sections provide additional information regarding several Section 4(f) properties that have unusual circumstances.

#### **27.4.2.1 1100 West Park**

The 1100 West Park was proposed, approved, and constructed in 2014, after the release of the Draft EIS, in conjunction with the development of Canyon Creek Elementary School and the Fieldstone Farmington Park subdivision. The park is owned and maintained by Farmington City, so it is considered a public park and Section 4(f) resource. The 1100 West Park is 10.7 acres and has three soccer fields and a parking area. The 1100 West Park is a new Section 4(f) resource for this Final EIS and Section 4(f) evaluation.

#### **27.4.2.2 Fremont Park**

The Syracuse General Plan shows that Fremont Park (42.5 acres) is planned to be a regional soccer complex. The land is city-owned. The portions currently developed are the following:

- The southern edge, where there is a single soccer field, a playground, parking, and a trailhead connection for the Old Emigration Trail.
- The northern edge, where a joint-use agreement allowed the Syracuse Arts Academy (a public charter school operated by a nonprofit organization using public education funds) to use city land for playing field development and for associated parking. The playing fields are reported by the school principal to be open for public use when the school is not using them, and to get such use (Whimpey 2011).

Between these two developed areas are many acres of vacant city land adjacent to a fire station. A city planner says that the plan for a regional soccer complex is in doubt. The reasons for the change in plan are partly financial and partly a result of the WDC Project. The City expects to undergo a public planning process for this area at least in part in response to the WDC alternatives. The land is as-yet-undeveloped city land that appears in the General Plan as an important park. A portion of the B Alternatives passes directly through this land.

Fremont Park is one of few parks briefly singled out for special mention in the General Plan:

One locally significant phenomenon is the exponential growth of soccer programs in the Syracuse area over the past several years. The City should continue to pursue the development of a regional soccer complex. This facility would be used by residents of the community but [would] also promote Syracuse as a regional soccer focal point. (Syracuse General Plan, p. 22)

**Parks & Trail.** ... The City has planned for the development of Fremont Park as a regional park that will be used to serve the community as a recreational park and tournament-caliber soccer complex. This park will be connected to other parks in the city through the planned trail network. The future Legacy Parkway is anticipated to include a trail as part of its design, and this future trail may replace the existing Bluff Road trail. However, the City should work to ensure that the quality of any new trail in this area meets the objectives and goals as outlined in the Trails section of this document. The City should continue to support the improvement and development of

trails and connection points into the trail system, and, in the event that any existing or new trail system is in conflict with future development, it must be reconstructed in an agreeable location and fashion. (Syracuse General Plan, p. 32)

Following correspondence with the City about this park (Anderson 2011; Eggett 2011), and after evaluating historical maps and transportation plans, FHWA has determined that the City considers the entire 44 acres to be the park. More information is included in a technical memorandum prepared for Fremont Park and the Old Emigration Trail (UDOT 2013).

However, when evaluating Fremont Park, FHWA determined that the 20.1-acre eastern portion of the park that is located in the 328-foot-wide strip immediately west of Bluff Road would meet the joint development criteria defined in 23 CFR 774.11(i). The regulation at 23 CFR 774.11(i) states:

When a property is formally reserved for a future transportation facility before or at the same time [as] a park, recreation area, or wildlife and waterfowl refuge is established and concurrent or joint planning or development of the transportation facility and the Section 4(f) resource occurs, then any resulting impacts of the transportation facility will not be considered a use as defined in § 774.17.

Furthermore, as described in Question 24 of the 2012 FHWA *Section 4(f) Policy Paper*, “Generally, the requirements of Section 4(f) do not apply to the subsequent use of the reserved area for its intended transportation purpose.”

FHWA has determined that the 20.1-acre eastern portion of Fremont Park meets the joint development conditions described in 23 CFR 774.11(i) and Question 24 of the 2012 FHWA *Section 4(f) Policy Paper* and will not be considered a Section 4(f) use by the WDC Project. Syracuse City officials were informed about this determination and have agreed with this determination. The correspondence is included in Appendix 27A, Section 4(f) Correspondence. The eastern portion of Fremont Park considered the joint development area is shown in Figure 27-15, Section 4(f) Resources (Map 15 of 20), in Volume IV.

The remaining 22.4-acre western portion of Fremont Park, shown in Figure 27-15, is still considered a Section 4(f) resource.

To summarize, for the purpose of this Section 4(f) evaluation, the 20.1-acre eastern portion of Fremont Park is considered a joint development area and is not subject to the requirements of Section 4(f), and the 22.4-acre eastern portion of Fremont Park is considered a Section 4(f) resource and is subject to the requirements of Section 4(f). The eastern portion of Fremont Park is not discussed further in this Section 4(f) evaluation.

Also see the discussion in Section 27.4.3.7, Syracuse Arts Academy Playing Fields, regarding the related Syracuse Arts Academy playing fields. For the purpose of this Section 4(f) evaluation, the school playing fields and associated parking are considered to be an extension of the park, and the impacts to the playing fields and associated parking are discussed along with the impacts to the western portion of Fremont Park.

### 27.4.3 Public Recreation Areas

Section 4(f) applies to publicly owned recreation areas that are open to the public. Existing and planned publicly owned recreation areas, including recreational trails located within or close to the alternatives are shown in Figures 27-A and 27-B, Section 4(f) Series Index, in Volume IV and are listed in Table 27-6 below. The table also lists detailed figures for these recreation areas.

There are several existing and planned trails and bicycle facilities in the impact analysis area. Some exist or are planned within existing rights-of-way for cross streets, canals, or other linear features. In most cases where the facilities are within the road right-of-way, these trails function as part of the roadway (sidewalk or shoulder); they are not primarily for recreational uses.<sup>2</sup>

Question 15C of the 2012 FHWA *Section 4(f) Policy Paper* addresses whether trails on highway rights-of-way, which are designated as recreation trails, are subject to the requirements of Section 4(f). The guidance states that “if a path or trail is simply described as occupying the right-of-way of the highway and is not limited to any specific location within the right-of-way, a use of land would not occur” as long as the alignment would not substantially impair the continuity of the trail.

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<sup>2</sup> Where a trail system currently exists apart from existing or planned roads, it is considered a recreation resource and is discussed in that section of this evaluation. An example is the Denver & Rio Grande Western Trail in Davis and Weber Counties.

**Table 27-6. Section 4(f) Recreation Areas Associated with the WDC**

Name	Owner/Management	Size	Activities, Features, and Attributes	Address/Location	Fig. 27-__	Use by Alternative
<i>Trails</i>						
Legacy Parkway Trail	Ownership: UDOT Management: Individual Cities	14 mi	14-mi paved trail. Continuation of the path along Legacy Highway in Legacy Parkway corridor.	State St. 650 W., Glovers Lane, 250 S. 650 W., Farmington	1, 2	A1, A2, B1, B2 with or without wetland avoidance options use trail (multiple crossings) at I-15.
Denver & Rio Grande Western Trail	Ownership: Utah Transit Authority Management: Individual Cities	24 mi	24-mi paved trail system on old railroad grade.	Kaysville/ Farmington/ Centerville	Not shown	A1, A2, B1, B2 with or without wetland avoidance options use trail south of Glovers Ln.
Buffalo Ranch Trail	Farmington City (public easement)	1.9 mi	1.9-mi walking paths with several trailheads, paved and gravel sections; makes loop with Great Salt Lake Shoreline Trail.	100 S. 1100 W., Farmington	5, 6	A1, A2, B1, B2 with or without wetland avoidance options.
Great Salt Lake Shoreline Trail	Farmington City (public easement)	1.9 mi	1.9-mi gravel walk/equestrian/bicycle trail bordering the shoreline; makes loop with Buffalo Ranch Trail. Another 1 mi to be added to connect to the Haight Creek Trail. Associated with ponds/wetlands/Great Salt Lake shoreline area.	100 N. 2000 W., Farmington	5, 6	A1, A2, B1, B2 with or without wetland avoidance options.
Old Emigration Trail	Ownership: U.S. Bureau of Reclamation Management: Syracuse and West Point Cities	7.6 mi	7.6-mi paved trail system on route of wagon trail immigrants. Connected to Jensen, Fremont, and Rock Creek Parks. Includes loop at southern end that informally connects trail and Jensen Park to Gentile Street.	Syracuse/ West Point	11, 12, 15, 16, 17, 18	A1 and B1 use northern tip; B1 and B2 use a long segment; all alternatives cross the southern loop twice.
Bridgeway Island Trail	Syracuse City	0.5 mi	0.5-mi paved trail located on the north side of the Bridgeway Island subdivision. The trail connects 4500 West with 4000 West.	1200 South, Syracuse	14	A1 and A2.
5500 West Trail (unnamed), Hooper	Hooper City	1.0 mi	1.0-mi paved, striped pathway along 5500 West from the Davis County–Weber County border to 5350 South, separated from road. Part of planned connection between Hooper Slough Trail and Old Emigration Trail.	5500 W. from Davis County–Weber County border to 5350 S., Hooper	19, 20	A2 is located 300 to 500 ft away.
South Frontage Road Trail	Farmington City	1.5 mi	1.5-mi trail along frontage road east of I-15. Connects Main City Park to South Park via Preserve Park and Sound Wall Park. Discontinuous trail/sidewalk surface types.	I-15 frontage road	Not shown	A1, A2, B1, B2 are near southern end.

(continued on next page)

**Table 27-6. Section 4(f) Recreation Areas Associated with the WDC**

Name	Owner/Management	Size	Activities, Features, and Attributes	Address/Location	Fig. 27-_	Use by Alternative
<i>Other Recreation Areas</i>						
Canyon Creek Elementary School playing fields	Davis School District	3.5 ac	Grass fields and baseball backstop.	~750 S. 1100 W., Farmington	3	A1, A2, B1, B2 with or without wetland avoidance options.
Sportsman's Access	Utah Division of Wildlife Resources	2.2 ac	Parking lot with information boards for hunters.	Roueché Lane, Kaysville	8	Immediately adjacent to all alternatives.
Kays Creek Elementary School playing fields	Kaysville City	5.3 ac	Grass fields, baseball backstop, parking.	2325 W. Island Dr., Kaysville	9	Immediately adjacent to all alternatives.
Syracuse Equestrian Center	Syracuse	5.4 ac	Corrals, riding area, parking.	3000 S. 2400 W., Syracuse	12	B1, B2 (400 feet away).
Syracuse Arts Academy playing fields	Syracuse City and Syracuse School Development, LLC	3 ac	Paved play area, two basketball courts, grass field, playground equipment, and parking are partly on school property and partly on city property. The facilities are open to the general public when the school is not using them.	2893 W. 1700 S., Syracuse	15	B1, B2 are near (87 ft to edge of highway; less to rerouted school driveways).

ac = acres; ft = feet; mi = miles

The following sections provide additional information regarding several Section 4(f) properties that have unusual circumstances.

### **27.4.3.1 Legacy Parkway Trail**

The Draft EIS and Section 4(f) evaluation include the Legacy Parkway Trail as a property protected under Section 4(f). However, after further evaluation and confirmation from UDOT that the Legacy Parkway Trail is located on UDOT-owned right-of-way and that the trail is not specific to any location within the Legacy Parkway right-of-way, FHWA and UDOT determined that the Legacy Parkway Trail is a recreational property that meets the Section 4(f) exception criteria in 23 CFR 774.13(f)(3).

The regulation at 23 CFR 774.13(f)(3) states that exceptions to the requirement for Section 4(f) approval include:

- (f) Certain trails, paths, bikeways, and sidewalks, in the following circumstances:
- (3) Trails, paths, bikeways, and sidewalks that occupy a transportation facility right-of-way without limitation to any specific location within that right-of-way, so long as the continuity of the trail, path, bikeway, or sidewalk is maintained.

The Legacy Parkway Trail was constructed on UDOT right-of-way as part of the Legacy Parkway Project. There is no specification regarding the specific location of the trail within the UDOT-owned right-of-way. UDOT also will provide grade-separated underpass crossings for the trail at each location where it would be crossed by the WDC interchange ramps for any of the WDC alternatives. The continuity and function of the trail would be maintained with any of the WDC alternatives.

Based on this information, FHWA determined that the Legacy Parkway Trail would meet the Section 4(f) exception criteria in 23 CFR 774.13(f)(3) and Question 15C of the FHWA *Section 4(f) Policy Paper* and will not require a Section 4(f) approval for the WDC Project.

The Legacy Parkway Trail is not discussed further in this Section 4(f) evaluation.

### **27.4.3.2 Denver & Rio Grande Western Trail**

The Draft EIS and Section 4(f) evaluation include the Denver & Rio Grande Western Trail as a property protected under Section 4(f). However, FHWA and UDOT received comments from the Utah Transit Authority (UTA) stating that the Denver & Rio Grande Western Railroad alignment is still owned by UTA, is planned to be a future transportation facility, and meets the criteria described in 23 CFR 774.11(h). UTA provided a copy of the Surface Transportation Board's Notice of Interim Trail Use (NITU) that was given to UTA from Union Pacific Railroad for the Denver & Rio Grande Western Railroad alignment in 2002. The NITU states that the interim trail use is subject to future restoration of rail service. The interim use of the Denver & Rio Grande Western Trail as a recreational trail is consistent with Railroad Revitalization and Regulatory Reform Act's provisions to preserve established railroad rights-of-way for future reactivation of rail service and the National Trail System Act's provisions for interim use of railroad rights-of-way. This type of interim use protects the corridor right-of-way from being treated as abandoned for railroad purposes. A copy of

the UTA comment letter is provided in Appendix 32B, Reproductions of Comments on the Draft EIS. A copy of the NITU is included in Appendix 27A, Section 4(f) Correspondence.

Based on this information, FHWA determined that the Denver & Rio Grande Western Trail would meet the future transportation facility criteria defined in 23 CFR 774.11(h). The regulation at 23 CFR 774.11(h) states:

When a property that is formally reserved for a future transportation facility temporarily functions for park, recreation, or wildlife and waterfowl refuge purposes in the interim, the interim activity, regardless of duration, will not subject the property to Section 4(f).

FHWA has determined that the Denver & Rio Grande Western Trail meets the future transportation facility conditions described in 23 CFR 774.11(h) and Question 27 of the FHWA *Section 4(f) Policy Paper* and therefore is not considered a Section 4(f) resource for the WDC Project.

Although the Denver & Rio Grande Western Trail is not considered a Section 4(f) resource, the WDC Project would mitigate any impacts to the Denver & Rio Grande Western Trail from the selected WDC alternative. These mitigation measures would include a grade-separated crossing of the Denver & Rio Grande Western Trail south of Glovers Lane in Farmington (for Alternative A1, A2, B1, or B2). All existing trail connectivity and function would be maintained.

To summarize, for the purpose of this Section 4(f) evaluation, the Denver & Rio Grande Western Railroad right-of-way, including the trail within the right-of-way, is considered a future transportation facility. Therefore the trail is considered to be a recreation area that is not subject to the requirements of Section 4(f). The Denver & Rio Grande Western Trail is not discussed further in this Section 4(f) evaluation.

### **27.4.3.3 South Frontage Road Trail**

The I-15 south frontage road has a variable string of path and sidewalk types along its east side [visible in Figure 27-1, Section 4(f) Resources (Map 1 of 20), in Volume IV, at South Park]. These loosely connect Main City Park and South Park via Preserve Park and Sound Wall Park. The pathways are all incorporated into the frontage road right-of-way and are not separated trails with minimal at-grade crossings in the same way that recreation-oriented trails typically are—trails such as the Legacy Parkway Trail, Denver & Rio Grande Western Trail, and North Frontage Road Trail. These function more like a sidewalk for pedestrian and bicycle transportation associated with the frontage road. Although the frontage road trail undoubtedly gets recreational traffic, the primary use is as part of the transportation facility.

For this reason, the route is not considered a Section 4(f) property and is not considered further in this Section 4(f) evaluation. Note that, where the trail passes through a park, the park itself is a Section 4(f) property.

#### 27.4.3.4 Utah Division of Wildlife Resources Sportsman’s Access

At the western end of Roueche Lane in Kaysville, the Utah Division of Wildlife Resources owns a 2.2-acre Sportsman’s Access. The access consists of a parking lot and bulletin boards that post information about hunting on the State-managed lands west of the access property. This property was not affected by the Draft EIS alternatives, but the Final EIS alternatives would have a minor use due to a change in alignment for Roueche Lane.

#### 27.4.3.5 Kays Creek Elementary Playing Fields and Canyon Creek Elementary Playing Fields

After the Draft EIS was released, the Davis County School District constructed Kays Creek Elementary School at 2660 Island Drive in Kaysville and Canyon Creek Elementary School at 755 South 1100 West in Farmington. Construction of both schools was completed in 2016. Kays Creek Elementary School has 5.3 acres of playing fields that are located adjacent to the WDC alternatives. Canyon Creek Elementary has 3.5 acres of playing fields; all of the WDC alternatives would have a minor use of the Canyon Creek School playing fields. Both of these school playing fields are considered Section 4(f) resources because they are publicly owned and are used by the general public for recreation after school hours. According to Question 14 in the 2012 FHWA *Section 4(f) Policy Paper*, publicly owned land consisting of school playing fields used in this way should be protected by Section 4(f).

#### 27.4.3.6 Old Emigration Trail

The Old Emigration Trail is located just west of Bluff Road in Syracuse and West Point in the transportation corridor identified in the 2001 *North Legacy Transportation Corridor Study* and in land-use planning documents from West Point City and Syracuse City starting in the 1980s. Planning and construction of the Old Emigration Trail started about 2002 after these planning documents were completed.

The Syracuse City General Plan includes the following information about the Old Emigration Trail (referred to as the Bluff Road trail below):

**Parks & Trail.** ... The future Legacy Parkway is anticipated to include a trail as part of its design, and this future trail may replace the existing Bluff Road trail. However, the City should work to ensure that the quality of any new trail in this area meets the objectives and goals as outlined in the Trails section of this document. The City should continue to support the improvement and development of trails and connection points into the trail system, and, in the event that any existing or new trail system is in conflict with future development, it must be reconstructed in an agreeable location and fashion. (Syracuse General Plan, p. 32)

The West Point General Plan states that a “major corridor along the bluff should be preserved for the proposed Legacy Highway.” The location identified in the West Point General Plan for Legacy Highway corridor preservation is the current location of the Old Emigration Trail. In addition, the 2001 *North Legacy Transportation Corridor Study* states that West Point had

been preserving a corridor along the bluff. This preservation occurred before planning and construction of the trail.

Based on this information, FHWA determined that the Old Emigration Trail would meet the joint development criteria defined in 23 CFR 774.11(i) (UDOT 2013). The regulation at 23 CFR 774.11(i) states:

When a property is formally reserved for a future transportation facility before or at the same time a park, recreation area, or wildlife and waterfowl refuge is established and concurrent or joint planning or development of the transportation facility and the Section 4(f) resource occurs, then any resulting impacts of the transportation facility will not be considered a use as defined in § 774.17.

Furthermore, as described in Question 24 of the 2012 FHWA *Section 4(f) Policy Paper*, “Generally, the requirements of Section 4(f) do not apply to the subsequent use of the reserved area for its intended transportation purpose.”

FHWA has determined that the Old Emigration Trail meets the joint development conditions described in 23 CFR 774.11(i) and Question 24 of the FHWA *Section 4(f) Policy Paper*, and relocation of the trail will not be considered a Section 4(f) use by the WDC Project (UDOT 2013). Syracuse City and West Point City officials were informed about this determination and have agreed with this determination. Concurrence from the Cities of Syracuse and West Point is included in Appendix 27A, Section 4(f) Correspondence.

Although the Old Emigration Trail is not considered a Section 4(f) resource, the WDC Project would mitigate any impacts to the Old Emigration Trail from the selected WDC alternative. These mitigation measures would include an extension of the Old Emigration Trail to the Legacy Parkway Trail in Farmington (for any of the WDC action alternatives), grade-separated trail crossings south of Jensen Park at 1500 West and 1000 West in Syracuse (for any of the WDC action alternatives), a relocated trail alignment between 700 South in West Point and 2100 South in Syracuse (for Alternatives B1 and B2), a new grade-separated trail crossing at 1950 South in Syracuse (for Alternatives B1 and B2), a relocated Antelope Drive grade-separated crossing (for Alternatives B1 and B2), and a grade-separated crossing at 1300 North in West Point (for Alternative B1). All existing trail connectivity and function would be maintained.

The Old Emigration Trail and proposed relocations are shown in Figures 27-11, 27-12, 27-15, 27-16, 27-17, and 27-18, Section 4(f) Resources, in Volume IV.

To summarize, for the purpose of this Section 4(f) evaluation, the Old Emigration Trail is considered a joint development area and is not subject to the requirements of Section 4(f). The Old Emigration Trail is not discussed further in this Section 4(f) evaluation.

### 27.4.3.7 Syracuse Arts Academy Playing Fields

The Syracuse Arts Academy is a public charter school that is chartered by the local school district and funded with public education funds. However, the school land is owned by a non-governmental nonprofit organization, which also operates the school. FHWA has determined that other charter school playing fields in the WDC study area are not protected by Section 4(f), principally because the playing fields are not publicly owned (also, some are not used by the general public). Syracuse City, however, allowed the Syracuse Arts Academy to build a portion of its playground and playing fields and associated parking on the northern edge of Fremont Park (see Section 27.4.2.2, Fremont Park).

The total area used as a playground and playing fields, with associated parking, is 3 acres. Approximately 1.33 acres of this is city-owned park land. Since this land is park land, FHWA already considers it to be protected by Section 4(f). As a practical matter, the playground, playing fields, and associated parking are used by the general public for recreation after school hours, and, according to Question 14 in the 2012 FHWA *Section 4(f) Policy Paper*, publicly owned land consisting of school playing fields used in this way should be protected by Section 4(f).

Because both the parking lot and the playing fields were built without regard to property boundaries and overlap both jurisdictions, because use is seamless, and because it was the apparent intent of the City and the school to create a combined park–recreation facility and access point, this Section 4(f) evaluation maps the entire 3 acres as a Section 4(f) property and discusses the impacts to the parking lot, playground, and playing fields along with the impacts to the western portion of Fremont Park.

## 27.4.4 Public Wildlife or Waterfowl Refuges

Section 4(f) applies to publicly owned wildlife and waterfowl refuges. As addressed in Question 1D of the 2012 FHWA *Section 4(f) Policy Paper*, in contrast to parks and recreation areas, refuges do not need to be open to use by the public in order to be protected by Section 4(f), because a refuge is managed primarily for conservation of wildlife. Existing and planned refuges that are close to the alternatives are listed in Table 27-7 below. This section also includes an evaluation of the conservation easements in Farmington, which were a source of comments on the Draft EIS and Section 4(f) evaluation.

Figures 27-A and 27-B, Section 4(f) Series Index, in Volume IV show the waterfowl and wildlife refuges in the context of the overall impact analysis area. Detailed figures show these areas as follows:

- Figure 27-7, Section 4(f) Resources (Map 7 of 20), in Volume IV shows the outline of the Great Salt Lake Shorelands Preserve and highlights the publicly owned portions. For more information, see Section 27.4.4.1, Great Salt Lake Shorelands Preserve.
- Figures 27-4 and 27-5, Section 4(f) Resources (Maps 4 and 5 of 20), in Volume IV show the Farmington Bay Waterfowl Management Area (WMA) in the context of the entire impact analysis area. No detailed figure is provided because no use of the WMA is expected.

