

APPENDIX 2E

Preferred Alternative Report

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Preferred Alternative Technical Report

Heber Valley Corridor Environmental Impact Statement

Lead agency:
Utah Department of Transportation

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Abbreviations

AJD	Approved Jurisdictional Determination
Alt	alternative
CFR	<i>Code of Federal Regulations</i>
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
FHWA	Federal Highway Administration
LEPDA	least environmentally damaging practicable alternative
LOS	level of service
PM	afternoon
SR	state route
UDOT	Utah Department of Transportation
US-189	U.S. Highway 189
US-40	U.S. Highway 40
USACE	U.S. Army Corps of Engineers
USC	<i>United States Code</i>

1.0 Introduction

This technical report documents the Utah Department of Transportation's (UDOT) process to identify the preferred alternative for the Draft Environmental Impact Statement (EIS) for the Heber Valley Corridor Project. UDOT's process included reviewing how the project alternatives would meet the purpose of the project and how they would affect the human and natural environment.

Section 2.0, *Preferred Alternatives Evaluation*, of this report summarizes the transportation performance, costs, and impacts of the project alternatives. Section 3.0, *UDOT's Preferred Alternative*, identifies UDOT's preferred alternative (Alternative B) and the reasons for its identification.

The environmental review, consultation, and other actions required by applicable federal environmental laws for this action are being, or have been, carried out by UDOT pursuant to 23 *United States Code* (USC) Section 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration (FHWA) and UDOT.

2.0 Preferred Alternatives Evaluation

2.1 Methodology

For the Heber Valley Corridor Project, UDOT is evaluating two action alternatives and the No-action Alternative. The two action alternatives are as follows:

- **Alternative A** (on US-40 alignment)
- **Alternative B** (off US-40 alignment)

For more information about the alternatives, see Chapter 2, *Alternatives*, of the Draft EIS. In its evaluation process, UDOT considered the following measures:

- **Purpose Performance:** the degree to which an alternative would meet the project purpose to "improve regional and local mobility on U.S. Highway 40 (US-40) from River Road/ State Route (SR) 32 to U.S. Highway 189 (US-189) and provide opportunities for nonmotorized transportation while allowing Heber City to meet their vision for the historic town center"
- **Other Transportation Performance Considerations:** other important factors related to transportation performance (access, functional classification, and redundancy)
- **Resource Impacts:** the amount and type of impacts to the natural and human environment that an alternative would have
- **Estimated Cost:** how much an alternative would cost

UDOT's evaluation process did not weigh any of the above measures as being more important than the others; UDOT considered all three aspects, as well as public and agency input, to identify the preferred alternative. The evaluation in this technical report explains UDOT's rationale for identifying its preferred alternative.

2.2 Purpose Performance

2.2.1 Purpose Criteria

UDOT analyzed the transportation performance of each project alternative to determine how well the alternative would meet the purpose of the Heber Valley Corridor Project. The purpose of the project is to improve regional and local mobility on US-40 from River Road/SR-32 to US-189 and provide opportunities for nonmotorized transportation while allowing Heber City to meet their vision for the historic town center.

UDOT developed criteria to measure an alternative's ability to meet the purpose of the project (Table 1). Both of the action alternatives studied in detail in the EIS satisfy the purpose of the project, although Alternative B performs better with respect to the project purpose. UDOT considered these differences in its evaluation.

Table 1. Purpose Criteria

Criterion	Measures
Improve regional mobility through 2050	<ul style="list-style-type: none"> • Substantially decrease through traffic travel time (from River Road/SR-32 to US-189 and from River Road/SR-32 to south US-40). • Minimize conflicts (driveway accesses, intersections, etc.) to north-south mobility for through traffic. Minimizing conflicts also improves safety to the traveling public.
Improve local mobility on Main Street through 2050	<ul style="list-style-type: none"> • Improve arterial and intersection level of service (LOS) on US-40. • Decrease travel time on Main Street (River Road/SR-32 to the hub intersection). • Substantially decrease vehicle queue lengths on US-40.
Provide opportunities for nonmotorized transportation	<ul style="list-style-type: none"> • Provide opportunities for nonmotorized transportation consistent with local and regional planning documents.
Allow Heber City to meet their vision for the historic town center	<ul style="list-style-type: none"> • Avoid or minimize impacts to valued places and historic buildings in the historic town center (along Main Street, 100 East, and 100 West). • Avoid improvements that would preclude Heber City from implementing strategies to achieve their vision for Main Street (wide sidewalks, bike lanes, landscaping, and a reduced speed limit). • Provide an attractive alternative to Main Street for truck and regional through traffic as a result of improved travel times and fewer stops.

Definitions: hub intersection = intersection of US-40 and US-189 on the south end of Heber City

2.2.2 Regional Mobility

Regional Travel Time

How well an alternative would improve regional mobility is measured by the decrease in the amount of time it takes to travel a specific route between a starting point and an ending point. For the Heber Valley Corridor Project, UDOT selected one starting point (River Road/SR-32) and two ending points (US-189 at about 3000 South and US-40 at about 1500 South). These points are common to the No-action Alternative and both action alternatives; the alternatives differ in the route that drivers would take from the starting point to each ending point. The following two routes were used to evaluate regional mobility:

1. River Road/SR-32 to US-189 (at about 3000 South), shown in purple in Figure 1
2. River Road/SR-32 to US-40 (at about 1500 South), shown in blue in Figure 1

The travel path is shown in Figure 1 for southbound travel; the path would be reversed for northbound travel. This analysis measures the time it would take a vehicle to make a regional trip using the Heber Valley Corridor to avoid Main Street with the action alternatives; under the existing conditions and with the No-action Alternative, vehicles would travel on Main Street through downtown Heber City.

As shown in Table 2, both action alternatives would substantially decrease travel time compared to the No-action Alternative (62.6% to 73.6% faster). Travel time on Alternative B would be slightly more than 1 minute faster than Alternative A because the segment through the north fields would be more direct (requiring less out-of-direction travel) and would have a higher speed limit than would the North US-40 segment. Alternative B would result in better regional mobility via the Heber Valley Corridor than would Alternative A.

Table 2. Southbound PM Peak-hour Regional Travel Time from River Road/SR-32 to US-189 and US-40

In minutes:seconds

Travel Time	2019	2050		
	Existing	No-action	Alternative A	Alternative B
SR-32/River Road to US-189	10:55	23:40	7:25 (68.7% faster than No-action)	6:15 (73.6% faster than No-action)
SR-32/River Road to US-40	9:15	21:50	8:10 (62.6% faster than No-action)	6:55 (68.3% faster than No-action)

Source: Parametrix 2025

Shading: Green = good travel time, red = poor travel time

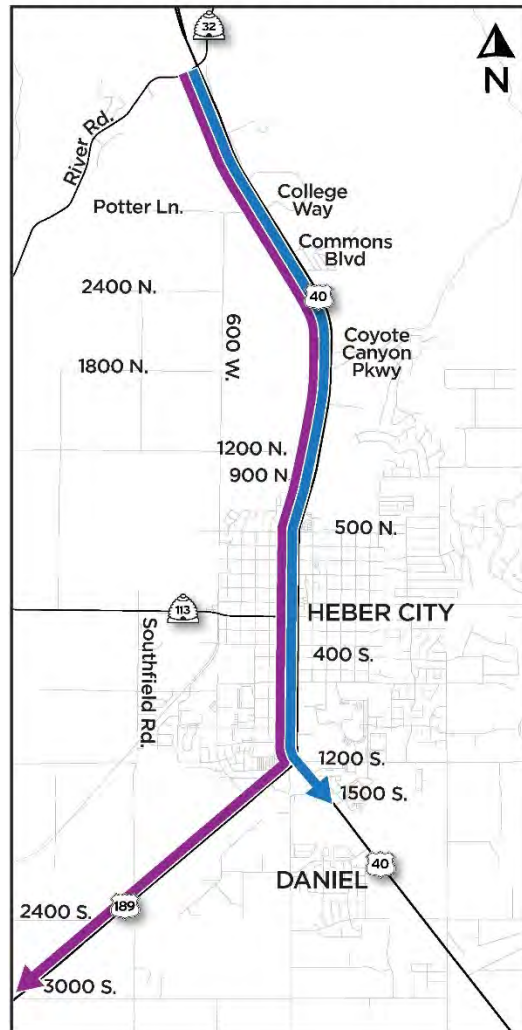
Safety

Reducing the number of conflict points improves both regional mobility and safety. How well an alternative would enhance safety is measured by how it would minimize conflicts.

