

Chapter S: Executive Summary

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S.1 Why was the West Davis Corridor Project initiated?

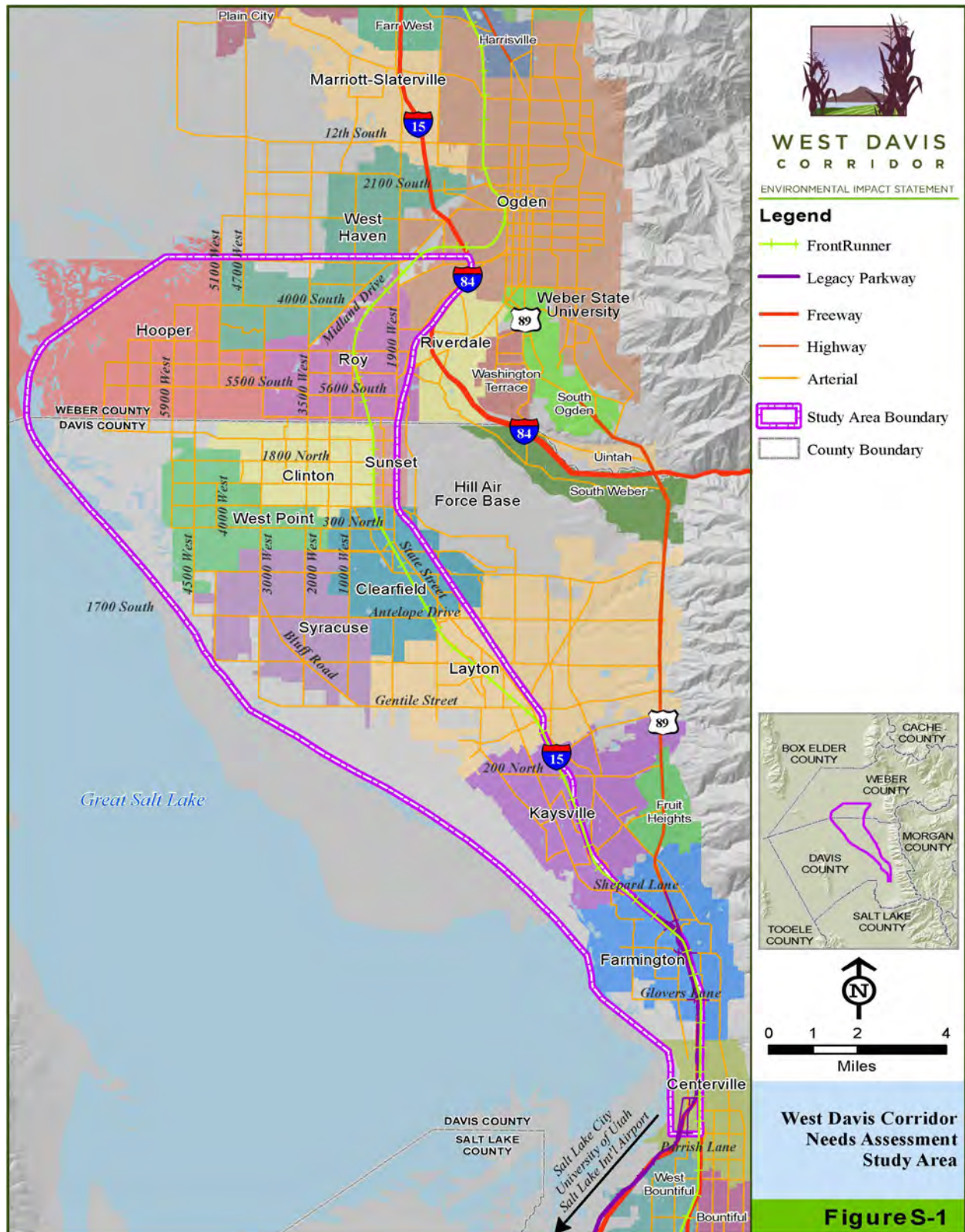
The West Davis Corridor (WDC) Project was initiated for two main reasons.

- First, the project was initiated to address the expected population, employment, and household growth in western Davis and Weber Counties through 2040 by improving regional travel (regional mobility) for automobile, transit, and freight trips. This improvement in regional mobility would be achieved by reducing roadway congestion in the WDC study area.
- Second, the project was initiated at the request of the city governments and the area's metropolitan planning organization, whose local and regional transportation plans and corridor planning studies have identified a need for additional transportation infrastructure in the WDC study area (see Figure S-1 below).

What is the WDC study area?

The WDC study area is the area shown in Figure S-1 below and described in Section 1.2, Description of the Needs Assessment Study Area, in Chapter 1, Purpose of and Need for Action.

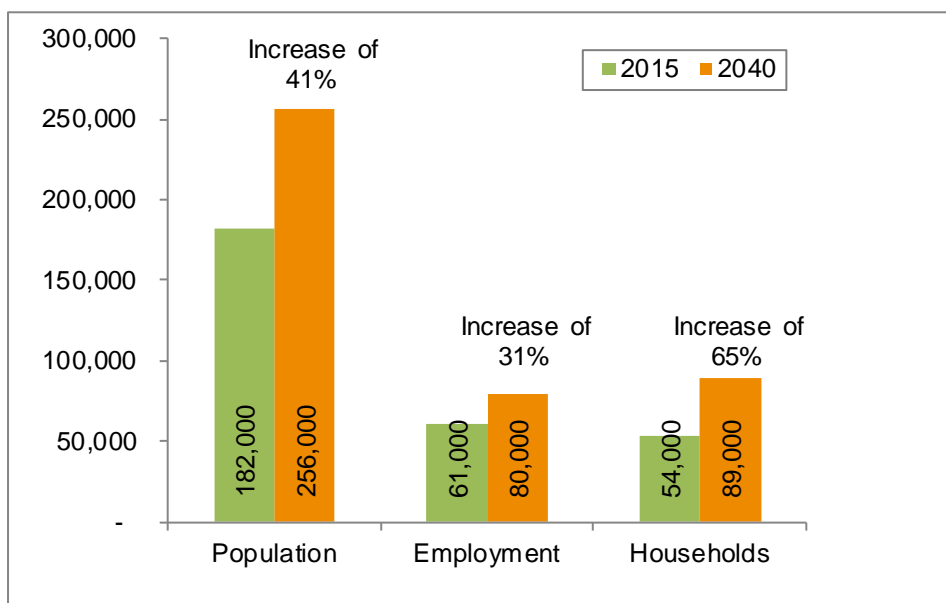
Figure S-1. West Davis Corridor Needs Assessment Study Area



S.1.1 Growth in the WDC Study Area

By 2040, population, employment, and households are expected to increase at higher percentage rates in the WDC study area than in the surrounding areas of Davis and Weber Counties. The reason for this high growth rate is that much of the open land available for development in the two counties is within the study area. Chart S-1 and Figure S-2 below show how rapidly this growth in population, employment, and households is expected to occur in the study area.

