FY2022 RAISE GRANT APPLICATION

ELY DOWNTOWN INFRASTRUCTURE AND COMPLETE STREETS

APRIL 14, 2022

NEVADA DOT
SAFE AND CONNECTED

Cover Page

PROJECT INFORMATION	
Project Name	Ely Downtown Infrastructure and Complete Streets
Project Description	The project will fund design, environmental clearance, right-of-way acquisition, and construction to reconstruct US-50 West Aultman Street from 1st Street to Bell Avenue and US-93 East Aultman Street from East 10th Street to East 15th Street in downtown Ely, Nevada. Improvements on the west segment include expansion of a stormwater culvert to prevent flooding, replacement of aging water and sewer lines, reconstruction of an aging highway, and Complete Street elements for safety and pedestrian and bicycle use. The east segment includes reconstruction of an aging highway and curb ramps compliant with the Americans with Disabilities Act.
Urban/Rural	Rural
Urbanized Area	N/A
Capital or Planning	Capital
Amount Requested	$24,009,830
Project Location County	White Pine County
Additional Project Counties	N/A
Project Location Census Tract	9703
Other Project Census Tracts	9702
Project Located in an Area of Persistent Poverty?	No
Project Located in a Historically Disadvantaged Community?	No
Project Location Zip Code	89301
Project Location Latitude	39.2526
Project Location Longitude	-114.87835
Project Located in a Federally-Designated Community Zone?	No
Project Type	Bicycle and Pedestrian - Complete Streets
US DOT FY22 Discretionary Application?	No
Other Federal Agency Assistance?	No
Total Project Cost	42,159,830
Total Federal Funding	24,009,830
Total Non-Federal Funding	18,150,000
Tribal Government?	No
Tribal Benefits?	No
Private Corporation Involvement	No
Private Corporation Name(s)	N/A
TIFIA/RRIF?	No
Department Financing Program?	No

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1.0 Project Description

The Nevada Department of Transportation (NDOT) is pursuing a U.S. Department of Transportation (USDOT) Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant to help fund final design, environmental clearance, and construction to reconstruct two segments of Aultman Street in rural downtown Ely, Nevada. Specifically, NDOT and the City of Ely are reconstructing deteriorated highways; upgrading the drainage, sewer, and water facilities; and implementing a Complete Street.

This project continues the improvements made in Phase 1 of the Ely downtown reconstruction project, which was completed in 2021 and addressed road and drainage issues on US-50/93 East Aultman Street from Bell Avenue to East 10th Street. Phase 2 of the project will reconstruct and implement a Complete Street on US-50 West Aultman Street from 1st Street to Bell Avenue and address aging roadway infrastructure and drainage issues on that segment and on US-93 East Aultman Street between East 10th Street and East 15th Street.

Figure 1. Ely Downtown Infrastructure and Complete Streets Project Completes Phase 1 Improvements

Previously Completed Components

Phase 1 of the reconstruction project was completed in 2021 with the following improvements on US-50/93 East Aultman Street from Bell Avenue to East 10th Street and on Great Basin Boulevard from Aultman Street to US 6:

- Approximately 2,300 feet of new concrete drainage pipe and open drainage channel to increase flood drainage facilities capacity.
- Highway pavement rehabilitation/reconstruction.

- Reconfiguration of the East Aultman Street/ Great Basin Boulevard intersection to allow dual left turn lanes from Aultman Street to Great Basin Boulevard.
- Improved sidewalks and pedestrian accessibility.
- Enhanced lighting.

Phase 2 – RAISE Grant Project

RAISE grant funds will be used to complete the design and construction of the downtown Ely roadway rehabilitation, drainage upgrade, and Complete Streets project. The design for Phase 2 of the project that would be funded by the RAISE funds is 60% complete. The project has broad public support as demonstrated by the 36 letters of support received to date.

Ely has historically experienced flooding and safety challenges due to its geographical location in a valley adjacent to three mountain ranges and two converging floodplains. The traffic on the US-50 and US-93 highways through Ely is disruptive to the small downtown environment, middle school, and Courthouse Park, also known as Veterans Park. The highway infrastructure is aged and deficient.

The specific challenges and the ways in which the project will address such challenges are described in Table 1.

Storm drainage and water and sewer facilities will be upgraded to match those completed in Phase 1.

Table 1. Transportation Challenges and How the Project Will Address Them

CHALLENGES	HOW PHASE 2 ADDRESSES
Deficient and narrow sidewalks	Replacement and widening of sidewalks
Aging highway infrastructure	Roadway reconstruction and roadbed modification
Difficult and unsafe pedestrian crossings across US highways	Flashing beacon pedestrian crossings
Lack of ADA-compliant facilities	ADA-compliant curb ramps Replacement and widening of sidewalks
Deficient lighting for all modes, including pedestrians	Upgraded highway LED lighting and decorative Complete Street lighting
Recurring and damaging flooding resulting in road closures and property damage	Stormwater drainage capacity improvements
Unsafe conditions for bicycles	Dedicated bicycle lanes
Vehicular mobility and comfort	On-street parking

CHALLENGES	HOW PHASE 2 ADDRESSES
Increased traffic volumes and high numbers of truck traffic	Lane reconfiguration to two lanes with a two-way left turn lane from a standard four lane cross-section
Aging water and sewer system	New water and sewer facilities

Detailed Project Description

The challenges listed above will be addressed by a comprehensive rehabilitation strategy in Phase 2. Phase 2 will increase drainage capacity and reduce flooding, replace aging infrastructure, enhance safety for all modes of travel, revitalize business environment and promote economic growth, and provide a safe and aesthetically pleasing downtown for residents and visitors to shop, eat, and enjoy local entertainment.