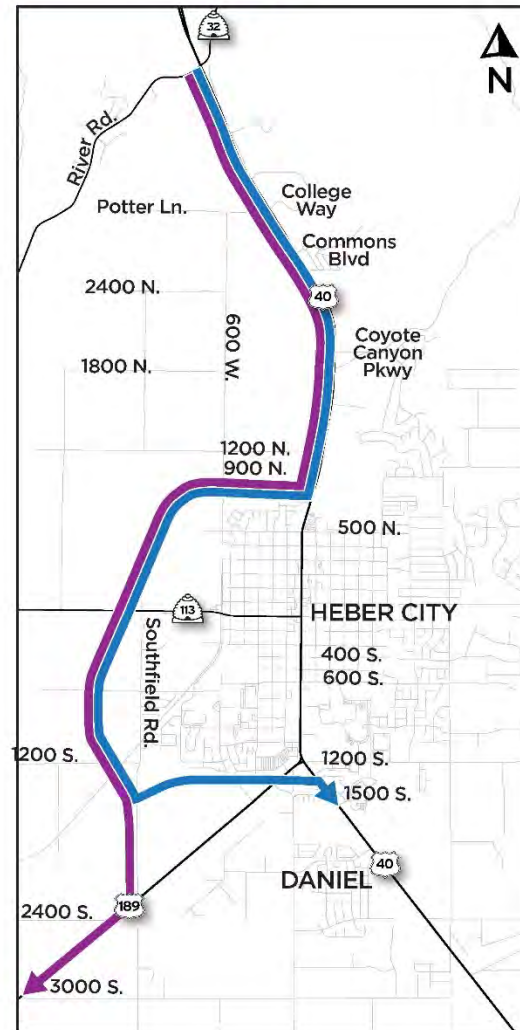
The No-action Alternative would have more than 150 potential conflict points (see Figure 2); in comparison, both action alternatives would provide a north-south route across the Heber Valley with 1 conflict point.

Figure 1. Travel Routes Measured for Regional Mobility

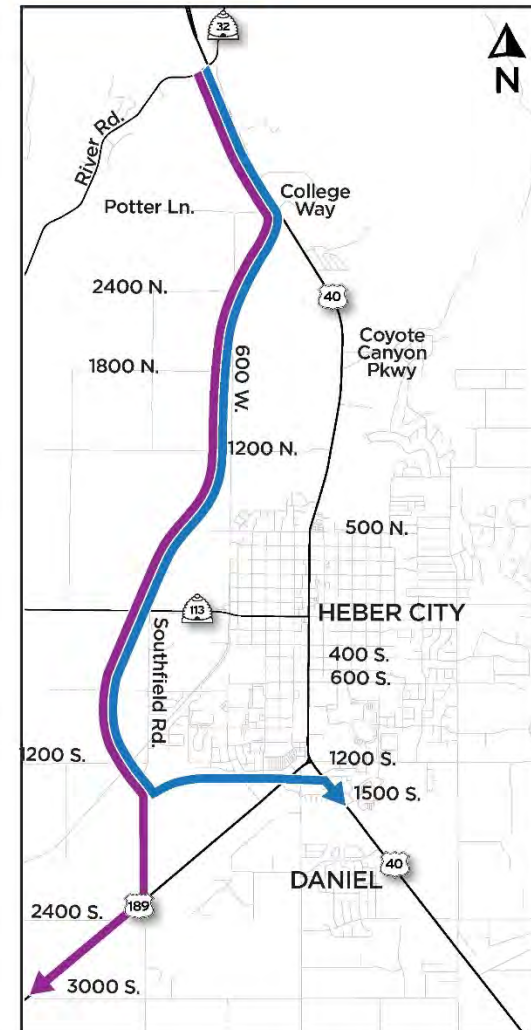
Existing & 2050 No-action



Alternative A



Alternative B



Purple = River Road/SR-32 to US-189 (at about 3000 South); blue = River Road/SR-32 to US-40 (at about 1500 South)

Figure 2. Potential Conflict Points with the No-action Alternative (SR-32 to US-189 at Southfield Road)



The No-action Alternative is access category 5, similar to existing conditions, which allows driveways and signalized and unsignalized intersections to have direct access to US-40, as designated by the corridor agreement (for more information, see Section 2.3.1, *North US-40 Access*). The identified conflict point for Alternatives A and B is at the intersection of US-189 and the Western Corridor segment where vehicles traveling southbound on the western corridor would need to stop at a stop sign and wait for a suitable gap before turning left onto US-189 to travel eastbound. UDOT considered making this connection free flow but determined that the traffic volumes did not warrant a third-level structure (a bridge over a bridge).

What are conflict points?

Conflict points are locations where the paths of different vehicles intersect, creating a potential risk of collision (for example, intersections and driveways).

2.2.3 Local Mobility

How well an alternative would improve local mobility is measured by how well it would:

- Improve arterial and intersection level of service (LOS) on US-40/Main Street
- Decrease travel time on US-40/Main Street (River Road/SR-32 to the hub intersection, which is the intersection of US-40 and US-189 on the south end of Heber City)
- Decrease vehicle queue lengths on US-40/Main Street

What is level of service?

Level of service is a measure of the operating conditions on a road or at an intersection. Level of service is represented by a letter “grade” ranging from A for excellent conditions (free-flowing traffic and little delay) to F for failure conditions (extremely congested, stop-and-go traffic and excessive delay).

Intersection Level of Service

As shown in Table 3, both action alternatives would substantially improve intersection level of service during the PM peak hour compared to the No-action Alternative. Most intersections that operate at LOS F with the No-action Alternative (five total) would improve to LOS D or better. With Alternative A, one intersection would operate at LOS F, and two intersections would operate at LOS E. With Alternative B, one intersection would operate at LOS E.

The difference between the action alternatives at the 500 North, Center Street, and 100 South intersections is related to variation in traffic forecasts from the regional travel demand model (version 2.1 2024-03-28). With Alternative B, the North Fields Extension segment offers a more direct travel path at a higher speed limit to River Road/SR-32 compared to the North US-40 segment with Alternative A. For this reason, the travel demand forecast shows a greater shift in traffic away from Main Street to the Western Corridor segment with Alternative B. Consequently, this results in less traffic on Main Street with Alternative B.

For Alternative A, the greater amount of traffic from both eastern and western Heber City onto Main Street adds traffic to the east and west legs of intersections on Main Street, and this additional traffic results in more complex traffic operations and greater delay. The reason why Alternative A operates at LOS F and Alternative B operates at LOS C at the 500 North intersection is that Alternative A has both higher north-south traffic volumes on Main Street and more traffic on the east and west legs of the intersection.

With both action alternatives, traffic operations on Main Street would be greatly improved compared to operations with the No-action Alternative, but Alternative B would perform better than Alternative A with respect to intersection level of service.

Table 3. PM Peak-hour Intersection Level of Service and Average Delay

Delay is shown in seconds per vehicle

Intersection	2019	2050		
	Existing	No-action	Alternative A	Alternative B
US-40 and River Road/SR-32	B / 18	F / >100	C / 30 (NB ramps) C / 22 (SB ramps)	C / 30 (NB ramps) C / 20 (SB ramps)
US-40 and University Avenue	NA	E / 63	NA	NA
US-40 and Potter Lane/College Way	D ^a / 32	NA	A / 8 (NB ramps) B / 12 (SB ramps)	B / 15
US-40 and Commons Blvd.	B ^a / 14	D / 50	NA	B / 14
US-40 and Coyote Canyon Parkway	B ^a / 14	E / 57	B / 10 (NB ramps) B / 18 (SB ramps)	B / 18
US-40 and 900 North segment	NA	D / 51	C / 34	C / 31
US-40 and 500 North	B / 17	F / >100	F / 94	C / 30
US-40 and Center St.	C / 24	D / 39	E / 64	D / 52
US-40 and 100 South	C / 30	F / >100	D / 38	C / 34
US-40 and 600 South	B / 18	F / >100	D / 36	D / 38
US-40 and US-189	C / 29	F / >100	E / 56	E / 57
Western Corridor segment and 900 North segment	NA	NA	NA	B ^a / 12
Western Corridor segment and SR-113	NA	NA	C / 30	C / 31
Western Corridor segment and US-189	NA	NA	C / 22	B / 14
300 West and one-way frontage road (on the north side of 1300 South)	NA	NA	A / 9	B / 12
300 West and one-way frontage road (on the south side of 1300 South)	NA	NA	B / 10	B / 13
US-189 and 1300 South local access road	C / 20	C / 21	B / 13	B / 14

Source: Parametrix 2025

Definitions: LOS = level of service; NA = not applicable (intersection does not exist in the scenario); NB = northbound; SB = southbound; sec = seconds

Shading: Green = good LOS, yellow = moderate LOS, orange = near-failing LOS, and red = failing LOS

^a Unsignalized intersection reports delay and level of service for the worst stop or yield-controlled approach.

Arterial Level of Service

As shown in Table 4, both action alternatives would improve arterial level of service on Main Street during the PM peak hour compared to the No-action Alternative. Note that LOS F on short segments with closely spaced signals (that is, around Center Street) is not necessarily a cause for concern. Even without congestion, vehicles on short segments of road have little opportunity to accelerate to higher speeds, so resulting in a lower level of service. Arterial level of service is not reported for the North US-40 segment because the traffic signals are farther apart, and travel time is considered to be a better measure of performance for that segment.