Chart S-1. Population, Employment, and Household Growth in the WDC Study Area

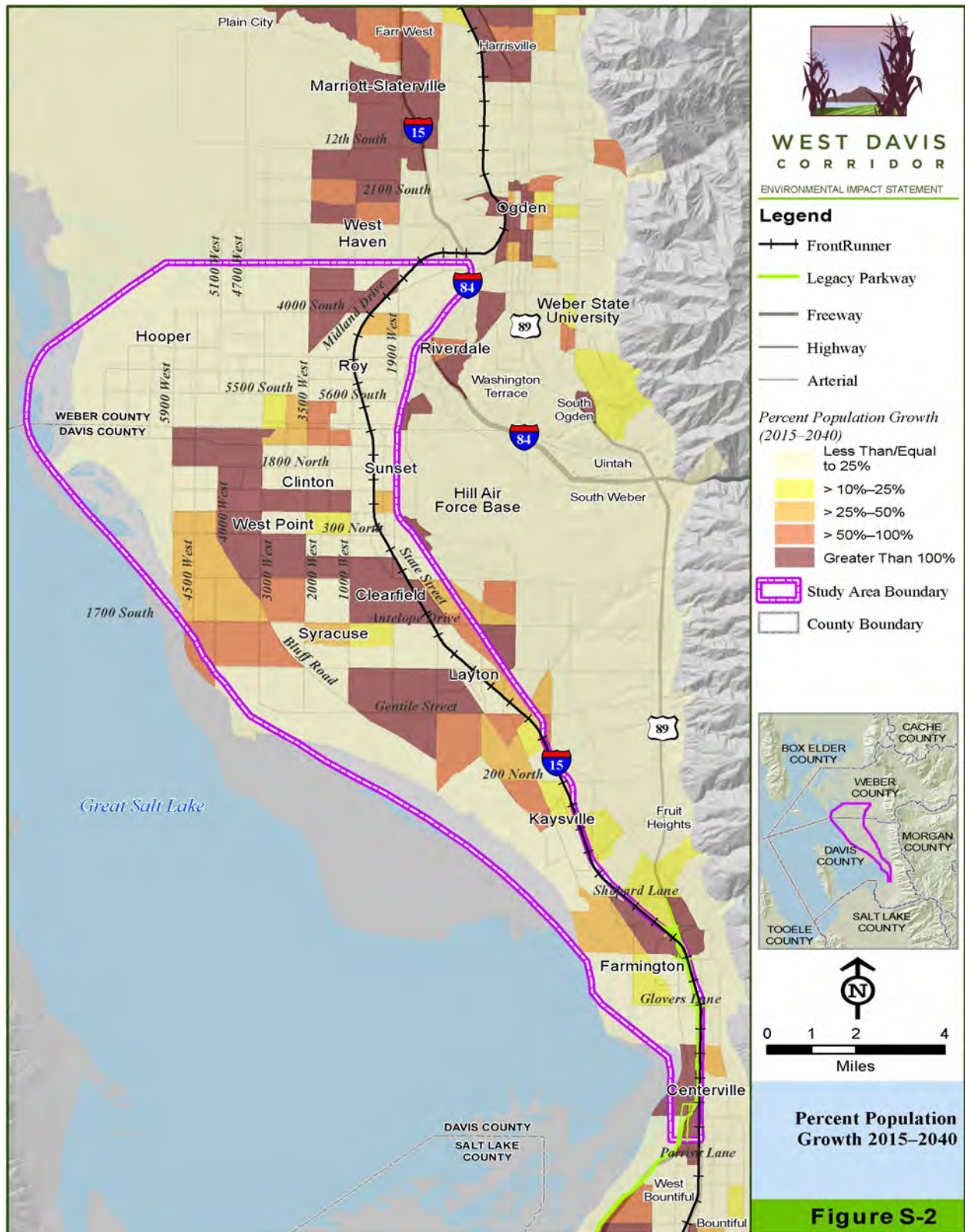


This growth is expected to affect both roadway congestion and travel delay in the WDC study area.

- **Roadway Congestion.** The total number of lane-miles in congestion on all roads in the WDC study area is expected to increase by 56% between 2015 and 2040.
- **Travel Delay.** In 2015, congestion on roads in the WDC study area resulted in lost productivity of \$292,056 per day as drivers traveled in congested roadway conditions. In 2040, this number is expected to increase to \$472,398, or an increase of 62% (in 2015 dollars). In addition, the total daily travel delay for all roadway users is expected to increase from 11,320 hours in 2015 to 18,310 hours in 2040.

For more information, see Section 1.7.2, Regional Road Network, in Chapter 1, Purpose of and Need for Action.

Figure S-2. Percent Population Growth 2015–2040



S.1.2 Needs Identified in Transportation Plans and Studies

The WDC Project was also initiated because several local and regional transportation plans and corridor planning studies have identified the need for a roadway facility such as the WDC. These plans and studies include the Wasatch Front Regional Council's 2015–2040 Regional Transportation Plan, the 1995–1998 *Western Transportation Corridor Major Investment Study*, the 2001 *North Legacy Transportation Corridor Study*, the 2007 *North Legacy to Legacy Connection Corridor Preservation Study*, the *Wasatch Choices 2040* study, and the general plans for most of the cities in the WDC study area.

For more information, see Section 1.3, Background of the West Davis Corridor, and Section 1.6, Regional and Local Transportation Planning, in Chapter 1, Purpose of and Need for Action.

S.2 Why is the project needed?

The major transportation needs in the WDC study area are a result of the rapidly growing population and employment projected for this area. The existing road network in the study area west of Interstate 15 (I-15) consists primarily of arterial streets that are not intended to accommodate a high volume of long-distance trips and freight movements.

These conditions will result in the following deficiencies in 2040:

- Decreased mobility and increased traffic congestion in the AM and PM peak periods (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 periods. This will lead to increased east-west congestion.
- Increased user delay and lost productivity.
- Inadequate interconnection of transportation modes.
- Lack of continuous pedestrian and bicycle facilities.

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 project.

What is regional mobility?

Regional mobility is based on the flow of through traffic, typically between cities or counties, versus local traffic that accesses neighborhoods or shopping centers. Improvements to regional mobility typically involve providing transportation facilities, such as highways and commuter rail, that allow longer-distance trips.

S.3 What is the purpose of the project?

The WDC is intended to achieve the following purposes:

- **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, in Chapter 1, Purpose of and Need for Action.)
- **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 the peak-period travel direction, see Section 1.7.3, Travel Patterns, in Chapter 1, Purpose of and Need for Action.)

What is the needs assessment study area?

The needs assessment study area is the area shown in Figure S-1, West Davis Corridor Needs Assessment Study Area, above and described in Section 1.2, Description of the Needs Assessment Study Area, in Chapter 1, Purpose of and Need for Action.

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.

S.4 Who is leading the project?

The Federal Highway Administration (FHWA) is the lead federal agency for the WDC Environmental Impact Statement (EIS) process. The lead state agency and project sponsor is the Utah Department of Transportation (UDOT). In addition, the U.S. Fish and Wildlife Service; the U.S. Army Corps of Engineers; the U.S. Environmental Protection Agency; and the Utah Reclamation, Mitigation, and Conservation Commission are involved as cooperating agencies. For more information, see Section 1.1, Introduction, in Chapter 1, Purpose of and Need for Action.

What is a cooperating agency?

A cooperating agency is any federal agency, other than a lead agency, that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposed project or project alternative.

S.5 What alternatives were considered for the project?

Section 2.2, Alternatives-Development Process for the Final EIS, in Chapter 2, Alternatives, provides an overview of the WDC alternatives-development process. The process took a large number of suggested recommendations and screened and refined them to produce the alternatives that are being studied in detail in this EIS. The alternatives-development process consisted of the following five steps:

1. Identification of preliminary alternatives
2. Level 1 screening
3. Level 2 screening
4. *Alternatives Screening Report* (with public and agency input)
5. Refinement of the advanced alternatives

As a result of this process, the following five alternatives were carried forward for detailed study in this EIS:

- No-Action Alternative
- Alternatives A1 and A2
- Alternatives B1 and B2

In addition to the four action alternatives listed above, after the release of the Draft EIS, UDOT developed an option (the Wetland Avoidance Option) that would avoid wetlands in Farmington and Layton. This option can be implemented with any of the action alternatives (see Section S.5.4. Wetland Avoidance Option).

For more information about the alternatives-development process, see Chapter 2, Alternatives.

What were the purposes of Level 1 and Level 2 screening?

The purpose of Level 1 screening was to identify alternatives that would meet the purpose of the project.

The purpose of Level 2 screening was to determine which of the alternatives advanced from Level 1 screening were reasonable and would be evaluated further in the EIS.

S.5.1 No-Action Alternative

The National Environmental Policy Act (NEPA) requires an analysis of the No-Action Alternative. This alternative serves as a baseline so that decision-makers can compare the environmental effects of the action alternatives.

The No-Action Alternative does not include a new WDC but does include all other projects in the Wasatch Front Regional Council's 2015–2040 Regional Transportation Plan. These projects would also be built independent of the WDC as part of the action alternatives.

For more information, see Section 2.4.1, No-Action Alternative, in Chapter 2, Alternatives.

What is the Wasatch Front Regional Council?

The Wasatch Front Regional Council is the designated metropolitan planning organization that works in partnership with UDOT, city and county governments, and other stakeholders to develop the Regional Transportation Plan for the Wasatch Front Urban Area. This plan is the region's plan for highway, transit, and other transportation-related improvements to meet the area's growing transportation needs over the next 30 years.

S.5.2 Alternatives A1–A2

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

Table S-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)

Each of the A Alternatives would be a four-lane divided highway with a 250-foot right-of-way width from I-15 in Farmington to 2000 West in Syracuse in Davis County. From 2000 West to 1800 North in Davis County, Alternative A1 would be a 146-foot-wide, two-lane, limited-access highway. From 2000 West to 5500 South in Weber County, Alternative A2 would be a 146-foot-wide, two-lane, limited-access highway.

Figure S-3 and Figure S-4 (starting on page S-10) show Alternatives A1 and A2, and Figure S-5 and Figure S-6 (starting on page S-12) show the four-lane and two-lane highway typical sections.

For more information, see Section 2.4, Description of Alternatives Carried Forward for Detailed Study, in Chapter 2, Alternatives.

S.5.3 Alternatives B1–B2

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

Table S-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 ^a	Antelope Drive to 1800 North	4100 West	1800 North (West Point)
B2	Glovers Lane	I-15 to Antelope Drive ^a	Antelope Drive to 1800 North	4800 West	1800 North (West Point)

^a The transition from a four-lane highway to a two-lane highway would occur between Antelope Drive and 700 South.

