

SPAGHETTI BOWL

PROJECT
MOVING THE TRUCKEE MEADOWS FORWARD

Final Environmental Impact Statement, Record of Decision, and Final Section 4(f) Evaluation

**Interstate 80/Interstate 580/US Highway 395 Freeway-to-Freeway
Interchange and Connecting Road Improvements
Reno and Sparks, Nevada**

July 2019

NDOT Project Number 74020
FHWA Project Number NHFP-080-1(172)
Photo by Vaughn Hartung





SPAGHETTI BOWL



PROJECT

RECORD OF DECISION



Photo by Vaughn Hartung

RECORD OF DECISION

Decision

The Nevada Department of Transportation (NDOT) and the Federal Highway Administration (FHWA) have identified the Selected Alternative to reconstruct Interstate 80 (I-80), Interstate 580 (I-580), and U.S. Highway 395 (US 395) in Reno and Sparks, Nevada. The Selected Alternative, Alternative 2, is the same as the Preferred Alternative identified in the Draft Environmental Impact Statement (EIS). This Record of Decision (ROD) was prepared in accordance with 23 Code of Federal Regulations (CFR) 771.127 and 40 CFR 1505.2.

The freeway-to-freeway interchange that connects I-80, I-580, and US 395 is known locally as the Spaghetti Bowl. The project is referred to as the Spaghetti Bowl reconstruction and includes the Spaghetti Bowl, each of the four legs of the freeway-to-freeway system, and 16 service interchanges that connect the freeways to local roads (Figure 1). The project is in Washoe County, Nevada, within the cities of Reno and Sparks, and has the following limits:

- I-80 between Keystone Avenue on the west and McCarran Boulevard on the east, a distance of approximately 5 miles
- I-580/US 395 between Meadowood Mall Way on the south and Parr Avenue/Dandini Boulevard on the north, a distance of approximately 7 miles

Chapter 1 of the Final EIS describes why the project is needed. The purpose of the Spaghetti Bowl reconstruction is to address the obsolete design of the freeways in and around the Spaghetti Bowl to improve traffic operations and reduce crashes. The project is needed to:

- Reduce travel delay. High traffic volumes and an outdated freeway design contribute to congestion and travel delays.
- Improve safety. The high crash rates on I-80 and I-580/US 395 in the study area, compared to other urban freeways in Nevada, make safety improvement a key need.
- Improve bridges. Most of the bridges in the study area are at or approaching the end of their planned service lives. Many are not wide enough to meet NDOT standards for traffic lane and shoulder widths.
- Optimize system connections. I-80, I-580, and US 395 are part of the National Highway System, providing important local and regional connections.

NDOT and FHWA identified Alternative 2 as the Selected Alternative based on evaluation and consideration of:

- how the alternative would address the project purpose and need,
- all comments received during the public involvement process,
- environmental and engineering factors, and
- cost.

Alternative 2 is described below and in Chapter 2 of the Final EIS. The remainder of this document describes the alternatives considered, the rationale for the Selected Alternative, and the mitigation measures that will be implemented.

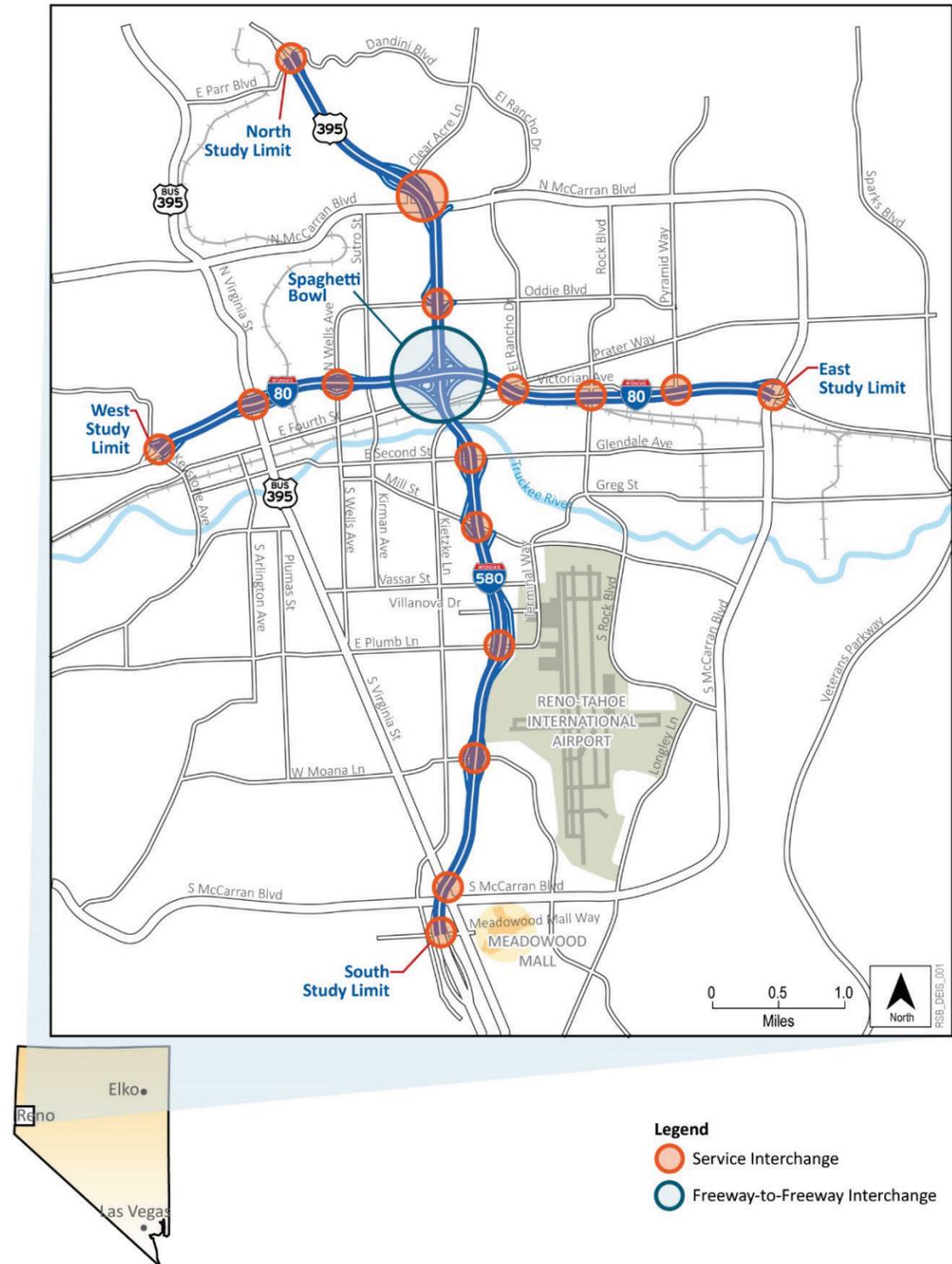


Figure 1. Project Location

Alternatives Considered

The alternatives developed to address the project’s purpose and needs and carried forward for detailed analysis in the Final EIS are summarized in Table 1. See Chapter 2 of the Final EIS for more detail on each alternative.

Table 1. Summary of Reasonable Alternatives Considered

Alternative	Description
No Build Alternative	No safety or capacity improvements would be made. This alternative serves as a baseline for comparison to the other alternatives.
Alternative 1	Alternative 1 keeps all existing access between the local roads and freeway system while increasing capacity and improving traffic operations in and around the Spaghetti Bowl by using ramp braiding to reduce weaving. This alternative would increase the footprint of the freeway in and around the Spaghetti Bowl compared to the current footprint and the other alternatives. This alternative has the highest number of residential and business displacements, including large impacts to downtown Sparks.
Alternative 2	NDOT and FHWA identified Alternative 2 as the Selected Alternative. Alternative 2 eliminates some access between the local streets and the freeway system, increases capacity, and uses ramp braiding to improve safety and traffic flow at other interchanges. Its footprint would be smaller than Alternative 1. Alternative 2 strikes the best balance between satisfying the project needs while maintaining freeway access and minimizing impacts.
Alternative 3	Alternative 3 eliminates more freeway access than Alternative 2, increases capacity, and reduces weaving by eliminating more on- and off-ramps to improve interchange spacing. This alternative minimizes the project footprint compared to Alternatives 1 and 2 by avoiding the need for ramp braids.

Environmentally Preferred Alternative

The Council on Environmental Quality regulations for implementing the National Environmental Policy Act require that the Record of Decision specify “the alternative or alternatives which were considered to be environmentally preferable” (40 CFR §1505.2[b]). The environmentally preferred alternative is the alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historic, cultural, and natural resources. The environmentally preferred alternative does not need to be the same as the Selected Alternative. Designation of the environmentally preferred alternative typically involves judgment and balancing some environmental values against others. The public and other agencies reviewing a Draft EIS can assist the lead agency to develop and determine environmentally preferred alternatives by providing their views in comments on the Draft EIS (Council on Environmental Quality 1981, question 6).