What is the PM peak hour?

The PM peak hour is the 1-hour period in the afternoon (PM) during which there is the greatest number of vehicles on the road system. For the Heber Valley Corridor Project, the PM peak hour is from 5 to 6 PM.

The largest improvement with the action alternatives would occur on the southbound section of US-40 between 500 North and 100 North; Alternative B would perform slightly better than Alternative A on US-40 between 500 North and US-189.

Table 4. PM Peak-hour Arterial Level of Service and Average Speed on Main Street

Arterial Segment and Direction		2019	2050			Posted Speed (mph)
		Existing	No-action	Alternative A	Alternative B	
Southbound	US-40: From 500 North to 100 North	B / 26	F / 10	D / 17	C / 21	35
	US-40: From 100 North to Center St.	F / 11	F / 9	F / 9	F / 10	35
	US-40: From Center St. to 100 South	F / 11	E / 14	E / 13	E / 14	35
	US-40: From 100 South to 600 South	B / 24	D / 15	C / 20	C / 20	35
	US-40: From 600 South to US-189	B / 25	C / 22	C / 22	C / 24	35/40
	US-40: South of US-189	A / 36	A / 36	A / 36	A / 36	40/50
	US-189: Southwest of US-40	B / 32	C / 26	C / 30	C / 28	35/45
Northbound	US-189: Northeast to US-40	C / 22	E / 14	D / 16	D / 16	35/45
	US-40: North to US-189	C / 23	E / 14	D / 18	C / 20	40/50
	US-40: From US-189 to 600 South	A / 30	B / 24	B / 25	B / 26	35/40
	US-40: From 600 South to 100 South	C / 22	E / 13	C / 18	C / 18	35
	US-40: From 100 South to Center St.	F / 10	E / 12	D / 15	D / 15	35
	US-40: From Center St. to 100 North	B / 27	B / 25	B / 26	B / 26	35
	US-40: From 100 North to 500 North	B / 23	B / 26	B / 26	B / 27	35

Source: Parametrix 2025

Definitions: LOS = level of service; mph = miles per hour

Shading: Green = good LOS, yellow = moderate LOS, orange = near-failing LOS, and red = failing LOS

Local Travel Time on Main Street

As shown in Table 5, both action alternatives would substantially improve travel time on Main Street between River Road/SR-32 and US-189 (southbound) during the PM peak hour compared to the No-action Alternative. Alternative B would provide a slightly faster travel time (about 25 seconds faster) on Main Street than Alternative A.

Table 5. PM Peak-hour Local Travel Time on Main Street from River Road/SR-32 to US-189

In minutes:seconds

Parameter	2019	2050		
	Existing	No-action	Alternative A	Alternative B
Travel time	8:20	20:30	11:50	10:15
Difference from No-action Alternative			-8:40 (42.3% faster than No-action)	-10:15 (50.0% faster than No-action)

Source: Parametrix 2025

Shading: Green = good travel time, red = poor travel time

Vehicle Queue Length

As shown in Table 6, both action alternatives would substantially shorten vehicle queues on Main Street during the PM peak hour compared to the No-action Alternative. Alternative B would provide shorter vehicle queues compared to Alternative A because of Alternative B's slightly better intersection performance (level of service), as discussed on page 6.

Table 6. PM Peak-hour Vehicle Queue Lengths

In feet

Intersection	2019	2050		
	Existing	No-action	Alternative A	Alternative B
Southbound US-40 at 500 North	375	17,100	3,500	700
Difference from No-action Alternative			-13,600	-16,400
Southbound US-40 at Center St.	750	>2,400	2,025	1,900
Difference from No-action Alternative			-375	-500
Southbound US-40 at 100 South	375	>400	>400	>400
Difference from No-action Alternative			0	0
Eastbound 100 South at US-40	125	>2,500	275	200
Difference from No-action Alternative			-2,225	-2,300

Source: Parametrix 2025

Shading: Green = acceptable vehicle queue length, red = poor vehicle queue length (queue spills back to adjacent signalized intersection)

Summary of Local Mobility Performance

As discussed on page 6, Alternative B would attract more traffic from Main Street to the Western Corridor than would Alternative A because the North Fields Extension segment with Alternative B would provide a more direct travel path to River Road/SR-32 at a higher speed limit compared to the North US-40 segment with Alternative A. For this reason, the travel demand forecast shows a greater shift in traffic away from Main Street to the Western Corridor segment with Alternative B. This in turn results in less traffic (and hence shorter vehicle queues) on Main Street with Alternative B compared to Alternative A. Alternative B would result in the best overall local mobility via Main Street because it would have better intersection and arterial levels of service, shorter travel time, and shorter vehicle queues compared to Alternative A.

2.2.4 Opportunities for Nonmotorized Transportation

Both action alternatives would provide the same opportunities for nonmotorized transportation. With both action alternatives, a 12-foot-wide paved trail would be located on the east side of US-40, on the east side of the Western Corridor segment, and on the north side of 1300 South, consistent with local and regional planning documents. The No-action Alternative would not provide opportunities for nonmotorized transportation.

2.2.5 Heber City's Vision for Their Historic Town Center

Part of the purpose of the Heber Valley Corridor Project is to allow Heber City to meet their vision for the historic town center as described in the *Heber City Envision 2050 General Plan* (Heber City 2023). It is important to note that UDOT is not responsible for implementing Heber City's vision, but the action alternatives should not preclude the City from doing so. How well an alternative would allow Heber City to implement their vision for the historic town center is measured by how it would:

- Avoid or minimize impacts to valued places and historic buildings in the historic town center (500 North to 600 South along Main Street, 100 East, and 100 West)
- Avoid improvements that would preclude Heber City from implementing strategies to achieve their vision for Main Street (wide sidewalks, bike lanes, landscaping, and a reduced speed limit); implementing these strategies would make Main Street safer for the public
- Provide an attractive alternative to Main Street for truck and regional through traffic as a result of improved travel times and fewer stops

Valued Places and Historic Buildings

Neither of the action alternatives would cause impacts to valued places or historic buildings in the historic town center.

Pedestrian-friendly and Bike-friendly Main Street

Both of the action alternatives would reduce traffic on Main Street compared to the No-action Alternative, and this reduction in traffic could make it easier to implement improvements on Main Street in the future.

Truck Traffic

Throughout the study process, UDOT received many comments expressing a desire to remove truck traffic from Main Street. Heavy trucks access Main Street via two routes: (1) south US-40 to/from the Uinta Basin or (2) US-189 to/from the Utah Valley. Oil tankers almost exclusively use south US-40 because that is the route to resource-extraction areas. However, existing traffic data show that US-189 carries more total trucks than south US-40 does.

Alternative B is more likely to attract regional truck traffic away from Main Street because it would provide a faster regional travel time on a more direct path compared to Alternative A. As shown in Table 7, both action alternatives would offer a PM peak-hour travel time savings for truck drivers traveling between US-189 and US-40 north of the Heber Valley and for trips between north US-40 and south US-40 compared to a trip on Main Street.

Table 7. PM Peak-hour Regional Travel Times Comparison by Route

In minutes:seconds

Segment	Direction	Route	Existing Conditions (2019)	2050		
				No-action	Alternative A	Alternative B
River Road/SR-32 to US-189	SB	New corridor	—	—	7:25	6:15
		Main Street	10:55	23:40	15:05	13:25
	NB	New corridor	—	—	7:25	6:15
		Main Street	10:50	22:00	12:20	12:55
River Road/SR-32 to US-40	SB	New corridor	—	—	8:10	6:55
		Main Street	9:15	21:50	13:35	11:55
	NB	New corridor	—	—	8:10	6:55
		Main Street	8:40	18:40	10:15	10:55

Source: Parametrix 2025

Definitions: NB = northbound; SB = southbound

Green shading indicates an improvement over travel on Main Street.

It is important to note that the travel time comparisons are for PM peak hours only. Trucks travel on the region's highways at all hours of the day. Congestion diminishes outside of peak hours, so there might be less incentive to take a longer route during other hours of the day.

2.2.6 Summary of Purpose Performance

The No-action Alternative would not meet the purpose of the project. Both action alternatives would meet the purpose of the Heber Valley Corridor Project. Table 8 compares the degree to which the action alternatives would meet the purpose of the project.

- Alternative B would provide better performance with respect to regional mobility.
- Alternative B would provide better performance with respect to local mobility.
- Alternatives A and B would perform equally with respect to nonmotorized transportation.
- Alternative B would provide better performance with respect to Heber City's vision.

In conclusion, Alternative B would perform better than Alternative A with respect to the overall purpose of the project.