**Table 27-7. Section 4(f) Waterfowl and Wildlife Refuges in the Section 4(f) Impact Analysis Area**

Name	Owner/Mgt	Size	Attributes	Address/Location	Use by Alternative?
Great Salt Lake Shorelands Preserve (Figure 27-7)	Utah Reclamation, Mitigation, and Conservation Commission (URMCC) (U.S. government)	1,750 ac	Wetland habitat and some ponds for waterfowl. Uplands/field/farmlands. Total acreage (4,400 acres) is owned in part by The Nature Conservancy (TNC; private entity) and in part by URMCC (public: 1,750 acres). Visitor boardwalk, pavilion, and bird-viewing platforms on TNC land. No formal visitor amenities on public land. Only public-land portions are subject to Section 4(f).	Visitor Center located at about 1000 S. 3200 W. in Layton. Eastern boundary of preserve is adjacent to WDC alternatives from Gentile Street to the Kaysville–Farmington boundary.	A1, A2, B1, B2 with or without wetland avoidance options
Farmington Bay WMA (Figures 27-4, 27-5)	Ownership: State government Management: Utah Division of Wildlife Resources and Utah Division of Forestry, Fire and State Lands	291 ac / 18,000 ac	Wetlands, trail, boardwalk, and wetland overlooks. Large parking and visitor center that is the primary public facility and entrance to Farmington Bay WMA. This area is part of the discontinuous 18,000-acre whole of the WMA that follows the lake shoreline from this area southward.	1700 W. Glovers Ln., Farmington	A1, A2, B1, B2 with or without wetland avoidance options (465 feet away at closest point)

ac = acres

#### 27.4.4.1 Great Salt Lake Shorelands Preserve

Further information regarding the Great Salt Lake Shorelands Preserve is provided because of its unusual circumstances. The entire preserve totals 4,400 acres and is the result of a partnership between The Nature Conservancy (TNC), a nonprofit organization that purchases land for conservation purposes, and the Utah Reclamation, Mitigation, and Conservation Commission (URMCC), a U.S. government agency established for conservation purposes. TNC owns 60% of the preserve acreage; URMCC owns 1,750 acres (40%). Typically, a public wildlife refuge might have a boundary established by legislation, and within it might be in-holdings of private land that make up a minority of the total and that, as private parcels, are not subject to Section 4(f) protection.

In this case, the situation is reversed. A non-government entity (TNC) owns the majority of the preserve and has primary management authority, but a public agency owns a substantial minority of the preserve. FHWA has determined that the public parcels are subject to Section 4(f) protection but the TNC parcels are not. Figure 27-7, Section 4(f) Resources (Map 7 of 20), in Volume IV shows the outline of the Great Salt Lake Shorelands Preserve and highlights the publicly owned portions.

#### 27.4.4.2 Conservation Easements

There are a number of conservation easements held by government entities on private land in the impact analysis area, including the Farmington Ranches, Farmington Meadows, and Hunters Creek conservation easements near the southern end of the impact analysis area and the Black Agriland conservation easement farther north, near the western end of Gentile Street. These are multipurpose conservation easements that are meant to conserve agricultural land and practices, wetlands, wildlife habitat, and, in some cases, public recreation values.

For the Draft EIS, FHWA considered these easements carefully to determine whether any part of them constitutes a recreational area or wildlife refuge and determined that they were, as a whole, not Section 4(f) properties. Regarding the Farmington properties, FHWA documented its decision in a December 16, 2013, memorandum (*Summary of FHWA Decision-Making Process for Preliminary Section 4(f) Applicability*). FHWA concluded that the Farmington City conservation easements are not Section 4(f) properties because none of these properties has been specifically designated, used, or managed as a park, a recreation area, or a wildlife/waterfowl refuge [see Appendix 27A, Section 4(f) Correspondence]. However, the Great Salt Lake Shoreline Trail and the Buffalo Ranch Trail (which together form a loop trail) are part of the Farmington Ranches conservation easement, and FHWA has determined that only the recreational trails are subject to Section 4(f) protections as a recreation area. These trails are described above in Section 27.4.3, Public Recreation Areas, and are shown in Figures 27-5 and 27-6, Section 4(f) Resources (Maps 5 and 6 of 20), in Volume IV.

Public comments on the Draft EIS and subsequent letters from Farmington City stated that the “Section 4(f) applicability determinations in the Draft EIS for the Farmington City conservation easements were flawed and contrary to law, as well as the controlling FHWA regulations and guidance on this issue” (February 21, 2014, letter from Ray Quinney & Nebeker to FHWA). On March 4, 2014, and again on June 26, 2014, Farmington City requested that a Supplemental Draft EIS be prepared because of perceived flaws in the Section 4(f) analysis, alternatives analysis, Clean Water Act Section 404(b)(1) analysis, and other portions of the Draft EIS. FHWA considered this request and carefully reviewed the previous decisions about these conservation easements and trails. FHWA believes it made the correct decisions regarding the applicability of Section 4(f) to these lands.

After the Draft EIS was released and after FHWA prepared its memorandum on December 16, 2013, Farmington City took additional actions to address the reasons why FHWA determined the conservation easements not to be Section 4(f) properties. The additional actions included:

- City ordinance passed on June 17, 2014, declaring the City’s desire and intent to designate the conservation easements collectively as the Farmington City Conservation, Recreation, Wildlife and Waterfowl Refuge and Park; providing for ongoing management; and providing notice of pending amendments to the City’s general plan, zoning ordinance, and subdivision ordinance
- Approval of the Hunters Creek conservation easement, which would be directly affected by WDC Alternatives A1, A2, B1, and B2

Between the release of the Draft EIS and the Final EIS, FHWA responded to Farmington City's request that FHWA revisit its decision regarding the Section 4(f) status of the conservation easements. FHWA's response considered Farmington City's comments about the Draft EIS Section 4(f) analysis and took into consideration the actions the City had taken after the release of the Draft EIS to make the conservation easements Section 4(f) properties. In a letter from FHWA to Mr. Jeffrey Appel dated December 3, 2014 [see Appendix 27A, Section 4(f) Correspondence], FHWA provided Farmington City with the reasons why FHWA determined that the conservation easements were not Section 4(f) resources.

For the conservation easements, FHWA determined that the Farmington City Conservation, Recreation, Wildlife and Waterfowl Refuge and Park is not a Section 4(f) resource due to discrepancies in its primary purpose, ownership, public access, and formal designation [see Appendix 27A, Section 4(f) Correspondence].

Based on the determination by FHWA that the Farmington conservation easements are not Section 4(f) resources, they are not addressed again in this Section 4(f) evaluation.

## **27.5 Avoidance Alternatives**

### **27.5.1 Introduction to Macro- and Micro-level Analyses of Avoidance Alternatives**

As quoted in Section 27.2, Regulatory Setting, FHWA may not approve an alternative that uses Section 4(f) property unless there is "no prudent and feasible alternative" that avoids use of Section 4(f) property. All of the WDC action alternatives considered "reasonable" for the purposes of the National Environmental Policy Act (NEPA) in this EIS would use Section 4(f) resources and cannot be considered Section 4(f) avoidance alternatives. These alternatives are the A and B Alternatives, with and without the wetland avoidance options.

As quoted in Section 27.2, a "feasible and prudent avoidance alternative" is defined in the FHWA regulations at 23 CFR 774.17. For a Section 4(f) avoidance analysis, FHWA's *Section 4(f) Policy Paper* states:

For larger highway projects with multiple Section 4(f) properties in the project area, it may be desirable to divide the analysis into a macro- and micro-level evaluation in order to distinguish the analysis of end-to-end project alternatives that avoid using any Section 4(f) property from the analysis of design options to avoid using a single Section 4(f) property. ... [T]here is a duty to try to avoid the individual Section 4(f) properties within each alternative.

The WDC action alternatives would affect Section 4(f) properties. Both macro-level and micro-level analyses of avoidance alternatives are presented in this chapter. The macro-level analysis is presented in Section 27.5.2, Macro-level Analysis: Potential Overall Avoidance Alternatives. The micro-level analysis is presented in Section 27.5.3, Micro-level Analysis: Potential Avoidance of Individual Section 4(f) Properties, after a discussion of uses and impacts.

In the macro-level analysis, FHWA and UDOT did not identify any alignment that would avoid *all* Section 4(f) properties while also meeting the purpose of and need for the WDC Project. However, FHWA and UDOT were able to avoid specific Section 4(f) properties in the micro-level analysis.

For analysis purposes, recall the definition of *feasible and prudent avoidance alternative* in 23 CFR 774.17:

- (2) An alternative is not feasible if it cannot be built as a matter of sound engineering judgment.
- (3) An alternative is not prudent if:
  - (i) It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
  - (ii) It results in unacceptable safety or operational problems;
  - (iii) After reasonable mitigation, it still causes:
    - (A) Severe social, economic, or environmental impacts;
    - (B) Severe disruption to established communities;
    - (C) Severe disproportionate impacts to minority or low-income populations; or
    - (D) Severe impacts to environmental resources protected under other federal statutes;
  - (iv) It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
  - (v) It causes other unique problems or unusual factors; or
  - (vi) It involves multiple factors in paragraphs (3)(i) through (3)(v) of this definition that, while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

Also, the *Section 4(f) Policy Paper* states that “a project alternative that avoids one Section 4(f) property by using another Section 4(f) property is not an avoidance alternative” (FHWA 2012, 13).

This definition above applies to both the macro-level and micro-level analyses. Most design changes are considered “feasible”; the typical question is whether a change is “prudent.”

## 27.5.2 Macro-level Analysis: Potential Overall Avoidance Alternatives

### 27.5.2.1 Section 4(f) Properties across the Region

The area between northern Salt Lake City/Farmington and West Haven/Ogden, as well as the areas farther north and south, are constrained geographically by the Great Salt Lake to the west and the mountains of the Wasatch Range to the east. Between these constraints lies a mostly flat plain that has developed rapidly over the last 100 years, so that it is now densely settled in most areas. There are about 2 million residents along the Wasatch Front along with homes, businesses, commercial-industrial areas, military installations, and road and rail infrastructure to serve them.

Development over time has included farms, irrigation canals, rail corridors, and homes, hundreds of which are now historic properties exemplifying the history of the area. Development has also included parks, trails, equestrian centers, public school playing fields, and similar amenities scattered across the area. All of the historic properties, parks, and recreational trails and facilities and some school playing fields are subject to Section 4(f) protection.

The Wasatch Range is largely included within the Uinta-Wasatch-Cache National Forest, which includes many recreation trails, campgrounds, and other public recreation amenities that are protected by Section 4(f). Finally, the margins of the Great Salt Lake have been recognized as important habitat, particularly for migratory birds, and have largely been protected in discontinuous wildlife and waterfowl refuge areas and parks, mostly protected by Section 4(f), including the following:

- WMAs managed by the Utah Division of Wildlife Resources
  - Farmington Bay WMA (18,000 acres)
  - Ogden Bay WMA (20,000 acres)
  - Howard Slough WMA (about 2,000 acres)
- Antelope Island State Park, located in the Great Salt Lake just offshore from Syracuse and connected to it by a causeway (28,000 acres managed by Utah State Parks)
- Great Salt Lake Shorelands Preserve [4,400 acres covering about 11 miles of shoreline, owned and managed in part by TNC and in part by URMCC, a federal public agency, whose lands are protected by Section 4(f)]

This profusion of lands protected by Section 4(f) makes it literally impossible to locate a major transportation corridor where it would avoid all Section 4(f) properties while meeting design and safety criteria and meeting the purpose of and need for the WDC Project. Even a very winding alignment with tight curves that avoided many parks would have to cross linear recreational trails. The Section 4(f) resources located close to the WDC alignments are shown in Figures 27-A and 27-B, Section 4(f) Series Index, and Figures 27-1 to 27-20, Section 4(f) Resources, in Volume IV. The locations of historic buildings are shown in Figures 16-1 and 16-2, Historic Buildings and Survey Areas, in Volume IV. Note that there are many more

Section 4(f) properties, especially historic buildings and public parks, located throughout the WDC study area. Due to the substantial time that would be required to identify all of these in the WDC study area, these are not shown on the figures referenced above.

Besides the Section 4(f) properties, the steep mountain and canyon topography of the Wasatch Range and the vast and sensitive waters of the Great Salt Lake present serious engineering impediments to any construction that attempted to skirt the Wasatch Front in its entirety.

For these reasons, no new transportation alternative is possible that would totally avoid Section 4(f) properties.

### **27.5.2.2 Potential Avoidance Alternatives**

Alternatives with the potential to entirely avoid Section 4(f) properties would be (1) a large-scale transit project principally using the existing FrontRunner rail corridor, (2) expansion of the U.S. Highway 89 (US 89) corridor east of I-15, (3) other north-south corridors, (4) an alternative that principally used the shoreline area of the Great Salt Lake, (5) expansion of east-west corridors, and (6) the No-Action Alternative. These potential avoidance alternatives are discussed in the following sections.

### **27.5.2.3 Transit**

FHWA examined a transit-only alternative for this project and did not find it to substantially reduce automobile traffic congestion, even with the addition of a second new rail line. See Chapter 2, Alternatives, for additional discussion. The existing FrontRunner rail corridor parallels the existing I-15 freeway, and studies conducted for this project found that east-west access to I-15 causes most of the transportation problem. Improving the FrontRunner rail corridor would not alleviate congestion on the east-west arterials. Extending multiple rail lines east-west or expanding existing east-west arterials, or establishing a new north-south rail line, would involve the same issues facing the WDC alternatives—the density of Section 4(f) properties would make it impossible to avoid them. Therefore, this is not a feasible or prudent avoidance alternative.

### **27.5.2.4 Shared Solution: Transit and Land-Use Changes**

Between the release of the Draft EIS and the Final EIS, FHWA and UDOT evaluated the Shared Solution Alternative, an alternative that proposed transit improvements along with land-use changes and improvements to existing highways instead of a new highway. The Shared Solution Alternative did not meet the purpose of and need for the project and was screened out during the updated (2016) Level 1 screening process (see Section 2.2.4.1, Level 1 Screening). Because it would not satisfy the WDC Project's purpose and need, it would not be a "prudent" alternative [paragraph (3)(i) of 23 CFR 774.17 quoted in Section 27.5.1, Introduction to Macro- and Micro-level Analyses of Avoidance Alternatives]. Therefore, this is not a feasible or prudent avoidance alternative.

### **27.5.2.5 US 89 Corridor**

An expanded highway on the approximate US 89 alignment east of I-15 might appear to help north-south movement, but in reality it would not serve the substantial development that has occurred and that is forecasted to continue in the areas west of I-15. East-west traffic in these areas would grow worse, and the nearest north-south corridor would be the existing I-15 freeway. For these reasons, the US 89 alignment would not meet the identified purpose of and need for this project. Such an alternative would be the subject of an entirely different purpose and need statement. Because it would not satisfy the WDC Project's purpose and need statement, it would not be a "prudent" alternative [paragraph (3)(i) in Section 27.5.1, Introduction to Macro- and Micro-level Analyses of Avoidance Alternatives]. Because it would not serve the western area, it would have unacceptable operating issues [paragraph (3)(ii) in Section 27.5.1, Introduction to Macro- and Micro-level Analyses of Avoidance Alternatives].

Although the US 89 corridor has not been examined in detail for historic properties, it is lined with existing homes, and it is likely that among them are historic homes that are eligible for listing on the NRHP. Several parks also abut the existing highway right-of-way. Any right-of-way widening that affected a historic property or park would disqualify the alternative as a Section 4(f) avoidance alternative. Therefore, this is not a feasible or prudent avoidance alternative.

### **27.5.2.6 Other North-South Corridors**

The process used to evaluate alternatives (see Chapter 2, Alternatives) included traffic modeling for multiple highway alignments that extended north to varying degrees and that shifted from east to west to varying degrees. The process identified a relatively narrow "window" of locations that would achieve the project's purpose. Alignments too far east (east of approximately the Grace-Terminal electricity transmission corridor in the Clinton–Syracuse area) would still generate a great deal of traffic on the east-west corridors and would not substantially relieve congestion, as intended.

The transmission line corridor and the Denver & Rio Grande Western Railroad alignment are existing linear corridors that appear to be potential routes for a new highway. The Denver & Rio Grande Western Railroad corridor is preserved for future transit use, so it is not available for use as a new highway.

A highway on the transmission line corridor would achieve the project's purpose but was eliminated because the density of development would mean orders of magnitude more impacts to homes and businesses than the A and B Alternatives (many of these likely to be historic properties), and the corridor passes through several parks and would cross the same Section 4(f) properties at the southern end that the A and B Alternatives cross.

The corridor was not considered reasonable and would not avoid Section 4(f) properties.

Alignments too far west, particularly in the Hooper area, would not attract enough traffic (that is, commuters would tend to go to I-15 instead), would not relieve east-west congestion, and would not satisfy the project's purpose. Again, Section 4(f) properties likely could not be

avoided at the northern end, and the same Section 4(f) properties that would be crossed with the A and B Alternatives would be crossed with a far-west alignment. Therefore, this is not a feasible or prudent avoidance alternative.

### **27.5.2.7 Great Salt Lake Corridor**

A theoretical alignment would head west from I-15 from the proposed Glovers Lane interchange area [east of the Farmington Bay WMA, a Section 4(f) property] and would curve northward on the shoreline wetlands or in the Great Salt Lake itself. It would bypass all Section 4(f) properties and all development in the central area by passing through the portions of the Great Salt Lake Shorelands Preserve that are owned by TNC and are not protected by Section 4(f). It would need to come back on dry land at the very north end of the WDC study area, tying in as an east-west arterial at the western end of 4000 South; if it were to follow the A Alternatives or similar parallel corridors, it would affect many Section 4(f) properties.

Such an alignment would have the following problems: (1) it would not meet the purpose of and need for the project [paragraph (3)(i) in Section 27.5.1, Introduction to Macro- and Micro-level Analyses of Avoidance Alternatives] because it would be so far west and so disconnected from settled areas along its length that most traffic would tend to go east to I-15, and (2) it would likely not be permissible under the Clean Water Act, because Farmington Bay itself and the shoreline wetlands, while not explicitly protected by Section 4(f), would likely be considered jurisdictional wetlands or waters of the U.S. under the Clean Water Act. Farmington Bay and the shoreline wetlands are considered highly sensitive for migratory birds [paragraphs (3)(iii)(D) and (3)(v) in Section 27.5.1, Introduction to Macro- and Micro-level Analyses of Avoidance Alternatives], are generally considered a valued viewshed, and are the subject of the Great Salt Lake Shorelands Preserve partnership between TNC and URMCC. The impacts to wetlands and waters of the U.S. within a Great Salt Lake corridor would be extensive. Therefore, this is not a feasible or prudent avoidance alternative.

### **27.5.2.8 East-West Corridors**

FHWA examined the option of simply widening several east-west corridors, but this would cause more impacts to homes, businesses, and community cohesion than the north-south alternatives and at much higher costs. Again, it is highly likely that many of the approximately 300 homes demolished would be historic properties subject to Section 4(f) protection (some are known to be), and the alternative likely would affect parks and trails. Finally, even if it were possible to efficiently move traffic in the east-west direction to and from I-15, I-15 itself would remain congested into the future. Therefore, this is not a feasible or prudent avoidance alternative.

### 27.5.2.9 No-Action Alternative

The No-Action Alternative would not satisfy the purpose of and need for this project. As described in paragraph (3)(i) in Section 27.5.1, Introduction to Macro- and Micro-level Analyses of Avoidance Alternatives, an alternative that does not satisfy the purpose of and need for a project is not considered a prudent alternative. Therefore, this is not a feasible or prudent avoidance alternative.

### 27.5.2.10 Conclusion

For the reasons stated above, no alternative that could satisfy the purpose of and need for the WDC Project could also avoid all Section 4(f) properties. The remainder of this Section 4(f) evaluation therefore focuses on the reasonable alternatives identified during the NEPA process, potential micro-level avoidance within a given alternative, all possible planning to minimize harm to the Section 4(f) resources that would be used, and identification of the alternative that would cause the least overall harm.

## 27.5.3 Micro-level Analysis: Potential Avoidance of Individual Section 4(f) Properties

The micro-level analysis of the potential to avoid Section 4(f) properties examines individual Section 4(f) properties or clusters of individual properties along each of the alternatives to determine whether a feasible and prudent alternative exists in that “micro” area that would avoid use of the property.

FHWA was aware of the profusion of Section 4(f) properties from the beginning of the project, and alternatives were designed and then modified multiple times with the intent of avoiding Section 4(f) properties and other project constraints. The text that follows explains the thinking behind FHWA’s design decisions and notes the modifications where possible. The project segments mentioned are segments used generally for the project. The segments are defined by logical breaks where portions of the alternatives divide or merge, typically at or near an existing cross street. These segments are illustrated in Figures 27-A and 27-B, Section 4(f) Series Index, in Volume IV.

***Prudent and Feasible Standard at the Micro Level.*** The criteria for determining whether a potential avoidance alternative is prudent and feasible are listed in the FHWA regulations at 23 CFR 774.17, which is quoted in Section 27.5.1, Introduction to Macro- and Micro-level Analyses of Avoidance Alternatives. A micro-level avoidance analysis examines the feasibility or prudence of avoiding a single Section 4(f) property or perhaps a small cluster of properties.

For the common central and southern segment of the alternatives, the micro-level analysis is done first for all four Alternatives A1, A2, B1, and B2 without the wetland avoidance options in Section 27.5.3.1, Southern and Central Sections of the Alternatives, Common Corridor.

Alternatives A1, A2, B1 and B2 with the wetland avoidance options would affect two more Section 4(f) resources, and the micro-level analysis of these two Section 4(f) resources is

discussed separately in Section 27.5.3.2, All Alternatives with the Wetland Avoidance Options.

Although the use of the resources is defined in Section 27.6, Use of and Harm to Section 4(f) Resources, the types of uses are also referenced in Section 27.5.3, Micro-level Analysis: Potential Avoidance of Individual Section 4(f) Properties, since Section 4(f) resources with *de minimis* or no use are not subject to avoidance analysis.

### **27.5.3.1 Southern and Central Sections of the Alternatives, Common Corridor**

#### **All Alternatives, Common Corridor**

For about 11 miles between the system-to-system interchange with I-15 and Legacy Parkway in the Glovers Lane area to the Gentile Street area in Syracuse, all of the WDC alternatives share a common corridor.

One different alternative being considered in this section includes the wetland avoidance options described in Section 27.3.2, Alternatives. The purpose of these wetland avoidance options is to avoid wetland impacts per guidance from the U.S. Army Corps of Engineers regarding wetland avoidance. These options are also used by FHWA to comply with Executive Order 11990, Protection of Wetlands, which closely follows the requirements of the Clean Water Act in that it requires federal agencies to avoid to the extent possible long- and short-term impacts to wetlands and requires agencies to implement all practicable measures to minimize harm to wetlands when there is no practicable alternative to avoiding wetland impacts.

Either wetland avoidance option could be implemented with any of the A or B Alternatives. The wetland avoidance options would change the use of Section 4(f) resources in Layton. The Section 4(f) uses that are specific to the wetland avoidance options and the results of the prudent and feasible avoidance analysis for the wetland avoidance options are described separately in Section 27.5.3.2, All Alternatives with the Wetland Avoidance Options.

This section describes the Section 4(f) resources that would be affected by all of the alternatives, with or without the wetland avoidance options, between the I-15 interchange and Gentile Street.

Table 27-8 below lists the results of the prudent and feasible avoidance analysis for Section 4(f) properties in this segment that would be the same for any of the WDC alternatives, with or without the wetland avoidance options. Following the table is a discussion of avoidance of all Section 4(f) properties as a group in this segment.

**Table 27-8. Prudent and Feasible Avoidance Analysis for All Alternatives in the Common Corridor**

Section 4(f) Property	Use?	Avoidance	Prudent and Feasible? If Not, Why Not? <sup>a</sup>
Buffalo Ranch Trail	<i>De minimis</i> <sup>b</sup>	Avoidance analysis not necessary.	Not applicable.
Great Salt Lake Shoreline Trail	<i>De minimis</i> <sup>b</sup>	Avoidance analysis not necessary.	Not applicable.
South Park	<i>De minimis</i> <sup>b</sup>	Avoidance analysis not necessary.	Not applicable.
1100 West Park	Yes; the alternatives would eliminate the park and require the park to be moved to a new location.	Avoidance of the entire property would mean routing the alignment south and west of the park. Avoiding the park would cause an additional impact to 0.76 acre of wetlands that are protected under the Clean Water Act. Avoiding the park would also cause more indirect wetland and wildlife impacts and would push the alternative 400 to 600 feet closer to the Farmington Bay WMA. The avoidance alternative was estimated to cost at least \$5 million more.	(vi) – Avoiding the park would cause 0.76 acre of additional impact to wetlands, more indirect wetland and wildlife habitat impacts, one additional relocation, an alternative that is closer to the Farmington Bay WMA, and a cost of about \$5 million more. Costs of these measures would be of extraordinary magnitude. Considered cumulatively, these issues would cause impacts of extraordinary magnitude compared to the impact to the Farmington 1100 West Park. For context, the park has existed only since 2014, and its only amenities are soccer fields and a parking lot. The impacts to the higher quality wetlands and wildlife habitat that is closer to Farmington Bay WMA would be a greater overall harm than the use of the Section 4(f) park in this location.
Canyon Creek Elementary School playing fields	<i>De minimis</i> <sup>b</sup>	Avoidance analysis not necessary.	Not applicable.
Utah Division of Wildlife Resources Sportsman's Access	<i>De minimis</i> <sup>b</sup>	Avoidance analysis not necessary.	Not applicable.