In order to enhance and facilitate the process of identifying the environmentally preferred alternative, as well as capture the views of the public and other agencies, NDOT developed environmental selection criteria to assess the impacts of Alternatives 1, 2, and 3 on a range of environmental and socioeconomic resources. See Chapters 2 and 3 in the Final EIS for more detail on the criteria used and impacts to each resource. Overall, Alternatives 1, 2, and 3 would have minimal impact on the natural environment. All three alternatives would have similar impacts on air quality; water resources; vegetation, wildlife, and fish; and visual character. Based on the analysis, Alternative 1 would have the largest environmental impacts on residents, businesses, environmental justice populations, the Reno-Sparks Indian Colony, parks, historic properties, and hazardous materials. Alternatives 2 and 3 would have comparable overall environmental impacts, and both would have considerably less impacts than Alternative 1 (Table 2).

The Council on Environmental Quality recognizes that identifying the environmentally preferred alternative may involve difficult judgments, particularly when one environmental value must be balanced against another. For this project, Alternatives 2 and 3 have comparable environmental impacts, so FHWA and NDOT evaluated the differences in resource impacts and the ability to mitigate each.

Where environmental impacts are similar (Alternatives 2 and 3), the public and other agencies reviewing a Draft EIS can assist the lead agency in determining an environmentally preferred alternative by providing their views in comments on the Draft EIS. NDOT formed a local agency evaluation team consisting of the Washoe County Regional Transportation Commission, the Cities of Reno and Sparks, Washoe County, and the Reno-Sparks Indian Colony (RSIC).

Table 2. Environmental Evaluation Criteria Impacts

Evaluation Criterion	Unit	No Build	Alternative 1	Alternative 2	Alternative 3
Park Impacts	Acres	0	1.7	0.4	0.2
Cultural Resources	Each	0	3	1	2
Publicly-Owned Buildings, Social Service Agencies	Each	0	24	16	20
Commercial Displacements	Each	0	59	22	26
Residential Displacements	Each	0	938	326	233
Reno-Sparks Indian Colony Residential and commercial properties impacted acres	Acres	0	3	0	0
Noise Impacts ^a	Receivers	177	187	186	210
Hazardous Materials Properties Impacted	Each	0	34	19	25

^a The noise impacts presented in this table are based on preliminary modeling that evaluated 342 receivers and the 2040 PM peak traffic volumes. The preliminary modeling allows direct comparison among all alternatives to help identify the preferred alternative. United States Code (U.S.C.) Title 23 Section 139 allows project sponsors to perform more analysis on the preferred alternative after it has been identified, to refine impacts and mitigation. Following the publication of the Draft EIS, NDOT conducted additional noise modeling on Alternative 2, the Preferred Alternative. Traffic noise mitigation proposed in the Final EIS is based on new modeling that evaluated 236 receivers and the 2040 PM peak traffic volumes, resulting in 154 impacted receivers for Alternative 2.

This team independently reviewed the project's impacts based on environmental and functional criteria and provided input on identifying the Preferred Alternative. The evaluation team was briefed on each of the alternatives and given the evaluation data. Each alternative was evaluated for each criterion and received an overall qualitative rating (Table 3). Additional public and agency feedback was largely in support of Alternative 2 compared to Alternatives 1 and 3.

Alternatives 2 and 3 would displace less than half as many residences and businesses as Alternative 1 and would have no direct impact on the RSIC. While Alternative 3 would displace more businesses and publicly owned buildings and social service agencies than Alternative 2, Alternative 2 would displace more residences than Alternative 3. All three alternatives would have a disproportionately high and adverse effect on environmental justice populations; however, Alternative 1 would have a larger impact due to the higher number of residential and business displacements.

Although Alternative 2 would displace more residences than Alternative 3, effective measures are in place to mitigate the effects of these displacements. The cornerstone of the mitigation measures is the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act). The Uniform Act is a very effective measure to mitigate residential displacements. NDOT and FHWA will provide additional mitigation beyond that required by the Uniform Act by compensating for rent differentials and working with the Reno Housing Authority to develop a feasibility study of Mineral Manor (public housing complex) to assess the remaining useful life of Mineral Manor buildings as a first step in developing a plan to replace the displaced Mineral Manor buildings. (See Table 5, Mitigation Measures and Environmental Commitments, in the *Measures to Mitigate and Minimize Harm* section below.) Also, the neighborhoods containing residential displacements under Alternative 2 could still function as they do today because the displacements occur at the edges of neighborhoods and would not bisect them, minimizing the impact on the overall community cohesion in the neighborhood.

Table 3. Composite Results of Independent Local Agency Evaluation

CRITERIA	NO BUILD	ALT. 1	ALT. 2	ALT. 3
PURPOSE & NEED	ACCESS	Red	Green	Yellow
	SAFETY	Red	Green	Red
	TRAFFIC OPERATIONS	Red	Yellow	Green
ENVIRONMENTAL CRITERIA	PARK IMPACTS	Green	Red	Yellow
	CULTURAL RESOURCES	Green	Red	Yellow
	INSTITUTIONAL IMPACTS	Green	Red	Yellow
	COMMERCIAL DISPLACEMENTS	Green	Red	Green
	RESIDENTIAL DISPLACEMENTS	Green	Red	Yellow
	RENO/SPARKS INDIAN COLONY	Green	Red	Green
	HAZARDOUS MATERIALS	Green	Red	Green
COST	Green	Red	Yellow	
OVERALL	Red	Red	Green	

Legend:
■ Red = Poor ■ Yellow = Fair ■ Green = Good

The agencies and evaluation team determined that although Alternative 2 displaces more residences, the ability to mitigate the impacts and continued community cohesion resulted in the same rating (yellow/fair, as shown on Table 3) as Alternative 3. However, the difference in commercial displacements was significant enough for the evaluation team to rate Alternative 2 impacts as good (green) compared to fair (yellow) for Alternative 3.

The evaluation team also rated Alternative 2 better than Alternative 3 for the decreased impacts to the RSIC. Alternative 3 has been deemed by the RSIC to be incompatible with the RSIC Master Plan/Land Use Plan (RSIC 1998). Because Alternative 3 would combine the Second Street/Glendale Avenue and the Mill Street interchanges into one new interchange between them, Alternative 3 has been determined to cause a “...disproportionate adverse impact to the quality of life, economy, employment, and existing and future revenue potential of the Reno-Sparks Indian Colony” according to the RSIC tribal chairman (RSIC 2018). Mitigating impacts related to this change in access to the RSIC would be more difficult.

Beyond residential and commercial displacements, Alternative 2 has a higher impact to parks than Alternative 3 but would impact fewer noise-sensitive areas and hazardous materials. Local agencies determined that all these resources are equal between Alternative 2 and 3 except for hazardous materials (Table 3). Alternative 2 will adversely affect one National Register-eligible cultural resource. Alternative 3 would adversely affect two National Register-eligible cultural resources.

Parks have federally regulated requirements to mitigate these resources.¹ The park impacted by Alternative 2 is easily mitigated by constructing recreational improvements on the remainder of the park parcel and also on the adjacent parcel, thereby resulting in a net benefit for the park. Impacts to cultural resources from both Alternatives 2 and 3 will be mitigated through Section 106 of the National Historic Preservation Act.

Alternatives 2 and 3 have similar overall environmental impacts but have differences for each resource. Evaluating the differences in impacts between the two alternatives, the ability to mitigate each resource, and input from local and regional agencies helped FHWA and NDOT determine that Alternative 2 is the environmentally preferred alternative.

Reasons for Identifying Alternative 2 as the Selected Alternative

The Selected Alternative is **Alternative 2**. Alternative 2 strikes the best balance of satisfying the project needs while maintaining freeway access, and minimizing impacts. Based on the local agency evaluation combining purpose and need, environmental factors, and cost, Alternative 2 is the best overall option (see Table 2). NDOT and FHWA selected Alternative 2 because it:

¹ Section 4(f) of the U.S. Department of Transportation Act of 1966 protects certain parks, recreation areas, historic and cultural resources, and wildlife and waterfowl refuges.

- Addresses the purpose and needs of the project.
- Improves freeway traffic speeds and travel delay as well as or better than the other alternatives.
- Improves safety performance to a level similar to or better than Alternative 1, with fewer impacts and at a lower cost.
- Impacts fewer businesses and would outperform Alternative 3 in both freeway operations and safety for about the same cost.
- Is the environmentally preferred alternative.
- Received the most support of all alternatives from the public, local officials, and state and federal resource agencies.