Table 8. Degree to Which Alternatives Would Meet the Project Purpose

Alternative	Regional Mobility	Local Mobility	Nonmotorized Transportation	Vision for Historic Town Center
No-action	<ul style="list-style-type: none"> • Would not decrease regional travel time (23:40/21:50).^a • Would not provide an alternate route to Main Street. • Degrades safety by retaining over 150 potential conflict points from driveways and intersections. 	<ul style="list-style-type: none"> • 5 intersections with LOS F; 2 intersections with LOS E. • 2 arterial segments with LOS F; 4 arterial segments with LOS E. • Would not improve local travel time (20:30).^b • Would not improve vehicle queue lengths (22,400 ft).^c 	Would not provide opportunities for nonmotorized transportation.	<p>Would not allow Heber City to implement their vision.</p> <p>Would not provide an alternate route to Main Street for trucks.</p>
A	<ul style="list-style-type: none"> • Fast regional travel time (7:25/8:10).^a • Heber Valley Corridor would be faster than Main Street for trips to/from US-189 and US-40 during the PM peak hour. • Enhances safety by having fewer conflict points from driveways and intersections. 	<ul style="list-style-type: none"> • 1 intersection with LOS F; 2 intersections with LOS E. • 1 arterial segment with LOS F; 1 arterial segment with LOS E. • Faster local travel time (11:50).^b • Shorter vehicle queue lengths of action alternatives (6,200 ft).^c 	Would provide opportunities for nonmotorized transportation.	<p>Would not preclude Heber City from implementing their vision.</p> <p>Would provide a fast alternate route to Main Street for trucks.</p>
B	<ul style="list-style-type: none"> • Fastest regional travel time (6:15/6:55).^a • Heber Valley Corridor would be faster than Main Street for trips to/from US-189 and US-40 during the PM peak hour. • Enhances safety by having fewer conflict points from driveways and intersections. 	<ul style="list-style-type: none"> • No intersections with LOS F; 1 intersection with LOS E. • 1 arterial segment with LOS F; 1 arterial segment with LOS E. • Fastest local travel time (10:15).^b • Shortest vehicle queue lengths (3,200 ft).^c 	Would provide opportunities for nonmotorized transportation.	<p>Would not preclude Heber City from implementing their vision.</p> <p>Would provide the fastest alternate route to Main Street for trucks.</p>

Definitions: ft = feet; LOS = level of service; PM = afternoon

^a Regional travel time southbound in minutes:seconds (from River Road/SR-32 to US-189 and from River Road/SR-32 to US-40)

^b Local travel time on Main Street southbound in minutes:seconds (River Road/SR-32 to the hub intersection)

^c Sum of vehicle queue lengths at four intersections on Main Street: southbound at 500 North, southbound at Center Street, southbound at 100 South, and eastbound at 100 South)

2.3 Other Transportation Performance Considerations

In evaluating the action alternatives, UDOT also considered other important factors related to transportation performance:

- **Access** – how each alternative would affect connectivity to the master-planned local road network and require out-of-direction travel
- **Functional Classification** – how each alternative would provide a range of different types of roads to balance mobility and access
- **Redundancy** – how each alternative would provide an alternate route in case of emergency

Because Alternatives A and B are the same except between Potter Lane/College Way and 900 North, Section 2.3 focuses on this area to highlight the differences between the two action alternatives.

2.3.1 North US-40 Access

Access on north US-40 is controlled by a cooperative corridor access agreement among UDOT, Wasatch County, and Heber City (UDOT and Wasatch County 2008; UDOT, Wasatch County, and Heber City 2018, 2023a, 2023b). This agreement specifies minimum cross street and driveway spacing as well as the locations of future traffic signals.

The current corridor agreement designates north US-40 as Category 5, which balances direct access and mobility. Category 5 requires a half mile between signalized intersections, allows unsignalized intersections spaced at one-eighth of a mile, and allows driveways spaced at a minimum of 350 feet. Future traffic signals on north US-40 are identified in the corridor agreement at River Road/SR-32, University Avenue, Commons Boulevard, and Coyote Canyon Parkway, all of which would be spaced less than a mile apart. The corridor agreement identifies unsignalized intersections on north US-40 at Moulton Lane and Potter Lane/College Way and allow other unsignalized intersections as long as they meet minimum spacing requirements.

Heber City's *North Village Master Plan 2022 to 2042* (Heber City 2022) is consistent with the corridor agreement and also shows an unsignalized intersection at Fitzgerald Lane. Master-planned connections to north US-40 are listed in Table 9, and the master-planned road network is shown in Figure 3.

The No-action Alternative is consistent with the corridor agreement and with the *North Village Master Plan*, as described in Table 9. Additional accesses on north US-40 would be permitted as long as they meet minimum spacing requirements. Access would be prioritized over mobility.

Both Alternatives A and B include grade-separated interchanges on north US-40 to accommodate the projected traffic in 2050. It is not possible to provide interchanges at all of the agreed-upon signal locations because they are spaced too closely. Interchanges need to be spaced about 1 mile apart to meet design requirements. Both action alternatives would require a change to the *North Village Master Plan* and the cooperative corridor access agreement. Multiple planned developments on the east side of US-40 are in various stages of approval, and these developers have routed local roads to connect with north US-40 at the planned signal locations identified in the *North Village Master Plan*.

Alternative A would be less consistent with the road network planned in the *North Village Master Plan* compared to Alternative B. Alternative A would replace all signalized and unsignalized intersections on north US-40 between River Road/SR-32 and 900 North with grade-separated interchanges located at River

Road/SR-32, Potter Lane/College Way, and Coyote Canyon Parkway (see Table 9 and Figure 4). Planned signalized connections to north US-40 at University Avenue and Wasatch Commons would not be possible, and Heber City would need to work with developers to reroute planned local roads from these locations to the interchange at Potter Lane/College Way.

The planned connection to north US-40 at Coyote Canyon Parkway would be provided by an interchange instead of a signalized intersection, and this connection would not negatively affect the local road network. Alternative A would prioritize mobility over access on north US-40 and, compared to Alternative B, would require more out-of-direction travel for travelers wanting to access north US-40. Access to north US-40 would be concentrated at the interchange locations, resulting in all traffic on the east side of north US-40 being forced to use SR-32, College Way, or Coyote Canyon Parkway to access US-40.

Alternative B would be more consistent with the road network planned in the *North Village Master Plan* compared to Alternative A. The planned connection to north US-40 at University Avenue would need to be rerouted to the interchange at Potter Lane/College Way (see Table 9 and Figure 5). South of Potter Lane/College Way, Alternative B would be consistent with the current corridor agreement and with the *North Village Master Plan*. Alternative B would prioritize mobility over access north of Potter Lane/College Way but would allow greater local access south of Potter Lane/College Way. Compared to Alternative A, this greater local access would require less out-of-direction travel for travelers wanting to access north US-40. Alternative B would distribute traffic to more locations on north US-40, resulting in less traffic concentrated on College Way and Coyote Canyon Parkway.

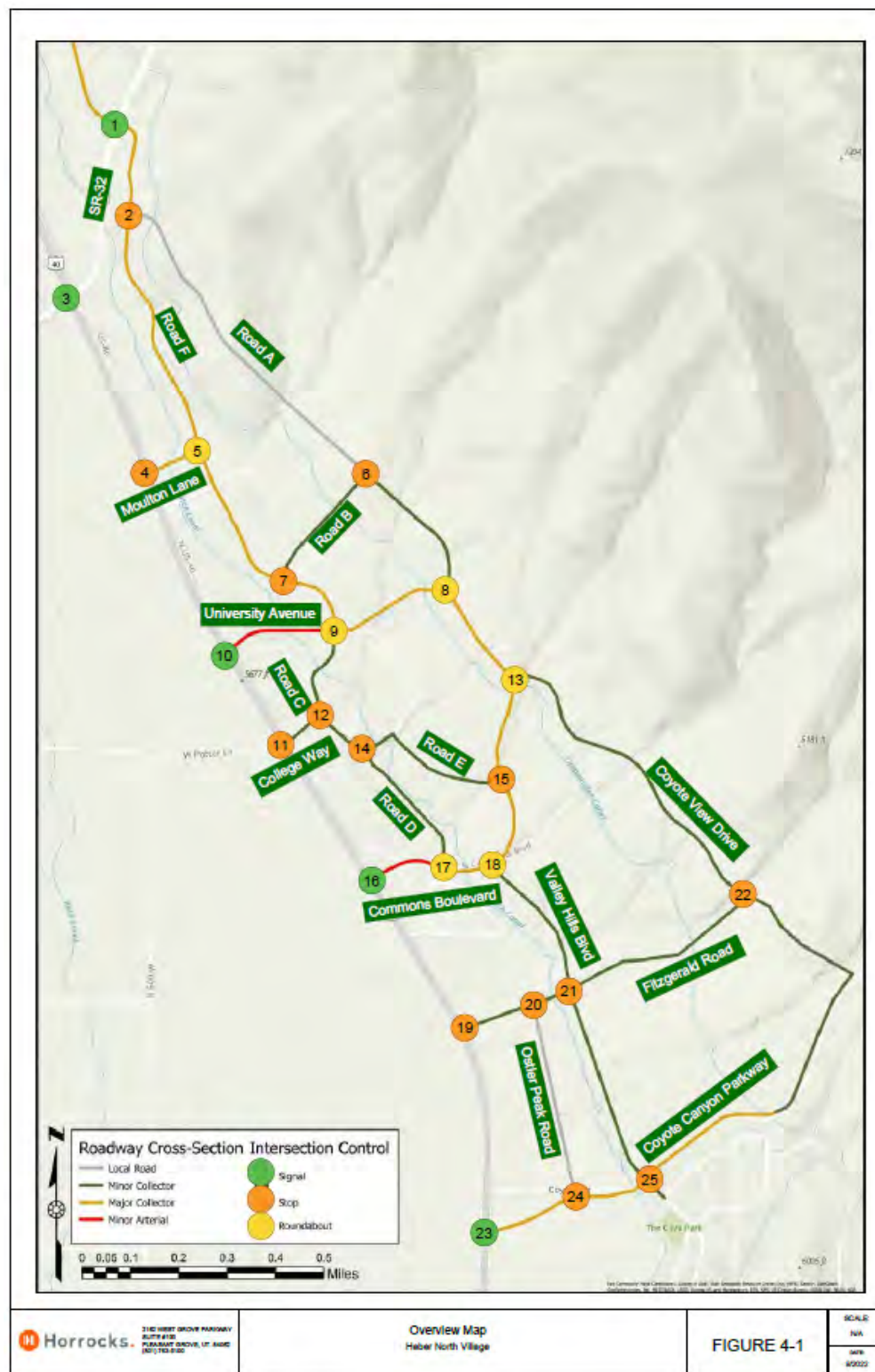
Table 9. Connection to North US-40 by Alternative