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**Table 27-8. Prudent and Feasible Avoidance Analysis for All Alternatives in the Common Corridor**

Section 4(f) Property	Use?	Avoidance	Prudent and Feasible? If Not, Why Not? <sup>a</sup>
Historic building at ?1016 N. 2000 W., Kaysville	Yes; the alternatives would eliminate the building and a portion of the surrounding grounds that contribute to the historic property as a whole.	Avoidance of the entire contributing property (200 acres) would mean routing the alignment inland, which would cause additional impacts to the historic transmission line, which is also a cultural resource protected under Section 106 of the National Historic Preservation Act. Avoiding the historic structure only would mean either (1) routing the alignment slightly west to pass by the building, likely resulting in a <i>de minimis</i> impact, or (2) bridging over the building entirely.	(iii)(B) and (iv) – Routing inland would require acquiring and demolishing more than 20 residences and would relocate residents (severe community disruption and much higher project costs). Bridging over would disrupt views and would be a very high project cost and still would alter the historic setting. Costs of these measures would be of extraordinary magnitude.  (iii)(A) and (iii)(D) – The alignment shift to the west would fill and eliminate a much larger acreage of wetlands located in the Great Salt Lake Shorelands Preserve. FHWA has determined that a west alignment shift is not a prudent alternative for avoiding this historic structure because of the value of these productive wetlands.
Kays Creek Park	No use—adjacent.	No further avoidance analysis necessary.	FHWA has determined that the alignment is a prudent way to avoid this park.
Historic property at 992 S. 2200 W., Layton	Yes; the alternatives would eliminate the building and surrounding grounds.	Avoidance of the entire contributing property would mean routing the alignment farther east or farther west. The eastern avoidance route would require the acquisition of the Joseph Hill Family Cabin on 2133 W. 1000 S. in Layton, which is listed on the NRHP, and at least one other historic property. Avoiding this property to the west would cause more impacts to the Great Salt Lake Shorelands Preserve, including the Section 4(f) portions of the preserve, and would cause more impacts to wetlands protected by the Clean Water Act.	(iii)(A) – Routing east to avoid this property would require the acquisition of at least two more historic properties, one of which, the Joseph Hill Family Cabin, is listed on the NRHP. This would not be a Section 4(f) avoidance alternative since the eastern alternative would cause more impacts to Section 4(f) resources.  (iii)(A) and (iii)(D) – Routing the alignment west would directly impact more of the Great Salt Lake Shorelands Preserve, a Section 4(f) resource, and would fill and eliminate a much larger acreage of wetlands located in the Great Salt Lake Shorelands Preserve. FHWA has determined that the west routing is not a prudent alternative for avoiding this historic structure because avoiding one Section 4(f) property only to use another is not considered an avoidance alternative, and because of impacts to highly valued, productive wetlands.

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**Table 27-8. Prudent and Feasible Avoidance Analysis for All Alternatives in the Common Corridor**

Section 4(f) Property	Use?	Avoidance	Prudent and Feasible? If Not, Why Not? <sup>a</sup>
Historic property at 776 S. 2200 W., Layton	<i>De minimis</i> <sup>b</sup>	No avoidance analysis necessary.	Not applicable.
Historic property at 2133 W. 1000 S., Layton	<i>De minimis</i> <sup>b</sup>	No avoidance analysis necessary.	Not applicable.
Great Salt Lake Shorelands Preserve (public parcels)	<i>De minimis</i> <sup>b</sup>	No avoidance analysis necessary.	Not applicable.

<sup>a</sup> Roman numerals refer to sections of 23 CFR 774.17 quoted in Section 27.5.1, Introduction to Macro- and Micro-level Analyses of Avoidance Alternatives.

<sup>b</sup> *De minimis* impact means there is no adverse effect to the important activities, features, or attributes of the Section 4(f) property. See Section 27.6, Use of and Harm to Section 4(f) Resources, for an explanation of each property.

***Avoidance of All Section 4(f) Properties in the Common Corridor.*** Table 27-8 above examines the potential of avoiding each of the Section 4(f) properties individually. In theory, it would be possible to avoid all of them as a group.

FHWA and UDOT carefully examined the Kaysville and Layton area to find the lowest-impact alignment. To shift the alignment east and avoid all currently known Section 4(f) historic properties would cause an estimated 250 or more residential and farm relocations and the isolation of the western portion of the Kays Creek subdivision and homes along Bonneville Lane. Such an alignment would avoid all the Section 4(f) properties.

#### **What is a relocation?**

With respect to residential, business, or farm relocations, a relocation occurs when constructing an alternative would require purchasing an occupied structure, such as a home or business. The residents or business would need to relocate.

FHWA and UDOT have determined that the additional cost (about \$75 million if each relocation were to cost UDOT \$300,000) would be of extraordinary magnitude even on the scale of the entire project, and the community disruption would be severe [paragraphs (iii)(B) and (iv) in Section 27.5.1, Introduction to Macro- and Micro-level Analyses of Avoidance Alternatives]. UDOT and FHWA have therefore determined that shifting the alignment east would not be a prudent and feasible avoidance alternative.

Avoiding these properties by shifting the entire alignment west, toward the lake, would have a different set of impacts. As shown in Figure 27-7, Section 4(f) Resources (Map 7 of 20), in Volume IV, multiple parcels of Great Salt Lake Shorelands Preserve are publicly owned and are Section 4(f) properties. They extend south toward the lake. To avoid these parcels and to rejoin the alignment near the northwest end of Segment 3, any alignment would extend 0.96 to 1.02 miles farther west to avoid publicly owned preserve parcels and would traverse Great Salt Lake wetlands for nearly 8 miles. Most of these 8 miles would be within the Great Salt Lake Shorelands Preserve parcels owned by the private nonprofit TNC rather than government-owned parcels.

Shifting the alignment toward—and in some locations actually into—the lake is not a prudent avoidance alternative. The alignment shift would effectively split the preserve in half, which would degrade the preserve’s wildlife habitat. The fragmentation of habitat has been an issue of concern for the U.S. Fish and Wildlife Service, URMCC, and TNC. Both agencies and TNC have commented that the main importance of the ecological habitat of the preserve is the ability of wildlife to move freely about within the preserve.

The wetlands of the Great Salt Lake provide important nesting and foraging habitat for over 250 species of birds. The lake is a critical link in the Pacific Flyway between North and South America and has been named as one of only 17 Sites of Hemispheric Importance in the Western Hemispheric Shorebird Preserve Network—an internationally important designation.

URMCC has provided comments stating that an alignment west of the publicly owned parcels would still have substantial proximity impacts to publicly owned preserve properties and would not be an avoidance of the preserve. In addition to habitat fragmentation, the areas in the preserve that would be converted to roadway use by the avoidance alternative have been identified as wetlands by the U.S. Fish and Wildlife Service’s National Wetlands Inventory.

Based on the National Wetlands Inventory data, the avoidance alternative would increase wetland impacts by 100 to 140 acres. This substantial increase in wetland impacts would not be permissible under the Clean Water Act, since all other WDC alternatives would have fewer than 54 acres of wetland impacts. Thus, the alternative is not a prudent or feasible avoidance alternative.

UDOT and FHWA have determined that impacts to the federally protected wetlands in this area and to migratory bird habitat would be severe [paragraph (iii)(D) in Section 27.5.1, Introduction to Macro- and Micro-level Analyses of Avoidance Alternatives] and that therefore this is not a feasible and prudent avoidance alternative.

### **27.5.3.2 All Alternatives with the Wetland Avoidance Options**

#### **All Alternatives with the Wetland Avoidance Options, Common Corridor**

Table 27-9 below shows the results of the prudent and feasible avoidance analysis for the four individual Section 4(f) properties that would be affected by the wetland avoidance options. One of these four Section 4(f) properties (984 South 2200 West in Layton) would not be affected by the alternatives without the wetland avoidance options described in Section 27.5.3.1, Southern and Central Sections of the Alternatives, Common Corridor. The other three Section 4(f) properties (776 South 2200 West in Layton, the Joseph Hill Family Cabin at 2133 West 1000 South in Layton, and the Great Salt Lake Shorelands Preserve) would be affected by the alternatives without the wetland avoidance options, but the nature of their impact would be different with the wetland avoidance options. Following the table is a discussion of avoidance of all Section 4(f) properties as a group in this segment.

**Table 27-9. Prudent and Feasible Avoidance Analysis for All Alternatives with the Wetland Avoidance Options in the Common Corridor**

Section 4(f) Property	Use?	Avoidance	Prudent and Feasible? If Not, Why Not?
Historic property at 984 S. 2200 W., Layton	Yes. The alternatives would eliminate the structure and surrounding grounds.	Alternatives A1, A2, B1, and B2 (without the wetland avoidance options), which are located farther west, avoid this historic property. Alternately, this property could be avoided by routing farther east.	No. Alternatives A1, A2, B1, and B2 without the wetland avoidance options, to the west, would impact URMCC parcels of the Great Salt Lake Shorelands Preserve, a Section 4(f) property, and therefore are not feasible and prudent avoidance alternatives. Routing around this property farther to the east would impact 776 S. 2200 W., a Section 4(f) property, and therefore would not be a feasible and prudent avoidance alternative.
Historic property at 2133 W. 1000 S., Layton	Yes. The alternatives with the wetland avoidance options would require the acquisition of the land where the historic cabin is located. Both the historic cabin and the associated parcels at 2133 W. 1000 S. are considered eligible. The historic cabin would be relocated to a new location with these alternatives. The relocation of the historic cabin would still be considered a Section 4(f) use.	Alternatives A1, A2, B1, and B2 (without the wetland avoidance options) are located farther west and would have a <i>de minimis</i> impact on this historic property. Alternately, this property could be avoided by routing farther east.	No. Alternatives A1, A2, B1, and B2 without the wetland avoidance options to the west would impact other Section 4(f) properties and therefore are not feasible and prudent avoidance alternatives. Routing around this property to the east would impact 776 S. 2200 W., a Section 4(f) property, and therefore would not be a feasible and prudent avoidance alternative.

**Additional Section 4(f) Uses by the Wetland Avoidance Options.** The wetland avoidance options, which have the two additional Section 4(f) uses described in Table 27-9 above, were provided to minimize impacts to the Great Salt Lake Shorelands Preserve, a Section 4(f) resource, and to minimize impacts to wetlands protected by the Clean Water Act.

**Summary.** There are no feasible and prudent avoidance alternatives that would avoid all Section 4(f) resources between I-15 and Gentile Street. UDOT and FHWA have determined that Alternatives A1, A2, B1, and B2 without the wetland avoidance options and Alternatives A1, A2, B1, and B2 with the wetland avoidance options are all reasonable alternatives.

The alternatives without the wetland avoidance options avoid Section 4(f) uses (greater than *de minimis*) of two historic properties (984 South 2200 West in Layton and the Joseph Hill Family Cabin at 2133 West 1000 South in Layton) and three other residential property relocations, but would have greater impacts to the wetlands and wildlife habitat of the Great Salt Lake Shorelands Preserve [a Section 4(f) resource] and more impacts to wetlands regulated by the Clean Water Act.

### 27.5.3.3 Segments 4 and 5: Central Section, A and B Corridors

#### Alternatives A1–A2

In Segments 4 and 5, from Gentile Street/Jensen Nature Park (in Syracuse) northwest to State Route (SR) 107 (300 North in West Point), the A Alternatives diverge substantially from the B Alternatives. The A Alternatives' alignment runs close to the Great Salt Lake Shorelands Preserve boundary. Table 27-10 shows the results of the prudent and feasible avoidance analysis for Section 4(f) properties in this segment.

**Table 27-10. Prudent and Feasible Avoidance Analysis for the A Alternatives in Segment 4**

Section 4(f) Property	Use?	Avoidance	Prudent and Feasible? If Not, Why Not?
Black Agriland historic structure at 3178 S. 3000 W., Davis County	<i>De minimis</i> . <sup>a</sup> The alternatives would use contributing farmland but not the historic structure itself.	No avoidance analysis necessary.	Not applicable.
Historic property at 3807 W. 2700 S., Syracuse	<i>De minimis</i> . <sup>a</sup> The alternatives would use contributing farmland but not the historic structure itself.	No avoidance analysis necessary.	Not applicable.
Historic property at 3901 W. 2700 S., Syracuse	<i>De minimis</i> . <sup>a</sup> The alternatives would use contributing farmland but not the historic structure itself.	No avoidance analysis necessary.	Not applicable.

<sup>a</sup> *De minimis* impact means there is no adverse effect to the important activities, features, or attributes of the Section 4(f) property. See Section 27.6, Use of and Harm to Section 4(f) Resources, for an explanation of each property.

## Alternatives B1–B2

In Segment 5, the Alternative B alignment roughly parallels Bluff Road and the Old Emigration Trail between Gentile Street and SR 107 (300 North) in West Point. Table 27-11 shows the results of the prudent and feasible avoidance analysis for Section 4(f) properties in this segment.

For Alternative B1 or B2, FHWA determined that there would not be any prudent or feasible micro-level option to avoid the use of the historic properties at 1002–1054 South 3000 West and 1068 South 3000 West in Syracuse, or 1653 S. Bluff Road in Syracuse. However, either Alternative A1 or A2 would avoid the use of these historic properties.

**Table 27-11. Prudent and Feasible Avoidance Analysis for the B Alternatives in Segment 5**

Section 4(f) Property	Use?	Avoidance	Prudent and Feasible? If Not, Why Not? <sup>a</sup>
Jensen Nature Park	No. The alignment would run adjacent to the park's southwest corner.	No avoidance analysis necessary.	UDOT and FHWA have determined that the alignment avoids the park and is feasible and prudent.
Fremont Park/ Syracuse Arts Academy playing fields	<i>De minimis.</i> <sup>b</sup> The rerouted school access roads would use 3.3 acres of the 22.4-acre western portion of the park that is considered a Section 4(f) resource. There would be no adverse effects to the important activities, features, or attributes of the park.	No avoidance analysis necessary.	Not applicable.
Historic structure at 2662 W. 1700 S., Syracuse	<i>De minimis.</i> <sup>b</sup> 1700 S. would be widened and would affect contributing land but not the structure itself.	No avoidance analysis necessary.	Not applicable.
Historic structure at 2664 W. 1700 S., Syracuse	<i>De minimis.</i> <sup>b</sup> 1700 S. would be widened and would affect contributing land but not the structure itself.	No avoidance analysis necessary.	Not applicable.
Historic structure at 2678 W. 1700 S., Syracuse	<i>De minimis.</i> <sup>b</sup> 1700 S. would be widened and would affect contributing land but not the structure itself.	No avoidance analysis necessary.	Not applicable.

(continued on next page)

**Table 27-11. Prudent and Feasible Avoidance Analysis for the B Alternatives in Segment 5**

Section 4(f) Property	Use?	Avoidance	Prudent and Feasible? If Not, Why Not? <sup>a</sup>
Historic structure at 1653 S. Bluff Road, Syracuse	Yes. The alternatives would use part of the property but would not impact the structure directly.	The cul-de-sac that causes this impact is in this location to provide access to this property and the property to the south. The cul-de-sac cannot be moved farther north since it must provide access to these two properties. Avoidance would mean eliminating the house to the south and relocating the occupants and moving the cul-de-sac to the north.	(ii), (iii)(B), and (iv) – It would not be possible to move the cul-de-sac north because it must remain in its current location to provide access to this property and the property to the south (unacceptable operational problem). If the cul-de-sac were moved west to avoid the property, it would cause the WDC alternative to move west, closer to the Syracuse Arts Academy. This would affect more wetlands and would require acquiring more houses on 3000 West (severe community disruption and much higher project cost).  FHWA has determined that the west shift is not a prudent alternative for avoiding this historic structure because of the severe community disruption and much higher project costs.
Historic structures at 1595, 1573, 1441, and 1297 S. Bluff Rd., Syracuse	No. Bluff Rd. would be rebuilt adjacent to these properties but would avoid the properties.	No avoidance analysis necessary.	Not applicable.
Historic structures at 1002–1054 S. 3000 W. and 1068 S. 3000 W., Syracuse	Yes. The highway would use a historic farm structure, contributing outbuildings, and adjacent land.	Avoidance would mean a very substantial realignment using an avoidance alignment around Fremont Park. Any other alignment either would use other Section 4(f) properties or would use dozens more homes and a portion of the Glen Eagle Golf Course.	(iii)(A), (iii)(B), and (iii)(D) – UDOT and FHWA have determined that the community and economic impacts would be severe, and other wetlands, farmland, and other federally protected resources would be affected. For these reasons, these alternatives are not feasible and prudent avoidance alternatives.

<sup>a</sup> Roman numerals refer to sections of 23 CFR 774.17 quoted in Section 27.5.1, Introduction to Macro- and Micro-level Analyses of Avoidance Alternatives.

<sup>b</sup> *De minimis* impact means there is no adverse effect to the important activities, features, or attributes of the Section 4(f) property. See Section 27.6, Use of and Harm to Section 4(f) Resources, for an explanation of each property.

### 27.5.3.4 Segments 6, 7, 8, and 9: Northern Alignments for Alternatives A1, A2, B1, and B2

#### Segments 7 and 9: Alternatives A1 and B1 North Termini

Segments 7 and 9 run from about 300 North in West Point to a northern terminus at 4100 West 1800 North in West Point. Segment 7 is used by Alternative A1 and connects to Segment 4 in Syracuse at 700 South. Segment 9 is used by Alternative B1 and connects with Segment 5 in Syracuse at 700 South. There would be no Section 4(f) uses by either of these segments, and no prudent and feasible avoidance analysis is required.

#### Segment 6: Alternative A2

Alternative A2 shares an alignment with Alternative A1 to about 300 North and then stays west and goes to a northern terminus that ends at 5400 West 5500 South in Weber County. Table 27-12 shows the results of the prudent and feasible avoidance analysis for Section 4(f) properties in this segment for Alternative A2.

**Table 27-12. Prudent and Feasible Avoidance Analysis for Alternative A2 in Segment 6**

Section 4(f) Property	Use?	Avoidance	Prudent and Feasible? If Not, Why Not?
Historic property at 4469 W. 300 N., West Point	<i>De minimis</i> . <sup>a</sup> Building itself not affected.	No avoidance analysis necessary.	Not applicable.
Historic property at 4750 W. 2425 N., West Point	<i>De minimis</i> . <sup>a</sup> Building itself not affected.	No avoidance analysis necessary.	Not applicable.
Historic property at 5721 S. 5500 W., Hooper	<i>De minimis</i> . <sup>a</sup> Building itself not affected.	No avoidance analysis necessary.	Not applicable.

<sup>a</sup> *De minimis* impact means there is no adverse effect to the important activities, features, or attributes of the Section 4(f) property. See Section 27.6, Use of and Harm to Section 4(f) Resources, for an explanation of each property.

#### Segment 8: Alternative B2

Alternative B2 shares an alignment with Alternative B1 to about 300 North and then goes northwest to a northern terminus at 4800 West 1800 North in West Point. Table 27-13 shows the results of the prudent and feasible avoidance analysis for Section 4(f) properties in this segment.

**Table 27-13. Prudent and Feasible Avoidance Analysis for Alternative B2 in Segment 8**

Section 4(f) Property	Use?	Avoidance	Prudent and Feasible? If Not, Why Not?
Historic property at 4428 W. 800 N., West Point	<i>De minimis</i> <sup>a</sup>	No avoidance analysis necessary.	Not applicable.

<sup>a</sup> *De minimis* impact means there is no adverse effect to the important activities, features, or attributes of the Section 4(f) property. See Section 27.6, Use of and Harm to Section 4(f) Resources, for an explanation of each property.

### 27.5.3.5 4500 West Trail Connection, All Alternatives

The 4500 West Trail connection is proposed with any of the WDC alternatives. This connection would connect the northern end of the Old Emigration Trail near 4200 West 1300 North to the southern end of the 5500 West trail at the Davis County–Weber County border. The trail would parallel 1300 North on the south side of the road until it reaches 4500 West (about 3 blocks). At 4500 West it would parallel 4500 West on the west side of the road to connect with the 5500 West Trail, which is also located on the west side of the road. Note that, at the Davis County–Weber County border, the name of the road changes. The road is 4500 West in Davis County and 5500 West in Weber County.

The 4500 West Trail Connection would have a *de minimis* use of one historic property. Table 27-14 shows the results of the prudent and feasible avoidance analysis for Section 4(f) properties in this segment.

**Table 27-14. Prudent and Feasible Avoidance Analysis for 4500 West Trail Connection**

Section 4(f) Property	Use?	Avoidance	Prudent and Feasible? If Not, Why Not?
Historic property at 1309 N. 4500 W., West Point <sup>a</sup>	<i>De minimis</i> <sup>b</sup>	No avoidance analysis necessary.	Not applicable.

<sup>a</sup> This historic property would be affected by any of the alternatives.

<sup>b</sup> *De minimis* impact means there is no adverse effect to the important activities, features, or attributes of the Section 4(f) property. See Section 27.6, Use of and Harm to Section 4(f) Resources, for an explanation of each property.

## 27.6 Use of and Harm to Section 4(f) Resources

### 27.6.1 Summary of Use

Section 27.4, Identification of Section 4(f) Resources, and Section 27.5, Avoidance Alternatives, described the Section 4(f) properties in the impact analysis area and examined the potential for avoiding all of them entirely and for avoiding individual Section 4(f) properties. UDOT and FHWA have determined that there is no overall feasible avoidance alternative and have determined that there is only limited prudent and feasible “micro-level” avoidance potential. Therefore, the remainder of this chapter documents the remaining use of the Section 4(f) resources by the WDC action alternatives. Table 27-15 shows how many of each type of Section 4(f) property would be used by each alternative.

**Table 27-15. Number of Section 4(f) Properties Used by Each WDC Action Alternative**

Resource					With Wetland Avoidance Options			
	A1	A2	B1	B2	A1	A2	B1	B2
<b>Historic properties</b>								
Total affected	8	12	10	11	9	13	11	12
<i>De minimis</i>	6	10	6	7	5	9	5	6
Direct use	2	2	4	4	4	4	6	6
<b>Parks</b>								
Total affected	2	2	3	3	2	2	3	3
<i>De minimis</i>	1	1	2	2	1	1	2	2
Direct use	1	1	1	1	1	1	1	1
<b>Recreation areas</b>								
Total affected	5	5	4	4	5	5	4	4
<i>De minimis</i>	5	5	4	4	5	5	4	4
Direct use	0	0	0	0	0	0	0	0
<b>Wildlife and waterfowl refuges</b>								
Total affected	1	1	1	1	1	1	1	1
<i>De minimis</i>	1	1	1	1	1	1	1	1
Direct use	0	0	0	0	0	0	0	0
<b>Totals</b>								
Total affected	16	20	18	19	17	21	19	20
<i>De minimis</i>	13	17	13	14	12	16	12	13
Direct use	3	3	5	5	5	5	7	7

Coloring indicates the ends of the impact spectrum for direct use—green indicates the fewest properties with a direct use; orange indicates the most properties.

The following sections present a more detailed impact analysis divided into four sections: historic resources, parks, recreation areas, and wildlife and waterfowl refuges. For each Section 4(f) resource, this chapter makes one of the following four findings:

- **Greater than *de minimis* use** (denoted “use” in the large tables that follow) – As defined in 23 CFR 774.17, a “use” of Section 4(f) property occurs when land is permanently incorporated into a transportation facility. The only exceptions to this are if the use does not meet the applicability requirements described in 23 CFR 774.11 or is an excepted use described in 23 CFR 774.13. This is the type of use that can be approved only if FHWA finds that (1) there is no prudent and feasible alternative to the use of the resource and that (2) the project includes all possible planning to minimize harm. For historic properties, a Section 4(f) finding of “use” generally corresponds with a finding of “adverse effect” under the Section 106 process (see Chapter 16, Historic, Archaeological, and Paleontological Resources).
- ***De minimis* impact** (denoted “*de minimis*” in the tables) – The regulation at 23 CFR 774.17 defines a “*de minimis* impact” for historic properties and parks, recreation areas, and wildlife/waterfowl refuges. For historic sites, a *de minimis* impact means that FHWA has determined, in accordance with 36 CFR 800, that the historic property in question would not be affected by the project or that the project would have “no adverse effect” on the historic property. For parks, recreation areas, and wildlife/waterfowl refuges, a *de minimis* impact is one that would not adversely affect the features, attributes, or activities that qualify the property for protection under Section 4(f). For example, this finding may be used when an alternative would require a small strip of land along the edge of a Section 4(f) resource without affecting a soccer field and trails on a site.