Each of the B Alternatives would be a four-lane divided highway with a 250-foot right-of-way width from I-15 in Farmington to Antelope Drive in Syracuse in Davis County. From north of Antelope Drive at about 850 South to 1800 North in Davis County, the B Alternatives would be a 146-foot right-of-way, two-lane, limited-access highway. Figure S-7 and Figure S-8 (starting on page S-14) show Alternatives B1 and B2, and Figure S-5 and Figure S-6 (starting on page S-12) show the four-lane and two-lane highway typical sections. For more information, see Section 2.4, Description of Alternatives Carried Forward for Detailed Study, in Chapter 2, Alternatives.

S.5.4 Wetland Avoidance Option

Throughout the EIS process, the WDC team (FHWA and UDOT) has considered various wetland avoidance options to reduce impacts to wetlands from the A and B Alternatives. After the release of the Draft EIS, the U.S. Army Corps of Engineers asked whether any other wetland avoidance options were available. The WDC team responded that two options could meet design standards while still avoiding wetlands. The two wetland avoidance options being evaluated in this Final EIS (in Farmington and Layton) are described in Table S-3. These wetland avoidance options could be implemented with any of the A or B Alternatives. Figure S-9 on page S-16 shows the two options. Together, the Farmington and Layton wetland avoidance options are referred to as the Wetland Avoidance Option.

Table S-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 at 2200 West and 1000 South.