Planned Connection to North US-40	Intersection Label (in Figure 3) ^a	North Village Master Plan and Corridor Agreement	No-action Alternative	Alternative A	Alternative B
River Road/SR-32	3	Signalized	Signalized	<ul style="list-style-type: none"> • Interchange • Consistent with planned access^b 	<ul style="list-style-type: none"> • Interchange • Consistent with planned access^b
Moulton Lane	4	Unsignalized	Unsignalized	<ul style="list-style-type: none"> • No connection (frontage road to River Road/SR-32 or local road to Potter Lane/College Way) • Not consistent with planned access 	<ul style="list-style-type: none"> • No connection (frontage road to River Road/SR-32 or local road to Potter Lane/College Way) • Not consistent with planned access
University Avenue	10	Signalized	Signalized	<ul style="list-style-type: none"> • No connection (frontage road to River Road/SR-32 or local road to Potter Lane/College Way) • Not consistent with planned access 	<ul style="list-style-type: none"> • No connection (frontage road to River Road/SR-32 or local road to Potter Lane/College Way) • Not consistent with planned access
Potter Lane/College Way	11	Unsignalized	Unsignalized	<ul style="list-style-type: none"> • Interchange • Not consistent with planned access 	<ul style="list-style-type: none"> • Signalized • Not consistent with planned access
Commons Boulevard	16	Signalized	Signalized	<ul style="list-style-type: none"> • No connection (local road to Potter Lane/College Way or Coyote Canyon Parkway) • Not consistent with planned access 	<ul style="list-style-type: none"> • Signalized • Consistent with planned access
Fitzgerald Lane	19	Stop controlled	Stop-controlled	<ul style="list-style-type: none"> • No connection (frontage road to Commons Boulevard or local road to Coyote Canyon Parkway) • Not consistent with planned access 	<ul style="list-style-type: none"> • Stop-controlled • Consistent with planned access
Coyote Canyon Parkway	23	Signalized	Signalized	<ul style="list-style-type: none"> • Interchange • Consistent with planned access^b 	<ul style="list-style-type: none"> • Signalized • Consistent with planned access
900 North	Not shown	Signalized	Signalized	<ul style="list-style-type: none"> • Signalized • Consistent with planned access 	<ul style="list-style-type: none"> • Signalized • Consistent with planned access

^a Intersection numbers refer to intersections shown in Figure 3.

^b Interchanges that provide the same access as a traffic signal are considered consistent with planned access.

Figure 3. North Village Master Plan Road Network



Source: Heber City 2022

Figure 4. North US-40 Access with Alternative A

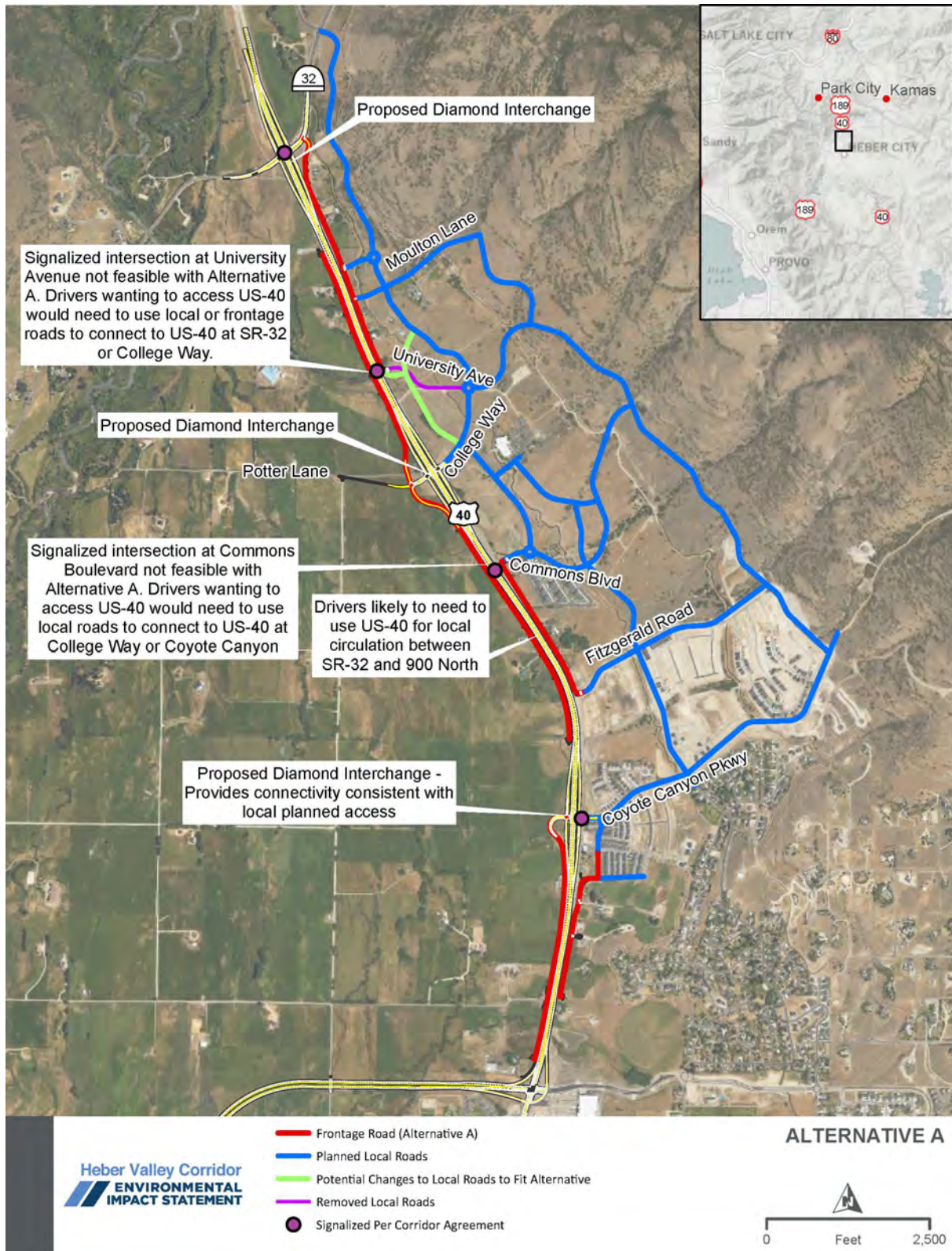
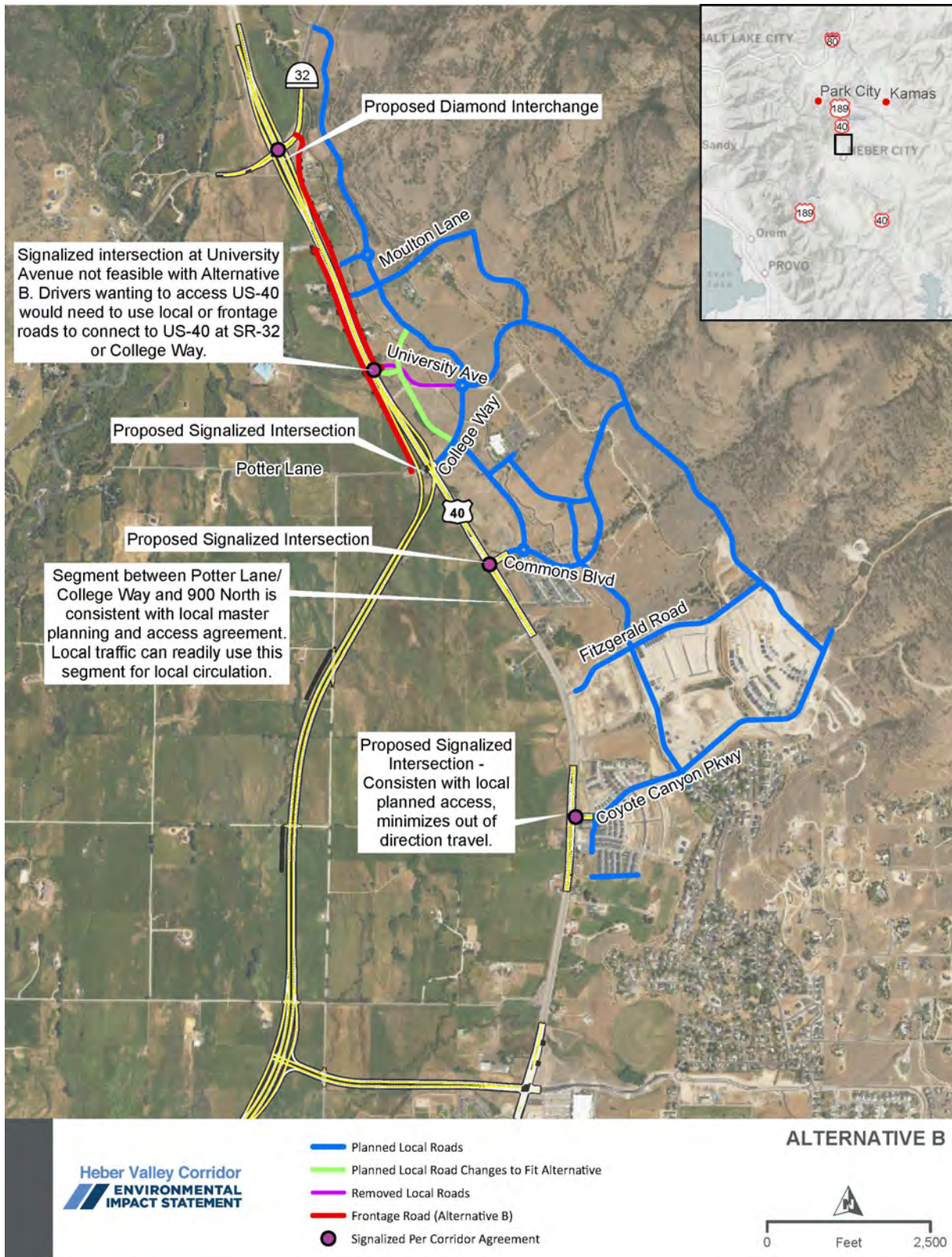