Note that *de minimis* impact determinations are based on impacts *after* accounting for any measures to minimize harm. Measures to minimize harm are addressed in Section 27.6.6, Measures to Minimize Harm.

Officials with jurisdiction must concur in writing with FHWA’s intent to make a *de minimis* impact finding [23 CFR 774.5(b)].

- **Temporary occupancy** – The regulation at 23 CFR 774.13(d) excepts from the requirements of Section 4(f) temporary occupancies of land that are so minimal as to not constitute a use within the meaning of Section 4(f). The following conditions must be satisfied: (1) duration must be temporary, and there should be no change in ownership of the land; (2) the scope of the work must be minor; (3) there are no anticipated permanent adverse physical impacts, nor would there be interference with the protected activities, features, or attributes of the property; (4) the land being used must be fully restored; and (5) there must be documented agreement of the officials with jurisdiction over the Section 4(f) resource regarding the above conditions. Temporary occupancies of this kind can occur during the construction process and, if they truly cause no interference, are excepted from the requirement for Section 4(f) approval under 23 CFR 774.13(d). As stated in the regulations, temporary occupancy

also requires written concurrence from the officials with jurisdiction if the exception criteria listed above are applied.

- **No use** (denoted “no use” in the tables) – Some protected properties would be affected by some of the alternatives but not by others. Where a property is listed but would have no use by a given alternative, “no use” is indicated. Also, alternatives in some locations are located close to Section 4(f) properties, and, in these cases, the alternatives were evaluated for potential constructive use (that is, for proximity impacts that could be so severe that the important activities, features, or attributes of the property would be substantially impaired). However, the result of these evaluations is that no constructive-use findings are proposed. In the tables, when constructive use is considered, the table uses orange coloring, and the text states “no use.” The text following each table further explains these circumstances for the resources highlighted in orange in the table.

Each of these categories is further described in the following four sections. Table 27-15 above summarizes the alternatives and the number of Section 4(f) properties that each alternative would use. Note that, where Table 27-15 indicates a permanent use, all possible planning to minimize harm associated with such use is addressed in Section 27.6.6, Measures to Minimize Harm [per 23 CFR 774.7(a)]. The potential for an alternative that would avoid all Section 4(f) properties appears in Section 27.5, Avoidance Alternatives.

Where a *de minimis* impact finding is shown in the tables below, further documentation appears in each section below [per 23 CFR 774.7(b)]. These sections also include additional information where necessary to explain FHWA’s findings regarding use or temporary occupancy.

## 27.6.2 Use of Historic Properties

Table 27-16 below lists the uses of historic properties by each alternative. Direct use is indicated in green, and use for which FHWA proposes a *de minimis* impact finding is indicated in lavender. For further explanation of the Section 106 findings, see Chapter 16, Historic, Archaeological, and Paleontological Resources.

The text following the table further explains the *de minimis* impact findings (lavender in the table), potential proximity impacts (orange), and other direct use (green).

**Table 27-16. WDC Action Alternatives and Use of Historic Properties**

Address or ID Number <sup>a</sup>	With Wetland Avoidance Options							
	A1	A2	B1	B2	A1	A2	B1	B2
<i>Historic Buildings [County: Weber (W) or Davis (D)]</i>								
?1016 N. 2000 W., Kaysville (D) Brezoff property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property
776 S. 2200 W., Layton (D)	<i>De minimis</i>	<i>De minimis</i>	<i>De minimis</i>	<i>De minimis</i>	<i>De minimis</i>	<i>De minimis</i>	<i>De minimis</i>	<i>De minimis</i>
984 S. 2200 W., Layton (D)	No use	No use	No use	No use	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property
992 S. 2200 W., Layton (D)	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property
Joseph Hill Family Cabin, 2133 W. 1000 S., Layton (D)	<i>De minimis</i>	<i>De minimis</i>	<i>De minimis</i>	<i>De minimis</i>	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property
3178 S. 3000 W., Syracuse (D)	<i>De minimis</i>	<i>De minimis</i>	No use	No use	<i>De minimis</i>	<i>De minimis</i>	No use	No use
3807 W. 2700 S., Syracuse (D)	<i>De minimis</i>	<i>De minimis</i>	No use	No use	<i>De minimis</i>	<i>De minimis</i>	No use	No use
3901 W. 2700 S., Syracuse (D)	<i>De minimis</i>	<i>De minimis</i>	No use	No use	<i>De minimis</i>	<i>De minimis</i>	No use	No use
2622 W. 1700 S., Syracuse (D)	No use	No use	<i>De minimis</i>	<i>De minimis</i>	No use	No use	<i>De minimis</i>	<i>De minimis</i>
2664 W. 1700 S., Syracuse (D)	No use	No use	<i>De minimis</i>	<i>De minimis</i>	No use	No use	<i>De minimis</i>	<i>De minimis</i>
2678 W. 1700 S., Syracuse (D)	No use	No use	<i>De minimis</i>	<i>De minimis</i>	No use	No use	<i>De minimis</i>	<i>De minimis</i>
1653 S. Bluff Rd., Syracuse (D)	No use	No use	<b>Use</b> Adverse effect due to encroachment on frontage of property	<b>Use</b> Adverse effect due to encroachment on frontage of property	No use	No use	<b>Use</b> Adverse effect due to encroachment on frontage of property	<b>Use</b> Adverse effect due to encroachment on frontage of property
1595 S. Bluff Rd., Syracuse (D)	No use	No use	No use	No use	No use	No use	No use	No use
1573 S. Bluff Rd., Syracuse (D)	No use	No use	No use	No use	No use	No use	No use	No use
1441 S. Bluff Rd., Syracuse (D)	No use	No use	No use	No use	No use	No use	No use	No use
1297 S. Bluff Rd., Syracuse (D)	No use	No use	No use	No use	No use	No use	No use	No use

(continued on next page)

**Table 27-16. WDC Action Alternatives and Use of Historic Properties**

Address or ID Number <sup>a</sup>	With Wetland Avoidance Options							
	A1	A2	B1	B2	A1	A2	B1	B2
1002–1054 S. 3000 W. and 1068 S. 3000 W., Syracuse (D)	No use	No use	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property	No use	No use	<b>Use</b> • Direct impact to historic property	<b>Use</b> • Direct impact to historic property
4469 W. 300 N., West Point (D) (1950 Minimal Traditional WWII-era Cottage)	No use	<i>De minimis</i>	No use	No use	No use	<i>De minimis</i>	No use	No use
4469 W. 300 N., West Point (D) (1915 Cross-gabled cottage)	No use	<i>De minimis</i>	No use	No use	No use	<i>De minimis</i>	No use	No use
4428 W. 800 N., West Point (D)	No use	No use	No use	<i>De minimis</i>	No use	No use	No use	<i>De minimis</i>
1309 N. 4500 W., West Point (D)	<i>De minimis</i>	<i>De minimis</i>	<i>De minimis</i>	<i>De minimis</i>	<i>De minimis</i>	<i>De minimis</i>	<i>De minimis</i>	<i>De minimis</i>
4750 W. 2425 N., Hooper (D)	No use	<i>De minimis</i>	No use	No use	No use	<i>De minimis</i>	No use	No use
5721 S. 5500 W., Hooper (W)	No use	<i>De minimis</i>	No use	No use	No use	<i>De minimis</i>	No use	No use
<b>Total affected</b>	<b>8</b>	<b>12</b>	<b>10</b>	<b>11</b>	<b>9</b>	<b>13</b>	<b>11</b>	<b>12</b>
<b>Total “no adverse effect”/ de minimis</b>	<b>6</b>	<b>10</b>	<b>6</b>	<b>7</b>	<b>5</b>	<b>9</b>	<b>5</b>	<b>6</b>
<b>Total adversely affected / “use”</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>6</b>	<b>6</b>

A “use” in this table means that the historic building itself would be partially or fully demolished and that the acreage recorded in the table would be incorporated into the WDC transportation facility.

<sup>a</sup> (D) = Davis County; (W) = Weber County

***Historic Buildings and De Minimis Impacts.*** As indicated above in Table 27-16, FHWA has made a determination that the WDC alternatives would have a *de minimis* impact to more than one dozen historic properties. The Utah SHPO, as the official with jurisdiction, must concur in writing with FHWA’s Section 106 determinations of “no adverse effect” and “*de minimis* impact” in order for FHWA to finalize a finding of *de minimis* impact under Section 4(f). As documented in Chapter 16, Historic, Archaeological, and Paleontological Resources, the Utah SHPO has concurred with FHWA’s findings of effect for the project (Utah SHPO 2017). A copy of the concurrence letter is included in Appendix 27A, Section 4(f) Correspondence. Copies of both the Determination of Eligibility and Finding of Effect and the Programmatic Agreement are provided in Appendix 27A, Section 4(f) Correspondence, and Appendix 16B, Correspondence Pertaining to Historic, Archaeological, and Paleontological Resources. Typically, where FHWA proposes a *de minimis* impact finding for historic structures, the alternatives cross through large yards or farm fields that are part of the historic property but do not affect the building and do not sufficiently affect the setting to create an adverse effect.

***Historic Buildings with Greater than De Minimis Impact.*** As indicated above in Table 27-16, FHWA has made a determination that the WDC alternatives would have a Section 4(f) use of six historic properties. Five of these six properties would be demolished because of the project alternatives (?1016 North 2000 West in Kaysville, 984 South 2200 West in Layton, 992 South 2200 West in Layton, 2133 West 1000 South in Layton, 1002–1054 South 3000 West in Syracuse, and 1068 South 3000 West in Syracuse). The other property (1653 S. Bluff Road in Syracuse) would have impacts that are considered adverse effects under Section 106, even though the historic structure would not be demolished by the WDC alternatives.

Between the release of the Draft EIS and the Final EIS, the Joseph Hill Family Cabin at 2133 West 1000 South in Layton was nominated for and listed on the NRHP. It is the only affected historic building in Table 27-16 above that is on the NRHP and the only one considered Eligible/Significant (ES) under the Utah Division of State History ratings. The other five historic properties listed in the previous paragraph are considered Eligible/Contributing (EC) under the Utah Division of State History ratings.

The wetland avoidance options, which were not evaluated in the Draft EIS, would adversely affect both the Joseph Hill Family Cabin at 2133 West 1000 South in Layton and 984 South 2200 West in Layton. These two historic properties would not be affected by Alternatives A1, A2, B1, and B2 that do not use the wetland avoidance options.

The Utah SHPO, as the official with jurisdiction, has concurred in writing with FHWA’s Section 106 determinations of “adverse effect.” As documented in Chapter 16, Historic, Archaeological, and Paleontological Resources, the Utah SHPO has concurred with FHWA’s findings of effect for the project (Utah SHPO 2017). Copies of both the Determination of Eligibility and Finding of Effect and the Programmatic Agreement are provided in Appendix 27A, Section 4(f) Correspondence, and Appendix 16B, Correspondence Pertaining to Historic, Archaeological, and Paleontological Resources.

***Historic Properties adjacent to the Alternatives.*** Table 27-16 above lists four properties that are immediately adjacent to the construction area proposed for the B Alternatives. None of the historic properties in these cases would be incorporated into the transportation facility, but they are so close that the question of proximity effects arises. These properties are located at 1297, 1441, 1573, and 1595 S. Bluff Road in Syracuse. The Utah SHPO has concurred with FHWA’s Section 106 determinations of “no historic properties affected” for these properties. Per FHWA’s Section 4(f) regulations, a Section 106 determination of “no historic properties affected” or “no adverse effect” automatically results in a finding of “no use” and “no constructive use” under Section 4(f) [23 CFR 774.15(f)(1)].

### 27.6.3 Use of Public Parks

Table 27-17 below lists those parks to which Section 4(f) applies and whose park land would be used by one or more of the WDC action alternatives. In addition to the types of use listed in bold (as indicated in Section 27.6.1, Summary of Use), for each Section 4(f) property the table lists:

- Acreage of use, and the percentage this use represents of the whole property.
- A very brief description of the primary activity, feature, or attribute that would be affected. As listed in the table, the effect noted is *before* the application of any measures to minimize harm.
- The potential for mitigating the impact. (See Section 27.6.6, Measures to Minimize Harm, for a fuller explanation of measures to minimize harm.)

The text following the table further explains *de minimis* impact findings (lavender in the table), potential proximity impacts (orange), and other direct use (green). The Draft EIS, which was released for public comment, gave the public the opportunity to comment on the *de minimis* findings described below. During the Draft EIS comment period, one comment was received questioning the proposed *de minimis* impact finding for South Park in Farmington. This comment has been considered, and a response is included in response 32.27O in Section 32.27, Chapter 27 – Section 4(f)/6(f) Evaluation, of this Final EIS.

**Table 27-17. WDC Action Alternatives and Use of Parks**

Section 4(f) Property	With Wetland Avoidance Options							
	A1	A2	B1	B2	A1	A2	B1	B2
South Park (Fig. 27-1)	<i>De minimis</i> • 131 sq ft of 6.6 ac (0.04%). • Baseball and path near impact area. • Mitigation: replace park sign.	<i>De minimis</i> • Same as A1						
Bus Park (Fig. 27-2)	No use • Adjacent	No use • Same as A1						
1100 West Park (Fig. 27-3)	<b>Use</b> • Park would be unusable due to direct impacts. Six acres out of 10.7 acres would be used for the WDC. The WDC would bisect the property, and the remaining acreage would not be useful for park purposes. • Mitigation: Park will be relocated to a new location by the Farmington Gymnasium and regional sports complex.	<b>Use</b> • Same as A1						
Kays Creek Park (Fig. 27-9)	No use • Immediately adjacent	No use • Same as A1						
Jensen Nature Park (Fig. 27-11)	No use • Immediately adjacent	No use • Same as A1						
Outwest Park (Fig. 27-15)	No use	No use	No use • Immediately adjacent	No use • Same as B1	No use	No use	No use • Same as B1	No use • Same as B1

(continued on next page)

**Table 27-17. WDC Action Alternatives and Use of Parks**

Section 4(f) Property	With Wetland Avoidance Options							
	A1	A2	B1	B2	A1	A2	B1	B2
Fremont Park (western portion, including Syracuse Arts Academy playing fields) (Fig. 27-15)	No use	No use	<i>De minimis</i> • 5.0 of 22.4 ac (22%). • Soccer, trailhead, open land. • Mitigation: enhance- ments to park and replacement properties by Founders Park and Bluff Road in Syracuse.	<i>De minimis</i> • Same as B1	No use	No use	<i>De minimis</i> • Same as B1	<i>De minimis</i> • Same as B1
Rock Creek Park (Figs. 27-16 & 27-17)	No use	No use	No use • Adjacent	No use • Same as B1	No use	No use	No use • Same as B1	No use Same as B1
<b>Total affected</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>3</b>
<b>Potential de minimis</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>
<b>Direct use</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>

ac = acres; sq ft = square feet

**South Park De Minimis Impact.** At South Park, at the southern end of Alternatives A1, A2, B1, and B2, with or without the wetland avoidance options, the configuration of the new WDC and I-15 interchange would require that the I-15 frontage road be shifted a few feet to the east into the extreme southwest corner of South Park. The portion proposed to be used is an irregular triangle 42 feet long and about 7 feet wide at its base (135 square feet out of 6.6 acres). This portion of the park contains mowed lawn between the I-15 frontage road and a winding, paved trail along a baseball backstop. A stone sign with flower beds in the southwest portion of the park would be within the proposed new right-of-way; the sign likely would need to be removed to allow construction and likely would need to be replaced in a slightly different location to ensure that it was out of the roadway clear zone. With replacement of the sign, there would be no substantial impairment of the park’s activities, features, or attributes.

Farmington City officials have been notified of the *de minimis* impact finding for South Park and have concurred with the finding [see Appendix 27A, Section 4(f) Correspondence]. None of these impacts would affect any of the important activities, features, or attributes of South Park. Mitigation measures are proposed for the impacts to South Park and are described above and in Section 27.6.6, Measures to Minimize Harm.

Any of the WDC alternatives would impact about 0.07 acre of the grass strip on the west edge of the park that is owned by UDOT and is part of the right-of-way for the frontage road. Because this part of the property is owned by UDOT for transportation use, it is not considered part of the Section 4(f) property.

**1100 West Park Greater than De Minimis Impact.** All of the WDC alternatives would use land from 1100 West Park. This would be a greater than *de minimis* impact to the park because the remaining park acreage would not be large enough or contiguous enough to support the current soccer recreational activities. UDOT has coordinated with Farmington City about the impact to 1100 West Park and has identified Davis County parcel 080760010 as a proposed replacement property. This parcel is 22.37 acres and is located adjacent to the Farmington Gymnasium and recreational complex at 294 South 650 West in Farmington. Farmington City wants the mitigation for the affected park to occur in this location because it will serve the same users of the current park and will be convenient for Farmington City to maintain because it is adjacent to the existing gymnasium and recreational complex. UDOT would buy as much of parcel 080760010 as necessary to adequately replace the recreational amenities and function lost at the 1100 West Park.

**Fremont Park De Minimis Impact.** As shown in Table 27-17 above, the B Alternatives would use a small percentage of the western portion of Fremont Park for a detention basin and a new local connector road between the Syracuse Arts Academy and 1925 South [see Figure 27-15, Section 4(f) Resources (Map 15 of 20), in Volume IV]. The new local connector road and detention basin would be located on undeveloped parts of Fremont Park and would not affect any of the important activities, features, or attributes of the park. The detention basin would be designed to accommodate a planned soccer field. One of the five planned soccer fields would be

**What is a detention basin?**

A detention basin is a pond that holds stormwater runoff temporarily before releasing it.

located in the WDC detention basin, which would be a grassy field that could be used for soccer.

Further details are provided regarding impacts to this park because the park presents some unusual circumstances. As previously described in Section 27.4.2.2, Fremont Park, Section 4(f) does not apply to the eastern portion of Fremont Park that is located west of Bluff Road. The eastern portion of Fremont Park was determined to be a joint development area and is not subject to the requirements of Section 4(f).

Section 4(f) applies to the 22.4-acre western portion of Fremont Park, including the 1.3 acres of the park that are used as part of the Syracuse Arts Academy playing fields and associated parking. Section 4(f) also applies to the additional 1.7 acres owned by the nonprofit academy and open to the public as an extension of the park. Playground equipment and paved basketball surfaces are present along with a playing field. The assessment of impact to the school playing field area is focused on its use by the general public outside school hours, when it functions as part of the larger Fremont Park.

Besides the school playing fields, the other major developed portion of the park is the southwest corner, where there are mowed lawns, a soccer field, a pavilion, parking, and a trailhead for the Old Emigration Trail. The Old Emigration Trail runs through the park along the length of its eastern side. Plans to construct a regional soccer complex have not materialized, and the plan is expected to change (Anderson 2011). This means that the bulk of the western portion of the park (more than 17 acres) is undeveloped except for the thread of trail running through it.

In 2014, between the release of the Draft EIS and the Final EIS, Syracuse City provided FHWA and UDOT with a concept map showing the locations of planned soccer fields in Fremont Park. FHWA and UDOT accommodated the soccer fields by designing the WDC detention basin for this area to be the same size and in the same location as the southeastern planned soccer field. With this accommodation, the local connector road and detention basin would not affect the future operation of the planned soccer fields for Fremont Park.

The action alternatives would not directly affect the developed park amenities to the south, except to extend the existing park access road to serve the school as well. Neither the school's playing fields nor the associated parking (located on park land and school land) would be directly used by the alternatives, but various components of both of the B Alternatives would surround the school and the playing fields. The school access road extension would divide the two areas and divide the remaining trail from the school. The playing fields would continue to function for recreation, but the character would change given that the WDC would be about 350 feet from basketball courts or from the center of the open playing field area. The WDC roadway embankment would be above the current grade, since the highway would descend from a crossing of 1700 South, which likely would minimize highway noise at ground level but would be visually dominant.

Two trail connections to the Old Emigration Trail would be altered: one from the playground and one from the soccer field and trailhead. The Old Emigration Trail would be rerouted to the east side of the new highway, and the trailhead parking area and school would be connected via a new trail system on the west side and a grade-separated trail crossing that

would connect the Fremont Park trail system to the rerouted Old Emigration Trail on the east side of the WDC. The pavilion near the existing trailhead would be about 750 feet from the WDC.

Syracuse City officials have been notified of the *de minimis* impact finding for Fremont Park and have concurred with the finding [see Appendix 27A, Section 4(f) Correspondence]. None of these impacts would affect any of the important activities, features, or attributes of Fremont Park. Mitigation measures are proposed for the impacts to Fremont Park and are described in Section 27.6.6, Measures to Minimize Harm.

***Parks – Potential for Constructive Use.*** The following parks are very close to one or more alternatives and are evaluated here to determine whether proximity impacts would result in a constructive use as defined in FHWA’s Section 4(f) regulations at 23 CFR 774.15(a):

- Bus Park (Figure 27-2 in Volume IV)
- Rock Creek Park (Figures 27-16 and 27-17 in Volume IV)
- Kays Creek Park (planned park) (Figure 27-9 in Volume IV)
- Jensen Nature Park (Figure 27-11 in Volume IV)
- Outwest Park (planned park) (Figure 27-15 in Volume IV)

The proposed right-of-way lies very close to Rock Creek and Bus Parks. At Kays Creek Park, Jensen Nature Park, and the planned Outwest Park, the proposed right-of-way for the alternatives shares a portion of the boundaries of the parks. Noise modeling for each of these parks or planned parks was included as part of the noise analysis described in Chapter 12, Noise. The evaluation for constructive use included this information when evaluating whether there would be any constructive use of these parks. The UDOT noise-abatement criterion for active sports areas, parks, picnic areas, playgrounds, recreation areas, Section 4(f) sites, and trails is 66 dBA (decibels on the A-weighted scale).

The regulation at 23 CFR 774.15(f) lists eight examples of situations in which FHWA has determined that constructive use does not occur. These include the following two examples that are relevant to the constructive-use evaluation for the parks listed above.

- (2) The impact of projected traffic noise levels of the proposed highway project on a noise-sensitive activity do[es] not exceed the FHWA noise abatement criteria as contained in Table 1 in part 772 of this chapter, or the projected operational noise levels of the proposed transit project do not exceed the noise impact criteria for a Section 4(f) activity in the [Federal Transit Administration] guidelines for transit noise and vibration impact assessment;
- (3) The projected noise levels exceed the relevant threshold in paragraph (f)(2) of this section because of high existing noise, but the increase in the projected noise levels if the proposed project is constructed, when compared with the projected noise levels if the project is not built, is barely perceptible (3 dBA or less)[.]

***Bus Park.*** At Bus Park, Alternatives A1, A2, B1, and B2, with or without the wetland avoidance options, would be close to the southeast corner of the park boundary. A spur off the Legacy Parkway Trail connects to the park at this location. The eastern boundary of the park adjoins the Legacy Parkway Trail, which is at the western edge of the I-15 right-of-way.

The park includes baseball fields north of the parking lot. There would be no expansion of the I-15 right-of-way in this location and no substantial change in activities occurring within the I-15 corridor. Construction would occur to put in place a proposed new interchange south of this location. There would be no effect on the activities, features, or attributes of Bus Park. The modeled noise levels at Bus Park with any of the WDC alternatives were 72 dBA, which is greater than the 66-dBA noise-abatement criterion for parks. However, because Bus Park is located adjacent to Legacy Parkway and I-15, the modeled noise levels without the WDC would also be 72 dBA, and there would be no increase in noise levels from any of the WDC alternatives. Therefore, because it meets the criteria described in 23 CFR 774.15(f)(3), Bus Park would not have a constructive use.

**Rock Creek Park.** At Rock Creek Park, the B Alternatives are within 185 feet of the northeast corner of the park across an existing intersection. The northeast corner of the park is the least-developed portion of the park, consisting of lawns and isolated tree plantings. The northeast corner is visually separated from the more developed paths, pavilion, and play equipment in the western part of the park by a fenced cell phone tower within the park. With Alternatives B1 and B2, the new highway would be visible, but the activities, features, and attributes of this park would not be substantially impaired by the proximity of the highway. The modeled noise levels at Rock Creek Park with any of the WDC alternatives were 57 dBA, which is less than the 66-dBA noise-abatement criterion for parks. Therefore, because it meets the criteria described in 23 CFR 774.15(f)(2), Rock Creek Park would not have a constructive use.