Figure S-3. Alternative A1

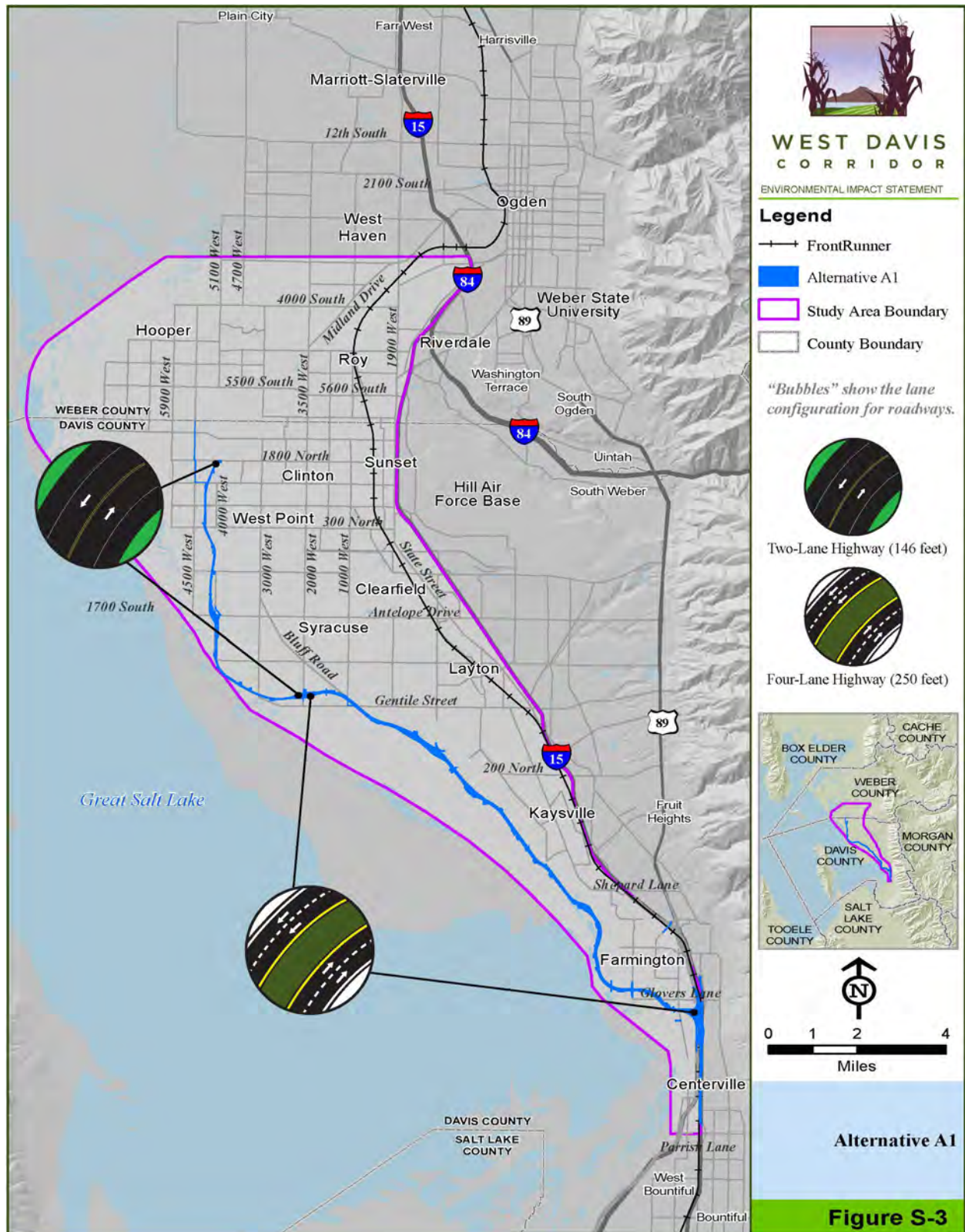


Figure S-4. Alternative A2

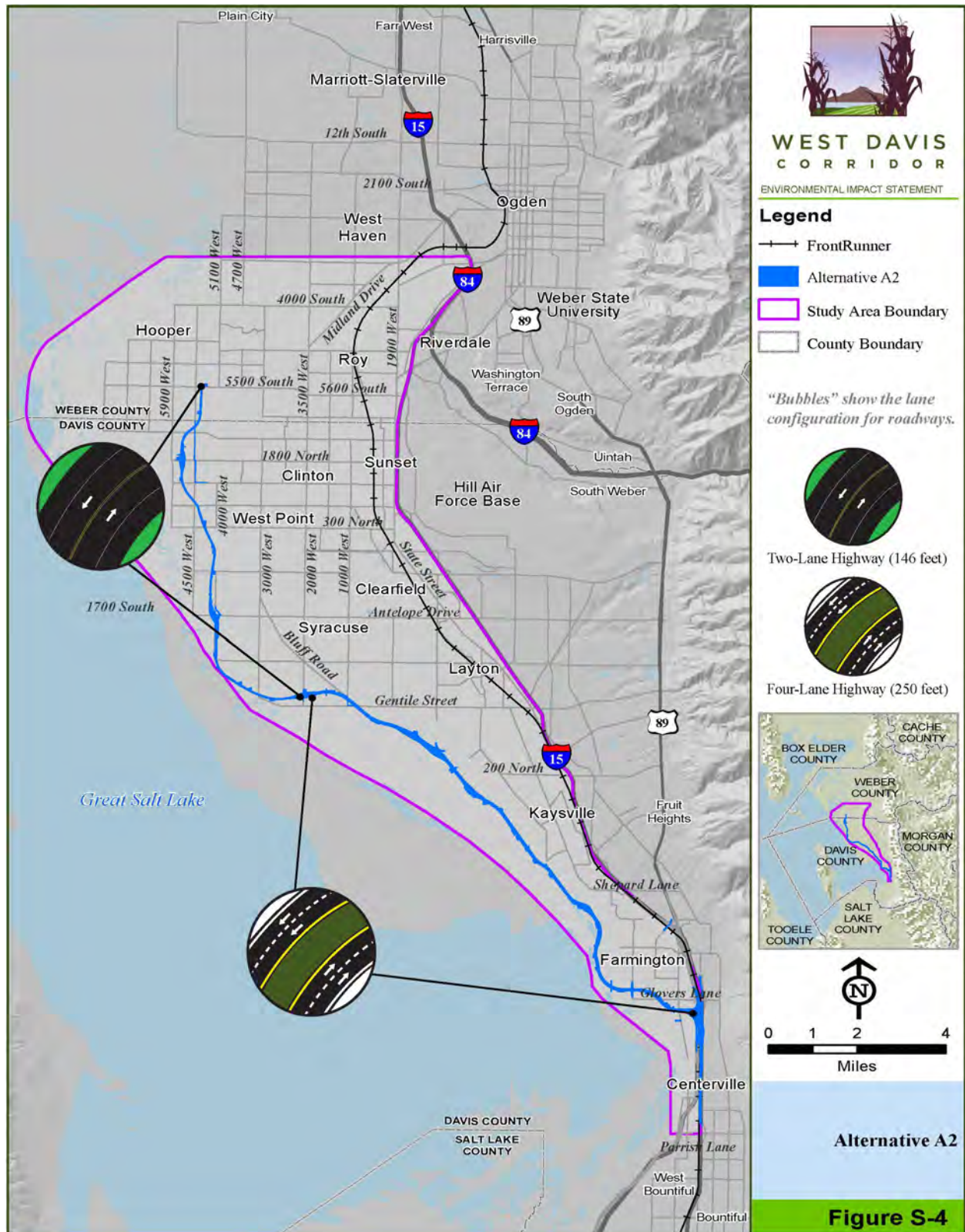


Figure S-5. Four-Lane Highway Typical Section

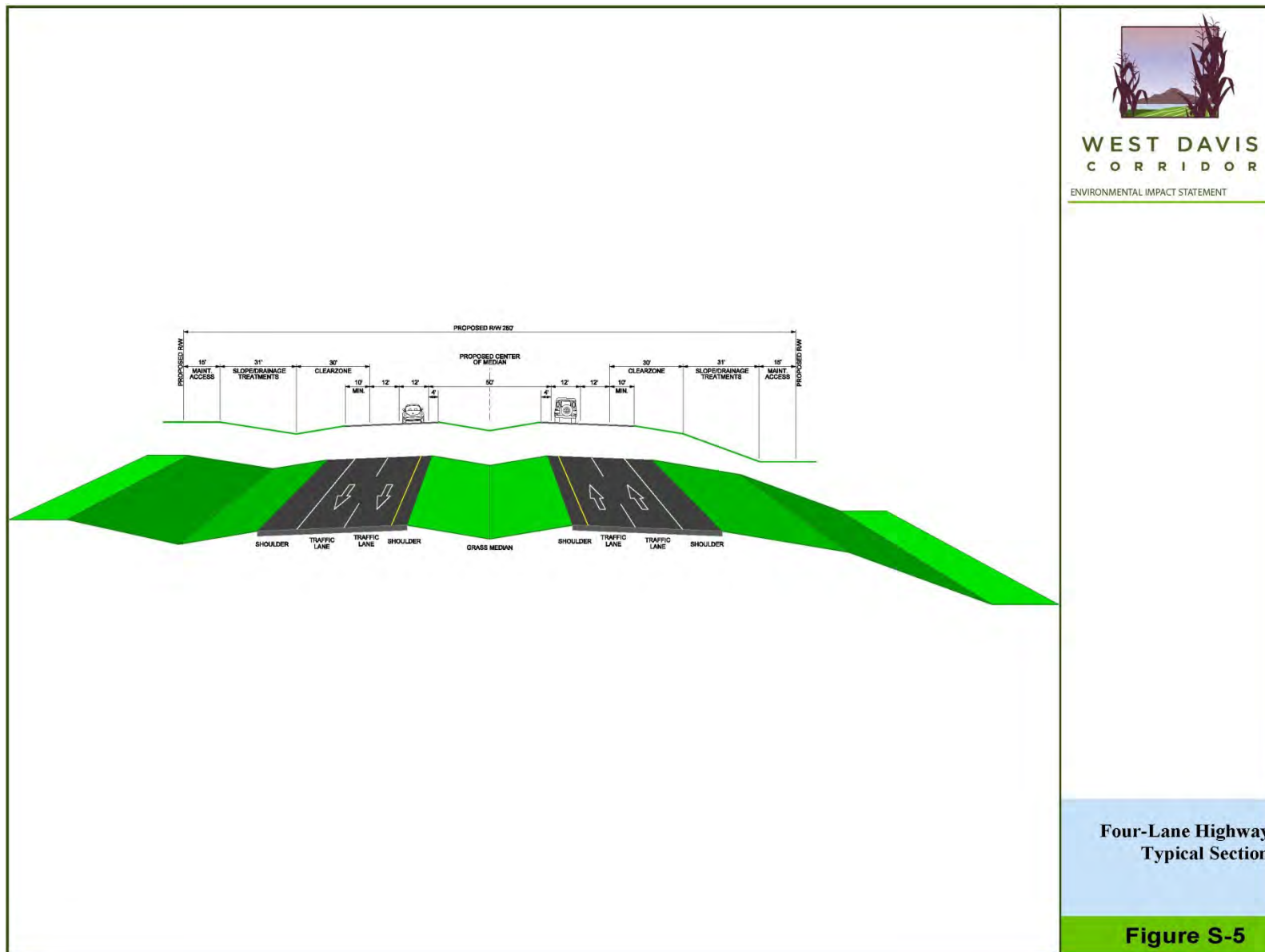


Figure S-6. Two-Lane Highway Typical Section

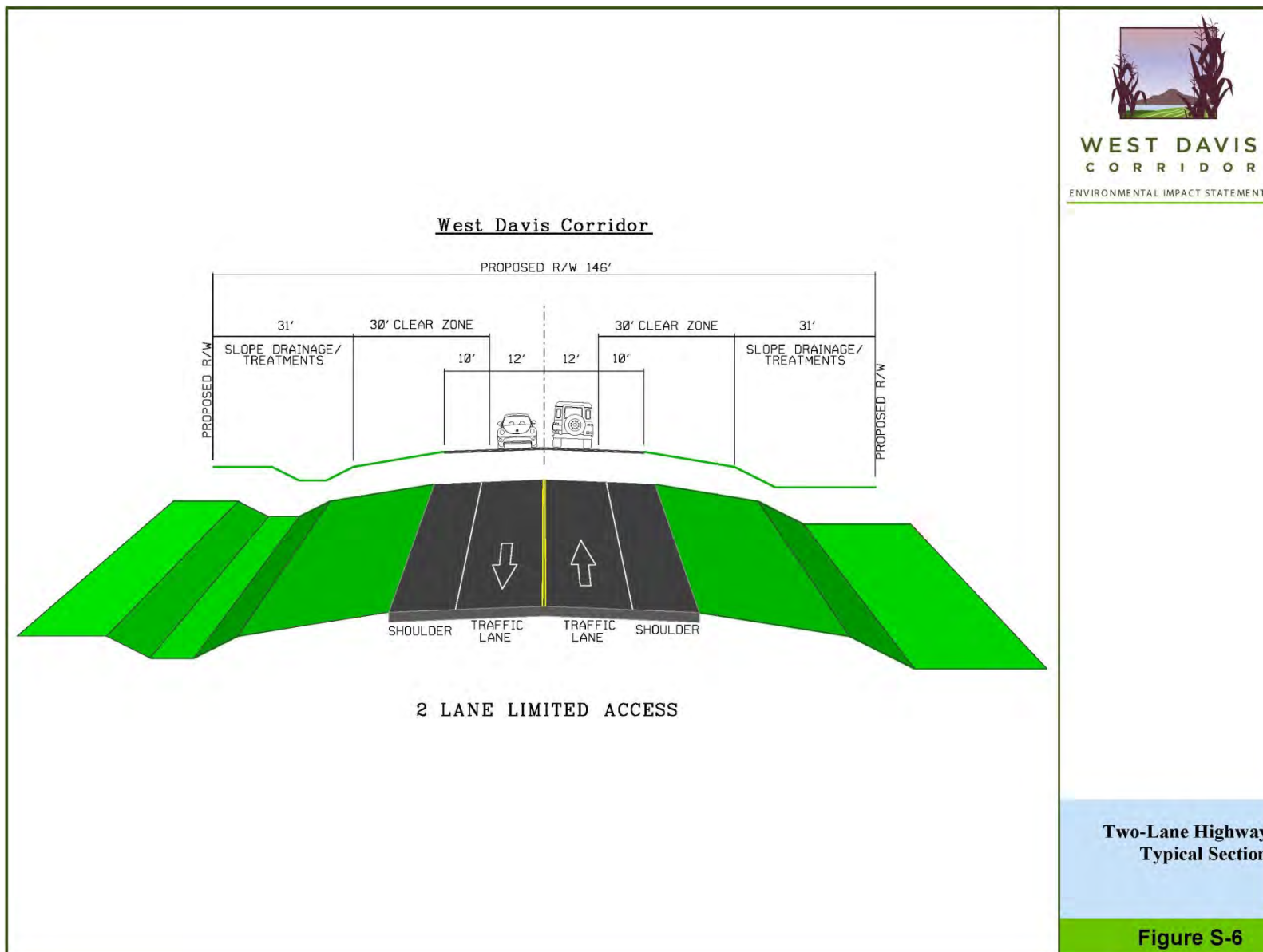


Figure S-7. Alternative B1

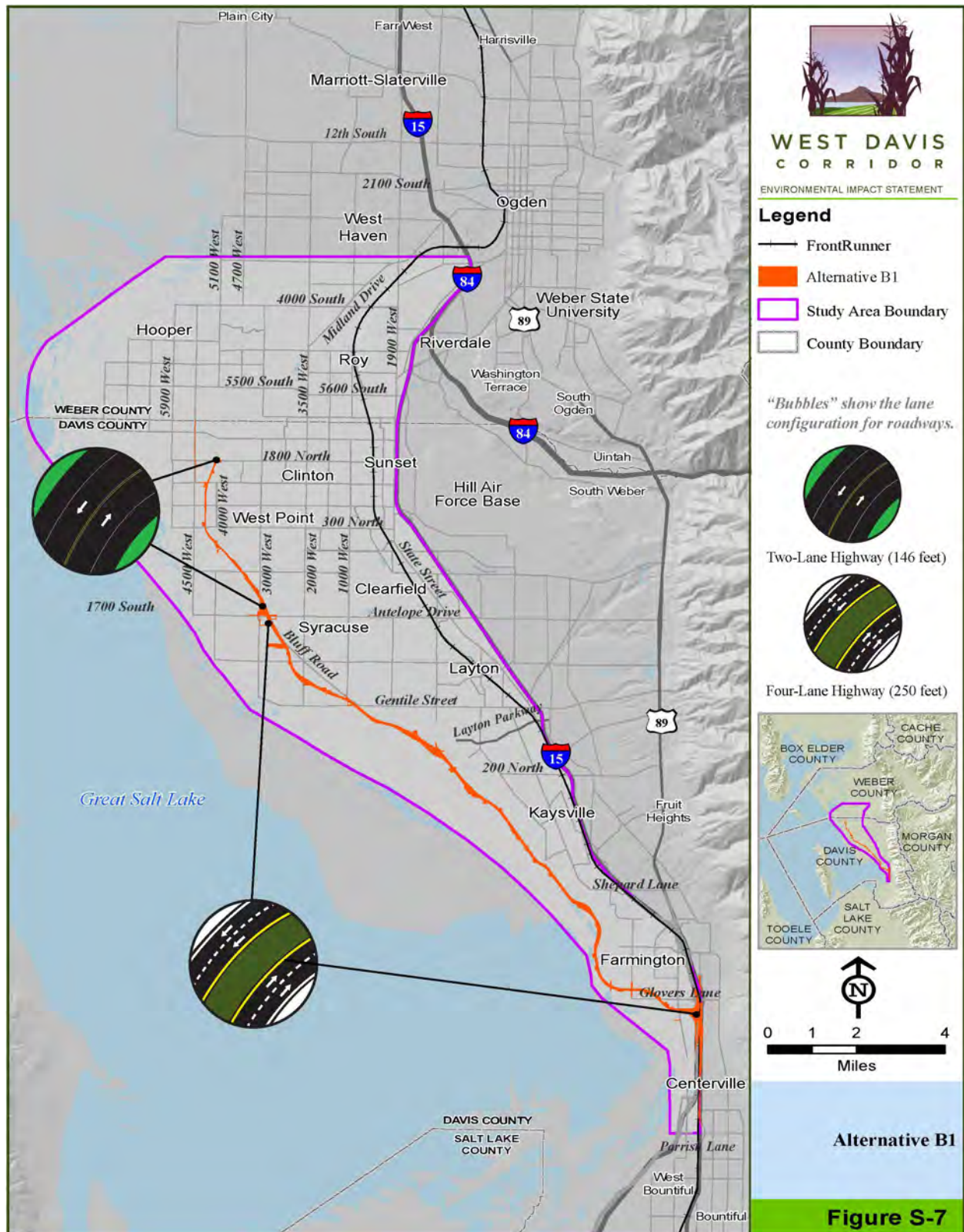


Figure S-8. Alternative B2

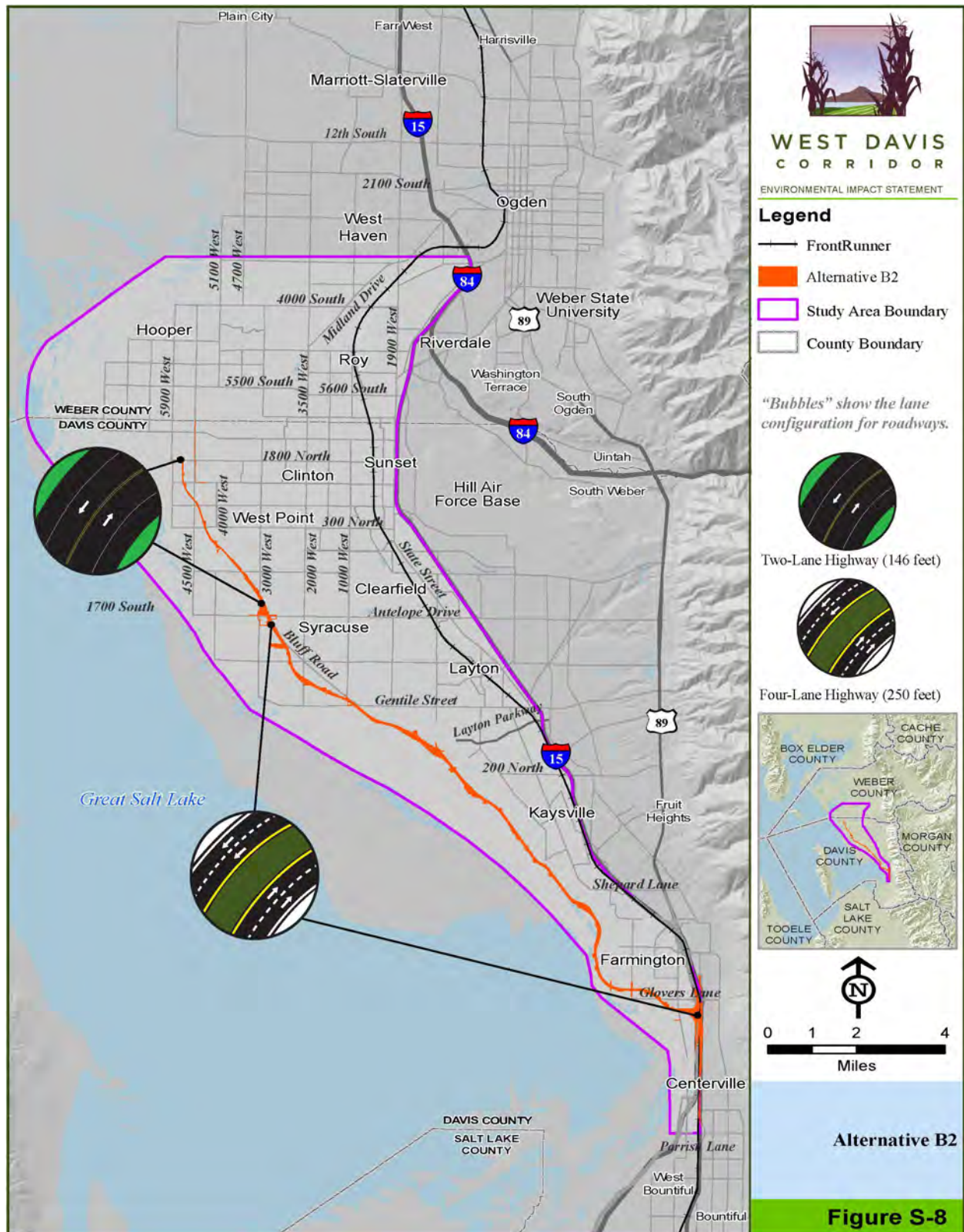


Figure S-9. Wetland Avoidance Options



S.6 What are the operational characteristics and benefits of the WDC?

The WDC, which would be located in flat terrain, would be between 19 and 22 miles long, depending on the alternative selected. The WDC would be mostly a four-lane, divided highway, with the northern extent being a two-lane highway. The WDC would likely have a posted speed limit of 65 miles per hour. By 2040, between 18,900 and 27,600 vehicles would use the WDC each weekday. For comparison, Legacy Parkway currently has between 22,500 and 32,200 vehicles each weekday, and I-15 in Davis County has between 100,000 and 140,000 vehicles each weekday. The heaviest travel periods on the WDC would be during the morning and afternoon work commutes.

The WDC team anticipates that about 92% of the vehicles on the WDC would be automobiles and 8% would be trucks. As a comparison, I-15 has about 85% automobiles and 15% trucks.

About 6.3 million vehicle-miles would be traveled each day in the WDC study area in 2040. Depending on the WDC alternative selected, between 445,000 and 561,000 of these daily vehicle-miles would be on the WDC.

Because of travelers using the WDC, the hours of daily delay in the study area would be reduced by about 27% to 32% overall, depending on the alternative.

What is daily delay?

Daily delay is the total hours of vehicle delay in a day caused by roadway congestion.

Of the travelers from the study area, those who travel to Salt Lake City would experience the greatest benefit. These travelers would experience a 66% reduction in total delay in the peak period compared to the total delay with the No-Action Alternative. This is a result of the travelers being able to use the WDC instead of more-congested east-west arterials to travel to I-15, which would also have some congestion.

In addition, there would be substantial benefits to travelers within the WDC study area (a 15% reduction in peak-period delay compared to the peak-period delay with the No-Action Alternative) and to travelers using east-west arterials from the study area to locations east of I-15 (a 16% reduction in peak-period delay compared to the peak-period delay with the No-Action Alternative). This benefit is due to reduced congestion on arterials in the study area as more travelers use the WDC, thereby reducing congestion on the arterials.

S.7 What impacts would the project have?

Table S-4 below compares the resource impacts of the four WDC action alternatives with and without the Wetland Avoidance Option. This table provides a quantitative comparison among the alternatives for the resources evaluated in this EIS. For more information, see the individual resource chapters of this EIS.