Description of Selected Alternative

Alternative 2 will improve traffic operations and safety of the I-80, I-580 and US 395 freeways and interchanges by adding capacity, improving lane continuity, enhancing available transportation management systems, and improving roadside conditions. Alternative 2 uses a mix of ramp braiding and changes in access to decrease weaving and improve safety. The Selected Alternative will:

- Reconstruct the system interchange with improvements to increase capacity and separate ramps.
- Provide a minimum of three continuous lanes in each direction of travel throughout the limits of the project.
- Provide additional through lanes in each direction of travel between the Spaghetti Bowl and the interchanges at the project limits at Keystone Avenue, Pyramid Way, Meadowood Mall Way, and Parr Boulevard. These additional lanes will be added and dropped at the interchanges via entering and exiting ramp lanes.
- Reconstruct the service interchanges with modified configurations to provide safe weaving distances and braiding movements.
- Provide auxiliary lanes between the closely spaced entrance and exit ramps to provide maximum weaving distances.
- Reconstruct remaining service interchanges to reconnect to the freeway widening.
- Provide design speeds for the system direct-connect ramp at 50 mph with the remaining ramps ranging from 40 mph to 35 mph.
- Construct 62 new, replaced, or widened bridges. Bridges will meet the minimum vertical clearance of 16 feet or higher.
- Improve all freeway and ramp lane widths to meet current design standards (12 feet wide) except on I-80 from Keystone Avenue to Center Street and on I-80 from Rock Boulevard to Pyramid Way where lane width will match existing design exceptions of 11-foot-wide lanes.
- Improve all shoulder widths to meet design standards for freeway shoulder widths (12 feet left and right) and ramp shoulder widths (4 feet left/8 feet right) except on I-80 from Keystone Avenue to Center Street and on I-80 from Rock Boulevard to Pyramid Way where shoulder width will match existing design

exceptions of less than 12 feet wide. Inside and outside shoulder widths will vary between 2 feet and 11 feet in these areas.

- Improve local streets that need to be reconstructed as part of the project to accommodate sidewalks and, if appropriate, bike lanes.

Table 4 describes the Alternative 2 freeway ramps and interchange types. See Figures 2-9 through 2-16 in Chapter 2 of the Final EIS for a visual representation of Alternative 2. Final EIS Appendix B.2, *Design Report for the I-80/I-580/US 395 Spaghetti Bowl Interchange Reconstruction*, provides further detail.

On the west leg of the project under Alternative 2, drivers entering US 395 at Oddie Boulevard will not be able to access I-80. Drivers entering I-80 from Wells Street will be able to access US 395 northbound but not I-580 southbound. I-80 will have four lanes in each direction on the west leg.

On the east leg, the Fourth Street/Prater Way and Rock Boulevard access will combine at Kietzke Lane, and frontage roads will provide access to and from Rock Boulevard. This will improve safety by simplifying braiding with the Spaghetti Bowl ramps and improve weaving to Pyramid Way. Rock Boulevard will also connect to Pyramid Way via Nugget Avenue, which will be reconstructed as a two-way street. I-80 will have five lanes in each direction between the Spaghetti Bowl and Pyramid Way. East of Pyramid Way, westbound I-80 will have four lanes and eastbound I-80 will have three lanes to the project's east terminus.

On the south leg, to improve weaving between Mill Street and Villanova Drive-Plumb Lane, access will be combined at Plumb Lane with a diverging diamond interchange. The southbound I-580 direct-connect off-ramp to the airport is included as part of the Selected Alternative. I-580 will have four lanes from Virginia Street to Moana Lane and then five lanes through the Plumb Lane interchange. North of Plumb Lane to the Spaghetti Bowl northbound, I-80 will have five lanes (briefly widening to six lanes between Mill Street and Second Street). Southbound I-80 will have four to five lanes in this area.

On the north leg, US 395 will shift west through the Spaghetti Bowl, then transition back to its current alignment at Oddie Boulevard. The shift will be made to avoid the RSIC and allow the freeway widening to stay within the existing right-of-way. Ninth Street east of US 395 will be realigned to connect to Tenth Street east of US 395. US 395 will have four northbound lanes and three southbound lanes between the Spaghetti Bowl and Oddie Boulevard. North of Oddie Boulevard to McCarran Boulevard, US 395 will have five lanes in each direction. North of McCarran, US 395 will have four lanes in each direction to the north terminus of the project.

The Spaghetti Bowl will have more lanes and increased spacing between the ramps. There will be increased posted speeds on the ramps as a result of the new and improved ramps. A new loop ramp will be built in the northwest quadrant for drivers travelling westbound I-80 southbound I-580. Some weaving will still occur, but drivers will have greatly improved distances to merge or exit. The weaves that stay will be between the Second Street/Glendale Avenue interchange and the Mill Street interchange. The Second Street/Glendale Avenue interchange also will be reconstructed to increase the southbound weaving distances.

Table 4. Alternative 2 – Freeway Ramps and Interchanges

Freeway to Freeway Ramps	Ramp Type	Posted Speed (mph)	Freeway Exit Lanes	Ramp Lanes
South to East	Direct	45	3	2
South to West	Direct	45	3	1
West to North	Direct	35	2	2
West to South	Loop	30	2	2
North to East	Direct	45	2	2
North to West	Semi-direct	35	2	2
East to North	Direct	35	2	2
East to South	Semi-direct	35	2	2
US 395 – I-580 Interchange Types				
Clear Acre Lane	Tight diamond			
North McCarran Boulevard	Tight diamond			
Oddie Boulevard	Tight diamond			
Second Street/Glendale Avenue	Parclo			
Mill Street	Parclo diamond			
Plumb Lane	Diverging diamond			
Airport Direct-Connect Ramps	Semi-direct (northbound closed; southbound remains)			
I-80 Interchange Types				
Sierra-Virginia-Center	Split Diamond			
Wells Avenue	Tight Diamond			
Fourth Street/Prater Way, Kietzke Lane	Tight Diamond			
Rock Boulevard	Frontage to Kietzke			
Pyramid Way	Single Point			

Section 4(f) Findings

Section 4(f) of the U.S. Department of Transportation Act of 1966, 49 U.S.C. §303(c), is a federal law that protects publicly owned parks, recreation areas, wildlife, and/or waterfowl refuges, as well as significant historic sites, whether publicly or privately owned. Section 4(f) requirements apply to all transportation projects that require funding or other approvals by the U.S. Department of Transportation. As a U.S. Department of Transportation agency, the FHWA must comply with Section 4(f).

Alternative 2 resulted in the following Final Section 4(f) Evaluation determinations:

- Net Benefit determination for Sage Street Park
- *De minimis* impact determination for Earl Wooster High School Historic District
- *De minimis* impact determination for University of Nevada, Reno’s Nevada Agricultural Experiment Station Valley Road Field Lab

- Individual use determination for Mineral Manor Historic District

The Final Section 4(f) finding is in Chapter 6 of the Final EIS.

Avoidance Alternative

In accordance with 23 CFR 774.3, NDOT examined whether there was a feasible and prudent avoidance alternative, as defined in 23 CFR 774.17, to the use of land from a Section 4(f) resource. Feasible and prudent avoidance alternatives are those that avoid using any Section 4(f) property and do not cause other severe problems of a magnitude that substantially outweigh the importance of protecting the Section 4(f) property (23 CFR 774.17).

As detailed in Appendix B of the EIS, Development of the Freeway Reconstruction Alternatives, NDOT evaluated a wide range of initial concepts and preliminary alternatives before identifying Alternatives 1, 2, and 3 as the project’s reasonable alternatives. Alternatives 1, 2, and 3 would each result in the “use” of a Section 4(f) resource. Only the No Build Alternative, which does not address the purpose and need for this project, avoids the use of any Section 4(f) resources. Based on the analysis and discussion presented in Section 6.8.1 of the Final EIS, the FHWA has determined that there is no feasible and prudent alternative that would completely avoid the use of resources protected by Section 4(f).

Least Harm Analysis

Per 23 CFR Part 774.3(c), if the Section 4(f) analysis concludes that there is no feasible and prudent avoidance alternative, then FHWA may approve from among the remaining alternatives only the alternative that causes the least overall harm in light of the statute’s preservation purpose. If the assessment of least overall harm finds that two or more alternatives are substantially equal, FHWA can approve any of those alternatives.

Based on an overall assessment of the seven factors in 23 CFR 774.3, and described in Section 6.8.2 of the Final EIS, Alternative 1 would result in a greater amount of harm than either Alternative 2 or Alternative 3. Alternatives 2 and 3 are substantially equal with respect to impacts. Based on their respective reviews of project benefits and impacts to Section 4(f) and non-Section 4(f) resources, the officials with jurisdiction involved in the project (City of Reno, City of Sparks, and the Reno-Sparks Indian Colony) have all indicated their preference for Alternative 2. FHWA has approved Alternative 2 as the alternative resulting in the least overall harm for the reasons described previously, such as best meeting the project purpose and need (see Section 6.8.2 of the Final EIS for more details).

Measures to Mitigate and Minimize Harm

From early on in the alternatives development phase, NDOT has refined the design of Alternatives 1, 2, and 3 to avoid or minimize impacts while also meeting the need for the project. All practicable measures to minimize environmental harm have been incorporated into the decision in accordance with the Council on Environmental Quality Regulations for Implementing National Environmental Policy Act (40 CFR 1505.2(c)). Measures to minimize harm to the natural and built environment are discussed in detail in Chapter 3 of the Final EIS. Table 5 below summarizes mitigation measures and environmental commitments for Alternative 2, the Selected Alternative.