**Kays Creek Park.** At the planned Kays Creek Park, all alternatives adjoin the southwest-facing boundary of the planned park. This park currently is undeveloped and functions as open space. A fenced city facility is located at the northwest corner and would be unaffected. City crews have begun building earthen berms and small hills along the eastern portion of the park. There is no parking associated with this park, and without recreational amenities its use is assumed to be occasional hiking or dog walking. The new highway would be visible and close to the park, but the activities, features, and attributes of this park would not be substantially impaired by the proximity of the highway. The modeled noise levels at Kays Creek Park with any of the WDC alternatives were 65 dBA, which is less than the 66-dBA noise-abatement criterion for parks. Therefore, because it meets the criteria described in 23 CFR 774.15(f)(2), Kays Creek Park would not have a constructive use.

**Jensen Nature Park.** At Jensen Nature Park, all alternatives adjoin the south boundary of the park. This park has a pond, hiking trail, pavilions, and parking lots. On the southern border, the park has native landscaping between the trail and the edge of the park boundary. All of the WDC alternatives would include drainage facilities that would use the property just south of the park. The actual WDC roadway would be located at least 100 feet away at its closest point. With any of the alternatives, the new highway would be visible, but the activities, features, and attributes of this park would not be substantially impaired by the proximity of the highway. The modeled noise levels at Jensen Nature Park with any of the WDC alternatives were 59 to 62 dBA, which is less than the 66-dBA noise-abatement criterion for parks. Therefore, because it meets the criteria described in 23 CFR 774.15(f)(2), Jensen Nature Park would not have a constructive use.

**Outwest Park.** At the planned Outwest Park, Alternatives B1 and B2 adjoin the east boundary of the park. This planned park is currently undeveloped and does not have any recreational amenities. The actual WDC roadway with Alternatives B1 and B2 would be located at least 100 feet away at its closest point. With Alternatives B1 and B2, the new highway would be visible, but the activities, features, and attributes of this planned park would not be substantially impaired by the proximity of the highway. There would be no constructive use of Outwest Park from Alternatives B1 and B2 as defined in 23 CFR 774.15(a). The modeled noise levels at Outwest Park with any of the WDC alternatives were 55 to 60 dBA, which is less than the 66-dBA noise-abatement criterion for parks. Therefore, because it meets the criteria described in 23 CFR 774.15(f)(2), Outwest Park would not have a constructive use.

#### 27.6.4 Use of Public Recreation Areas

Table 27-18 below lists those public recreation areas to which Section 4(f) applies and whose recreation-area property would be used by one or more of the WDC action alternatives. In addition to the types of use listed in bold (as indicated in Section 27.6.1, Summary of Use), for each Section 4(f) property the table lists:

- Acreage of use, and the percentage this use represents of the whole property. No percentage is given for trails.
- A very brief description of the primary activity, feature, or attribute that would be affected. As listed in the table, the effect noted is *before* the application of any measures to minimize harm.
- The potential for mitigating the impact. (See Section 27.6.6, Measures to Minimize Harm, for a more complete explanation of measures to minimize harm).

The text following the table further explains *de minimis* impact findings (lavender in the table) and potential proximity impacts (orange in the table).

**Table 27-18. WDC Action Alternatives and Use of Recreation Areas**

Section 4(f) Property	With Wetland Avoidance Options							
	A1	A2	B1	B2	A1	A2	B1	B2
Buffalo Ranch Trail (Figures 27-5 and 27-6)	<i>De minimis</i> • Part of Great Salt Lake Shoreline Trail loop. • 325 ft of 3.5 mi. • Horse, pedestrian, bicycle. • Mitigation: route trail on overpass.	<i>De minimis</i> • Same as A1						
Great Salt Lake Shoreline Trail (Figures 27-5 and 27-6)	<i>De minimis</i> • Includes spur north along powerline. • 520 ft of 2 mi. • Horse, pedestrian, bicycle. • Mitigation: reroute trail on overpass.	<i>De minimis</i> • Same as A1						
Bridgeway Island Trail (Figure 27-14)	<i>De minimis</i> • 150 ft of 0.5 mi. • Mitigation: grade-separated crossing of trail.	<i>De minimis</i> • Same as A1	No use	No use	<i>De minimis</i> • Same as A1	<i>De minimis</i> • Same as A1	No use	No use
5500 West Trail (unnamed), Hooper (Figures 27-19 and 27-20)	No use	No use	No use	No use	No use	No use	No use	No use
Canyon Creek Elementary School Playing Fields (Figure 27-3)	<i>De minimis</i> • Less than 0.1 ac out of 3.5 ac would be affected. • Mitigation: UDOT will provide compensation for any property acquired and will ensure that playing fields, sidewalks, and storm drains are returned to their existing function after construction.	<i>De minimis</i> • Same as A1						

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**Table 27-18. WDC Action Alternatives and Use of Recreation Areas**

Section 4(f) Property	With Wetland Avoidance Options							
	A1	A2	B1	B2	A1	A2	B1	B2
Utah Division of Wildlife Resources Sportsman's Access (Figure 27-8)	<i>De minimis</i> <ul style="list-style-type: none"> <li>0.18 ac of 2.2-ac parcel would be affected.</li> <li>Access would be shifted to the north.</li> <li>Mitigation: new access would be provided with the new Roueche Lane underpass.</li> </ul>	<i>De minimis</i> <ul style="list-style-type: none"> <li>Same as A1</li> </ul>	<i>De minimis</i> <ul style="list-style-type: none"> <li>Same as A1</li> </ul>	<i>De minimis</i> <ul style="list-style-type: none"> <li>Same as A1</li> </ul>	<i>De minimis</i> <ul style="list-style-type: none"> <li>Same as A1</li> </ul>	<i>De minimis</i> <ul style="list-style-type: none"> <li>Same as A1</li> </ul>	<i>De minimis</i> <ul style="list-style-type: none"> <li>Same as A1</li> </ul>	<i>De minimis</i> <ul style="list-style-type: none"> <li>Same as A1</li> </ul>
Kays Creek Elementary School playing fields (Figure 27-9)	No use	No use	No use	No use	No use	No use	No use	No use
Syracuse Equestrian Center (Figure 27-12)	No use	No use	No use	No use	No use	No use	No use	No use
Syracuse Arts Academy playing fields (Figure 27-15)	No use	No use	No use	No use	No use	No use	No use	No use
<b>Total affected</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>4</b>
<b>Potential <i>de minimis</i></b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>4</b>
<b>Direct use</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

ac = acres; ft = feet; mi = miles

***Buffalo Ranch Trail De Minimis Impact.*** Alternatives A1, A2, B1, and B2 would cross the Buffalo Ranch Trail and would place the trail on an overpass above the WDC alignment. This overpass would be built to equestrian standards. The trail forms a loop with the Great Salt Lake Shoreline Trail but is the inland leg of the loop. The trail crossing would be direct and would involve no realignment of the trail, but would require temporary closing of the trail during construction using a trail detour or using low-use timing to ensure that there is no disruption of trail use.

Farmington City officials have been notified of the *de minimis* impact finding for the Buffalo Ranch Trail and have concurred with the finding [see Appendix 27A, Section 4(f) Correspondence]. None of these impacts would affect any of the important activities, features, or attributes of the Buffalo Ranch Trail. Mitigation measures are proposed for the impacts to the Buffalo Ranch Trail and are described above and in Section 27.6.6, Measures to Minimize Harm. With the mitigation proposed, FHWA has made a determination that there would be no adverse effect to the activities, features, or attributes of the Buffalo Ranch Trail.

***Great Salt Lake Shoreline Trail De Minimis Impact.*** Alternatives A1, A2, B1, and B2, with or without the wetland avoidance options, would cross the Great Salt Lake Shoreline Trail and would place the trail on an overpass above the WDC alignment. This overpass would be built to equestrian standards. The trail forms a loop with the Buffalo Ranch Trail. The trail crossing would be direct and would require only a minor realignment of the trail. Temporary closing of the trail during construction, using a trail detour, or using low-use timing to ensure no disruption of trail use would be required during construction.

Farmington City officials have been notified of the *de minimis* impact finding for the Great Salt Lake Shoreline Trail and have concurred with the finding [see Appendix 27A, Section 4(f) Correspondence]. None of these impacts would affect any of the important activities, features, or attributes of the Great Salt Lake Shoreline Trail. Mitigation measures are proposed for the impacts to the Great Salt Lake Shoreline Trail and are described above and in Section 27.6.6, Measures to Minimize Harm. With the mitigation proposed, FHWA has made a determination that there would be no adverse effect to the activities, features, or attributes of the Great Salt Lake Shoreline Trail.

***Bridgeway Island Trail De Minimis Impact.*** Alternatives A1 and A2, with or without the wetland avoidance options, would cross the Bridgeway Island Trail and would place the trail in an underpass below the WDC alignment. Temporary closing of the trail during construction, using a trail detour, or using low-use timing to ensure no disruption of trail use would be required during construction. Syracuse City officials have been notified of the *de minimis* impact finding for the Bridgeway Island Trail and have concurred with the finding [see Appendix 27A, Section 4(f) Correspondence]. None of these impacts would affect any of the important activities, features, or attributes of the Bridgeway Island Trail. Mitigation measures are proposed for the impacts to the Bridgeway Island Trail and are described above and in Section 27.6.6, Measures to Minimize Harm. With the mitigation proposed, FHWA has made a determination that there would be no adverse effect to the activities, features, or attributes of the trail.

**5500 West Trail (Unnamed).** The trail along 5500 West is considered a recreational trail, even though it is closely associated with a road and the overall transportation system. It is more important for recreation than typical roadside trails because it is part of the planned link between the Old Emigration Trail to the south and the Hooper Slough Trail to the north. None of the alternatives would cross the existing trail, nor would any be located close by.

However, with all of the alternatives evaluated in this Final EIS, there is a proposed trail extension from the Old Emigration Trail north from its current terminus at 1300 North to the southern end of the 5500 West Trail at the Davis County–Weber County border. There would be no direct use of the 5500 West Trail from the 4500 West Trail connection proposed as part of the WDC alternatives. All construction would occur on new right-of-way and would not require any temporary impacts or use of the 5500 West Trail. Since the 5500 West Trail ends at the Davis County–Weber County border, the construction of the 4500 West Trail connection south of this point would not affect any trail users on the 5500 West Trail.

However, there would be a substantial beneficial impact to the activities, features, and attributes of the existing 5500 West Trail. It would be extended from a short roadside trail to a regional trail (including extension of the southern end of the Old Emigration Trail south to the Legacy Parkway Trail in Farmington) with long segments relatively free of road and driveway crossings and with portions adjacent to quiet neighborhoods, farmland, and park land. Its new attributes would include bicycle and pedestrian access to parks and relatively quiet green spaces. As a result, the trail is likely to have increased use by bicyclists, runners, pedestrians, and other trail users.

Alternative A2 would cross the proposed 4500 West Trail extension along 4500 West in Hooper and would provide adequate space for the trail to cross under the WDC. The 4500 West Trail extension is part of all of the WDC alternatives evaluated in this Final EIS. This Final EIS provides the environmental analysis of the trail extension as part of the impact analysis in the other chapters of this EIS.

**Canyon Creek Elementary School Playing Fields De Minimis Impact.** All alternatives would acquire less than 0.1 acre of the 3.5-acre Canyon Creek Elementary School playing fields for roadway right-of-way to relocate 1100 West in Farmington. This impact would be caused by the WDC alternatives needing to realign 1100 West slightly to the east in this location so that it would intersect with Glovers Lane east of the WDC alternatives. These alternatives would bring 1100 West slightly closer to the playing fields. The playing fields are already located on 1100 West, so the character of the playing fields would not change substantially.

The conversion of less than 0.1 acre of the playing fields to a transportation use would not affect the use or activities of the playing fields. UDOT would provide compensation for any property acquired and would ensure that the playing fields, sidewalks, storm drains, and any other infrastructure affected by the WDC alternatives are returned to their existing conditions and function after construction. The Davis School District has reviewed this information and agreed that this would be a *de minimis* impact [see Appendix 27A, Section 4(f) Correspondence]. FHWA has determined that there would be no adverse effect to the

activities, features, or attributes of the Canyon Creek Elementary School playing fields from these alternatives and therefore that the use would be a *de minimis* impact.

***Utah Division of Wildlife Resources Sportsman’s Access De Minimis Impact.*** All alternatives would have minor impacts (0.18 acre out of 2.2 acres total) to the Utah Division of Wildlife Resources Sportsman’s Access at the west end of Roueche Lane in Kaysville. To minimize impacts to the power lines, the WDC alternatives all propose to route Roueche Lane underneath the WDC about 200 feet north of the current alignment. The access to the Sportsman’s Access would need to be modified to account for this new alignment of Roueche Lane. Also, about 0.5 acre of land between the new access and the Sportsman’s Access would be given to the Division of Wildlife Resources for use with the Sportsman’s Access.

The WDC roadway’s location near the Sportsman’s Access would alter the immediate view from the Sportsman’s Access when looking east, but the character of the access would be substantially similar to its current character. Therefore, with the mitigation proposed (new access and additional 0.5 acre of land), FHWA has determined that there would be no adverse effect to the activities, features, or attributes of the Sportsman’s Access from these alternatives and therefore that the use would be a *de minimis* impact. The Division of Wildlife Resources has been notified of this finding and concurred with this determination [see Appendix 27A, Section 4(f) Correspondence].

## 27.6.5 Use of Wildlife or Waterfowl Refuges

Table 27-19 below lists those waterfowl refuges to which Section 4(f) applies and whose land would be used by one or more of the WDC action alternatives. In addition to the types of use listed in bold (as indicated in Section 27.6.1, Summary of Use), for each Section 4(f) property the table lists:

- Acreage of use, and the percentage this use represents of the whole property.
- A very brief description of the primary activity, feature, or attribute that would be affected. As listed in the table, the effect noted is *before* the application of any measures to minimize harm.
- The potential for mitigating the impact. See Section 27.6.6, Measures to Minimize Harm, for a more complete explanation of measures to minimize harm.

The text following the table further explains potential proximity impacts (orange in the table) and *de minimis* impact findings (lavender in the table).

**Table 27-19. WDC Action Alternatives and Impacts to Waterfowl and Wildlife Refuges**

Section 4(f) Property	With Wetland Avoidance Options							
	A1	A2	B1	B2	A1	A2	B1	B2
Great Salt Lake Shorelands Preserve (Figs. 27-7 to 27-13)	<i>De minimis</i> • 19.1 ac (1%). • Bird habitat. • Mitigation: replace affected land.	<i>De minimis</i> • Same as A1	<i>De minimis</i> • Same as A1	<i>De minimis</i> • Same as A1	<i>De minimis</i> • 13.3 ac (1%). • Bird habitat. • Mitigation: replace affected land.	<i>De minimis</i> • Same as A1 with wetland avoidance options	<i>De minimis</i> • Same as A1 with wetland avoidance options	<i>De minimis</i> • Same as A1 with wetland avoidance options
Farmington Bay WMA (Figs. 27-4 and 27-5)	No use • Alternative is near northern refuge boundary.	No use • Same as A1	No use • Same as A1	No use • Same as A1	No use • Same as A1			
<b>Total affected</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<i>De minimis</i>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Direct use</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Great Salt Lake Shorelands Preserve.** The Great Salt Lake Shorelands Preserve (4,400 acres total) is unusual because most of it is privately owned by the nonprofit TNC, but substantial portions are publicly owned (1,750 acres). All action alternatives would use 13.3 to 19.1 acres of the public portion (1% of the public land and 0.4% of the total).

Note that the Brezoff property [about 200 acres at approximately 1016 South 2000 West in Kaysville; see Figure 27-8, Section 4(f) Resources (Map 8 of 20), in Volume IV] is a historic building on extensive land holdings and that TNC holds a conservation easement on these lands, making them part of the preserve. Because of its historic value, this 200-acre area also is subject to Section 4(f) protection even though it is not publicly owned. All action alternatives would use a portion of this property.

For this Final EIS, the wetland avoidance options were added to the EIS analysis and Section 4(f) evaluation. These wetland avoidance options could be used by any of the four action alternatives (Alternatives A1, A2, B1, or B2). As shown in Table 27-19 above, using the wetland avoidance options would also avoid about 5.8 acres of direct impact to the publicly owned parcels of the preserve and are part of all possible planning to minimize harm discussed in Section 27.6.6, Measures to Minimize Harm, of this final Section 4(f) evaluation.

The 13.3-to-19.1-acre impact to public portions of the preserve would be offset by the purchase of mitigation properties that are currently privately owned lands that are valued for their conservation values to replace the lands lost. The mitigation properties would be targeted and evaluated for mitigation based on their ability to replace the ecological functions of the affected lands. (Impacts to TNC privately owned portions of the preserve would be reduced by payment at the appraised fair market value; TNC could then use these funds to purchase replacement lands or conservation easements, or to enhance wetlands, although there would be no requirement that these expenditures occur at the preserve. Mitigation for the project's wetland impacts throughout the project area is also planned to benefit the preserve.) The wetland mitigation plan as proposed at the time of the release of this Final EIS would involve purchasing all of the remaining privately owned properties that are within the preserve boundaries.

Because lands used from public portions of the preserve would be replaced in their entirety with wetlands and bird habitat of equal or better value by purchasing and protecting such lands currently held by private owners, and because of the planned wetland mitigation purchases of the privately owned properties, the WDC is expected to result in an overall increase in acreage and habitat values for the preserve. Also, the primary public access point to the preserve—the boardwalk, pavilion, and observatory in Layton—is on TNC land and would not be affected; in general, public access to the public portions of the preserve would not be substantially changed, because there is no developed public access to them today.

UDOT and FHWA have determined that, with the proposed mitigation measures, the WDC Project (all alternatives) would not affect the important activities, features, or attributes of the public portions of the preserve. URMCC officials have been notified of the *de minimis* impact finding for the Great Salt Lake Shorelands Preserve and have concurred with the finding [see Appendix 27A, Section 4(f) Correspondence]. None of these impacts would affect any of

the important activities, features, or attributes of the Great Salt Lake Shorelands Preserve. Mitigation measures are proposed for the impacts to the Great Salt Lake Shorelands Preserve and are described above and in Section 27.6.6, Measures to Minimize Harm. Therefore, FHWA has made a *de minimis* impact finding in this Final EIS and Section 4(f) evaluation. This determination has considered the public and agency comments on the Draft EIS and the written concurrence from officials with URMCC who have jurisdiction over these parcels.

***Farmington Bay WMA.*** At their closest point at the northern end of Glovers Lane (about 800 South 2000 West in Farmington), Alternatives A1, A2, B1, and B2, with or without the wetland avoidance options, would pass on an identical alignment about 465 feet from the northern edge of the Farmington Bay WMA at the closest point [see Figures 27-4 and 27-5, Section 4(f) Resources (Maps 4 and 5 of 20), in Volume IV]. Between about 2000 West and 1400 West in Farmington, Alternatives A1, A2, B1, and B2 would be more than 900 feet from the northern boundary of the Farmington Bay WMA. This northern unit of the WMA is 290 acres total (the entire discontinuous WMA is 18,000 acres). Within the 290 acres, the greatest ponded/wetland area is in the western half, and development for visitors (a large parking lot and associated nature center buildings) is located in this west-central area.

Trails and boardwalks extend in a loop to the east, with a lesser path to the west and north. This western path connects to the Great Salt Lake Shoreline Trail/Buffalo Ranch Trail loop, which lies on the northwestern WMA perimeter. Farmington Creek enters the northeast corner of the WMA. Riparian/wetland habitats exist alongside upland mowed hayfields in this area. The closest formal trail inside the WMA boundary would be more than 1,000 feet away from the edge of the proposed highway right-of-way.

The Grace-Terminal electricity transmission lines on substantial steel towers pass the northeast corner and would be between the WMA and the highway in this area. Glovers Lane would also remain in place between the WDC alternatives and the Farmington Bay WMA. The water sources flowing southward into the WMA wetlands would be maintained beneath the WDC alignment, and no change to water supply or water quality in the WMA is anticipated.

The noise levels predicted by the FHWA noise model would not exceed the FHWA or UDOT noise-abatement criterion of 66 dBA anywhere in the Farmington Bay WMA. Additionally, noise levels at the Farmington Bay WMA are not expected to be noticeably louder than current ambient noise levels because the WDC alternatives would be 465 feet away or farther. Therefore, based on the modeled noise levels, because it meets the criteria described in 23 CFR 774.15(f)(2), the Farmington Bay WMA would not have a constructive use.

Because there would be no direct use, because the transmission line and Glovers Lane are already in place as linear industrial land uses, because there would be no substantial change in public access, and because there would be no change to water supply, FHWA has made a determination that the addition of the WDC within several hundred feet of the WMA boundary would not adversely affect the activities, features, or attributes of the Farmington Bay WMA and that there would be no constructive use of the WMA per 23 CFR 774.15(a).

## 27.6.6 Measures to Minimize Harm

Federal regulations state that, when Section 4(f) properties are unavoidable, FHWA may not approve the use of Section 4(f) property for a proposed action unless “the action includes all possible planning ... to minimize harm to the property resulting from such use[.]”

FHWA regulations at 23 CFR 774.17 define “all possible planning” to mean that “all reasonable measures identified in the Section 4(f) evaluation to minimize harm or mitigate for adverse impacts and effects must be included in the project.” The regulations state that, “in evaluating reasonableness,” FHWA is to consider “the preservation purpose of the statute” and the following issues:

- (i) The views of the official(s) with jurisdiction over the Section 4(f) property;
- (ii) Whether the cost of the measures is a reasonable public expenditure in light of the adverse impacts of the project on the Section 4(f) property and the benefits of the measure to the property ... ; and
- (iii) Any impacts or benefits of the measures to communities or environmental resources outside of the Section 4(f) property.

The following sections present proposed measures to minimize harm to individual Section 4(f) properties that would be affected by one or more of the WDC action alternatives. FHWA has determined that the measures proposed appear at this time to be “reasonable” as defined above. These measures could be modified or become better defined between this final Section 4(f) evaluation and the Record of Decision, based on the views of officials with jurisdiction over the Section 4(f) properties, based on comments from the public and agencies, and potentially based on design refinements.

### 27.6.6.1 Proposed Measures for Individual Section 4(f) Properties

Table 27-20 through Table 27-23 below describe proposed measures to minimize harm to affected Section 4(f) properties by alternative. Note that measures to minimize harm for historic properties are governed in large part by the National Historic Preservation Act Section 106 process. A Programmatic Agreement was developed during the Final EIS process after consultation with consulting parties to mitigate for unavoidable adverse effects. The Programmatic Agreement includes mitigation measures for the unavoidable adverse effects of the preferred alternative.

The Record of Decision will record the final commitments of the WDC Project for the preferred alternative but will not record any fewer measures to minimize harm than those described in this final Section 4(f) evaluation.