Figure 5. North US-40 Access with Alternative B



2.3.2 Functional Classification

Typically, travelers will use a combination of arterial, collector, and local roads for their trips. Each type of road has a specific purpose or function. Arterials provide a high level of mobility for through traffic and limited access to adjacent properties, while local roads provide a high level of access to properties but a low level of mobility. Local roads are typically used for access to residential neighborhoods and have low speed limits. Collector roads provide a balance between mobility and property access. For a transportation system to operate efficiently, all three types of roads are needed. For more information about functional classifications, see Section 1.3.2.1, *Regional North-south Mobility*, in Chapter 1, *Purpose and Need*, of the Draft EIS.

UDOT currently classifies north US-40 as a principal arterial. Heber City's *North Village Master Plan* currently shows University Avenue and Commons Boulevard as minor arterials, and Coyote Canyon Parkway as a major collector with local roads feeding into these three roads (see Figure 3, *North Village Master Plan Road Network*, above).

With Alternative A, north US-40 would become a freeway/expressway designed to maximize mobility; access would be limited to interchanges at River Road/SR-32, Potter Lane/College Way, and Coyote Canyon Parkway (Figure 6). Between interchanges, drivers would need to use frontage roads or local collector roads to navigate to an interchange to access north US-40. There would be no arterial road in this area, so north US-40 would be used for both local and regional trips. Separating local and regional traffic tends to improve both local and regional mobility and safety, which is why transportation planners create a functional hierarchy. Because the frontage roads would not be continuous, out-of-direction travel would be required for some trips connecting to these cross streets, resulting in a less efficient transportation system.

With Alternative B, the North Fields Extension segment would become a freeway/expressway designed to maximize mobility (Figure 7). Between River Road/SR-32 and Potter Lane/College Way, Alternative B would be the same as Alternative A; discontinuous frontage roads would serve as collectors to provide access from driveways and cross streets. Between Potter Lane/College Way and 900 North, north US-40 would remain a principal arterial and would have direct connections to the master-planned road network at Potter Lane/College Way, Commons Boulevard, and Coyote Canyon Parkway. South of Potter Lane/College Way, north US-40 could be used to serve local trips. Alternative B would provide a more efficient combination of road functional classifications than would Alternative A, resulting in less out-of-direction travel and a more efficient transportation system.

2.3.3 Redundancy

US-40 is currently the only principal arterial in the Heber Valley north of its junction with US-189. There is only one other option for travelers heading north toward Park City: on SR-113 and River Road, which are both minor arterials. The City of Midway constructed roundabouts on River Road to deter cut-through and commercial truck traffic.

Alternative B provides an alternate route to north US-40 south of Potter Lane/College Way. With Alternative A, if north US-40 were to close due to an emergency between Potter Lane/College Way and 900 North, all traffic heading north out of the Heber Valley would be required to take River Road.

Alternative B would provide an additional alternate route to north US-40 in the event of an emergency.

2.3.4 Summary of Other Transportation Performance Considerations

Table 10 summarizes how well each action alternative would perform with respect to transportation considerations that are not included in the project purpose. With the North Fields Extension segment, Alternative B would provide the following benefits:

- More consistent with the master-planned North Village local road network
- More efficient combination of road functional classifications and less out-of-direction travel
- Provides an alternate route in case of an emergency on north US-40 between Potter Lane/College Way and 900 North

Overall, Alternative B would provide better performance with respect to transportation considerations not related to the project purpose.

Table 10. Summary of Transportation Considerations Not Related to the Project Purpose

Alt	Access	Functional Classification	Redundancy
A	Less consistent with master-planned local road network	Less efficient combination of road functional classifications, more out-of-direction travel	No alternate route to north US-40
B	More consistent with master-planned local road network	More efficient combination of road functional classifications, less out-of-direction travel	Alternate route to north US-40 between Potter Lane/College Way and 900 North

2.4 Resource Impacts

2.4.1 Summary Comparison of Resource Impacts by Alternative

Table 11 compares the resource impacts of the action alternatives. This table provides a comparison between the alternatives for the resources evaluated in the Draft EIS. Although impacts are quantified, not all resources listed favored one alternative or the other.

As shown in Table 11, some resources would experience a substantial difference in impacts from the alternatives, while other resources would experience no difference or a very small difference in impacts from the alternatives. Thus, some resource impacts were more helpful than others in distinguishing between the alternatives. Although Table 11 provides the quantitative information for each impact, it does not always provide the context and intensity of the impact. For some resources, the context and intensity of the impact provide relevant information for weighing alternatives. Impact context and intensity are included as appropriate in the following discussions of how UDOT's preferred primary alternative was identified.

2.4.2 Section 4(f) of the Department of Transportation Act of 1966

Section 4(f) of the Department of Transportation Act of 1966 is a law that applies to the U.S. Department of Transportation (USDOT) and governs the use of land from publicly owned parks, recreation areas, wildlife and waterfowl refuges, and public or private historic sites. Title 23 *Code of Federal Regulations* (CFR) Part 774 contains the Section 4(f) implementing regulations for FHWA. FHWA has also developed guidance in the form of the *Section 4(f) Policy Paper*. UDOT has assumed FHWA's responsibilities for implementing Section 4(f) pursuant to 23 USC Section 327.

No Section 4(f) total avoidance alternatives were determined to be feasible and prudent. Both Alternative A and Alternative B would use Section 4(f) properties. UDOT conducted a least overall harm analysis considering and balancing the seven factors listed in 23 CFR Section 774.3(c). The full analysis is provided Section 4.7, *Least Overall Harm Analysis*, in Chapter 4, *Section 4(f) Evaluation*, of the Draft EIS. A summary is provided in Table 12.

Based on an assessment of all seven of the least overall harm factors, **UDOT determined Alternative B is the least overall harm alternative**. UDOT determined that there is no feasible and prudent avoidance alternative, and **UDOT may approve only the alternative that causes the least overall harm in light of the preservation purpose of Section 4(f) of the Department of Transportation Act of 1966**. Logistically, compliance with Section 4(f) limits UDOT's ability to select Alternative A.