Table 5. Mitigation Measures and Environmental Commitments

Resource	Mitigation and Environmental Commitments
Community Resources (Section 3.2 of the Final EIS)	
Residential Displacements	<p><i>Required Mitigation NDOT/FHWA will Implement:</i></p> <ul style="list-style-type: none"> • Compensate displaced residents (both owners and renters) in accordance with the Uniform Act. See Appendix D.3 of the Final EIS for more information. • Pay fair market value for homes purchased. • Provide comparable replacement housing for homeowners. This means no one is required to move from a residence without NDOT offering a comparable replacement. • For renters, find a comparable replacement rental. <p><i>Additional Mitigation NDOT/FHWA Commits to:</i></p> <ul style="list-style-type: none"> • Extend rental assistance up to 24 months beyond the 42 months required by the Uniform Act (rental assistance for a total of 66 months) • Provide funds or land already owned by NDOT to others (Cities of Reno or Sparks, Washoe County) to build affordable replacement housing for non-Reno Housing Authority displacements. Those displaced by this project who wish to remain in the area will be given priority access to the replacement housing. After those needs have been addressed, this affordable housing will then be made available to those who qualify for affordable housing but were not displaced by the project. Residents will be considered eligible for this replacement affordable housing if they meet Section 8² eligibility requirements or Reno Housing Authority’s Admission and Continued Occupancy Policy (Reno Housing Authority 2018).³ The contribution of funds or lands will be tied to commitments from recipients to have affordable replacement housing available prior to the initiation of the NDOT right-of-way acquisition process.
Affordable Housing Displacements	<p>The following mitigation measures for affordable housing are in addition to the applicable mitigation measures for all residential displacements.</p> <p><i>Required Mitigation NDOT/FHWA will Implement:</i></p> <ul style="list-style-type: none"> • People who live in publicly owned housing like Reno Housing Authority’s Mineral Manor are treated similarly to market-rate renters but with additional protections to not change their monthly rental costs. <p><i>Additional Mitigation NDOT/FHWA Commits to:</i></p> <ul style="list-style-type: none"> • Convene a meeting of Reno Housing Authority, City of Reno, City of Sparks, and Truckee Meadows Regional Planning Agency to discuss the project’s impact on affordable housing. The meeting was held December 17, 2018. The goal of the meeting was to put the impact in context and discuss additional mitigation measures, beyond the required Uniform Act provisions, that could help mitigate the affordable housing impact. At the meeting, the Reno Housing Authority said that it did not have a preference for onsite versus offsite replacement of housing, but that it would depend on the location. They also noted that it is critical to end with the same or greater number of units after displacement occurs. • Provide undeveloped land already owned by NDOT to the Reno Housing Authority to build replacement units. • Provide the Reno Housing Authority with funding so the Authority could provide vouchers for displaced Mineral Manor residents up to 24 months, allowing them to live offsite in available existing housing in the event replacement Authority housing isn’t immediately available. • Ensure to the extent possible that the Reno Housing Authority’s federal funding from the Department of Housing and Urban Development will not be reduced because of the Spaghetti Bowl Project. This may be accomplished by providing the Reno Housing Authority with funding to replace the Mineral Manor buildings that will be acquired with an equal number of total units or up to 10 percent more units than the number of units being acquired. NDOT will provide the difference in funds between what the Uniform Act

² The Housing Choice Voucher program, also known as Section 8, was created by the Housing and Community Development Act of 1978 to provide assistance to eligible low- and moderate-income families to rent housing in the private market. Eligibility for this program is based on a family’s gross annual income and family size.

³ The Admissions and Continued Occupancy Policy describes the eligibility, continued occupancy, and termination policies for Reno Housing Authority’s Public Housing program as approved by the Board of Commissioners. It explains the day-to-day operations of the Public Housing Program and includes local policies and procedures.

Table 5. Mitigation Measures and Environmental Commitments

Resource	Mitigation and Environmental Commitments
	<p>requires and what is needed to replace the same number of units or up to 10 percent more units than will be displaced. This measure will be implemented early enough to ensure a displaced resident moves directly from their current Authority residence into the new Authority replacement housing.</p> <ul style="list-style-type: none"> • Work with the Reno Housing Authority to develop and implement a feasibility study focused on Mineral Manor. The study will be completed within one year following the issuance of the ROD and will address the following: <ul style="list-style-type: none"> ○ Estimate the remaining life in the buildings under different investment scenarios ranging from routine maintenance only to major maintenance as needed to maximize building life, and the associated cost of each scenario. Goal of this effort is to develop a maintenance scenario that makes the most efficient use of Reno Housing Authority funds on those buildings that will be acquired. ○ Assess parking needs and limitations at the existing and future Reno Housing Authority housing as a result of new traffic patterns and loss of parking because of the project as a whole or by construction phase. ○ Explore the feasibility of onsite Reno Housing Authority housing versus offsite replacement housing. Assess the number of replacement units needed, related parking requirements, possible zoning changes, pros and cons of ground-level or multistory facilities, and timelines for when housing replacement construction would need to start to prevent impacts to Reno Housing Authority operations and possible loss of Department of Housing and Urban Development subsidies. <p>All mitigation commitments are based on 2019 Reno area housing conditions and project area demographics. Because the project will be delivered over 20 years, in the future when residences are displaced the identified mitigation measures could be revised to reflect the most current housing and community needs.</p>
Business Displacements	<p>Businesses displaced because of the project are protected by the Uniform Act. No displaced business will need to vacate its existing location without assistance in assessing its specific relocation needs or locating potential replacement properties.</p> <p>Two payment options are available to eligible displaced businesses under the Uniform Act to help them relocate:</p> <ul style="list-style-type: none"> • Payment for moving and related expenses and reestablishment expenses. • A fixed payment, in lieu of moving and related expenses and reestablishment expenses. <p>For more details on mitigation for business displacements, see Section 7 of the <i>Spaghetti Bowl Community Impacts Assessment Technical Report</i> in Appendix D.2 of the Final EIS.</p>
Reno-Sparks Indian Colony	<p>NDOT will construct a screening wall and landscaping along the eastern edge of the RSIC to mitigate for I-580 ramps and frontage roads moving significantly closer to residences. NDOT will bury the overhead power line that is on the east edge of the RSIC to mitigate visual impacts.</p> <p>NDOT will coordinate with RSIC to develop measures to mitigate potential construction impacts to RSIC. Either the Second Street/Glendale Avenue interchange or the Mill Street interchange will remain open during construction for access to the RSIC. NDOT will make sure that sidewalks on Second Street/Glendale Avenue and Mill Street comply with the Americans with Disabilities Act accessibility requirements during construction. Access to Walmart will be maintained throughout construction. To limit traffic impacts on the RSIC, NDOT will not use RSIC streets for detours and will not allow through traffic to use the streets during construction.</p>
Publicly Owned Buildings, Parks, and Social Service Agencies	<p>NDOT will mitigate displacement and property acquisition impacts to publicly owned buildings, parks, and social service providers under the Uniform Act. For a complete discussion of mitigation for all publicly owned buildings, social services, schools, and parks, see Section 7 of the <i>Spaghetti Bowl Community Impacts Assessment Technical Report</i> in Appendix D.2 of the Final EIS.</p>
Emergency Services	<p>NDOT will coordinate with emergency service providers to minimize disruption during construction and ensure that emergency response times meet the standards set by the Washoe County Master Plan (see Table 4: Planning Area Minimum Service Standards, in Washoe County 2011).</p> <p>NDOT will work with emergency service providers during the design phase to develop a plan to maintain emergency service response times during construction. NDOT will provide continuous updates to emergency service providers on the planned impacts and closures as construction progresses.</p>

Table 5. Mitigation Measures and Environmental Commitments

Resource	Mitigation and Environmental Commitments
	<p>NDOT will not close consecutive interchanges or consecutive crossroads under or over the freeway and will maintain circulation to minimize any delay in emergency response times. Either the Second Street/Glendale Avenue interchange or the Mill Street interchange will remain open during construction for access to the Renown Regional Medical Center and the Reno Fire Department’s station on Mill Street next to I-580. NDOT will ensure unimpeded access through the construction area for emergency responders and law enforcement.</p>
Socioeconomic	<p>The mitigation measures proposed as part of the project will minimize impacts associated with the acquisition and relocation of residences, businesses, parks, and publicly owned buildings and social service agencies.</p> <p>NDOT will continue to coordinate with Reno, Sparks, Washoe County, and the Regional Transportation Commission of Washoe County during future design phases to further minimize impacts. NDOT will implement potential neighborhood-scale enhancements developed in conjunction with nearby residents or neighborhood advisory boards and City of Reno/City of Sparks. The intent of this is to enhance community cohesion in directly affected neighborhoods.</p> <p>To mitigate disproportionately high and adverse environmental justice impacts, NDOT will construct screening walls in locations that currently have a traffic noise barrier but no longer meet criteria for traffic noise mitigation. The screening walls will provide a visual buffer between the nearby residents and the freeways and ramps, and will reduce noise levels.</p>
Construction	<p>NDOT will develop a plan to communicate with the public and property owners regarding construction schedule, street and freeway ramp closures, and detours throughout construction. Communication may include the following: website updates, social media posts, mailings, special events, emails, a project hotline, and meetings.</p> <p>All project notifications will be in both Spanish and English and occur quarterly, at a minimum. Access to residences, businesses, public buildings, and social service agencies will be maintained during construction. Traffic control will also coordinate with local agencies to consider special events.</p> <p>NDOT will not close consecutive freeway interchanges and will maintain street connections between interchanges to ensure access and circulation through the area. NDOT will also provide clearly signed detour routes. See Appendix D.2 of the Final EIS for more information.</p>
<p>Environmental Justice (Section 3.3 of the Final EIS)</p>	
Residential Displacements	<ul style="list-style-type: none"> • Residential displacements, including owners and renters, are protected under the Uniform Act. Details about the Uniform Act can be found in the <i>Spaghetti Bowl Project Environmental Justice Technical Report</i> in Appendix D.4 of the Final EIS, and at https://www.nevadadot.com/doing-business/right-of-way. • NDOT will pay fair market value for homes purchased. • NDOT will provide replacement housing for homeowners. This means no one is required to move from a residence without NDOT offering a comparable replacement. • For renters, NDOT will find a comparable replacement rental. • NDOT will extend rental assistance up to 24 months beyond the Uniform Act’s required 42 months (rental assistance for a total of 66 months). • NDOT will provide funds or land already owned by NDOT to others (Cities of Reno or Sparks, Washoe County) to build affordable replacement housing for non-Reno Housing Authority displacements. Those displaced by this project who wish to remain in the area will be given priority access to the replacement housing. After those needs have been addressed, the affordable housing will then be made available to those who qualify for affordable housing but were not displaced by the project. Residents will be considered eligible for this replacement affordable housing if they meet Section 8 eligibility requirements or Reno Housing Authority’s Admission and Continued Occupancy Policy (Reno Housing Authority 2018). The contribution of funds or lands will be tied to commitments from recipients to have affordable replacement housing available prior to the initiation of the NDOT right-of-way acquisition process. • Details about the Uniform Act can be found in the <i>Spaghetti Bowl Project Environmental Justice Technical Report</i> in Appendix D.4 of the Final EIS, and at https://www.nevadadot.com/doing-business/right-of-way.