**Table 27-20. Measures to Minimize Harm to Historic Properties**

Section 4(f) Property	Measures
Architectural properties	<p><b>A1, A2, B1, B2 with or without wetland avoidance options:</b> Photograph and/or otherwise document selected buildings to the extent indicated per the terms of the Programmatic Agreement.</p> <p><b>A1, A2, B1, B2 with wetland avoidance options:</b> These alternatives would relocate the Joseph Hill Family Cabin at 2133 W. 1000 S. in Layton prior to construction of the WDC alternative. UDOT has coordinated with the property owners and Layton City to identify a location in Layton Commons Park to relocate the Joseph Hill Family Cabin. The details of this mitigation are specified in the terms of the Programmatic Agreement.</p>

**Table 27-21. Measures to Minimize Harm to Parks**

Section 4(f) Property	Measures
South Park	<p><b>A1, A2, B1, B2 with or without wetland avoidance options:</b> Replace existing park sign located at southwest corner of the park.</p>
1100 West Park	<p><b>A1, A2, B1, B2 with or without wetland avoidance options:</b> Replacement property would be provided to Farmington City adjacent to the Farmington Gymnasium and Regional Sports Complex at 294 S. 650 W. The proposed replacement property is Davis County parcel 080760010. This parcel is 22.37 acres and is located adjacent to and south of the Farmington Gymnasium and Regional Sports Complex. UDOT would work with Farmington City to identify which parts of this parcel are needed to replace the park amenities and function of the 1100 West Park impacted by the WDC alternatives.</p>
Fremont Park	<p><b>A1, A2 with or without wetland avoidance options:</b> No use/no measures to minimize harm.</p> <p><b>B1, B2 with or without wetland avoidance options:</b> During the final design phase of the project, UDOT would work with Syracuse City and the Syracuse Arts Academy to find the best location for the school access road to result in the best layout for the park and good access for the school. A grade-separated trail connection to the rerouted Old Emigration Trail east of the WDC alignment would be provided, likely in line with the existing trailhead location. A spur trail would be provided northward on the west side of the highway alignment to reach the school; a crosswalk would be provided. The detention basin located in Fremont Park would be designed to accommodate the planned soccer fields. UDOT would also donate 1.5 acres of land it owns south of Founders Park (parcels 120520052 and 120520159) to Syracuse City that the City would be able to use for additional parking or other recreational amenities at Founders Park (located at about 1900 W. 1600 S. in Syracuse) and would purchase up to 3.5 acres of land from parcel 121080042 at 3450 S. Bluff Rd. that Syracuse City would use for a new park. Syracuse City has requested these sites and has stated that these sites would provide needed enhancements or additions to the Syracuse parks system.</p>

**Table 27-22. Measures to Minimize Harm to Recreation Areas**

Section 4(f) Property	Measures
Great Salt Lake Shoreline Trail	<b>A1, A2, B1, B2 with or without wetland avoidance options:</b> Provide an overpass using recommended vertical and horizontal clearances for equestrian/shared use (USFS 2007). Place overpass with ample sight distance to avoid surprising horses. Place overpass at north end of loop close to existing alignment, and maintain trail west of new highway.
Buffalo Ranch Trail	<b>A1, A2, B1, B2 with or without wetland avoidance options:</b> Provide an overpass using recommended vertical and horizontal clearances for equestrian/shared use (USFS 2007). Place overpass with ample sight distance to avoid surprising horses. Maintain trail use during construction by providing detour. Any trail closure would be short-term and timed during low-trail-use periods.
5500 West Trail (unnamed), Hooper	<b>A1, A2, B1, B2 with or without wetland avoidance options:</b> No use/no measures to minimize harm. However, as with all alternatives, a connection to the Old Emigration Trail is part of the WDC Project.
Canyon Creek Elementary School playing fields	<b>A1, A2, B1, B2 with or without wetland avoidance options:</b> Minimize impacts to playing fields during construction of rerouted 1100 West. UDOT would provide compensation for any property acquired and would ensure that the playing fields, sidewalks, storm drains, and any other infrastructure affected by the WDC alternatives are returned to their existing conditions after construction.
Utah Division of Wildlife Resources Sportsman's Access	<b>A1, A2, B1, B2 with or without wetland avoidance options:</b> Provide new road access and connection to Sportsman's Access from rerouted Roueche Lane. Provide 0.5 acre of land between new access road and the current Sportsman's Access to the Utah Division of Wildlife Resources to incorporate into the Sportsman's Access.

**Table 27-23. Measures to Minimize Harm to Refuges**

Section 4(f) Property	Measures
Great Salt Lake Shorelands Preserve (URMCC parcels)	<p><b>A1, A2, B1, B2 with or without wetland avoidance options:</b> To compensate for losses of publicly owned preserve land, UDOT will purchase new parcels and any associated water rights along the Great Salt Lake shoreline to replace lost acreage and wetland and habitat values. UDOT will also implement the following mitigation measures as part of the WDC Project:</p> <ul style="list-style-type: none"> <li>• Quiet pavement will be used on the WDC.</li> <li>• No mainline lighting will be used on the WDC from Farmington to Syracuse; only dark-sky lighting will be used at the 2700 West, 200 North, and 950 North interchanges.</li> <li>• Access to the Great Salt Lake Shorelands Preserve for management purposes will be maintained. Most access locations will be retained in their current locations. The Angel Street and Galbraith Lane access points will be relocated to an access point at Roueche Lane, and the 2200 South/1000 West access will be relocated to 2700 West in Layton.</li> <li>• To address stormwater runoff to the preserve, vegetated filter strips will be used along the highway as required to treat and manage stormwater runoff.</li> <li>• UDOT will ensure that water delivery and distribution systems to the preserve remain intact or are improved, such that management access and water delivery and distribution are not adversely affected by the WDC.</li> </ul> <p>Selection of an alternative with the wetland avoidance options would minimize harm by reducing the amount of direct and indirect impacts to the preserve (for more discussion regarding minimizing impacts to the preserve, see Section 27.6.7.1, Least Overall Harm Analysis).</p> <p>Similarly, the selection of Alternative B1 or B2 instead of Alternative A1 or A2 would minimize harm by reducing the amount of indirect impacts to the preserve north of Gentile Street (for more discussion regarding minimizing impacts to the preserve, see Section 27.6.7.1, Least Overall Harm Analysis).</p>
Farmington Bay WMA	<p><b>A1, A2, B1, B2 with or without wetland avoidance options:</b> No direct use. However, maintain free flow of surface water under highway to the WMA to ensure no constructive use.</p>

### 27.6.6.2 Alignment Shifts to Minimize Harm

The micro-level avoidance analysis [see Section 27.5.3, Micro-level Analysis: Potential Avoidance of Individual Section 4(f) Properties] carefully examined opportunities to avoid Section 4(f) properties by shifting an alignment or changing the design of an alternative. UDOT and FHWA have re-examined information from the multiple tables in that section seeking ways to minimize harm and have determined that there is nothing more that can be done to minimize harm by such means.

## 27.6.7 Least Overall Harm

### 27.6.7.1 Least Overall Harm Analysis

If there is no prudent and feasible overall avoidance alternative (“macro-level”), FHWA must select the alternative that “causes the least overall harm in light of the statute’s preservation purpose” [23 CFR 774.3(c)]. Under these regulations, the “least overall harm” is determined by “balancing the following factors”:

1. The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property)
2. The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection
3. The relative significance of each Section 4(f) property
4. The views of the official(s) with jurisdiction over each Section 4(f) property
5. The degree to which each alternative meets the purpose of and need for the project
6. After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f)
7. Substantial differences in costs among the alternatives

The following sections address each of these factors. Some topics that are closely related are combined under one discussion.

#### **Ability to Mitigate / Relative Severity of Harm after Mitigation (Factors 1 and 2)**

After determining reasonable measures to minimize harm, typically there would be some degree of remaining harm to Section 4(f) resources. If the remaining harm is so minimal that the activities, features, and attributes of the Section 4(f) property are unaffected, FHWA has made a *de minimis* impact finding. Where FHWA has determined that a more substantial impact would remain, it might be a relatively large impact or relatively small. The discussion below addresses the general ability to mitigate impacts and the relative severity of harm after mitigation to affected Section 4(f) properties. See further discussion of mitigation in Section 27.6.6, Measures to Minimize Harm, and the “use” discussions in Section 27.6.1, Summary of Use, through Section 27.6.5, Use of Wildlife or Waterfowl Refuges.

Table 27-24 below summarizes the relative severity of harm after mitigation. Note that the table indicates *relative* severity of harm. Even low harm in this table is greater than a *de minimis* impact. Severity of harm can be listed as relatively high, while the significance of the given property might be low, or vice versa. For more information about relative significance, see the section titled Relative Significance of Each Section 4(f) Property (Factor 3) on page 27-76.

The results in the table are discussed after the table.

**Table 27-24. Relative Severity of Harm after Mitigation**

Relative Severity of Harm					With Wetland Avoidance Options			
	A1	A2	B1	B2	A1	A2	B1	B2
High	2 historic structures	2 historic structures	3 historic structures	3 historic structures	4 historic structures	4 historic structures	5 historic structures	5 historic structures
Med	1100 West Park	1100 West Park	1100 West Park	1100 West Park				
Low			1 historic structure	1 historic structure			1 historic structure	1 historic structure

This table lists only those properties for which a use has been determined. Properties with *de minimis* impacts are not included.

**Historic Buildings.** Historic buildings affected by the WDC typically would be removed and destroyed. This would be the case for the historic properties at approximately 1016 North 2000 West in Kaysville, 984 South 2200 West in Layton, 992 South 2200 West in Layton, the Joseph Hill Family Cabin at 2133 West 1000 South in Layton, 1002–1054 South 3000 West in Syracuse, and 1068 South 3000 West in Syracuse that are listed in Table 27-16, WDC Action Alternatives and Use of Historic Properties, as having a greater than *de minimis* Section 4(f) use from one or more of the WDC action alternatives. Because these properties would be removed and destroyed, the relative severity of harm was considered high even with the mitigation described in Table 27-20 above and in the text below.

In addition to relocating and providing just compensation to the owner of the historic property, additional mitigation for historic properties will include photographic recording and archiving of the historic properties as part of the Section 106 Programmatic Agreement. With this mitigation, there would still be a loss of these buildings. However, it is important to note that all historic buildings, except for the Joseph Hill Family Cabin at 2133 West 1000 South in Layton, that could be affected by the WDC alternatives were rated Eligible/Contributing (EC) under the Utah SHPO criteria, are eligible for listing on the NRHP, and are considered by the Utah SHPO to be “good” (but not necessarily “excellent”) examples of historic architecture or integrity.

The Joseph Hill Family Cabin at 2133 West 1000 South in Layton is listed on the NRHP and is considered an excellent example of historic architecture. There are many historic-age residences and farms in the project area. The other older buildings that would be affected are a small number of such properties in the area and are not Eligible/Significant (ES) under the Utah SHPO criteria.

As previously shown in Table 27-20, Measures to Minimize Harm to Historic Properties, for mitigation for the Joseph Hill Family Cabin, UDOT has coordinated with the property owners and Layton City about the Joseph Hill Family Cabin and has identified a location in Layton Commons Park to relocate the cabin. This move would still have an adverse effect on the cabin, but the relative severity of harm with this mitigation would be reduced.

The historic property at 1653 S. Bluff Road in Syracuse that could have a greater than *de minimis* Section 4(f) use from Alternative B1 or B2 would experience direct impacts to the associated properties, but the historic structure would not be removed or destroyed as part of the WDC Project, so the relative harm to the property would be low.

**Parks.** UDOT and FHWA propose to mitigate for the impacts to 1100 West Park by purchasing a replacement park property adjacent to the Farmington Gymnasium and Regional Sports Complex at 294 South 650 West in Farmington. The proposed replacement property would be on Davis County parcel 080760010, which is 22.37 acres and is located adjacent to and south of the Farmington Gymnasium and Regional Sports Complex. A replacement park at this location would serve the same recreational users in western Farmington that are served by 1100 West Park at its current location at 1100 W. Glovers Lane (about 0.66 mile away).

Farmington City has provided comments suggesting that this site would be acceptable to the City to manage since it already manages the Gymnasium and Regional Sports Complex in this location. The overall acreage and amenities of the mitigation park site will be the same as

or greater than the existing 1100 West Park. Because the new site is only two-thirds of a mile from the existing site, mitigation potential is high, and the severity of harm following construction would be medium.

***Wildlife and Waterfowl Refuges.*** All alternatives would use lands from the Great Salt Lake Shorelands Preserve, including publicly owned parcels protected by Section 4(f) and private parcels not protected. This section focuses on the Section 4(f) (public) property impacts. As proposed mitigation, UDOT would purchase new properties along the Great Salt Lake shoreline and would rehabilitate, enhance, or preserve wetlands on them (mitigating the wetland impacts of the project throughout the WDC corridor). The purchase of the properties would consolidate the preserve and leave it as a mostly-intact whole owned by URMCC and TNC instead of a partial patchwork that could eventually be developed.

The mitigation potential is high, and the severity of harm following mitigation is neutral. Since the alternatives with the wetland avoidance options would have fewer direct and indirect impacts to the preserve, the remaining harm to the preserve would be less compared to the remaining harm for the alternatives without the wetland avoidance options.

### **Relative Significance of Each Section 4(f) Property (Factor 3)**

Any discussion of relative significance of different kinds of properties owned and managed by different agencies and used by different constituencies among the public is difficult. Birding enthusiasts are likely to be partial to wildlife refuges, while history buffs are likely to be more favorable toward historic structures. Agencies managing parks and trails for development of play equipment, lighted fields, and long distances of paved trail surface are likely to value developed park and recreation areas, and agencies managing refuges might consider open land of highest significance. Section 4(f) recognizes this in indicating that any property receiving Section 4(f) protection is significant. However, for determining least overall harm, it is necessary to identify relative levels of significance.

It would be impossible to rank all of the affected Section 4(f) properties in the impact analysis area from most significant to least significant. Instead, this discussion attempts to group properties into general categories of significance. The properties are grouped by rating on a scale of high-medium-low relative significance. This is based on the level of development and investment or other indication that an agency or owner is “invested” in the property, its prominence in plans, information about a property and its uses available in internet searches and other documents, and other indications of significance provided by the officials with jurisdiction when available. Review of and comments on the Draft EIS and Section 4(f) evaluation by the public and officials with jurisdiction were taken into account for the ratings shown here. Note that these ratings are intended to indicate measures of *relative significance*.

Table 27-25 below summarizes the ratings from the discussion that follows. Table 27-26 below breaks out these ratings into separate rows to indicate which alternatives would affect Section 4(f) properties at the various levels of significance. The text that follows discusses the ratings.

**Table 27-25. Summary of Relative Significance of Section 4(f) Properties Used by the WDC Action Alternatives (Greater than *De Minimis*)**

Section 4(f) Properties	Relative Significance				
	High	High-Medium	Medium	Medium-Low	Low
Historic properties		Joseph Hill Family Cabin, 2133 W. 1000 S., Layton			All historic structures affected (excluding Joseph Hill Family Cabin)
Parks			1100 West Park		

**Table 27-26. Relative Significance and Effects by the WDC Action Alternatives**

Significance	With Wetland Avoidance Options							
	A1	A2	B1	B2	A1	A2	B1	B2
High								
High-medium					Joseph Hill Family Cabin, 2133 W. 1000 S., Layton	Joseph Hill Family Cabin, 2133 W. 1000 S., Layton	Joseph Hill Family Cabin, 2133 W. 1000 S., Layton	Joseph Hill Family Cabin, 2133 W. 1000 S., Layton
Medium	1100 West Park	1100 West Park	1100 West Park	1100 West Park	1100 West Park	1100 West Park	1100 West Park	1100 West Park
Medium-low								
Low	2 historic structures	2 historic structures	4 historic structures	4 historic structures	3 historic structures	3 historic structures	5 historic structures	5 historic structures

This table lists only those properties for which a use has been determined. Properties with *de minimis* impacts are not included.

### **Historic Properties**

**Historic Buildings as a Group.** *Low*, because there are hundreds of historic buildings in the general area, and none of the affected buildings stands out as unique. All historic buildings listed were rated Eligible/Contributing (EC) under the Utah SHPO criteria, are eligible for listing on the NRHP, and are considered by the Utah SHPO to be “good” (but not necessarily “excellent”) examples of historic architecture or integrity. Loss of a given building would be worse from a Section 4(f) standpoint if it were the only building of its era or type. None of the properties stands out because of association with an important person in history. However, some individual buildings have greater integrity, and some are in poor condition, as stated in Appendix 16A, NRHP-Eligible Resources Affected by the Project.

**Joseph Hill Family Cabin, 2133 West 1000 South, Layton.** *High-medium*, because the Joseph Hill Family Cabin has been listed on the NHRP and is considered Eligible/Significant (ES) under the Utah SHPO ratings. The Joseph Hill Family Cabin is considered *high-medium* instead of *high* because it has had several modern modifications (for example, the roof has been reconstructed, and the cabin has been placed on a concrete slab), is not in its original location, and is currently surrounded by modern buildings.

### **Parks**

**1100 West Park.** *Medium*, because the park is an important park/green space surrounded by homes. It has soccer fields that are used by local residents and sports leagues. The park is placed well among neighborhoods and is close to Canyon Creek Elementary School.

### **Wildlife and Waterfowl Refuges**

**Great Salt Lake Shorelands Preserve.** The Great Salt Lake Shorelands Preserve is not listed above in Table 27-25 or Table 27-26 because it would have a *de minimis* impact from any of the WDC alternatives. However, the relative significance of the Great Salt Lake Shorelands Preserve is *high* because of the importance of the Great Salt Lake wetlands habitat for migratory birds in an arid region. Based on agency and public comments and meetings with multiple agencies, the preserve might have the highest relative significance of all the Section 4(f) properties in the WDC study area. The preserve is the only wildlife and waterfowl refuge in the WDC study area for which there would be a direct use. However, there would be no Section 4(f) uses of wildlife and waterfowl refuges with greater than *de minimis* impact.

Although the Section 4(f) use of the Great Salt Lake Shorelands Preserve is *de minimis* for any of the alternatives, the amount of direct and indirect impact to the preserve would be notably less for any of the alternatives with the wetland avoidance options compared to the alternatives without the wetland avoidance options since the alternatives with the wetland avoidance options would avoid about 12 acres of direct impact to the preserve and would have fewer acres of the preserve in any of the buffer distances. Similarly, either of the A Alternatives would have more indirect impacts to the preserve compared to either of the B Alternatives since the alignment of the A Alternatives is parallel to about 2 miles of the northern boundary of the preserve that would be avoided by the B Alternatives. The indirect



impacts of the proximity of a highway to wildlife and wildlife habitat would be less with the B Alternatives.

Comments from URMCC and TNC (the owners and managers of the preserve) have supported these conclusions. Additionally, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, and the Utah Division of Wildlife Resources have all provided similar comments stating that the wetland avoidance alternatives would have fewer direct and indirect impacts to the preserve, wetlands, and wildlife habitat compared to the alternatives without the wetland avoidance alternatives and that the A Alternatives would have greater direct and indirect impacts to the preserve, wetlands, and wildlife habitat compared to the B Alternatives.

### **Views of Officials with Jurisdiction (Factor 4)**

The Utah SHPO has concurred with the Section 4(f) uses for historic properties. UDOT and FHWA have met multiple times with the officials with jurisdiction for parks, recreational trails, and refuges during the WDC Project. The views of officials with jurisdiction over parks, recreational trails, and refuges as part of the public review of the Draft EIS and Section 4(f) evaluation have been incorporated into this Final EIS and Section 4(f) evaluation. UDOT and FHWA have specifically solicited views of officials for any Section 4(f) property for which a *de minimis* impact finding is proposed. Copies of the concurrence letters from the officials with jurisdiction are provided in Appendix 27A, Section 4(f) Correspondence. Comments from officials with jurisdiction that were submitted on the Draft EIS are provided in Appendix 32B, Reproductions of Comments on the Draft EIS.

Consultation with the Utah SHPO, Cities, Counties, and other managers about the project and various alternatives has resulted in a general understanding of the relative significance of the properties, as reflected in the ratings in the section titled Relative Significance of Each Section 4(f) Property (Factor 3) on page 27-76, but this has been most important in determining which properties are subject to Section 4(f) protection and which are not. All properties listed are known to be significant.

Based on consultation with and the views of officials with jurisdiction, there is sufficient information to distinguish among alternatives regarding the relative harm to Section 4(f) resources. URMCC, the official with jurisdiction for the Great Salt Lake Shorelands Preserve, has provided comments supporting the B Alternatives over the A Alternatives north of Gentile Street because of the reduced overall impact to the preserve. URMCC has supported the wetland avoidance options south of Gentile Street to reduce impacts to the Great Salt Lake Shorelands Preserve on the common southern and central segment of the alternatives.

The other resource agencies (the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, and the Utah Division of Wildlife Resources) and TNC, the private owner and manager of the Great Salt Lake Shorelands Preserve, have all provided similar comments supporting the B Alternatives north of Gentile Street and the wetland avoidance options south of Gentile Street. Copies of the relevant comments and correspondence from the resource agencies and TNC related to the support of



the B Alternatives are provided in Appendix 32B, Reproductions of Comments on the Draft EIS.

### **Degree to Which Alternatives Meet the Project's Purpose and Need (Factor 5)**

The WDC action alternatives were designed to meet the purpose of and need for the project and were designed to the same standards for safety, vehicle speed, level of service, and so on. Table S-5, Comparison of Regional Delay and Congestion Benefits from the WDC Action Alternatives, in Chapter S, Executive Summary, provides greater detail, including quantified projections of congestion in the north-south and east-west directions and measures for congestion by miles traveled and by hours traveled.

The results are similar among the alternatives. All of the action alternatives would substantially reduce daily delay and peak-period congestion and therefore would meet the purpose of and need for the project. However, among the action alternatives, there are some differences in transportation performance.

Note that, for this section, the wetland avoidance options are not discussed separately, since they do not have any effect on the transportation performance of the alternatives. Any discussion of the alternatives with regard to the purpose of and need for the WDC Project is assumed to be with or without the wetland avoidance options.

From the perspective of regional transportation performance, the B Alternatives (Alternatives B1 and B2) would perform better in terms of reducing daily traffic delay and reducing congestion on east-west roads compared to the A Alternatives (Alternatives A1 and A2). Alternative B1 would perform better than the other alternatives in reducing daily delay. In addition, Alternative B1 would be the best-performing of the B Alternatives in all categories.

Alternatives B1 and B2 would carry about 6,600 to 8,700 more vehicles per day than Alternatives A1 and A2. Additionally, the overall length of Alternatives B1 and B2 is about 1.1 to 1.3 miles shorter than Alternative A1 and about 3.0 to 3.1 miles shorter than Alternative A2, since the northern termini of Alternatives B1 and B2 are located at 1800 North in Davis County instead of at 5500 South in Weber County for Alternative A2. The B Alternatives, with their shorter length and more vehicle use per day, would provide a better overall transportation benefit than the A Alternatives.

When comparing Alternatives B1 and B2, Alternative B1 would carry more vehicles and would provide more transportation benefits in West Point than Alternative B2.

Overall, Alternative B1 would have the best overall transportation performance of the WDC action alternatives, since it uses the better-performing eastern option in Syracuse (common to Alternatives B1 and B2) and the better-performing eastern option in West Point.

## Non–Section 4(f) Resources (Factor 6)

The other chapters of this EIS provide more information regarding impacts to non–Section 4(f) resources. This Section 4(f) evaluation examines the issues of most importance and does not attempt to summarize the entire EIS. Based on the *Scoping Summary Report* and comments received on the Draft EIS and Section 4(f) evaluation, the following topics had the most importance:

- Air quality (see Chapter 11, Air Quality)
- Community cohesion (see Chapter 5, Community Impacts)
- Community facilities (see Chapter 5, Community Impacts)
- Property acquisition (see Chapter 5, Community Impacts)
- Wetlands and wildlife (see Chapter 14, Ecosystem Resources)

To the list above, FHWA adds:

- Farmland (see Chapter 4, Farmland)
- Conservation easements (see Chapter 3, Land Use)
- Consistency with local plans

The farmland topic has been a continuing theme in feedback from communities as the WDC Project has progressed. The topic of conservation easements was not a specific topic from EIS scoping, but several conservation easements owned by public entities on private property to protect agricultural and other open-space values were identified in the course of this Section 4(f) evaluation.

Other topics of note are (1) route location and (2) transit or non-highway alternatives as a subtopic of alternatives to be considered. Chapter 2, Alternatives, addresses alternatives and route selection. These topics are not impact topics and are not further addressed here. The topics listed above are addressed in turn below.

### ***Air Quality***

Air quality can be addressed at a global, regional, or local scale. Chapter 11, Air Quality, addresses all of these. In general, vehicle-miles traveled are expected to increase across Davis and Weber Counties by 2040, as the population is expected to increase. At the same time, replacement of today’s automobiles with newer vehicles and new emissions standards is expected to reduce the rate of emissions per vehicle or per mile traveled, so that, for most measures, emissions are expected to decrease with or without the WDC. Comparing the No-Action Alternative with the WDC action alternatives, some measures result in slightly higher emissions but generally much lower emissions than under existing conditions.

The regional air quality evaluations prepared by the Wasatch Front Regional Council for Davis County included the WDC. The evaluations concluded that, in 2040, the region would

#### **What is scoping?**

Scoping is an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.

be in compliance with the emission budgets in the State Implementation Plan in place at the time of the analysis.

Quantitative dispersion modeling was performed at the project level for carbon monoxide (CO) and for particulate matter of different sizes (PM<sub>10</sub> and PM<sub>2.5</sub>, from dust and diesel emissions) at the interchange with the densest residential development nearest the alignment (the Alternative B1 Antelope Drive interchange). This area received the most public comments with concern about air quality. Modeling was performed with the MOVES, CAL3QHC, and CAL3QHC-R models with worst-case assumptions concerning traffic volumes.

Applying this modeling of the worst-case interchange to all alternatives and all interchanges, the WDC would not cause the National Ambient Air Quality Standards for CO, PM<sub>10</sub>, or PM<sub>2.5</sub> to be exceeded. Air quality would remain well below standards for CO, at about half of the maximum allowed level. The modeled emissions would rise slightly with the action alternatives compared to the No-Action Alternative but would be much lower than existing conditions measured in 2015. Air quality would remain below the particulates standards on all measures, often well below the standards.