Table S-4. Summary Comparison of Cost and Resource Impacts by WDC Action Alternative

Impact Category	Unit	Alternative							
		Without Wetland Avoidance Option		With Wetland Avoidance Option		Without Wetland Avoidance Option		With Wetland Avoidance Option	
		A1	A2	A1	A2	B1	B2	B1	B2
Route length	Miles	20.37	22.28	20.38	22.29	19.21	19.31	19.22	19.32
Route cost (2017)	Million \$	682	723	682	724	725	728	725	729
Land converted to roadway use	Acres	815	878	822	883	871	872	878	879
Direct impacts to the Great Salt Lake Shorelands Preserve	Acres	75	75	64	64	75	75	64	64
Direct impacts to land with a conservation easement ^a	Acres	91	91	91	91	77	77	77	77
Consistent with city plans (out of six cities for A1, B1, and B2 and seven cities for A2) ^b	Number	4	5	4	5	6	5	6	5
Direct impacts to prime farmland	Acres	134	138	125	129	104	104	94	94
Direct impacts to irrigated cropland	Acres	544	605	540	601	529	532	525	528
Direct impacts to non-irrigated cropland	Acres	85	85	84	84	79	79	78	78
Direct impacts to Agriculture Protection Areas	Acres	24	42	24	42	3	4	3	4
Indirect farmland impacts	Acres	41	50	40	49	28	36	27	35
Residential relocations	Number	25	29	32	36	18	19	25	26
Potential residential relocations ^c	Number	1	3	1	3	9	9	9	9
Residential plats affected ^d	Number	0	0	1	1	0	0	1	1
Business relocations	Number	5	6	5	6	4	5	4	5
Potential business relocations ^c	Number	5	5	5	5	5	5	5	5
Congestion cost savings compared to No-Action Alternative	Million \$	48	47	48	47	56	55	56	55
Direct impacts to recreation areas	Number	3	3	3	3	4	4	4	4
Direct impacts to community facilities	Number	1	2	1	2	1	2	1	2
Environmental justice populations affected	Yes/no ^e	No	No	No	No	No	No	No	No

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Table S-4. Summary Comparison of Cost and Resource Impacts by WDC Action Alternative

Impact Category	Unit	Alternative							
		Without Wetland Avoidance Option		With Wetland Avoidance Option		Without Wetland Avoidance Option		With Wetland Avoidance Option	
		A1	A2	A1	A2	B1	B2	B1	B2
Existing trails relocated	Number	0	0	0	0	1	1	1	1
Existing trails crossed	Number	8	7	8	7	7	6	7	6
Consistent with air quality conformity regulations	Yes/no ^f	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Residential noise receptors above criteria	Number	131	132	132	133	193	185	194	186
Stream/canal crossings	Number	6	7	6	7	6	6	6	6
Direct impacts to wetlands	Acres	28.1	26.9	21	19.9	47.9	46.6	40.9	39.6
• Category I wetlands ^g	Acres	15.9	15.2	13.7	13.1	15.7	15.1	13.6	13.0
• Category II wetlands	Acres	8.2	7.7	3.3	3.8	15.3	14.8	10.4	9.9
• Category III wetlands	Acres	4.0	4.0	4.0	4.0	16.9	16.7	16.9	16.7
Wetlands within 300 feet of the right-of-way	Acres	80.5	64.3	68.7	52.4	101.6	85.2	89.7	73.3
Direct impacts to high-quality wildlife habitat ^h	Acres	49.5	45.8	36.8	33.2	48.9	45.3	36.3	32.7
High-quality wildlife habitat within 300 feet of the right-of-way	Acres	119.4	107.8	105.0	93.4	98.4	86.7	84.0	72.3
Direct impacts to floodplains	Acres	187.7	187.7	183.7	183.7	187.7	187.7	183.7	183.7
Adverse effects on cultural resources	Number	3	3	5	5	5	5	7	7
Direct impacts to hazardous waste sites	Number	0	0	0	0	0	0	0	0
Visual changes	Category	Low-high	Low-high	Low-high	Low-high	Low-high	Low-high	Low-high	Low-high
Section 4(f) uses ⁱ	Number	3	3	5	5	5	5	7	7
Section 4(f) <i>de minimis</i> uses	Number	13	17	12	16	13	14	12	13
Section 4(f) least overall harm	Rank ^j	7	8	5	6	3	4	1	2

(continued on next page)

Table S-4. Summary Comparison of Cost and Resource Impacts by WDC Action Alternative

Impact Category	Unit	Alternative							
		Without Wetland Avoidance Option		With Wetland Avoidance Option		Without Wetland Avoidance Option		With Wetland Avoidance Option	
		A1	A2	A1	A2	B1	B2	B1	B2
Mode share (percent of all home-based work trips)	Percent	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8

^a Conservation easements include Farmington City–held conservation easements and the Black Agriland conservation easement held by the Utah Department of Agriculture and Food.

^b The adopted Farmington City Transportation Plan shows a future WDC on Glovers Lane (all action alternatives). However, city officials have passed a resolution supporting a WDC alignment on Shepard Lane; this alignment was eliminated after the release of the Draft EIS for not meeting design standards.

^c A potential relocation occurs when the right-of-way required for the WDC would affect the property and would be between 1 foot and 15 feet away from the structure.

^d A residential plat is a lot that has been approved for residential development by the local jurisdiction but has not been developed.

^e Yes or no: Would the alternative have a disproportionately high and adverse effect on an environmental justice population?

^f Yes or no: Is the alternative consistent with air quality conformity regulations under the Clean Air Act?

^g Wetland quality was determined using the UDOT Wetland Functional Assessment Method. Category I wetlands have the highest quality and Category III the lowest. For more information, see Chapter 14, Ecosystem Resources, of this Final EIS. Wetland impact acres could change during the Clean Water Act Section 404 permitting process after the Final EIS is released.

^h High-quality wildlife habitats were determined by evaluating parcels for their habitat suitability for eight different wildlife species representative of the WDC study area. For more information, see Chapter 14, Ecosystem Resources, of this Final EIS and *Technical Memorandum 9: Wildlife Assessment Methodology – Existing Conditions*.

ⁱ Section 4(f) is part of an FHWA regulation that requires a project to avoid the use of eligible or potentially eligible historic properties and recreation and wildlife areas unless there is no feasible and prudent alternative to such use. Even then, all measures must be taken to minimize harm to these properties. For publicly owned parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* use is one that would not adversely affect the activities, features, or attributes of the property. For historic sites, a finding of *de minimis* use means FHWA has determined that either the project would not affect the historic property or the project would have “no adverse effect” on the historic property.

^j A Section 4(f) least overall harm analysis determines which alternative would have the least overall harm considering the seven factors listed in 23 Code of Federal Regulations 774.3(c). In this table, a rank of 1 indicates the least overall harm and 8 indicates the greatest overall harm.

S.8 How would the roadway alternatives affect regional congestion?

Table S-5 summarizes how the action alternatives would reduce regional daily delay and improve peak-hour mobility compared to each other and the No-Action Alternative. The table shows the reduction in the hours of daily delay, the number of lane-miles in both the north-south and east-west directions that would have less congestion, and the reduction in the number of vehicle-miles and vehicle-hours traveled in congestion.

As shown in the table, all of the WDC action alternatives would substantially reduce daily delay and peak-period congestion and would provide similar transportation benefits. The main benefit illustrated by the table is that, by implementing one project (the WDC), the total hours of delay in the WDC study area would be reduced by about 32%. That would provide a substantial benefit to overall regional mobility. For more information, see Chapter 7, Transportation.

Table S-5. Comparison of Regional Delay and Congestion Benefits from the WDC Action Alternatives

Alternative	Percentage Change from the No-Action Alternative in 2040 in the PM Peak Period ^a				
	Hours of Daily Total Delay	Lane-Miles of North-South Roads in Congestion ^b	Lane-Miles of East-West Roads in Congestion ^b	Vehicle-Miles Traveled in Congestion ^c	Vehicle-Hours Traveled in Congestion ^c
A1 – Glovers Lane/1800 N	-27.9%	-32.8%	-45.2%	-35.5%	-38.4%
A2 – Glovers Lane/5500 S	-27.2%	-30.2%	-45.2%	-33.9%	-37.0%
B1 – Glovers Lane/4100 W	-32.2%	-31.0%	-51.6%	-35.3%	-40.0%
B2 – Glovers Lane/4800 W	-31.6%	-28.4%	-51.6%	-33.6%	-38.5%

^a The PM peak period is between 3 PM and 6 PM.

^b Includes reduction in congestion on roads with a V/C ratio greater than 0.90 (LOS E and F) during the PM peak period. Roads include freeways (I-15), principal and minor arterials, and collector streets in the WDC study area. Volume to capacity, or V/C, is a measure of the actual traffic volume on a road compared to the traffic capacity for which the road was designed. A V/C ratio of 0.75 to 0.99 represents heavy congestion, and a V/C ratio of more than 1.0 represents severe congestion (the volume of traffic exceeds the capacity of the road). A V/C ratio greater than 0.90 is equivalent to a level of service (LOS) of LOS E or F (congested, stop-and-go traffic).

^c Includes reduction in congestion for vehicle-miles traveled and vehicle-hours traveled on roads with a V/C ratio greater than 0.90 (LOS E and F) during the PM peak period. Roads include freeways (I-15), principal and minor arterials, and collector streets in the WDC study area.