Table 5. Mitigation Measures and Environmental Commitments

Resource	Mitigation and Environmental Commitments
<p>Reno Housing Authority and Community Based Housing Displacements</p>	<p>Under the Uniform Act, people who live in publicly owned housing like Reno Housing Authority’s Mineral Manor are treated like market-rate renters but with additional protections to not change their monthly rental costs. The following mitigation measures for affordable housing are in addition to the applicable mitigation measures for all residential displacements:</p> <ul style="list-style-type: none"> • NDOT committed to convene a meeting of Reno Housing Authority, City of Reno, City of Sparks, Truckee Meadows Regional Planning Agency to discuss the project’s impact on affordable housing. The meeting was held December 17, 2018. The goal of the meeting was to put the impact in context and discuss additional mitigation measures, beyond the required Uniform Act provisions, that could help mitigate the affordable housing impact. At the meeting, the Reno Housing Authority said that it did not have a preference for onsite versus offsite replacement of housing, but that it would depend on the location. They also noted that it is critical to end with the same or greater number of units after displacement occurs. • Provide undeveloped land already owned by NDOT to the Reno Housing Authority to build replacement units. • Provide the Reno Housing Authority with funding so the Authority could provide vouchers for displaced Mineral Manor residents up to 24 months, allowing them to live offsite in available existing housing in the event replacement Authority housing is not immediately available. • Ensure to the extent possible that the Reno Housing Authority’s federal funding from the Department of Housing and Urban Development will not be reduced because of the Spaghetti Bowl Project. This may be accomplished by providing the Reno Housing Authority with funding to replace the Mineral Manor buildings that will be acquired with an equal number of total units or up to 10 percent more units than the number of units being acquired. NDOT will provide the difference in funds between what the Uniform Act requires and what is needed to replace the same number of units or up to 10 percent more units than will be displaced. This measure will be implemented early enough to ensure a displaced resident moves directly from their current Authority residence into the new Authority replacement housing. • Work with the Reno Housing Authority to develop and implement a feasibility study to focus on Mineral Manor. The study will be completed within one year following the issuance of the ROD and will address the following: <ul style="list-style-type: none"> ○ Estimate the remaining life in the buildings under different investment scenarios ranging from routine maintenance only to major maintenance as needed to maximize building life, and associated cost of each scenario. The goal of this effort is to develop a maintenance scenario that makes the most efficient use of Reno Housing Authority funds on those buildings that will be acquired. ○ Assess parking needs and limitations at the existing and future Reno Housing Authority as a result of new traffic patterns and loss of parking because of the project as a whole or by construction phase. ○ Explore the feasibility of onsite Reno Housing Authority housing versus offsite replacement housing. Assess the number of replacement units needed, related parking requirements, possible zoning changes, pros and cons of ground level or multistory buildings, and timelines for when housing replacement construction would need to start to prevent impacts to Reno Housing Authority operations and possible loss of Department of Housing and Urban Development subsidies. <p>All mitigation commitments are based on 2019 Reno area housing conditions and project area demographics. Because the project will be delivered over 20 years, in the future when residences are displaced the identified mitigation measures could be revised to reflect the most current housing and community needs.</p>
<p>Business Impacts</p>	<p>Business displacements are subject to the Uniform Act.</p> <p>For more details on mitigation for business displacements see Section 7 of the <i>Spaghetti Bowl Community Impacts Assessment Technical Report</i> in Appendix D.2 of the Final EIS.</p>
<p>Publicly Owned Buildings and Social Service Agency Displacements</p>	<ul style="list-style-type: none"> • Social service agency displacements are subject to the Uniform Act. • NDOT will minimize impacts associated with the acquisition of publicly owned buildings and social services agencies by conducting outreach and by coordinating with affected owners prior to acquisition to reconfigure or relocate buildings, as necessary, and to minimize disruption. To reduce disruption, NDOT and FHWA will make sure that the reconfiguration or relocation of buildings is completed before the demolition of any existing buildings. During the design process, NDOT will coordinate with the agencies to determine their siting criteria.

Table 5. Mitigation Measures and Environmental Commitments

Resource	Mitigation and Environmental Commitments
	<ul style="list-style-type: none"> The Community Services Agency will be displaced. A potential relocation site is the existing Coral Academy building on Ninth Street, approximately one block away. Coral Academy will lose enough classroom space from displaced buildings adjacent to I-80 to require relocation, but the primary building, also containing classroom space, will not be acquired. Classroom space is an important attribute that the Community Services Agency would need if it were displaced (Community Services Agency 2018). Keeping the Community Services Agency in the neighborhood would mitigate impacts to low-income people who rely on their services.
Parks	<ul style="list-style-type: none"> Parks on property not owned by NDOT are subject to the Uniform Act. NDOT will acquire undeveloped property on the north and west side of Sage Street Park and will construct recreational improvements on the remainder of the park parcel not impacted by the project and on the adjacent parcel to mitigate the impact. This will result in a net benefit to Sage Street Park for Mineral Manor residents and other environmental justice populations.
Transportation	<ul style="list-style-type: none"> NDOT will provide upgrades or sidewalk repairs compliant with the Americans with Disabilities Act, including new walking paths within impacted neighborhoods as applicable. NDOT will provide bus shelters where bus stops are reconstructed as part of the project.
Traffic Noise	<ul style="list-style-type: none"> In locations that meet criteria for traffic noise mitigation, NDOT will reconstruct traffic noise barriers to equal or better acoustical benefit. NDOT will also build new traffic noise barriers at locations where there currently are none if they meet regulatory, guidance, and policy criteria. NDOT will construct screening walls in locations that currently have a traffic noise barrier but no longer meet NDOT criteria for traffic noise mitigation to provide a noise reduction. The screening walls will provide a visual buffer between the nearby residents and the freeways and ramps and will reduce noise levels.
Visual Character/Aesthetics	<ul style="list-style-type: none"> NDOT will provide aesthetic treatments to the project’s traffic noise barriers, screening walls, bridges, retaining walls, and signs. NDOT will construct a screening wall and landscaping where new freeway ramps or frontage roads encroach significantly closer to residences (along the east side of RSIC, west of I-580, for example). NDOT will bury the overhead power line that is on the east edge of the RSIC to mitigate visual impacts. The new high-mast lighting will be installed entirely within NDOT right-of-way; lighting will be focused away from the residential areas and will include shielding on luminaries to minimize light and glare impacts to adjacent residences. The light system will use LED fixtures designed to help mitigate sky glow, light trespass, and glare.
Construction-related	<ul style="list-style-type: none"> NDOT will coordinate with RSIC to develop measures to mitigate potential construction impacts to RSIC. Either the Second Street/Glendale Avenue interchange or the Mill Street interchange will remain open during construction for access to the RSIC. NDOT will make sure that sidewalks on Second Street/Glendale Avenue and Mill Street comply with the Americans with Disability Act accessibility requirements during construction. Access to Walmart will be maintained throughout construction. To limit traffic impacts on the RSIC, NDOT will not use RSIC streets for detours and will not allow through traffic to use the streets during construction. Residents on Leisure Lane expressed concern about the close proximity and noise of construction, especially if the existing traffic noise barrier is removed and later replaced. NDOT will leave the existing traffic noise barrier in place during construction of the new traffic noise barrier, which is on the freeway side of the existing wall, so that the existing traffic noise barrier will shield Leisure Lane residents from the freeway construction noise. NDOT will incorporate the existing traffic noise barrier into the design of the new barrier so as not to remove or disturb the adjacent residents. The existing traffic noise barrier would either be incorporated into the new barrier’s design to protect in place or would not be disturbed. To reduce construction noise impacts and vibration, NDOT will require that its contractor maintain and operate motorized equipment in compliance with all local, state, and federal laws and regulations relating to noise levels. All motorized construction equipment will have mufflers installed in accordance with the equipment manufacturer’s specifications or a system of equivalent noise-reducing capacity. Mufflers and exhaust systems will be maintained in good operating conditions and free of leaks and holes. If feasible, new and replacement traffic noise barriers and screening walls will be constructed early in each phase to mitigate construction noise. NDOT will minimize the use of vibratory equipment and conduct high-vibration construction during the day, where feasible and appropriate.