Emission inventory modeling was conducted for criteria pollutants (CO, PM<sub>10</sub>, PM<sub>2.5</sub>, and nitrogen oxides) and mobile-source air toxics. This modeling found that the total emissions in the WDC study area with the WDC would improve over existing conditions despite the increase in vehicle-miles traveled, due to technological improvements in vehicle emission systems in the future.

**Conclusion.** Air quality is not a substantial way to differentiate among alternatives, and the air quality impact results do not contribute meaningfully to the least overall harm analysis.

### **Community Cohesion**

The primary influence of the WDC would be dividing established communities by placing the highway through areas that have an identified sense of community. Chapter 5, Community Impacts, describes community cohesion issues in greater detail. Table 27-27 below summarizes the neighborhoods that would be most directly affected and lists the cities affected, although community cohesion likely would not be substantially compromised at a city-wide level in any city.

Alternatives A1 and A2 with or without the wetland avoidance options would have the greatest neighborhood cohesion effects. Although Alternatives B1 and B2 with or without the wetland avoidance options would pass by neighborhoods, they are not expected to affect neighborhood cohesion and therefore are the most favored in this regard.

#### **What is community cohesion?**

Community cohesion is the degree to which residents have a sense of belonging to their neighborhood or community.

**Table 27-27. Community Cohesion Impacts from the WDC Action Alternatives**

Alt.	Neighborhood Areas with Relatively Higher Impact	Cities Affected
A1	<b>One neighborhood area:</b> Bridgeway Island subdivision, Syracuse	Farmington, Kaysville, Layton, Syracuse, West Point
A2	<b>One neighborhood area:</b> Bridgeway Island subdivision, Syracuse	Farmington, Kaysville, Layton, Syracuse, West Point, Hooper
B1	Not applicable	Farmington, Kaysville, Layton, Syracuse, West Point
B2	Not applicable	Farmington, Kaysville, Layton, Syracuse, West Point

**Conclusion.** Alternatives A1 and A2 with or without the wetland avoidance options would have greater impacts to community cohesion than the B Alternatives. Alternatives B1 and B2 with or without the wetland avoidance options would have the least. These differences could be a factor in the least overall harm analysis.

### **Community Facilities**

The greatest public concern expressed during scoping about impacts to community facilities regarded impacts to Davis County’s Legacy Events Center (county fairgrounds) in Farmington. Virtually all of the public comments received about impacts to community facilities focused on that facility. None of the current alternatives would be located near the Legacy Events Center, and there would be no impact to Events Center access.

Note that, for this section, the wetland avoidance options are not discussed separately, since they would not have any effect on community facilities. Any discussion of the alternatives with regard to their effects on community facilities is assumed to be with or without the wetland avoidance options.

Other community facilities principally would be avoided, as described in more detail in Chapter 5, Community Impacts. As shown in Table 27-28 below, both of the B Alternatives would pass close to the Syracuse Arts Academy. These alternatives would result in reconfigured access and a high embankment for the highway immediately east of the school. Alternatives A2 and B2 would use a large portion of a 30-acre planned high school site in West Point, thereby requiring a new site for the school. At neither of the affected sites would an existing community facility building or critical grounds associated with an existing building be removed. All of the alternatives would affect properties owned by the Central Davis Sewer District. Alternatives A1 and A2 would affect properties owned by the North Davis Sewer District.

**Table 27-28. Community Facility Impacts from the WDC Action Alternatives**

Alternative	Community Facilities <sup>a</sup>
A1	Central Davis Sewer District North Davis Sewer District
A2	Central Davis Sewer District North Davis Sewer District Planned high school
B1	Central Davis Sewer District Syracuse Arts Academy
B2	Central Davis Sewer District Planned high school Syracuse Arts Academy

- <sup>a</sup> The community facilities listed in this table are:
- Planned high school, southeast corner of 1800 North and 5000 West, West Point. New high school site required.
  - Syracuse Arts Academy, 2893 West 1700 South, Syracuse. Reconfiguration of parking and access. Close proximity of school to new highway where it would pass over Antelope Drive.
  - Central Davis Sewer District at 2200 S. Sunset Dr., Kaysville. Sewer district properties would be affected by all alternatives.
  - North Davis Sewer District at 4252 W. 2200 S., Syracuse. Sewer district properties would be affected by Alternatives A1 and A2.

Chapter 5, Community Impacts, provides more information regarding other properties that might be considered community facilities, properties such as community utilities and maintenance facilities, public and private parks, and private golf courses.

**Conclusion.** Impacts to community facilities do not appear to be a critical factor in distinguishing among alternatives. None of the alternatives would affect a unique community facility such as the Legacy Events Center.

### **Property Acquisition**

Table 27-29 below summarizes the number of residential and commercial relocations associated with each of the action alternatives, including potential relocations (dependent on final design). These are households or businesses (including farm businesses) that would be relocated at project expense, after UDOT purchases the affected property at fair market value. For more information, see Chapter 5, Community Impacts. Uprooting a household or business is a substantial impact, and all alternatives include many relocations. However, there is a substantial difference among the alternatives, from 31 total potential or known relocations to 46. Between these extremes, the difference between any two adjacent alternatives in the list is not great.

**Table 27-29. Relocations from the WDC Action Alternatives**

Alternative	Relocations <sup>a</sup>	Potential Relocations <sup>a</sup>	Total
A1	30	1	31
A2	35	3	38
B1	22	9	31
B2	24	9	33
A1 with wetland avoidance options	38	1	39
A2 with wetland avoidance options	43	3	46
B1 with wetland avoidance options	30	9	39
B2 with wetland avoidance options	32	9	41

<sup>a</sup> The number of relocations and potential relocations includes residential properties, commercial properties, and agricultural business properties. For a list of specific relocations, see Appendix 5A, Relocations and Potential Relocations in the Community Impact Analysis Area.

Following are the rankings from least impact to most impact.

- **Ranking based on total relocations (least impact to most impact):** B1 (31), A1 (31), B2 (33), A2 (38), B1 with wetland avoidance options (39), A1 with wetland avoidance options (39), B2 with wetland avoidance options (41), A2 with wetland avoidance options (46)
- **Ranking based on actual (not potential) relocations (least impact to most impact):** B1 (22), B2 (24), A1 (30), B1 with wetland avoidance options (30), B2 with wetland avoidance options (32), A2 (35), A1 with wetland avoidance options (38), A2 with wetland avoidance options (43)

Although there is a gradation of impacts across the alternatives, Alternative A2 with the wetland avoidance options stands out in both rankings as having substantially more impacts than the next-highest alternative. Alternative B1 would have the least impacts.

**Conclusion.** Based on the rankings above, it is possible that the number of relocations would influence the least overall harm analysis.

### ***Wetlands and Wildlife***

This section addresses wetlands and wildlife impacts together, because the impacts and mitigation would be interrelated. Mitigation for impacts to the Great Salt Lake Shorelands Preserve would result in a comprehensive mitigation package that includes replacement properties for affected URMCC-owned properties, water rights, wetland mitigation properties, and providing funds to TNC for the loss of land and future management of the mitigation properties. It is likely that TNC would use such funds in its mission to purchase and protect properties important for conservation and wildlife. Mitigation for impacts to publicly owned URMCC parcels that are part of the preserve would result in UDOT purchasing lands along the Great Salt Lake shoreline to add to the preserve. Mitigation for wetland impacts would result in the preservation, enhancement, and rehabilitation of wetlands along the shoreline to replace wetland functions and values lost from any of the action

alternatives. The wetland mitigation is proposed to occur on properties that would eventually be transferred to TNC or URMCC for long-term management and incorporation into the Great Salt Lake Shorelands Preserve or to the Utah Division of Wildlife Resources for long-term management and incorporation into the Farmington Bay WMA.

Table 27-30 on page 27-88 summarizes the impacts to wetlands and high-quality wildlife habitat from Chapter 14, Ecosystem Resources, which provides more information regarding these impacts.

- The table indicates a range of impacts to high-quality wildlife habitat from 33 acres (Alternative B2 with the wetland avoidance options) to 50 acres (Alternative A1), which is a notable difference.
- All of the alternatives with the wetland avoidance options would affect about 12.6 fewer acres of high-quality wildlife habitat compared to the alternatives without the wetland avoidance options.
- For direct wetland impacts, the overall range is from 20 acres of affected wetlands (Alternative A2 with the wetland avoidance options) to 48 acres affected (Alternative B1). In general, the A Alternatives would have fewer direct wetland impacts than the B Alternatives, and any of the alternatives with the wetland avoidance options would affect about 7 fewer acres of wetlands compared to the alternatives without the wetland avoidance options.
- The alternatives with the wetland avoidance options would have about 12 fewer acres of wetlands within 300 feet of the alternative compared to the alternatives without the wetland avoidance options.

Following are rankings of the alternatives by impacts to wildlife habitat, direct wetland impacts, indirect (proximity) wetland impacts, and total direct and indirect impacts to the Great Salt Lake Shorelands Preserve.

- **Ranking for wildlife habitat impacts:** B2 with wetland avoidance options (32.7), A2 with wetland avoidance options (33.2), B1 with wetland avoidance options (36.3), A1 with wetland avoidance options (36.8), B2 (45.3), A2 (45.8), B1 (48.9), A1 (49.5)
- **Ranking for direct wetland impacts:** A2 with wetland avoidance options (19.9), A1 with wetland avoidance options (21.0), A2 (26.9), A1 (28.1), B2 with wetland avoidance options (39.6), B1 with wetland avoidance options (40.9), B2 (46.6), B1 (47.9)
- **Ranking for wetlands within 300 feet of the right-of-way:** A2 with wetland avoidance options (52), A2 (64), A1 with wetland avoidance options (69), B2 with wetland avoidance options (73), A1 (80), B2 (85), B1 with wetland avoidance options (90), B1 (101)
- **Ranking for direct and indirect impacts to the preserve:** B1 and B2 with wetland avoidance options (1), B1 and B2 without wetland avoidance options (2), A1 and A2 with wetland avoidance options (3), A1 and A2 without wetland avoidance options (4)



It is clear that, south of Gentile Street, any of the alternatives with the wetland avoidance options would have fewer direct and indirect impacts to wetlands, high-quality wildlife habitat, and the Great Salt Lake Shorelands Preserve compared to the alternatives without the wetland avoidance options.

Where the A and B Alternatives diverge north of Gentile Street, although the A Alternatives would have fewer direct wetland and wildlife habitat impacts, it is worth emphasizing that the U.S. Fish and Wildlife Service, the Utah Division of Wildlife Resources, and URMCC have all commented that the quality of the wetlands and wildlife habitat in the Great Salt Lake Shorelands Preserve that would be indirectly affected by either of the A Alternatives is greater than the quality of the wetlands and wildlife habitat along Bluff Road that would be affected by the B Alternatives in Syracuse and West Point. These agencies have all commented that the impacts to wetlands and wildlife habitat would be greater with the A Alternatives than with the B Alternatives north of Gentile Street. USACE has also provided comments supporting this conclusion.

**Conclusion.** The alternatives that use the wetland avoidance options would all have about 7 fewer acres of direct wetland impacts and about 12.6 fewer acres of impact to high-quality wildlife habitat compared to the alternatives without the wetland avoidance options. The A Alternatives would have fewer direct wetland impacts than the B Alternatives, but the A Alternatives would have greater indirect impacts to wildlife habitat and the Great Salt Lake Shorelands Preserve compared to the B Alternatives. Given the legal requirements to avoid and minimize impacts to wetlands and the importance of the wildlife habitat in the Great Salt Lake Shorelands Preserve, these differences in impacts to wetlands and wildlife habitat are used to distinguish the alternatives in the least overall harm analysis.

**Table 27-30. Wildlife Habitat and Wetland Impacts from the WDC Action Alternatives**

in acres

Alternative	High-Quality Wildlife Habitat	Wetland Impacts						Agency Ranking of Direct and Indirect Impacts to Great Salt Lake Shorelands Preserve (Low is Fewest, High is Most)
		Direct Impact					Total Wetlands within 300 Feet of the Right-of-Way	
		Cat. I (High)	Cat. II (Med.-High)	Cat. III (Med.-Low)	Total	Open Water		
A1	49.5	15.9	8.2	4.0	<b>28.1</b>	4.8	80.5	4
A2	45.8	15.2	7.7	4.0	<b>26.9</b>	3.8	64.3	4
B1	48.9	15.7	15.3	16.9	<b>47.9</b>	4.2	100.6	2
B2	45.3	15.1	14.8	16.7	<b>46.6</b>	2.8	85.2	2
A1 with wetland avoidance options	36.8	13.7	3.3	4.0	<b>21.0</b>	4.8	68.7	3
A2 with wetland avoidance options	33.2	13.1	2.8	4.0	<b>19.9</b>	3.8	52.4	3
B1 with wetland avoidance options	36.3	13.6	10.4	16.9	<b>40.9</b>	4.2	89.7	1
B2 with wetland avoidance options	32.7	13.0	9.9	16.7	<b>39.6</b>	2.8	73.3	1

## Farmland

Chapter 4, Farmland, provides more information regarding farmland in Davis and Weber Counties and the impacts of the WDC on farmland using several different measures.

Table 27-31 summarizes the acreages of farmland lost. See Chapter 4 for specific definitions of farmland types and for more information regarding the types of crop production likely to be affected.

**Table 27-31. Farmland Impacts from the WDC Action Alternatives**

in acres except as noted

Alternative	Total Cropland <sup>a</sup>	Irrigated Cropland <sup>b</sup>	Non-irrigated Cropland	Prime Farmland	Farmland of Statewide or Local Importance	Agriculture Protection Areas <sup>c</sup>	Century Farms
A1	629	544	85	134	16	6 / 24 ac	21
A2	690	605	85	138	16	11 / 40 ac	31
B1	608	529	79	104	16	1 / 3 ac	15
B2	611	532	79	104	16	2 / 4 ac	15
A1 with wetland avoidance options	624	540	84	125	16	6 / 24 ac	22
A2 with wetland avoidance options	685	601	84	129	16	11 / 40 ac	32
B1 with wetland avoidance options	603	525	78	94	16	1 / 3 ac	16
B2 with wetland avoidance options	606	528	78	94	16	2 / 4 ac	16

<sup>a</sup> This column is the total of irrigated and non-irrigated cropland in the next two columns. Total cropland acres in the study area are 23,272 acres.

<sup>b</sup> Includes sub-irrigated cropland.

<sup>c</sup> Indicates the number of Agriculture Protection Areas and their combined acreage.

The A Alternatives would all affect more farmland than the B Alternatives in any of the categories.

Alternative B1 with the wetland avoidance options is notable as having the lowest impacts to farmland based on the fewest acres of cropland affected, the fewest number and acres of Agriculture Protection Areas affected, and the fewest acres of impacts to prime farmland. Alternative A2 would have the most impacts to farmland because it would affect the greatest acres of cropland and prime farmland and the greatest number and acres of Agriculture Protection Areas. The other alternatives would affect farmland to varying degrees between the effects of these alternatives.

**Conclusion.** Alternatives B1 and B2 with or without the wetland avoidance options would have fewer impacts to farmland compared to Alternatives A1 and A2 with or without the wetland avoidance options. If all other impacts were equal, these results could tip the least overall harm balance in favor of Alternative B1 or B2.

### What is the farmland impact analysis area?

The farmland impact analysis area, which is the same as the WDC study area, is located in Davis and Weber Counties and crosses the cities of Clinton, Farmington, Hooper, Kaysville, Layton, Syracuse, West Haven, and West Point.

## ***Conservation Easements***

Conservation easements owned by the public through state or city agencies were identified in the course of this Section 4(f) evaluation. These are public easements located on large private parcels near the Great Salt Lake shoreline and are intended to preserve open space for many values including agriculture, habitat, ecology, wildlife, wetland, and recreation values. Some of these, including wildlife and habitat values and recreation values, brought these lands to FHWA's attention as properties potentially protected by Section 4(f). Although FHWA has determined that Section 4(f) ultimately would not apply except to specific recreational trails (such as Great Salt Lake Shoreline Trail) developed and in use on some of these properties, these properties in general are important in the transition between the more densely developed lands away from the lake and the mostly conservation lands at the lake's edge. The conservation easements also were meant to preserve farmland from loss in these areas.

The conservation easements are in two areas. The western Farmington area is one of them. The Great Salt Lake Shoreline Trail and Buffalo Ranch Trail pass through these parcels and are part of the easements. A large area of conservation easement also exists on the Black Island Farms/Black Agriland parcels in unincorporated areas of Davis County near the western edge of Syracuse.

Alternatives that would affect these areas are the following:

- Alternatives A1, A2, and A1 with the wetland avoidance options and Alternative A2 with the wetland avoidance options would use about 14 acres of the Black Agriland parcels (a total of 40 acres under conservation easement). The alignments for the A Alternatives are identical in this area and would run along the southern edge of the parcels. Most of the remaining land could still be farmed north of the new highway with these alternatives, but the value of these lands for their connection to the shoreline area and buffer between developed neighborhoods and the shoreline area/wetlands would effectively be largely lost. The highway also would fragment the continuity of wildlife habitat associated with the farmland and with the shoreline.
- All of the alternatives (Alternatives A1, A2, B1, and B2 with and without the wetland avoidance options) would use about 78 acres of the Farmington-area conservation easement parcels (a total of about 423 acres, including a large pond). The alignments for all of these alternatives are identical in this area. The alignments pass through the center of the easement parcels, leaving more land on the shoreline side than on the inland side. A large pond on the western side of the easement area would be preserved intact. Some wetland areas, especially at the north end of this area, would be lost or separated from the coastal area. Horse pasture and other agricultural land located in the central and southern portions of the easement area would be partly used and partly retained. Developed facilities at Buffalo Ranch would be minimally affected, but surrounding open agricultural land would be substantially diminished. A trail connection would be retained.

Most of the conservation-area acreage is likely counted in the cropland total discussed in the section titled Farmland above.

Alternatives A1 and A2 (with or without the wetland avoidance options) would use both of these conservation easement areas (about 92 acres of use). Alternatives B1 and B2 (with or without the wetland avoidance options) would use the Farmington parcels (about 78 acres of use).

**Conclusion.** Alternatives B1 and B2 would not affect the Black Agriland conservation easement, while Alternatives A1 and A2 would. All of the alternatives would have the same level of impacts to the Farmington conservation easements. If all other impacts were equal, these results could tip the least overall harm balance in favor of Alternative B1 or B2.

### Consistency with Local Plans

Table 27-32 summarizes the WDC alternatives' consistency with local land-use and transportation plans. This topic is discussed in more detail in Chapter 3, Land Use.

**Table 27-32. Summary of the WDC's Consistency with Local Cities' Plans and Policies**

Alternative	Centerville	Farmington <sup>a</sup>	Kaysville	Layton	Syracuse	West Point	Hooper	Davis County	Weber County
A1	Y	Y	Y	Y	N	N	—	N	—
A2	Y	Y	Y	Y	N	N	Y	N	Y
A1 with wetland avoidance options	Y	Y	Y	Y	N	N	—	N	—
A2 with wetland avoidance options	Y	Y	Y	Y	N	N	Y	N	Y
B1	Y	Y	Y	Y	Y	Y	—	Y	—
B2	Y	Y	Y	Y	Y	N	—	N	—
B1 with wetland avoidance options	Y	Y	Y	Y	Y	Y	—	Y	—
B2 with wetland avoidance options	Y	Y	Y	Y	Y	N	—	N	—

<sup>a</sup> The adopted Farmington City Transportation Plan shows a future WDC on Glovers Lane (Alternatives B1 and B2). However, city officials have passed a resolution supporting a WDC alignment on Shepard Lane.

As shown in Table 27-32 above, the B Alternatives (Alternatives B1 and B2) are both more consistent with local plans than the A Alternatives (Alternatives A1 and A2) because the B Alternatives are consistent with Syracuse City's land-use and transportation plans and the A Alternatives are not. As shown in Table 27-32 above, the wetland avoidance options would not have any effect on the alternatives' consistency with local plans.

Alternative B1 is the most consistent with city plans because it is also consistent with West Point City's plans. Alternative B2 and Alternatives A1 and A2 are not consistent with West Point City's land-use and transportation plans.

**Conclusion.** Alternative B1 with or without the wetland avoidance options is the alternative that is most consistent with city land-use and transportation plans. If all other impacts were equal, these results could tip the least overall harm balance in favor of Alternative B1.

## Substantial Differences in Costs for the Alternatives (Factor 7)

Table 27-33 shows the estimated construction cost for each of the alternatives. The construction cost displayed in the table includes costs of design, right-of-way acquisition, utility relocations, construction, and environmental mitigation known at the time this Final EIS was published.

FHWA’s Section 4(f) regulations indicate that the standard for least overall harm analysis is “substantial differences” in cost. “Substantial” is not defined. For the purpose of this evaluation, “substantial” is considered to be in the range of 10% to 20% or greater, similar to common sale prices when discounts are substantial enough to attract a shopper’s attention. Also, cost differences of less than 10% to 20% often are considered within the margin of error for cost estimates and have less meaning as a way to distinguish among alternatives.

**Table 27-33. Construction Costs for the WDC Action Alternatives**

in millions \$

Cost					With Wetland Avoidance Options			
	A1	A2	B1	B2	A1	A2	B1	B2
Construction cost <sup>a</sup>	682	723	725	728	682	724	725	729

<sup>a</sup> Includes costs of design, right-of-way acquisition, utility relocations, construction, and environmental mitigation known at the time this Final EIS was published.

The range of \$682 million to \$729 million means that the most expensive alternative is estimated to cost about 7% more than the least expensive alternative. The differences in costs among the alternatives are not considered to be substantial for the least overall harm analysis.

**Conclusion.** Cost is important but is not a clear way to distinguish among the alternatives in this least overall harm analysis. All other things considered, if the alternatives that appeared to have the least overall harm were toward opposite ends of the cost spectrum, cost could be an important consideration.

### 27.6.7.2 Least Overall Harm Conclusion

Table 27-34, Summary of Section 4(f) Overall Harm Measures, on page 27-95 summarizes the most pertinent data from the multiple tables above in this chapter. The data in the tables and the discussion in this chapter lead to a least overall harm conclusion.

FHWA has concluded that Alternative B1 with the wetland avoidance options would cause the least overall harm in light of the Section 4(f) statute's preservation purposes [23 CFR 774.3(c)(1)]. This is based on the seven required factors discussed above, beginning in Section 27.6.1, Summary of Use. FHWA arrived at this conclusion because Alternative B1 with the wetland avoidance options displayed the best transportation performance, the best consistency with local land-use and transportation plans, and the lowest direct and indirect impacts to the Great Salt Lake Shorelands Preserve, property acquisition, and farmland.

Although Alternative B1 with the wetland avoidance options would have the highest number of greater than *de minimis* uses of Section 4(f) resources of any of the alternatives evaluated, it would have lowest direct and indirect impacts to the Great Salt Lake Shorelands Preserve, wetlands, wildlife habitat, and farmland.

This decision for determining the least overall harm was a two-part decision, since Alternatives A1, A2, B1, and B2 all share a common corridor south of Gentile Street.

**First Decision.** The first decision was regarding the common southern and central segments of the WDC and compared the alternatives with the wetland avoidance options against the alternatives without the wetland avoidance options.

Compared to the alternatives without the wetland avoidance options, the alternatives with the wetland avoidance options would have a greater than *de minimis* use of two additional historic properties in Layton (the Joseph Hill Family Cabin at 2133 West 1000 South in Layton and 984 South 2200 West in Layton) but would have the benefit of 7 fewer acres of direct wetland impacts (about 6.5 of the 7 acres are wetlands that would be part of the Great Salt Lake Shorelands Preserve) and about 12.6 fewer acres of impact to high-quality wildlife habitat. The alternatives with the wetland avoidance options would have about 12 fewer acres of direct impact to the Great Salt Lake Shorelands Preserve in this area. In addition to having fewer direct wetland and wildlife habitat impacts and Great Salt Lake Shorelands Preserve impacts, the alternatives with the wetland avoidance options would also have reduced indirect impacts to wetlands and wildlife habitat and the Great Salt Lake Shorelands Preserve in this area compared to the alternatives without the wetland avoidance options but would avoid affecting the two historic properties.