S.9 How much would the alternatives cost?

Table S-6 compares the estimated costs of the WDC action alternatives. The cost estimate below includes design, right-of-way acquisition, construction, utility relocations, and environmental mitigation. This cost estimate is based on current unit prices for recently completed, similar projects that were escalated to 2017 dollars. The actual cost of construction would likely be higher because of inflation between 2017 and the year of construction but is expected to increase proportionally among the various alternatives.

Table S-6. Estimated Costs of the Action Alternatives

Alternative	2017 Cost
A1	\$682 million
A2	\$723 million
A1 with wetland avoidance options	\$682 million
A2 with wetland avoidance options	\$724 million
B1	\$725 million
B2	\$728 million
B1 with wetland avoidance options	\$725 million
B2 with wetland avoidance options	\$729 million

S.10 What changes have been made since the release of the Draft EIS?

This Final EIS includes changes to the analysis that was included in the Draft EIS. These changes are described as appropriate in each chapter of this Final EIS. FHWA determined that none of the changes below were substantial enough to require the preparation of a Supplemental EIS to the Draft EIS. Key changes in this Final EIS include the following.

- Revised Travel Demand Modeling.** For the 2013 Draft EIS analysis, the WDC team used the Wasatch Front Regional Council's (WFRC) 2011–2040 Regional Transportation Plan and version 7 of WFRC's travel demand model to screen the WDC alternatives and evaluate their overall transportation performance. In May 2015, WFRC released its 2015–2040 Regional Transportation Plan and a new version of the travel demand model (version 8.1). UDOT revised this Final EIS using the new version of the travel demand model to ensure that the EIS used the latest models and data. For more information, see Section 2.2.1, Summary of Alternatives-Development Travel Demand Modeling Process, in Chapter 2, Alternatives.

What is a travel demand model?

A travel demand model is a computer model that predicts the number of transportation trips (travel demand) in an area at a certain time in the future. This prediction is based on the expected population, employment, household, and land-use conditions in the area.

- **Revised Alternatives-Development and Screening Process.** Between the release of the Draft EIS and the Final EIS, the WDC team revised the alternatives-development and screening process to take into account a new alternative (the Shared Solution Alternative) that was suggested after the Draft EIS was released and a new 2015–2040 Regional Transportation Plan and revised travel demand model that were released in May 2015. For more information, see Section 2.2, Alternatives-Development Process for the Final EIS, in Chapter 2, Alternatives.
- **Elimination of the Shepard Lane Option.** After the Draft EIS was released in May 2013, UDOT began a more detailed evaluation of the Shepard Lane and Glovers Lane interchange options in accordance with FHWA’s process for modifying access to an interstate. FHWA’s review of the Interstate Access Change Request for the Glovers Lane and Shepard Lane Options concluded that the Shepard Lane Option did not meet design standards. Therefore, FHWA concluded that the Shepard Lane Option could not be built and therefore was not a reasonable or practicable option. For more information, see Section 2.2.4.3, Alternatives Eliminated after the Level 2 Screening Process, in Chapter 2, Alternatives.
- **Consideration of the Shared Solution Alternative.** Between the release of the Draft EIS and the Final EIS, UDOT considered a new alternative called the Shared Solution Alternative. UDOT has worked collaboratively with the Shared Solution Coalition since 2013 to determine whether the Shared Solution Alternative would meet the transportation needs in the WDC study area. The Shared Solution Alternative did not meet the Level 1 screening criteria and was eliminated from consideration. For more information, see Section 2.2.3, Identification of Preliminary Alternatives, in Chapter 2, Alternatives.
- **Reduction in the Lengths of Alternatives.** After release of the Draft EIS, WFRC released a new Regional Transportation Plan and travel demand model. The WDC team used this information to determine whether the northern termini and number of lanes required for the WDC had changed compared to those in the Draft EIS. Modeling with the new travel demand model showed that the northern termini for the A and B Alternatives would be between 1.5 and 4 miles farther south, depending on the alternative. In addition, to meet the project purpose, fewer miles of four-lane highway were needed, and the five-lane arterial was narrowed to a two-lane highway. For more information, see Section 2.3.8, Changes to Alternatives after the Release of the Draft EIS, in Chapter 2, Alternatives.
- **Inclusion of Parkway Design Features.** The WDC team received numerous comments on the Draft EIS regarding making the WDC highway similar to Legacy Parkway. Based on these comments and the Shared Solution Alternative process, UDOT is including noise-reducing pavement, dark-sky lighting, and a trail along the entire length of the WDC. For more information, see Section 2.3.8, Changes to Alternatives after the Release of the Draft EIS, in Chapter 2, Alternatives.
- **Lower Roadway Profile.** Based on comments received on the Draft EIS, the WDC team looked at ways to lower the roadway profile so that the WDC would not block

residential views of areas beyond the highway. UDOT looked at measures that could reduce the height of the WDC from 10 feet to 5 feet in certain locations. For more information, see Section 2.3.8, Changes to Alternatives after the Release of the Draft EIS, in Chapter 2, Alternatives.

- **New Wetland Avoidance Options.** Throughout the EIS process, the WDC team coordinated with the U.S. Army Corps of Engineers (USACE) regarding wetland avoidance options. After the release of the Draft EIS, USACE asked whether any other wetland avoidance options were available. The WDC team responded that two options (the Farmington and Layton wetland avoidance options) could meet design standards while still avoiding wetlands. UDOT combined these two options into the Wetland Avoidance Option, which can be implemented with any of the A or B Alternatives. For more information, see Section 2.3.8, Changes to Alternatives after the Release of the Draft EIS, in Chapter 2, Alternatives.
- **Alignment Modifications.** Changes were made to the action alternatives to minimize impacts and to address concerns raised during the Draft EIS comment period. These changes included incorporating design options that were presented in the Draft EIS as well as additional changes that were developed after the release of the Draft EIS. For more information, see Section 2.3.8, Changes to Alternatives after the Release of the Draft EIS, in Chapter 2, Alternatives.
- **Cost Estimates.** Cost estimates for the WDC Project have been updated based on the most recent available information on right-of-way and construction costs. For more information, see Section 2.5.3, Estimated Cost, in Chapter 2, Alternatives.
- **Section 4(f) Updates.** Based on new information received during the Draft EIS public comment period and before the release of this Final EIS, several new Section 4(f) resources were identified, and the uses of some Section 4(f) resources were changed based on the changes to the WDC Final EIS alternatives noted above. Chapter 27, Section 4(f)/6(f) Evaluation, includes the updated Section 4(f) evaluation.
- **FHWA's Identification of a Preferred Alternative.** FHWA has concurred with UDOT in identifying Alternative B1 with the Wetland Avoidance Option as the preferred alternative for the WDC Project. For more information, see Section 2.6, Identification of the Preferred Alternative, in Chapter 2, Alternatives.

S.11 Which alternatives do the lead agencies prefer?

FHWA and UDOT have identified **Alternative B1 with the Wetland Avoidance Option** as the preferred alternative for the WDC Project. This alternative includes the Glovers Lane connection to I-15 in Farmington, the Wetland Avoidance Option in Farmington and Layton, and the 4100 West Option in West Point. Section 2.6, Identification of the Preferred Alternative, in Chapter 2, Alternatives, provides detailed information about why this alternative was identified as the preferred alternative.

The final selection of an alternative will be made by FHWA in the project's Record of Decision. As part of the Clean Water Act permitting process, the U.S. Army Corps of Engineers will decide which alternative satisfies the guidelines in Section 404(b)(1) of the Clean Water Act.

The identification of Alternative B1 with the Wetland Avoidance Option as the preferred alternative was based on the analysis in this Final EIS and close coordination with the affected Cities, the public, and other key stakeholders. Provided below are some of the key reasons why FHWA and UDOT identified Alternative B1 with the Wetland Avoidance Option as their preferred alternative (see Table S-4 above, Summary Comparison of Cost and Resource Impacts by WDC Action Alternative).

Of the eight combinations of the four WDC action alternatives and the Wetland Avoidance Option, Alternative B1 with the Wetland Avoidance Option:

- Draws substantially more traffic, making it the most efficient alternative in reducing regional congestion and delay
- In the Section 4(f) least overall harm analysis, was determined to have the least overall harm considering the seven factors in 23 Code of Federal Regulations 774.3(c)
- Affects the fewest number and acres of Agriculture Protection Areas
- Has comparable direct impacts to high-quality wildlife habitat as the other alternatives
- Avoids the Farmington Bay Waterfowl Management Area
- Along with Alternative B2 with the Wetland Avoidance Option, would have the lowest overall impact to the Great Salt Lake Shorelands Preserve
- Avoids bisecting highly productive farmland in Syracuse and West Point
- Has the lowest acres of impacts to prime farmland
- Has the third-lowest number of residential relocations and the lowest number of business relocations
- Avoids dividing the Bridgeway Island neighborhood in Syracuse
- Is the most consistent with local land-use plans

S.12 How will the project be constructed?