Table 5. Mitigation Measures and Environmental Commitments

Resource	Mitigation and Environmental Commitments
	<ul style="list-style-type: none"> • NDOT will locate staging areas in places where their visibility will be minimal and, to the extent required, provide temporary visual screening to limit views into them from nearby residential areas, trails, streets, or other places from which they will be seen. Construction methods will minimize the need to remove vegetation to accommodate construction. Nighttime lighting will be minimized or shielded at staging areas or for construction. NDOT will restore areas that were disturbed prior to the end of construction. • NDOT’s Disadvantaged Business Enterprise (DBE) program will directly engage with the impacted neighborhoods to identify existing DBEs and potential new DBEs to be certified by NDOT in order to be eligible for project construction opportunities. • See Section 3.6, Transportation Services, of the Final EIS for measures to mitigate construction-related impacts to the transportation system.
<p>Traffic Noise (Section 3.4 of the Final EIS)</p>	
Traffic Noise	<ul style="list-style-type: none"> • NDOT will reconstruct traffic noise barriers in all locations that meet criteria for traffic noise mitigation to equal or better acoustical benefit. NDOT will adjust the height and length of barriers to provide maximum benefit to impacted receivers. NDOT will also build new traffic noise barriers where there currently are none at locations that meet regulatory, guidance, and policy criteria (NDOT 2018). • To mitigate disproportionately high and adverse environmental justice impacts, NDOT will construct screening walls in locations that currently have a traffic noise barrier but no longer meet regulatory, guidance, and policy criteria for traffic noise mitigation. These screening walls will reduce noise levels. Screening walls will be made of concrete panels or concrete masonry blocks (also known as cinder blocks). Typically they will be 8 to 14 feet tall and have vertical steel posts to hold them in place. Screening walls will look the same as traffic noise barriers. • See Attachment A of Appendix D.5B, <i>Spaghetti Bowl Project Highway Traffic Noise Technical Report</i>, for locations of proposed noise barriers presented in the Draft EIS. The locations, lengths, and heights for some walls have changed since the Draft EIS because the updated analysis includes the I-580 direct-connect ramp to the Reno-Tahoe International Airport and updated cross-road traffic volumes. The lengths and heights for each of the traffic noise barriers and screening walls are provided in Section 5.3 of the <i>Spaghetti Bowl Project Preferred Alternative (Alternative 2) Highway Traffic Noise Technical Report</i> in Appendix D.5A.
Construction-related Noise and Vibration	<ul style="list-style-type: none"> • To reduce construction noise impacts and vibration, NDOT will require that its contractor maintain and operate motorized equipment in compliance with all local, state, and federal laws and regulations relating to noise levels. All motorized construction equipment will have mufflers installed in accordance with the equipment manufacturer’s specifications or a system of equivalent noise-reducing capacity. Mufflers and exhaust systems will be maintained in good operating conditions and free of leaks and holes. If feasible, new and replacement traffic noise barriers and screening walls will be constructed early in each phase to mitigate construction noise. • NDOT will minimize the use of vibratory equipment and conduct high-vibration construction during the day, where feasible and appropriate.
<p>Air Quality (Section 3.5 of the Final EIS)</p>	
Construction	<ul style="list-style-type: none"> • NDOT will mitigate construction vehicle emission impacts by implementing and maintaining a comprehensive traffic control plan and stipulating that unnecessary idling and equipment operation be avoided. • NDOT will require equipment and vehicles used during construction to comply with U.S. Environmental Protection Agency emissions standards for on-road vehicles and off-road construction equipment. NDOT’s contractor will comply with applicable dust-control requirements of the Washoe County Health District—Air Quality Management Division, as necessary, and NDOT will implement best management practices to minimize emissions from construction. NDOT’s contractor will submit a Dust Mitigation Plan to the Washoe County Health District—Air Quality Management Division to obtain a dust-control permit. Impacts associated with fugitive dust generated by construction will be mitigated by standard dust and emission control measures, such as watering disturbed soil as needed, reducing nonessential earth-moving activity when it is windy, and limiting vehicle and equipment idling to the extent practicable. • Additional measures to reduce construction fugitive dust emissions will be incorporated into the plans and specifications for construction in accordance with NDOT’s <i>Standard Specifications for Road and Bridge Construction</i> (NDOT 2014). See the <i>Air Quality Analysis Technical Report</i> in Appendix D.6 of the Final EIS for more detail.

Table 5. Mitigation Measures and Environmental Commitments

Resource	Mitigation and Environmental Commitments
Transportation Services (Section 3.6 of the Final EIS)	
Pedestrian and Bicyclists	<ul style="list-style-type: none"> • NDOT will coordinate with the Regional Transportation Commission of Washoe County (RTC) on planned pedestrian and bike improvements to incorporate them into Spaghetti Bowl Project design wherever practical. <p>Construction:</p> <ul style="list-style-type: none"> • NDOT and FHWA will work with the Cities of Reno and Sparks to identify pedestrian and bike route detours that may be needed during construction. Because the street network will remain largely unaffected by the proposed improvements, alternative routes for pedestrians and bicyclists will be readily available. NDOT, in coordination with the City of Reno, will temporarily move the affected portion of the Truckee River Trail/Tahoe-Pyramid Bikeway under I-580.
Bus Transit	<ul style="list-style-type: none"> • NDOT will assist the RTC with modifying bus routes along Ninth Street, which could include modifying local streets and moving bus stops. • NDOT will restore bus stops removed or relocated by the project, in cooperation with the RTC and in accordance with RTC standards, including Americans with Disabilities Act-compliant access. <p>Construction:</p> <ul style="list-style-type: none"> • NDOT will avoid rerouting heavily used transit routes, where feasible, and maintain Americans with Disabilities Act--compliant pedestrian access to transit stops and appropriate safe-street crossings.
Freeways and Local Streets	<p>Construction:</p> <ul style="list-style-type: none"> • NDOT will coordinate freeway and street lane closures to ease traffic disruptions to the extent possible. NDOT will not close consecutive service interchange ramps at the same time (e.g., southbound Second Street/Glendale Avenue exit and southbound Mill Street exit), and circulation between interchanges will be maintained. In addition, NDOT will not close consecutive streets crossing over or under the freeway at the same time. • NDOT may create temporary roadways to keep the Spaghetti Bowl ramps open or may use state routes for detours. • NDOT will schedule closures at night, where possible, to minimize traffic disruptions. Traffic control will also be coordinated with local agencies to consider special events. • During final design, NDOT will evaluate the diversion routes to determine if improvements to the routes are necessary. In addition to street improvements, it may use signal timing modifications, temporary signals, parking restrictions, intersection improvements, incident management, and demand management options during construction to ease potential congestion and delay. • NDOT will coordinate with utility companies and the Cities of Reno and Sparks to avoid or minimize interruptions to sewer, water, and electricity during construction. • Prior to implementation, NDOT will conduct extensive public outreach to communicate any closures or detours to the public. It will post updates to the project website and social media, conduct media outreach, and send out mailings to affected residences and businesses. NDOT will also work with local companies to provide updates on pedestrian and bicycle impacts.
Airport Access	<p>Construction:</p> <ul style="list-style-type: none"> • NDOT will provide signed detours for access to and from the airport if the Plumb Lane interchange or direct-connect ramps are closed. Either the Plumb Lane interchange or the direct-connect ramps will remain open during construction to provide efficient access to the airport. NDOT will work with the Reno-Tahoe Airport Authority to develop an access plan for the airport.
Rail	<p>Construction:</p> <ul style="list-style-type: none"> • NDOT will coordinate with the Union Pacific Railroad and Amtrak to minimize interruptions to rail service when the I-580 bridge over the railroad tracks is removed and replaced. NDOT will work with Union Pacific to develop a plan to minimize disruption to freight rail service while replacing the railroad bridge over I-80.