Overall, FHWA determined, for the common southern and central segments of the alternatives, that the least overall harm would come from the alternatives with the wetland avoidance options, since the benefit of the reduced direct and indirect impacts to wetlands, wildlife habitat, and the Great Salt Lake Shorelands Preserve would outweigh the greater than *de minimis* use of the two Section 4(f) resources (historic buildings at 2133 West 1000 South in Layton and 984 South 2200 West in Layton) that would occur because of these alternatives. The ability to relocate the Joseph Hill Family Cabin at 2133 West 1000 South in Layton and minimize harm after mitigation was an important consideration in this decision.



**Second Decision.** Where the A and B Alternatives diverge north of Gentile Street, FHWA determined that Alternative B1 would have the least overall harm. Although the A Alternatives would have fewer direct wetland and wildlife habitat impacts north of Gentile Street, it is worth emphasizing that URMCC, TNC, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, and the Utah Division of Wildlife Resources have all commented that the quality of the wetlands and wildlife habitat in the Great Salt Lake Shorelands Preserve that would be indirectly affected by the A Alternatives is greater than the quality of the wetlands along Bluff Road that would be directly and indirectly affected by the B Alternatives in Syracuse and West Point. These agencies have all commented that the impacts to wetlands and wildlife habitat in the Great Salt Lake Shorelands Preserve would be greater with the A Alternatives than with the B Alternatives north of Gentile Street.

Between Alternatives B1 and B2, FHWA determined that Alternative B1 would have the least overall harm because it would have the most transportation benefit, would be the most consistent with city land-use and transportation plans, and would have the fewest property acquisitions and farmland impacts of any of the northern alternatives (A1, A2, B1, or B2).

**Conclusion.** Based on all of these considerations, FHWA identified **Alternative B1 with the wetland avoidance options** as the alternative that would cause the least overall harm in light of the Section 4(f) statute's preservation purpose [23 CFR 774.3(c)(1)]. Therefore, Alternative B1 with the wetland avoidance options has been identified as the preferred alternative. Table 27-34 below summarizes the most pertinent data from the multiple tables above in this chapter.

**Table 27-34. Summary of Section 4(f) Overall Harm Measures**

					With Wetland Avoidance Options			
	A1	A2	B1	B2	A1	A2	B1	B2
Coloring marks the ends of a spectrum of impacts in any given row. <b>Orange</b> = the “worse” end. <b>Green</b> = the “better” end.								
<b>Total number of Section 4(f) properties with use</b>	16	20	18	19	17	21	19	20
<b>Number of these that are <i>de minimis</i> impacts</b>	13	17	13	14	12	16	12	13
<b>Properties with greater than <i>de minimis</i> use</b>	3	3	5	5	5	5	7	7
<b><i>Historic properties</i></b>	Total = 8 De min. = 6 <b>&gt; De min. = 2</b>	Total = 12 De min. = 10 <b>&gt; De min. = 2</b>	Total = 10 De min. = 6 <b>&gt; De min. = 4</b>	Total = 11 De min. = 7 <b>&gt; De min. = 4</b>	Total = 9 De min. = 5 <b>&gt; De min. = 4</b>	Total = 13 De min. = 9 <b>&gt; De min. = 4</b>	Total = 11 De min. = 5 <b>&gt; De min. = 6</b>	Total = 12 De min. = 6 <b>&gt; De min. = 6</b>
<b><i>Parks</i></b>	Total = 2 De min. = 1 <b>&gt; De min. = 1</b>	Total = 2 De min. = 1 <b>&gt; De min. = 1</b>	Total = 3 De min. = 2 <b>&gt; De min. = 1</b>	Total = 3 De min. = 2 <b>&gt; De min. = 1</b>	Total = 2 De min. = 1 <b>&gt; De min. = 1</b>	Total = 2 De min. = 1 <b>&gt; De min. = 1</b>	Total = 3 De min. = 2 <b>&gt; De min. = 1</b>	Total = 3 De min. = 2 <b>&gt; De min. = 1</b>
<b><i>Recreation areas</i></b>	Total = 5 De min. = 5 <b>&gt; De min. = 0</b>	Total = 5 De min. = 5 <b>&gt; De min. = 0</b>	Total = 4 De min. = 4 <b>&gt; De min. = 0</b>	Total = 4 De min. = 4 <b>&gt; De min. = 0</b>	Total = 5 De min. = 5 <b>&gt; De min. = 0</b>	Total = 5 De min. = 5 <b>&gt; De min. = 0</b>	Total = 4 De min. = 4 <b>&gt; De min. = 0</b>	Total = 4 De min. = 4 <b>&gt; De min. = 0</b>
<b><i>Refuges</i></b>	Total = 1 De min. = 1 <b>&gt; De min. = 0</b>	Total = 1 De min. = 1 <b>&gt; De min. = 0</b>	Total = 1 De min. = 1 <b>&gt; De min. = 0</b>	Total = 1 De min. = 1 <b>&gt; De min. = 0</b>	Total = 1 De min. = 1 <b>&gt; De min. = 0</b>	Total = 1 De min. = 1 <b>&gt; De min. = 0</b>	Total = 1 De min. = 1 <b>&gt; De min. = 0</b>	Total = 1 De min. = 1 <b>&gt; De min. = 0</b>

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**Table 27-34. Summary of Section 4(f) Overall Harm Measures**

					With Wetland Avoidance Options			
	A1	A2	B1	B2	A1	A2	B1	B2
<p>Coloring marks the ends of a spectrum of impacts in any given row. <b>Orange</b> = the “worse” end. <b>Green</b> = the “better” end.</p>								
<p><b>Properties with Section 4(f) use greater than <i>de minimis</i> (full acquisition or partial property impact)<sup>a</sup></b></p>	<ul style="list-style-type: none"> <li>• 1016 N. 2000 W. (full acquisition)</li> <li>• 992 S. 2200 W. (full acquisition)</li> <li>• 1100 West Park</li> </ul>	<ul style="list-style-type: none"> <li>• 1016 N. 2000 W. (full acquisition)</li> <li>• 992 S. 2200 W. (full acquisition)</li> <li>• 1100 West Park</li> </ul>	<ul style="list-style-type: none"> <li>• 1016 N. 2000 W. (full acquisition)</li> <li>• 992 S. 2200 W. (full acquisition)</li> <li>• 1653 S. Bluff Road (partial property impact)</li> <li>• 1002–1054 S. 3000 W. and 1068 S. 3000 W. (full acquisition)</li> <li>• 1100 West Park</li> </ul>	<ul style="list-style-type: none"> <li>• 1016 N. 2000 W. (full acquisition)</li> <li>• 992 S. 2200 W. (full acquisition)</li> <li>• 1653 S. Bluff Road (partial property impact)</li> <li>• 1002–1054 S. 3000 W. and 1068 S. 3000 W. (full acquisition)</li> <li>• 1100 West Park</li> </ul>	<ul style="list-style-type: none"> <li>• 1016 N. 2000 W. (full acquisition)</li> <li>• 992 S. 2200 W. (full acquisition)</li> <li>• 984 S. 2200 W. (full acquisition)</li> <li>• Joseph Hill Family Cabin 2133 W. 1000 S. (full acquisition)</li> <li>• 1100 West Park</li> </ul>	<ul style="list-style-type: none"> <li>• 1016 N. 2000 W. (full acquisition)</li> <li>• 992 S. 2200 W. (full acquisition)</li> <li>• 984 S. 2200 W. (full acquisition)</li> <li>• Joseph Hill Family Cabin 2133 W. 1000 S. (full acquisition)</li> <li>• 1100 West Park</li> </ul>	<ul style="list-style-type: none"> <li>• 1016 N. 2000 W. (full acquisition)</li> <li>• 992 S. 2200 W. (full acquisition)</li> <li>• 984 S. 2200 W. (full acquisition)</li> <li>• Joseph Hill Family Cabin 2133 W. 1000 S. (full acquisition)</li> <li>• 1653 S. Bluff Road (partial property impact)</li> <li>• 1002–1054 S. 3000 W. and 1068 S. 3000 W. (full acquisition)</li> <li>• 1100 West Park</li> </ul>	<ul style="list-style-type: none"> <li>• 1016 N. 2000 W. (full acquisition)</li> <li>• 992 S. 2200 W. (full acquisition)</li> <li>• 984 S. 2200 W. (full acquisition)</li> <li>• Joseph Hill Family Cabin 2133 W. 1000 S. (full acquisition)</li> <li>• 1653 S. Bluff Road (partial property impact)</li> <li>• 1002–1054 S. 3000 W. and 1068 S. 3000 W. (full acquisition)</li> <li>• 1100 West Park</li> </ul>

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**Table 27-34. Summary of Section 4(f) Overall Harm Measures**

					With Wetland Avoidance Options			
	A1	A2	B1	B2	A1	A2	B1	B2
Coloring marks the ends of a spectrum of impacts in any given row. <b>Orange</b> = the “worse” end. <b>Green</b> = the “better” end.								
<b>Least Overall Harm Evaluation Factors</b>								
<b>i and ii. Relative severity of impacts to 4(f) properties after mitigation</b>								
<i>Number of affected properties at given levels of relative severity of impact. See text for explanation.</i>	High = 2	High = 2	High = 3	High = 3	High = 4	High = 4	High = 5	High = 5
	Med = 1	Med = 1	Med = 1	Med = 1	Med = 1	Med = 1	Med = 1	Med = 1
	Low = 0	Low = 0	Low = 1	Low = 1	Low = 0	Low = 0	Low = 1	Low = 1
<b>iii. Relative significance of 4(f) properties affected</b>								
<i>See discussion of relative significance in Section 27.6.7.1, Least Overall Harm Analysis. Note: numbers do not include properties with de minimis impacts.</i>	High signif = 0	High signif = 0	High signif = 0	High signif = 0	High signif = 0	High signif = 0	High signif = 0	High signif = 0
	H-M signif = 0	H-M signif = 0	H-M signif = 0	H-M signif = 0	H-M signif = 1	H-M signif = 1	H-M signif = 1	H-M signif = 1
	Med signif = 1	Med signif = 1	Med signif = 1	Med signif = 1	Med signif = 1	Med signif = 1	Med signif = 1	Med signif = 1
	M-L signif = 0	M-L signif = 0	M-L signif = 0	M-L signif = 0	M-L signif = 0	M-L signif = 0	M-L signif = 0	M-L signif = 0
	Low signif = 2	Low signif = 2	Low signif = 4	Low signif = 4	Low signif = 3	Low signif = 3	Low signif = 5	Low signif = 5
<b>iv. Views of officials with jurisdiction regarding 4(f) properties</b>								
	URMCC and other agencies all supported the conclusions that: (1) the wetland avoidance options would have lower impacts to wetlands, wildlife habitat, and the Great Salt Lake Shorelands Preserve south of Gentile Street, and (2) in the areas north of Gentile Street where the alternatives diverge, the quality of the wetlands and wildlife habitat in the Great Salt Lake Shorelands Preserve that would be indirectly affected by the A Alternatives is greater than the quality of the wetlands along Bluff Road that would be directly and indirectly affected by the B Alternatives in Syracuse and West Point. These agencies have all commented that the impacts to wetlands and wildlife habitat in the Great Salt Lake Shorelands Preserve would be greater with the A Alternatives than with the B Alternatives north of Gentile Street.							
	<i>The Utah SHPO has concurred with the Section 106 effects and Section 4(f) uses identified in this Section 4(f) evaluation. URMCC and state and city officials have concurred with the Section 4(f) uses identified in this Section 4(f) evaluation. For information about consultation, see Section 27.7, Section 4(f) Coordination.</i>							

(continued on next page)

**Table 27-34. Summary of Section 4(f) Overall Harm Measures**

					With Wetland Avoidance Options			
	A1	A2	B1	B2	A1	A2	B1	B2
<i>Coloring marks the ends of a spectrum of impacts in any given row. Orange = the “worse” end. Green = the “better” end.</i>								
<b>v. Degree to which alternative meets purpose and need</b>								
	3	4	1	2	3	4	1	2
<i>Alternative B1, with or without the wetland avoidance options, best meets the purpose and need for the project.</i>								
<b>vi. Magnitude of impacts to non-Section 4(f) resources</b>								
<b>Air Quality</b>	<i>Air quality is not a substantial factor to differentiate among alternatives, and the air quality impact results do not contribute meaningfully to the least overall harm analysis.</i>							
<b>Community Cohesion</b> <i>Neighborhoods affected</i>	1	1	0	0	1	1	0	0
<b>Community Facility Impacts</b>	<i>Impacts to community facilities do not appear to be a substantial factor in distinguishing among alternatives.</i>							
<b>Private Property Impacts</b>								
<i>Total relocations</i>	30	35	22	24	38	43	30	32
<i>Potential relocations</i>	1	3	9	9	1	3	9	9
<b>Wetland Impacts<sup>b</sup></b>								
<i>Direct right-of-way impact (ac)</i>	28 <sup>b</sup>	27 <sup>b</sup>	48 <sup>b</sup>	47 <sup>b</sup>	21 <sup>b</sup>	20 <sup>b</sup>	41 <sup>b</sup>	40 <sup>b</sup>
<i>Impacts within 300 feet (ac)</i>	80	64	101	85	69	52	90	73
<b>Impacts to High-Quality Wildlife Habitat</b>	50	46	49	45	37	33	36	33
<b>Agency Ranking of Direct and Indirect Impacts to Great Salt Lake Shorelands Preserve (Low is fewest, high is most)</b>	4	4	2	2	3	3	1	1

(continued on next page)

**Table 27-34. Summary of Section 4(f) Overall Harm Measures**

					With Wetland Avoidance Options			
	A1	A2	B1	B2	A1	A2	B1	B2
Coloring marks the ends of a spectrum of impacts in any given row. <b>Orange</b> = the “worse” end. <b>Green</b> = the “better” end.								
<b>Farmland</b>								
Total cropland (ac)	629	690	608	611	624	685	603	606
Prime farmland (ac)	134	138	104	104	125	129	94	94
Farmland of statewide importance (ac)	16	16	16	16	16	16	16	16
Agriculture Protection Areas	6 (24 ac)	11 (40 ac)	1 (3 ac)	2 (4 ac)	6 (24 ac)	11 (40 ac)	1 (3 ac)	2 (4 ac)
Century Farms (ac)	21	31	15	15	22	32	16	16
<b>vii. Substantial cost difference</b>								
	Cost is important but is not a clear way to distinguish among the alternatives because the cost differences are not “substantial”; see the section titled Substantial Differences in Costs for the Alternatives (Factor 7) on page 27-92.							
<b>Construction cost</b>	\$682 million	\$ 723 million	\$ 725 million	\$ 728 million	\$ 682 million	\$ 724 million	\$ 725 million	\$ 729 million

ac = acres; De min. = *de minimis*; > De min. = greater than *de minimis*; H-M = high-medium; M-L = medium-low

<sup>a</sup> This table focuses on the properties indicated in this row. Other properties with *de minimis* impact by definition have impacts that would not affect the activities, features, or attributes of the property and are not further discussed in this summary table.

<sup>b</sup> Although the direct wetland impacts show higher wetland impacts from Alternatives B1 and B2 (with or without the wetland avoidance options), comments from the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and URMCC all support the conclusion that the B Alternatives would have less direct and indirect impacts to wetlands, wildlife habitat, and the Great Salt Lake Shorelands Preserve compared to the A Alternatives (with or without the wetland avoidance options). This ranking is reflected on the row titled Agency Ranking of Direct and Indirect Impacts to Great Salt Lake Shorelands Preserve in this table.

## **27.7 Section 4(f) Coordination**

Chapter 30, Public and Agency Consultation and Coordination, summarizes the meetings held with the public, agencies, Cities, and Counties during development of the project alternatives and preparation of this EIS and Section 4(f) evaluation. Chapter 16, Historic, Archaeological, and Paleontological Resources, includes summaries of coordination efforts specific to historic resources and the National Historic Preservation Act. The sensitivity and significance of historic properties, parks, recreation areas, and wildlife and waterfowl refuges was a general theme throughout the public and agency involvement process and during development of the alternative alignments.

### **27.7.1 Coordination Prior to the Draft EIS**

The emphasis on coordination efforts prior to the Draft EIS stage was on accurately identifying Section 4(f) properties. Discussions occurred with Cities and Counties, particularly about Jensen Park's boundaries and significance, the significance of Fremont Park, conservation easements in Farmington and Davis County, the extent of the Preserve Trail, and city-owned open land on which park or recreation activities were rumored.

Discussions also occurred with individual school administrators and Cities about school playing fields. Extensive coordination has taken place with URMCC and TNC to identify boundaries and issues associated with the Great Salt Lake Shorelands Preserve. The Section 106 process included consultation with the Utah SHPO and other consulting parties, as further addressed in Chapter 16, Historic, Archaeological, and Paleontological Resources.

### **27.7.2 Comments on the Draft EIS and Draft Section 4(f) Evaluation**

FHWA and UDOT received several comments regarding Section 4(f) resources and use determinations during the public comment period for the Draft EIS and draft Section 4(f) evaluation. Responses to the comments received on the draft Section 4(f) evaluation are provided in Section 32.27, Chapter 27 – Section 4(f)/6(f) Evaluation, of this Final EIS. This final Section 4(f) evaluation has been updated based on comments received on the draft Section 4(f) evaluation and coordination with the officials who have jurisdiction over the Section 4(f) resources.

Further consultation and coordination is anticipated with the officials who have jurisdiction over the Section 4(f) resources.

### 27.7.3 Coordination Efforts for Historic Resources

The following is a summary from Chapter 16, Historic, Archaeological, and Paleontological Resources.

As part of the effort to identify Section 4(f) resources in the impact analysis area, Section 106 consultation was carried out among UDOT, FHWA, and the Utah SHPO.

In addition to the agencies, consultation was undertaken with several other entities that included certified local governments (CLG), historical societies and organizations, and mayors or town councils where no CLG or historical society exists. The following groups were contacted by a written letter:

- Centerville CLG, Mr. Ron Russell, Mayor, and Ms. Melissa Hogan
- Farmington CLG, Ms. Alysa Revell and Mr. Dave Millheim
- Layton Community Development Department, Mr. Ben Hart
- Layton CLG, Mr. Harris Adams
- Syracuse CLG, Ms. Cindy Gooch
- Utah Heritage Foundation, Mr. Kirk Huffaker
- Utah Professional Archaeological Council, Mr. Kelly Beck and Mr. Jody Patterson

The following 10 Native American tribes were also consulted as part of the Section 106 process because they might have ancestral interests in the WDC study area:

- Cedar Band of Paiutes
- Confederated Tribes of Goshute Reservation
- Eastern Shoshone Tribe of the Wind River
- Hopi Tribe
- Northwestern Band of Shoshone Nation
- Paiute Indian Tribe of Utah
- Shivwits Band of Paiutes
- Shoshone-Bannock Tribes of Fort Hall
- Skull Valley Band of Goshute Indians
- Ute Indian Tribe of the Uintah and Ouray Ute Indian Reservation

Consultation with the SHPO, mayors, CLGs, and tribes focused on soliciting information about the known or potential presence of both historic/archaeological and paleontological resources in the areas that could be directly or indirectly affected by the proposed alternatives. Consultation between UDOT and FHWA and the Utah SHPO focused on defining the appropriate area of potential effects (APE) and on methods for identifying resources that would be appropriate for this EIS.

None of the agencies, mayors, CLG representatives, or tribes identified any specific cultural or paleontological resources of concern in the impact analysis area. Several of the tribes requested copies of the technical reports produced for this EIS and have asked to remain informed of the project's progress and any discoveries of prehistoric resources or human remains during construction.

UDOT, on behalf of FHWA, submitted its Determinations of Eligibility and Findings of Effects (DOE/FOE) for architectural and archaeological resources to the Utah SHPO on December 10, 2012, and gave the SHPO an opportunity to comment on those determinations and findings. The SHPO provided concurrence with all determinations and findings via written correspondence on January 4, 2013.

The DOE/FOE for architectural and archaeological resources was updated for this Final EIS and Section 4(f) evaluation. The updates to the DOE/FOE were caused by changes to the alternatives between the release of the Draft EIS and the Final EIS, changes to eligibility of some architectural properties documented in the 2017 Historic Buildings Assessment Update (Garnett and Keen 2017), and the listing of the Joseph Hill Family Cabin in Layton that occurred between the release of the Draft EIS and the Final EIS. The updated DOE/FOE was submitted to the SHPO on April 27, 2017, and the SHPO was given the opportunity to comment on these determinations and findings. The SHPO provided concurrence with all determinations and findings via written correspondence on May 10, 2017.

Copies of the correspondence between UDOT and the Utah SHPO are provided in Appendix 16B, Correspondence Pertaining to Historic, Archaeological, and Paleontological Resources. UDOT met with the Utah SHPO on May 25, 2017, to discuss mitigation for unavoidable adverse effects on historic properties. UDOT also sent letters to the CLGs and tribes requesting their input regarding mitigation for unavoidable adverse effects on historic properties. A Programmatic Agreement for the unavoidable adverse effects was prepared and signed by the Utah SHPO, UDOT, Layton City, and FHWA. A copy of the Programmatic Agreement is included in Appendix 27A, Section 4(f) Correspondence, and Appendix 16B, Correspondence Pertaining to Historic, Archaeological, and Paleontological Resources.

#### **27.7.4 Coordination Efforts for Public Parks and Public Recreation Areas**

UDOT and FHWA have been coordinating with the appropriate jurisdictional agencies regarding public parks and recreation areas in the WDC study area. Coordination has included meetings with the following agencies:

- West Point City (Old Emigration Trail)
- Syracuse City (Fremont Park, Old Emigration Trail, Bridgeway Island Trail, Outwest Park)
- Farmington City (1100 West Park, South Park, Great Salt Lake Shoreline Trail, Buffalo Ranches Trail)
- Utah Division of Wildlife Resources (Sportsman's Access)
- Davis School District (Canyon Creek Elementary School Playing Fields)
- UDOT (Legacy Parkway Trail)

West Point City, Syracuse City, Farmington City, the Utah Division of Wildlife Resources, and the Davis School District have all concurred with the Section 4(f) resources, *de minimis* uses, and mitigation measures described in this Section 4(f) evaluation. Correspondence for all of these Cities and agencies is included in Appendix 27A, Section 4(f) Correspondence.

#### **27.7.5 Coordination Efforts for Wildlife and Waterfowl Refuges**

UDOT and FHWA have been coordinating with the appropriate jurisdictional agencies regarding wildlife and waterfowl refuges in the WDC study area. Coordination has included meetings with the following agencies:

- URMCC (Great Salt Lake Shorelands Preserve)
- Utah Division of Wildlife Resources (Farmington Bay WMA)

URMCC has concurred with the Section 4(f) resources, uses, and mitigation measures described in this Section 4(f) evaluation. Correspondence with URMCC is included in Appendix 27A, Section 4(f) Correspondence.

## 27.8 Final Section 4(f) Statement

FHWA has determined that there is no feasible and prudent avoidance alternative that would avoid all Section 4(f) resources. FHWA has determined that Alternative B1 with the wetland avoidance options is the alternative with the least overall harm, and it has therefore been identified as the preferred alternative.

The preferred alternative, Alternative B1 with the wetland avoidance options, would have *de minimis* impacts to the following Section 4(f) resources:

- Historic Resources
  - 776 South 2200 West, Layton
  - 2622 West 1700 South, Syracuse
  - 2664 West 1700 South, Syracuse
  - 2678 West 1700 South, Syracuse
  - 1309 North 4500 West, West Point
- Public Parks and Recreation Areas
  - South Park, Farmington
  - Fremont Park, Syracuse
  - Canyon Creek Elementary School Playing Fields, Farmington
  - Buffalo Ranches Trail, Farmington
  - Great Salt Lake Shoreline Trail, Farmington
  - Utah Division of Wildlife Resources Sportsman's Access, Kaysville
- Wildlife or Waterfowl Refuges
  - Great Salt Lake Shorelands Preserve

The preferred alternative would have greater than *de minimis* use of the following Section 4(f) resources:

- Historic Resources
  - ?1016 North 2000 West, Kaysville
  - 984 South 2200 West, Layton
  - 992 South 2200 West, Layton
  - Joseph Hill Family Cabin, 2133 West 1000 South, Layton
  - 1002–1054 South 3000 West and 1068 South 3000 West, Syracuse
  - 1653 S. Bluff Road, Syracuse
- Public Parks
  - 1100 West Park, Farmington

The above resources are located in Davis County, Utah. FHWA has determined that the preferred alternative includes all possible planning to minimize harm to the Section 4(f) resources listed above.



## 27.9 References

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[UDOT] Utah Department of Transportation

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Whimpey, Jan

- 2011 Telephone conversation between Jan Whimpey, principal of Syracuse Arts Academy, and John Wolfe of HDR Engineering, Inc. December 5.



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