According to the Wasatch Front Regional Council's 2015–2040 Regional Transportation Plan, the initial phase of the WDC, from I-15 to Antelope Drive, would be constructed during Phase 1 of the plan (2015–2024) with all segments from Antelope Drive to the northern terminus completed by 2034. The actual timing of construction would be based on the availability of funding, the consideration of safety factors, and the need for the roadway improvement. If FHWA selects an action alternative, funding for the project will be identified in the Record of Decision that is issued after the release of this Final EIS.

If only partial funding is allocated for construction, UDOT would construct portions of the selected alternative based on the amount of the funding while considering safety and operational benefits. Any implemented portion of the selected alternative would need to operate in an independent and acceptable manner with appropriate and functional project limits. It is likely that the first phase of construction would start with the WDC and I-15/Legacy Parkway interchange and go north to Antelope Drive in Syracuse. For more information about construction phasing, see Section 20.3.2, Construction Phasing, in Chapter 20, Construction Impacts.

S.13 What controversial issues were identified during the EIS process?

Several areas of controversy were identified during the process of meeting with the Cities and the public to develop the WDC alternatives. The following are the main issues.

- **Previous Planning Studies.** The public and the Cities commented that, in planning studies conducted prior to the EIS process, an alignment was selected that was then preserved in locations and planned for by the communities prior to the EIS process. They also commented that the alternatives identified during the EIS process are different from this previous alignment and as a result would cause more community and farmland impacts.
- **Glovers Lane and Shepard Lane Interchanges.** The public and the Cities of Farmington and Kaysville were concerned about the selection of the WDC connection to I-15/Legacy Parkway. The residents along the proposed WDC Shepard Lane connection to I-15/Legacy Parkway in Kaysville that was considered in the Draft EIS were concerned that this connection would relocate homes in a cohesive neighborhood, reduce property values for the remaining homes, pose safety and health risks, cause I-15 to become congested, and cause a traffic “bottleneck” where I-15, Legacy Parkway, and the WDC would merge at a single location. Between the release of the Draft EIS and the Final EIS, the Shepard Lane connection was eliminated because it did not meet FHWA's standards for access to the interstate. For more information, see Section 2.2.4.3, Alternatives Eliminated after the Level 2 Screening Process, in Chapter 2, Alternatives.

Residents along the proposed WDC Glovers Lane connection and Farmington City were concerned that this connection would reduce property values, pose safety and health risks, leave the neighborhoods in western Farmington between two highways (the WDC and I-15), further divide Farmington, affect a planned industrial area, and affect areas set aside as conservation easements. In addition, since the WDC Glovers Lane Option evaluated in the Draft EIS did not include any interchanges in Farmington, Farmington City felt that the Glovers Lane Option would be a bypass that would harm but not benefit Farmington. To address access to Farmington, UDOT has included an interchange at 950 North for any of the Final EIS action alternatives, which would provide access to Farmington.

- **Farmington Conservation Easements.** Farmington City provided comments suggesting that the Farmington conservation easements should have been considered Section 4(f) resources. FHWA and UDOT have considered Farmington City's comments and have coordinated with the City regarding the conservation easements between the release of the Draft EIS and the Final EIS.
- **Antelope Drive Interchange.** Residents who live adjacent to Bluff Road in Syracuse oppose both of the B Alternatives, which would provide a WDC interchange on Antelope Drive near Bluff Road. The residents along the proposed B Alternatives are concerned that the B Alternatives would divide a cohesive community, reduce property values, and pose safety and health risks to residents. The residents are also concerned about the proximity of the B Alternatives to the Syracuse Arts Academy charter school and feel that the alternatives could pose safety and health risks to students.
- **Bridgeway Island.** Residents of the Bridgeway Island subdivision in Syracuse would be affected by the A Alternatives and feel that the A Alternatives would divide their cohesive neighborhood, reduce property values, and pose a health risk.
- **Wetlands.** Residents and farmers in the WDC study area questioned whether the wetlands identified during the EIS process were actual wetlands. Many commenters felt that some of the wetland areas identified were created by irrigation and should not be identified as wetlands, and therefore would not need to be avoided by the WDC. Many residents and farmers stated that homes and farmland are more important than wetlands.
- **Wildlife Habitat Impacts and Fragmentation.** The state and federal resource agencies and some nongovernmental organizations oppose the Glovers Lane Option because it would be near the Farmington Bay Waterfowl Management Area (WMA). These groups oppose this option because they are concerned about the impacts to the privately owned parcels north of the WMA, the potential for indirect impacts to the WMA, increased noise levels near the option, and fragmented farmland northeast of the WMA. In addition, some comments have opposed the impacts to the Great Salt Lake Shorelands Preserve and the fragmentation of farmland habitat adjacent to the preserve that would be caused by any of the WDC action alternatives (for more information, see Chapter 14, Ecosystem Resources).

- **Farmland.** The Utah Department of Agriculture and Food, local farm bureaus, and farmers oppose impacts to farmland, state-designated Agriculture Protection Areas, and irrigation systems (for more information, see Chapter 4, Farmland). The farming community also feels that the farmland in Davis and Weber Counties is some of the most productive in Utah and provides substantial economic benefits to the region. The farming community also feels that, because of this farmland's close proximity to a major market, it allows reduced transportation costs and the production of more high-value crops.
- **Community Impacts.** Residents who own homes near the WDC action alternatives feel that the WDC would substantially increase noise levels, change the cohesive nature and quality of their community, substantially alter the visual environment, and substantially decrease property values (for more information, see Chapter 5, Community Impacts; Chapter 8, Economics; and Chapter 18, Visual Resources).
- **Air Quality.** Some members of the public and nongovernmental organizations are concerned that vehicle emissions from the WDC could increase health risks to residents near the proposed alternatives and decrease regional air quality. These concerns have been considered and are addressed in Chapter 11, Air Quality.
- **Shared Solution Alternative.** Many commenters on the Draft EIS stated that UDOT should not build the WDC and instead should consider and select the Shared Solution Alternative. Between the release of the Draft EIS and the Final EIS, UDOT developed and evaluated the Shared Solution Alternative. UDOT has worked collaboratively with the Shared Solution Coalition since 2013 to determine the elements of the Shared Solution Alternative and evaluate whether the Shared Solution Alternative would meet the transportation needs in the WDC study area. The Shared Solution Alternative was determined to not meet the Level 1 screening criteria and was eliminated from consideration. For more information, see Section 2.2.3, Identification of Preliminary Alternatives, in Chapter 2, Alternatives.

S.14 Are there any major unresolved issues?

All of the WDC action alternatives would directly and indirectly impact waters of the U.S. that are regulated under the Clean Water Act. The U.S. Army Corps of Engineers has not made an official determination on the WDC preferred alternative under the Clean Water Act.

The WDC team is coordinating with the resource agencies regarding avoidance, minimization, and mitigation of wildlife and wetland impacts from the WDC as well as the selection of the preferred alternative.

S.15 What additional federal actions would be required if the project is built?

The following federal actions would be required to build the proposed WDC. For more information, see Chapter 25, Permits and Clearances.

- Clean Water Act, Section 404 Permit (U.S. Army Corps of Engineers)
- Section 309 Review (U.S. Environmental Protection Agency)
- Interstate Access Change Request Approval (Federal Highway Administration)
- Section 4(f) Approval (Federal Highway Administration)
- Federal Emergency Management Floodplain Review (Federal Emergency Management Agency)
- Federal Land Transfer Approval (Utah Reclamation, Mitigation, and Conservation Commission)
- Approval of Relocation of Layton Canal (U.S. Bureau of Reclamation)

S.16 Who will decide which alternatives are selected, and how can I get involved?

In its Record of Decision, FHWA, in consultation with UDOT, will decide which alternative is selected. The decision will rely heavily on both technical information and community input. You are invited to participate in this project by reviewing this EIS and providing your comments on the information presented. The input you provide will help the lead agencies make a final decision regarding the WDC Project.

You can get involved in the WDC EIS process by submitting comments on this Final EIS. There are four ways to comment on the project:

1. E-mail your comment to westdavis@utah.gov.
2. Call the toll-free comment line at (877) 298-1991.
3. Submit a comment using the comment form on the project website at www.udot.utah.gov/westdavis/get_involved.
4. Mail your comment to:
West Davis Corridor
466 North 900 West
Kaysville, UT 84037

S.17 What happens next?

After the release of this Final EIS and the announcement in the Federal Register, there will be a minimum 30-day review period. After this review period, FHWA and UDOT will consider all comments received on this Final EIS, the analysis in this Final EIS, and the project file in preparing the Record of Decision. The Record of Decision will explain the reasons for the project decision, summarize any mitigation measures that will be incorporated in the project, and document any Section 4(f) approval.

In addition, the Record of Decision will include any new substantive comments received on the EIS that were not addressed in the Final EIS and will provide responses to those comments when appropriate.

After all project approvals are received, UDOT can proceed toward construction.