Table 5. Mitigation Measures and Environmental Commitments

Resource	Mitigation and Environmental Commitments
Visual Character/Aesthetics (Section 3.7 of the Final EIS)	
Aesthetic Treatments	<ul style="list-style-type: none"> • NDOT will provide aesthetic treatments to the new and reconstructed traffic noise barriers, screening walls, bridges, retaining walls, and signs based on the <i>I-80 Landscape and Aesthetics Corridor Plan</i> (NDOT 2005), which includes descriptions and illustrations of landscape and aesthetic treatments that are suggested for the corridor. The study area is within the Sierra Nevada Great Basin Crossroads Landscape Design Segment. • NDOT will develop specific aesthetic treatments for this project during final design. • Due to freeway ramps moving much closer to residential properties on the RSIC, a 10-foot-tall screening wall will be constructed along the eastern boundary of the RSIC to mitigate visual impacts of ramps. An 8-foot-tall screening wall will be constructed along Mill Street, Second Avenue, and the eastern edge of the RSIC north of Second Avenue to mitigate the visual impact of I-580. In addition, NDOT will construct screening walls along the west side of I-580 to further mitigate visual impacts of the freeway. • NDOT will bury the overhead power line that is on the east edge of the RSIC to mitigate visual impacts. • To mitigate disproportionately high and adverse environmental justice impacts, NDOT will construct screening walls in locations that currently have a traffic noise barrier but no longer meet NDOT criteria for traffic noise mitigation. The screening walls will provide a visual buffer between the freeways and ramps and the nearby residents.
Freeway Lighting	<ul style="list-style-type: none"> • The new lighting will be installed entirely within NDOT right-of-way and lighting will be focused away from residential areas. New freeway lighting will include shielding to minimize light and glare impacts to adjacent residences. The lighting system will use LED fixtures designed to help mitigate sky glow, light trespass, and glare. The LED fixtures last longer than the current lighting along I-80 and I-580/US 395 and require less electricity. Additionally, maintenance costs will be less and lane closures to maintain the lights will occur less often.
Construction	<ul style="list-style-type: none"> • NDOT will locate construction staging areas in places where their visibility will be minimal and, to the extent required, provide temporary visual screening to limit views into them from nearby residential areas, trails, or streets. Construction methods will minimize the need to remove vegetation to accommodate construction. Nighttime lighting will be minimized or shielded at staging and construction areas. NDOT will restore areas that were disturbed prior to the end of construction.
Water Resources (Section 3.8 of the Final EIS)	
Water Quality	<ul style="list-style-type: none"> • Current NDOT standards only require treatment of road runoff that is caused by the addition of paved and disturbed areas. To mitigate the project’s potential longer-term water quality impacts, NDOT will design water quality detention basins to treat stormwater runoff from all of the project’s paved areas, as well as unpaved and disturbed areas within the construction footprint. • The water quality detention basins will be designed to store runoff from a 2-year storm for a minimum of 24 hours so that solid pollutants can settle out of the stormwater before entering the storm drains and eventually the Truckee River. Special storm drain inlets will be used to control the time stormwater is detained, while allowing the basins to fully drain over a 24-hour period. • The potential water quality improvements associated with the proposed stormwater detention basins will have indirect benefits for wildlife living in and along the Truckee River, as well as for recreational users. <p>Construction:</p> <ul style="list-style-type: none"> • NDOT’s contractor will follow NDOT’s <i>Construction Site Best Management Practices Manual</i> (NDOT 2017) to keep exposed soil from eroding offsite, thereby reducing the potential for discharge of sediment and other pollutants into ditches, streams, and the Truckee River. Typical best management practices include landscaping, mulch, and rock slope protection at storm drain outlets. In areas where construction will occur near water, temporary check dams, sediment traps, silt fences, dikes, or ditches may be used to trap sediment and prevent it from moving into the Truckee River. • NDOT’s construction contractor must file a Notice of Intent with the Nevada Division of Environmental Protection’s Bureau of Water Pollution Control to comply with the General Permit for Stormwater Discharges Associated with Construction Activity. The contractor will develop a stormwater pollution prevention plan before construction to identify potential stormwater pollution sources and appropriate best management practices to prevent or reduce, to the maximum extent possible, pollutant discharges

Table 5. Mitigation Measures and Environmental Commitments

Resource	Mitigation and Environmental Commitments
	<p>associated with construction. The stormwater pollution prevention plan will meet the requirements for NDOT, Nevada Division of Environmental Protection, and U.S. Army Corps of Engineers Clean Water Act permitting. Permits from the Division of Environmental Protection’s Bureau of Water Pollution Control may also be needed if construction results in discharge to surface water or groundwater.</p> <ul style="list-style-type: none"> • NDOT will direct its contractor to construct and maintain barriers to isolate and confine in-water work areas to prevent sediment, petroleum products, chemicals, and other liquids and solids from entering streams or ditches during construction. • Bridge removal will minimize debris falling into the Truckee River. Any bridge debris that falls into the river will be removed by NDOT’s contractor, if possible, and disposed of according to state law. • To minimize the potential for contaminant releases into the Truckee River during construction, all equipment will be fueled and maintained at a designated fueling location that is at least 100 feet away from the river. • After constructing the I-580 bridges over the Truckee River, NDOT will remove the work platform armor and embankment materials, and the river banks will be regraded and revegetated to pre-project conditions. NDOT will also restore the multi-use paths on the north and south sides of the river.
<p>Vegetation, Wildlife, and Fish (Section 3.9 of the Final EIS)</p>	
Vegetation	<ul style="list-style-type: none"> • During design, NDOT will evaluate the feasibility of planting native vegetation within the right-of-way, including areas where existing pavement will be permanently removed. In addition, NDOT will install erosion-control best management practices and stormwater management facilities to protect vegetation from water-related erosion. <p>Construction:</p> <ul style="list-style-type: none"> • Stream banks will be regraded and revegetated to pre-project conditions or better. • The contractor will develop and follow a Noxious Weed Management Plan to prevent the establishment and spread of Nevada State listed noxious weeds per Nevada Revised Statute 555. The management plan will include mapping of existing noxious weed populations; appropriate eradication/control methods based on weed type and location; applicator certification; monitoring and retreatment as necessary; and methods for keeping equipment, personnel, staging areas, construction and excavation sites, and roadways clear of noxious weed plants and seeds. The plan will also address the treatment of weeds in topsoil salvage material.
Wildlife	<p>No long-term mitigation measures will be needed because no adverse impacts are expected to affect the wildlife species in the study area and the project would not result in an appreciable loss of any species that rely on riverbank habitat.</p> <p>Construction:</p> <ul style="list-style-type: none"> • NDOT will require nesting bird surveys between March 1 and July 31 (migratory bird nesting season) and prior to the removal of trees and vegetation to minimize impacts to active nests. The survey will be performed no more than 7 days before the proposed tree or vegetation removal date. If active nests are identified, NDOT will protect them in place with a buffer and limit construction until the young leave the nest. • All bridges and buildings will be inspected for the presence of roosting bats or nesting swallows prior to demolition. Measures will be taken to prevent nesting or roosting on structures prior to demolition. If nesting swallows or roosting bats are identified, then they will not be disturbed until the young leave the nest or roost.
Sensitive and Protected Species	<p>No long-term mitigation measures will be needed because no adverse impacts are expected to affect the wildlife species in the study area and the project would not result in an appreciable loss of any species that rely on riverbank habitat.</p> <p>Construction:</p> <ul style="list-style-type: none"> • NDOT will survey large snags along the Truckee River that will be removed to construct the proposed I-580 bridge to determine whether Lewis’s woodpeckers or other species of migratory birds are nesting there. The survey will be performed no more than 7 days before the proposed tree removal date. If active nests are identified, NDOT will protect them with a buffer and limit construction until the birds leave the nest.

Table 5. Mitigation Measures and Environmental Commitments

Resource	Mitigation and Environmental Commitments
	<ul style="list-style-type: none"> • NDOT will implement the measures the U.S. Fish and Wildlife Service identified in its September 2018 Biological Opinion for the Lahontan cutthroat trout (included in Appendix D.10 of the Final EIS). • The in-river work area is estimated to be 0.65 acre. • To minimize impacts on the Lahontan cutthroat trout, NDOT’s contractor will develop a fish salvage plan that follows the National Marine Fisheries Service fish salvage protocols. Lahontan cutthroat trout and other fish that do not migrate out of the temporary river diversion will be moved manually through coordinated efforts with NDOT’s contractor and NDOT biologists. Qualified fisheries biologists will move the Lahontan cutthroat trout to a safe place in the river. This process will comply with any additional protocols requested by U.S. Fish and Wildlife Service staff. NDOT will report the completion of the move to the Fish and Wildlife Service within 30 days after it is completed. • In accordance with NDOT requirements, water isolated from the diverted Truckee River channel will slowly drain out of the work zone at 1 to 3 inches per hour to allow fish to move downstream. • Work within the Truckee River is restricted to July 1 through September 30 to avoid the Lahontan cutthroat trout and cui-ui spawning seasons, as well as the spawning seasons for other fish species. • To eliminate the possibility of invasive species being introduced to the Truckee River, NDOT will require construction equipment to be inspected for invasive species and prohibit the equipment from entering another water body for a minimum of 5 days. All equipment used in or near the water will be pressure washed prior to use. The contractor will be made aware of New Zealand mudsnail, and NDOT will provide them a protocol to reduce risk of spreading. • Fueling areas will be at least 100 feet from the river. • Implementing best management practices, such as silt fences or erosion-control products as noted above under Water Quality, will minimize impacts due to sedimentation, hazardous material spills, or short-term habitat loss during construction. • Best management practices will be implemented to prevent debris or contamination from the bridge deck work. • Water quality turbidity samples will be collected daily during the construction period upstream and downstream of the work area. Work will be suspended if a downriver sample exceeds 10 nephelometric turbidity units above the upriver sample. • All other measures discussed in Section 2.2, Regulatory Requirements and Best Management Practices, of the Biological Assessment will be implemented (see Appendix D.10 of the Final EIS). • If other agencies identify measures in plans they approve (e.g., Truckee River diversion plan) or permits (Sections 404 and 401 of the Clean Water Act and Section 408 of the Rivers and Harbors Act of 1899), NDOT will implement them before or during construction.
<p>Hazardous Materials (Section 3.10 of the Final EIS)</p>	
<p>Hazardous Materials</p>	<ul style="list-style-type: none"> • NDOT will survey all structures that will be disturbed or demolished to determine the presence of regulated materials, including universal wastes, asbestos-containing material, and heavy metals. NDOT will remove, manage, and dispose all regulated materials in accordance with applicable regulations, as needed. • If NDOT determines that the project will disturb soil containing naturally occurring asbestos and erionite, it will develop best management practices, standard operating procedures, and additional measures that will be included in the project specifications to minimize the exposure to these minerals during earth-moving activities and disposal. • Prior to acquiring properties with known contamination, NDOT may conduct additional levels of assessment to determine if further action is needed to evaluate impacts to the property’s value and/or proposed construction. Any further assessment and remedial actions will be subject to the approval of the appropriate regulatory agencies, NDOT, and FHWA, as relevant. • Special provisions to address predictable contingencies will be included in the construction plans.