Table 11. Environmental Impacts of the Project Alternatives

Impact Category	Unit	No-action	Alt A	Alt B	Notes
Land converted to roadway use	Acres	0	251	276	None.
Consistent with local land use plans	Yes/no	No	No	No	The No-action Alternative does not implement a western bypass (shown in plans adopted by Heber City and Wasatch County). Alternative B includes a North Fields Extension segment, which is not shown in adopted plans. Neither Alternative A nor Alternative B is consistent with the <i>North Village Master Transportation Plan</i> or with corridor access agreements for north US-40.
Federally regulated farmland impacts	Acres	0	179	223	This impact is acreage of land protected by the Farmland Protection Policy Act (prime farmland and farmland of statewide importance).
Agriculture Protection Areas impacts	Acres	0	11.8	38.4	This impact is the acreage of land protected by state and local laws that would unreasonably restrict farming.
Sewer farm impacts	Acres	0	64.2	64.2	Impacts to the “sewer farm” where the Heber Valley Special Service District disposes of treated wastewater by farming alfalfa.
Economic impacts	Yes/no	Yes	Yes	Yes	Businesses on Main Street would be affected by changes in congestion and changes in traffic volumes. Destination businesses could be positively impacted by reduced congestion; convenience businesses could be negatively impacted by reduced traffic.
Right-of-way: Potential business relocations	Number	0	15	2	Alternatives A and B would require relocating two businesses along 1300 South. Alternative A would also require relocating an additional 13 businesses that are in various stages of approval or construction at the intersection of 900 North and US-40.
Right-of-way: Potential residential relocations	Number	0	12	6	Most of the residential relocations for Alternatives A and B would be on the North US-40 segment.
Right-of-way: Land acquisition	Acres	0	295	328	None.
Air quality impacts above regulations	Yes/no	No	No	No	None.
Receptors with modeled noise levels above criteria	Number (residential receptors)	105 – Alt. A 102 – Alt. B	230 (227)	277(273)	The traffic noise analysis included receptors for planned developments (some buildings with modeled impacted receptors have not been constructed yet). For the No-action Alternative, receptors were modeled near the alternative alignments for comparison with the action alternatives.

(Continued on next page)

Table 11. Environmental Impacts of the Project Alternatives

Impact Category	Unit	No-action	Alt A	Alt B	Notes
Impacts to historic buildings	Number	0	4	1	Impacts to historic buildings would result in adverse effects under Section 106 of the of the National Historic Preservation Act.
Adverse impacts to archaeological sites	Number	0	0	0	Archaeological sites include a historic railroad and five canal/ditch systems. Impacts would result in no adverse effect under Section 106.
Section 4(f) uses (with greater-than- <i>de minimis</i> impact)	Number	0	4	1	Section 4(f) uses with greater-than- <i>de minimis</i> impacts would occur due to demolition of historic structures.
Water quality standards exceeded in Provo River or aquifer	Yes/no	No	No	No	None.
Aquatic resources impacts	Acres	0	22.52	53.92	Assumptions about jurisdictional waters (wetlands, streams, canals, and ditches) are based on the professional judgment of aquatic resource specialists.
Threatened and endangered species impacts (suitable habitat)	Acres	0	0	0	None.
Floodplain impacts	Acres	0	3.2	3.4	None.
Hazardous waste sites affected (high-, moderate-, and low-risk sites combined)	Number	0	23	20	None.
Adverse visual impacts	Qualitative	See notes	See notes	See notes	The No-action Alternative would not result in visual impacts other than a congested Main Street. Alternative A would be more visually impactful to the north US-40 corridor. Alternative B would be more visually impactful to the north fields.

Definitions: Section 106 = Section 106 of the National Historic Preservation Act of 1966; Section 4(f) = Section 4(f) of the Department of Transportation Act of 1966

Table 12. Least Overall Harm Summary

Least Overall Harm Factor	Alternative A	Alternative B
Ability to Mitigate Adverse Impacts to Section 4(f) Properties	<p>4 eligible historic (architectural) structures would be demolished.</p> <p>In accordance with the memorandum of agreement (MOA) between SHPO and UDOT, documentation will be completed in accordance with the Utah State Intensive-level Survey Standards, and an appropriately scaled public interpretive outreach product will be produced.</p>	<p>1 eligible historic (architectural) structure would be demolished.</p> <p>In accordance with the MOA, documentation will be completed in accordance with the Utah State Intensive-level Survey Standards, and an appropriately scaled public interpretive outreach product will be produced.</p>
Relative Severity of Remaining Harm to Section 4(f) Properties	4 eligible historic (architectural) structures would be demolished; no harm would remain because the structures would be gone.	1 eligible historic (architectural) structure would be demolished; no harm would remain because the structure would be gone.
Relative Significance of Section 4(f) Properties	<p>4 eligible historic (architectural) structures would be demolished.</p> <p>None of the historic structures is particularly unique or unusual or has significance greater than the other structures.</p>	<p>1 eligible historic (architectural) structure would be demolished.</p> <p>None of the historic structures is particularly unique or unusual or has significance greater than the other structures.</p>
Views of the OWJ (for this project, SHPO)	<p>4 eligible historic (architectural) structures would be demolished.</p> <p>None of the historic structures is particularly unique or unusual or has significance greater than the other structures.</p>	<p>1 eligible historic (architectural) structure would be demolished.</p> <p>None of the historic structures is particularly unique or unusual or has significance greater than the other structures.</p>
Degree to Which Project Purpose and Need is Met	Meets purpose and need.	<p>Meets purpose and need.</p> <p>Alternative B provides faster regional travel times and better local mobility than Alternative A. Alternative B performs better with respect to Heber City's vision for their historic town center. Alternative B attracts more regional truck traffic away from Main Street, and provides an alternative route in case of emergency on north US-40 between Potter Lane/College Way and 900 North.</p>
Effects on Non-Section 4(f) Resources	<ul style="list-style-type: none"> • Aquatic resources – 22.52 acres • Regulated farmland – 179 acres • Agriculture Protection Areas – 11.8 acres • Residential noise receptors above criteria – 227 • Potential business relocations – 15 • Potential residential relocations – 12 	<ul style="list-style-type: none"> • Aquatic resources – 53.92 acres • Regulated farmland – 223 acres • Agriculture Protection Areas – 38.4 acres • Residential noise receptors above criteria – 273 • Potential business relocations – 2 • Potential residential relocations – 6
Cost Difference	<p>Total estimated cost = \$711.9 million^a</p> <p>Alternative A has a slightly lower total cost, but the \$48.6 million difference is less than 10% of the total estimated cost.</p>	<p>Total estimated cost = \$760.5 million^a</p> <p>Alternative B has a slightly higher total cost, but the \$48.6 million difference is less than 10% of the total estimated cost.</p>

Definitions: MOA = memorandum of agreement; OWJ = Official(s) with Jurisdiction; SHPO = Utah State Historic Preservation Office

^a Estimated costs include engineering design, right-of-way, construction, utility relocations, drainage, and environmental mitigation.

2.4.3 Clean Water Act Permitting

The National Environmental Policy Act does not require UDOT to select the alternative with the least environmental impacts. However, to determine whether a preferred alternative could be constructed, UDOT must consider whether the alternative could be permitted under Section 404 of the Clean Water Act. The U.S. Army Corps of Engineers (USACE) is responsible for determining compliance with the Section 404(b)(1) Guidelines under the Clean Water Act and may permit only the least environmentally damaging practicable alternative (LEDPA). The Section 404(b)(1) Guidelines state that “no discharge of dredged or fill material [to Section 404–regulated waters] shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, **so long as the alternative does not have other significant adverse environmental consequences**” (40 CFR Section 230.10(a); emphasis added).

In September 2023, the U.S. Environmental Protection Agency (EPA) and USACE issued an amended rule changing the definition of “waters of the United States” in conformance with the U.S. Supreme Court’s 2023 ruling in *Sackett v. Environmental Protection Agency*, in which the Court held that the Clean Water Act extends only to wetlands that have a continuous surface connection with “waters of the United States.”

On March 12, 2025, EPA and USACE issued a memo (USACE and EPA 2025) concerning proper implementation of a continuous surface connection under the definition of “waters of the United States” in conformance with the U.S. Supreme Court’s 2023 ruling in *Sackett v. Environmental Protection Agency*. Later in March, the agencies issued a *Federal Register* notice of stakeholder engagement opportunities to identify areas of concern and implementation challenges of the Amended 2023 Rule to be later addressed either through additional guidance or rulemaking (90 *Federal Register* 13428 [March 24, 2025]).

In April 2024, UDOT requested an Approved Jurisdictional Determination (AJD) from USACE for aquatic resources that would be impacted by the action alternatives. As part of USACE’s AJD process, USACE typically conducts a field review to observe delineated aquatic resources and evaluate their jurisdictional status. In May 2025, USACE and UDOT conducted a field review to assist in USACE’s AJD. As of December 2025, an AJD has not been issued. The wetland impacts in the Draft EIS are based on wetlands UDOT identified as likely jurisdictional in accordance with current regulations and guidance, including the guidance EPA and USACE issued on March 12, 2025. On November 17, 2025, EPA and USACE announced their proposed revisions to the 2023 definition of “waters of the United States.” The proposed revisions are focused on relatively permanent, standing or continuously flowing bodies of water and wetlands that are connected and indistinguishable from such waterbodies (USACE and EPA 2025b). The definition of “waters of the United States” is an evolving issue that UDOT is following closely.

What is continuous surface water connection?

In light of the Supreme Court’s *Sackett* ruling, a continuous surface water connection refers to a physical, uninterrupted link between a wetland and a jurisdictional water body. This connection must be evident on the surface and sustained over time, even if only seasonally. It excludes indirect or intermittent links via nonjurisdictional ditches, swales, pipes, or culverts.

What is an Approved Jurisdictional Determination (AJD)?

An AJD is a process used by USACE to make a definitive, official determination whether aquatic resources in the review are or are not jurisdictional.

The jurisdictional wetlands impacts used to compare the action alternatives might change if an AJD differs from the wetlands UDOT identified as likely jurisdictional and when the EPA and USACE finalize the definition of “waters of the United States.”

Alternative B would have impacts to 53.92 acres of assumed jurisdictional aquatic resources (wetlands, streams, canals, and ditches) compared to 22.52 acres for Alternative A. These aquatic resources would be filled within the proposed right-of-way for each alternative, but surface and subsurface flow connectivity would be maintained.

Identification of the LEDPA

During the alternatives development and screening process, UDOT gave specific consideration to the resources with avoidance and minimization requirements under federal laws: resources regulated by Section 4(f) of the Department of Transportation Act of 1966, wetlands and waters regulated by Section 404 of the Clean Water Act, and wetlands regulated by Executive Order 11990. These laws require that efforts be made to avoid impacts or uses of specific resources, except under specified conditions. However, collective and individual avoidance of all of these resources was not possible. Although Alternative B would have greater aquatic resource impacts than would Alternative A, UDOT believes that Alternative B is the LEDPA because Alternative A has “other significant adverse environmental consequences,” as outlined below. For more information regarding the LEDPA, see Appendix 2F, *Compliance with Clean Water Act Section 404(b)(1) Guidelines Memo*.

Section 4(f) of the Department of Transportation Act of 1966

The Least Overall Harm Analysis and the LEDPA analysis each weigh multiple environmental factors in light of the project purpose to identify the alternative posing the least environmental damage or harm. UDOT has concluded that Alternative B poses the least overall harm under Section 4(f). Logistically, compliance with Section 4(f) limits the availability of any build alternative that does not pose the least overall harm (Alternative A). An alternative that cannot be identified by both analyses as the least harmful is not practicable, and UDOT has determined that Alternative B would have the least overall harm.

Right-of-way and Relocations

Alternative A would require substantially greater residential and business relocations. Alternative A would require 12 residential relocations and 15 business relocations, compared to 6 residential relocations and 2 business relocations with Alternative B. These relocations present substantial social and economic impacts, which are described in Section 3.5, *Economic Conditions*, and Section 3.6, *Right-of-way and Relocations*, in Chapter 3, *Affected Environment, Environmental Consequences, and Mitigation Measures*, of the Draft EIS.

Ability to Address the Purpose of the Project

Additionally, Alternative B better addresses the project’s purpose. Alternative B would provide faster regional travel times and better local mobility compared to Alternative A. Alternative B would provide better performance with respect to Heber City’s vision for their historic town center, and it would be more consistent with the master-planned North Village local road network. Alternative B would result in less out-of-direction travel, would be more likely to attract regional truck traffic away from Main Street, and would

provide an alternate route in case of an emergency on north US-40 between Potter Lane/College Way and 900 North.

Mitigation

Both action alternatives would likely require aquatic resource mitigation at a minimum ratio of 2:1 (for every 1 acre of wetlands impacted, UDOT would need to provide 2 acres of wetland mitigation). This mitigation ratio could be as high as 15:1 depending on the specific mitigation needs determined in consultation with USACE. Once sites are designated as wetland mitigation sites, the sites have the potential to limit sprawl based on where they are located because they are protected in perpetuity and cannot be developed. UDOT is willing to prioritize wetland mitigation in the north fields, and locating wetland mitigation sites in the north fields could limit development and provide a scenic buffer.

2.4.4 Consistency with Local Plans

Of the two action alternatives, Alternative A is more similar to the bypass that Heber City and Wasatch County have been considering, although neither alternative is entirely consistent with the local government preservation corridor. The City and County agreed on an alignment for corridor preservation and have been acquiring land for nearly 20 years. To avoid impacts to a new substation and two developments, neither of the action alternatives follows the preservation corridor alignment exactly (for more information, see Section 2.3.2.1, *Local Government Preservation Corridor*, of the Draft EIS). However, Alternative A follows the local government preservation corridor more closely than Alternative B does because Alternative A does not include the North Fields Extension segment.

Alternative B is more consistent with Heber City's *North Village Master Plan* than Alternative A is, as discussed in Section 2.3.1, *North US-40 Access*. Alternative B would be less disruptive to the master-planned road network on the east side of north US-40 compared to Alternative A.

2.4.5 Property Impacts

Of the two action alternatives, Alternative A would have greater impacts to residential and commercial properties because it would use the existing north US-40 corridor, which is rapidly developing, instead of constructing a new road through the north fields. Alternative A would require 12 residential relocations and 15 business relocations, compared to 6 residential relocations and 2 business relocations with Alternative B. Thirteen of the business relocations for Alternative A would be at the New London development, which is currently under construction. Alternative A would require more than 3 times the number of relocations compared to Alternative B.

Alternative B includes a North Fields Extension segment and therefore would have greater impacts to privately owned undeveloped agricultural land. Alternative A would convert 201 acres of cropland and farmland to transportation; Alternative B would convert 241 acres (about 20% more).

2.5 Estimated Costs

Table 12 shows the estimated costs of the action alternatives. The construction cost estimates include engineering design, right-of-way, construction, utility relocations, drainage, and environmental mitigation. These construction cost estimates are based on unit prices for previously completed, similar projects. The actual cost of construction would likely be higher because of inflation between 2025 and the year of construction, but the costs are expected to increase proportionally between the alternatives.

Alternative B would cost slightly more than Alternative A because additional right-of-way would be required.

Table 13. Preliminary Cost Estimates for the Action Alternatives

In millions of 2025 dollars

Alternative	Total Cost
A	\$711.9
B	\$760.5

3.0 UDOT's Preferred Alternative

UDOT identified the preferred alternative based on transportation performance, impacts to the natural and human environment, and cost. As part of identifying the preferred alternative, UDOT considered public and agency input during the scoping process and the alternatives development, screening, and refinement process. Note that there are strengths and weaknesses for each action alternative. Neither alternative had better transportation performance for all measures, lower cost, and fewer impacts to all resources.

Based on the analysis presented in this technical memorandum, UDOT has identified **Alternative B (off US-40 alignment)** as the preliminary preferred alternative in the Draft EIS. The final decision regarding the selected alternative will be made by UDOT in the Record of Decision for the Heber Valley Corridor Project.

What is UDOT's preferred alternative?

UDOT's preferred alternative is Alternative B (off US-40 alignment).

4.0 References

Heber City

- 2022 North Village Master Plan 2022 to 2042. September 20.
- 2023 Heber City Envision 2050 General Plan. <https://envisionheber.com/wp-content/uploads/2024/10/2023-General-Plan-Update-101224-SMALL.pdf>. Updated December 5, 2023.

Parametrix

- 2025 Heber Valley EIS No Action and Action Alternatives Traffic Analysis. September 17.

[UDOT and Wasatch County] Utah Department of Transportation and Wasatch County

- 2008 Cooperative Corridor Access Agreement: Corridor Preservation along US-40 from SR-32/River Road to Heber City North City Limits. Federal ID No. 876000299. November 24.

[UDOT, Wasatch County, and Heber City]

- 2018 Addendum #1 to Cooperative Corridor Access Agreement #098400, Corridor Preservation US-40 from SR-32/River Road to Heber City North City Limit. September 21.
- 2023a Addendum #2 to Cooperative Corridor Access Agreement #098400, Corridor Preservation US-40 from SR-32/River Road to Heber City North City Limits (1200 North). January 26.
- 2023b Addendum #3 to Cooperative Corridor Access Agreement #098400, Corridor Preservation US-40 from SR-32/River Road to 750 North. February 16.

[USACE and EPA] U.S. Army Corps of Engineers and U.S. Environmental Protection Agency

- 2025 Memorandum to the Field between the U.S. Department of the Army, U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency Concerning the Proper Implementation of "Continuous Surface Connection" under the Definition of "Waters of the United States" under the Clean Water Act. March 12.

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