Table 5. Mitigation Measures and Environmental Commitments

Resource	Mitigation and Environmental Commitments
Cultural Resources (Section 3.11 of the Final EIS)	
Cultural Resources	Mitigation is required when a project directly or indirectly adversely affects historic properties. Appropriate mitigation measures to address the adverse effects of the project on Mineral Manor Historic District and Coney Island Bar are stipulated in a Memorandum of Agreement between FHWA, the State Historic Preservation Officer, and NDOT. The Reno-Sparks Indian Colony, the Washoe Tribe of Nevada and California, and the Pyramid Lake Paiute Tribe were consulted during the development of the Memorandum of Agreement and were offered the opportunity to participate in it. Impacts to Mineral Manor Historic District and Coney Island Bar will be effectively mitigated by providing high-quality digital photographs of each historic property, preparing historical documentation that details the historical context and significance of each property, and providing a printed publication to local societies and libraries that educates the public on each of the cultural resources.
Indirect Effects and Cumulative Impacts (Section 3.12 of the Final EIS)	
Affordable Housing	<ul style="list-style-type: none"> • The Uniform Act is the cornerstone of NDOT’s plan to mitigate the impacts of residential displacements. All affordable housing mitigation measures are listed above under Environmental Justice (Section 3.4 of the Final EIS). • NDOT will develop a more detailed relocation plan closer to when the displacements will occur. • Regardless of the timing of the displacements and the circumstances of those who are displaced, the Uniform Act will guide NDOT’s mitigation. At each stage of construction, NDOT will closely monitor the housing market and may take additional steps beyond those required by the Uniform Act to help ensure displaced residents are adequately supported.
Construction Impacts Lahontan Cutthroat Trout	NDOT will implement the measures the U.S. Fish and Wildlife Service identified in its September 2018 Biological Opinion for the Lahontan cutthroat trout. All mitigation measures are listed above under Vegetation, Wildlife, and Fish (Section 3.9 of the Final EIS).

Monitoring or Enforcement Program

FHWA and NDOT are ultimately responsible for monitoring and enforcing mitigation measures and commitments, as well as regulatory permit conditions made or obtained by the project. Table 6 provides a list of expected permits. Mitigation measures identified in the ROD and Final EIS will be implemented and administered through multiple construction contracts developed for multiple projects within this area.

All of the mitigation measures identified in the ROD and Final EIS will be incorporated into the contracts, plans, and specifications as applicable and will be monitored according to applicable construction/post-construction monitoring plans. Ensuring mitigation measures are included in the contracts, plans, and specifications is the responsibility of FHWA and NDOT. No FHWA or NDOT approval or permission to proceed

with construction shall be granted until all practicable efforts have been made to implement the required applicable mitigation measures.

If the design or scope of the project changes during the final design or construction phases (for example, if the construction footprint extends outside the area analyzed in the Final EIS), NDOT and FHWA will conduct a reevaluation. The reevaluation will determine, through a review of current information and the information in the Final EIS, whether the Final EIS and this ROD remain valid or whether the preparation of a new National Environmental Policy Act document is necessary to advance the project to the next stage (23 CFR § 771.129[c]).

Table 6. Anticipated Permits and Approvals

Regulatory Program or Proposed Action	Applicability	Agency
Federal		
Section 404 of the Clean Water Act	Authorization is required for discharge of dredged or fill materials into waters of the United States, including wetlands and streams, in conjunction with this project.	Corps of Engineers
Section 408 of the Rivers and Harbors Act of 1899	Authorization is required because the Truckee River is considered a Corps of Engineers flood work.	Corps of Engineers
Biological Opinion and Section 7 Endangered Species Consultation	Develop and coordinate the appropriate mitigation measures for any federally listed species.	US Fish and Wildlife Service
Executive Order 12898 on Environmental Justice	Determination on whether the project would have a disproportionately high or adverse effect on low-income or minority populations.	Federal Highway Administration
Section 106 of the National Historic Preservation Act	Consultation with the State Historic Preservation Officer and appropriate tribal historic preservation officers to consider potential effects and mitigation measures related to historic properties and Traditional Cultural Properties.	Federal Highway Administration
Section 4(f) of the U.S. Department of Transportation Act	For parks and historic resources that will be affected, FHWA must find that there is no feasible or practicable alternative to their use and that all measures to minimize harm will be implemented.	Federal Highway Administration
Land and Water Conservation Act	Coordination is required for conversion of lands that were acquired or developed with Land and Water Conservation Act funds.	U.S. Department of the Interior, National Park Service
Clean Air Act National Ambient Air Quality Standards	No permit or approval is needed, but NDOT will assess impacts to air quality in coordination with Washoe County Air Quality Management Division, FHWA, and U.S. Environmental Protection Agency as required under the Clean Air Act.	U.S. Environmental Protection Agency
State		
Section 401 Water Quality Certification Permit	Any discharge from the project will comply with applicable regulations.	Nevada Division of Environmental Protection
Section 402 National Pollutant Discharge Elimination System Construction Permit	Authorization is required for the discharge of materials to surface water bodies as part of the project.	Nevada Division of Environmental Protection
Nevada Administrative Code 445A.228 for discharges to waters and groundwaters of the State	The construction techniques to be used will determine whether permits will be needed to discharge to water or groundwater of the State. It is likely that a <i>de minimis</i> discharge permit will be needed. A working-in-water permit will be needed for phase 4 when the pier in the Truckee River is removed.	Nevada Division of Environmental Protection; Bureau of Water Pollution Control
Local		
Dust-Control Permit	Required for any new construction which will disturb an area 1 acre or greater.	Washoe County Health District—Air Quality Management Division

Comments on Draft Environmental Impact Statement

The Draft EIS was made available for agency and public review beginning on November 8, 2018. The Notice of Availability was published in the *Federal Register* on November 16, 2018, and the comment period closed on January 15, 2019. NDOT and FHWA held a public hearing on December 12, 2018, at the Reno-Sparks Convention Center. Chapter 4 and Appendix E of the Final EIS provide detailed information on the public involvement and agency coordination process. Appendix G of the Final EIS contains comments from agencies and the public on the Draft EIS, and responses to the agency comments. Public comments are responded to in Chapter 4.

Limitations on Claims

FHWA will publish a notice in the *Federal Register*, pursuant to 23 U.S.C. §139(1), stating that one or more federal agencies have taken final action on permits, licenses, or approvals for this transportation project. After the notice is published, claims seeking judicial review of those federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action is allowed. The date that the notice appears in the *Federal Register* will begin the 150-day statute of limitations.

Conclusion

In combining the Final EIS and ROD to meet the provisions of 23 U.S.C. §139(n)(2) on expediting project delivery, FHWA has considered the facts and circumstances relevant to the EIS process. FHWA has determined that (1) the Final EIS does not make substantial changes to the proposed action that are relevant to environmental or safety concerns; and (2) there are no significant new circumstances or information relevant to environmental concerns and that bear on the proposed action or the impacts of the proposed action.

Based on the analysis and evaluation documented in the EIS, and after careful consideration of all social, economic, and environmental factors, including comments received on the EIS, it is FHWA's decision to adopt the Selected Alternative (Alternative 2) described in the single Final EIS/ROD as the proposed action for the project.

7/30/19
Date of Approval


Susan E. Klekar
Nevada Division Administrator, Federal Highway Administration

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Acronyms and Abbreviations

CFR	Code of Federal Regulations
DBE	disadvantaged business enterprise
EIS	Environmental Impact Statement
FHWA	Federal Highway Administration
I-	Interstate
NDOT	Nevada Department of Transportation
ROD	Record of Decision
RSIC	Reno-Sparks Indian Colony
RTC	Regional Transportation Commission of Washoe County
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended
US 395	U.S. Highway 395
U.S.C.	United States Code