Renderings of the rehabilitated highway with center turn lane for left turns in both directions, flashing pedestrian beacons at pedestrian crossings at the Hotel Nevada and White Pine Middle School, on-street parking, bicycle lane, and Complete Street amenities. Additional renderings are in Appendix B.

The project has two segments—one to the east of Phase 1 and one to the west of Phase 1. Each segment includes different sets of improvements.

West Segment. West segment improvements will include stormwater drainage improvements, a new bike lane, new lighting, improved pedestrian crossings, new road pavement, on-street parking, a two-way left turn lane, and flashing pedestrian beacons at West 5th Street in downtown and at West 9th Street, across from the school. A Complete Street design will be implemented consistent with NDOT's Complete Streets Policy. Complete street aesthetic elements will include the addition of three sentinel signs to welcome travelers to Ely, decorative LED lighting in context with the historic downtown, and new tree installations. This Complete Streets segment will connect to the already completed bike lanes on Aultman Street and Great Basin Boulevard reconstructed during Phase 1.

East Segment. This segment will include roadway resurfacing and new street/highway lighting on US-93 East Aultman Street from East 10th Street to East 15th Street. Flashing

pedestrian beacons will be installed at East 11th Street and East 13th Street. Modern highway LED lighting will be installed from East 11th Street to East 15th Street.

Both the east and west segments will have multiduct conduit for future fiberoptic lines connecting to the installation completed during Phase 1.

Drainage-Specific Concerns and Context

Ely is surrounded by three prominent mountain ranges: White Pine, Egan, and Schell Creek ranges, and is in the Steptoe Valley making is particularly susceptible to flooding. Two prominent creeks flow through the city—Gleason Creek flows from the west, primarily paralleling Aultman Street, and Murry Creek flows from the southwest. Storm drainage from these creeks is collected in the Aultman Street drainage facilities.

A hydraulic analysis indicates the conveyance capacity of the Aultman Street drainage system is less than a 10-year storm event. The flat slopes through the lower reach of the system severely limit the capacity of the entire US-50 Aultman Street. Drainage Facility. Phase 2 will increase stormwater drainage capacity along Aultman Street. The capacity will be increased to handle a 30-year storm event. (NDOT, 2012).

A fly-though video rendering of the project is available at this link:
https://www.dot.nv.gov/projects-programs/statewide-planning/-fsiteid-1#!/

The project website is here:
https://www.dot.nv.gov/projects-programs/road-projects/ely-roadway-rehabilitation-project

Figure 2. Three US Highways Converge in Ely

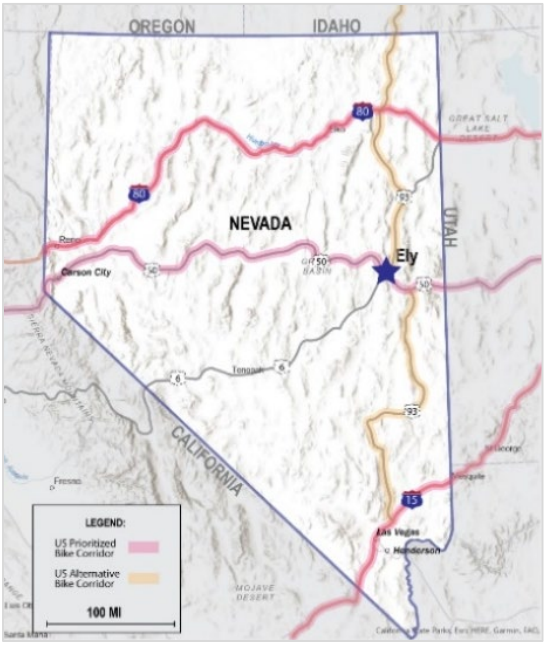


Figure 3. Ely is a Gateway to Regional Recreational Facilities

A detailed statement of work is in Appendix B. 60% design drawings are available upon request.

2.0 Project Location

Ely, Nevada, is a small rural city in East Central Nevada at a junction of three US highways: US-6, US-50, and US-93 that serve all of central rural Nevada. Aultman Street carries both US-50 and US-93 travel modes, meaning that freight, and passenger vehicles, and bicycle trips on both highways pass through downtown Ely.

Ely is also the crossroads of two major statewide prioritized bike corridors that run along US-6/US-50 and US-93.

Geographical Context

Ely is the County seat of White Pine County. It is in a remote area of Nevada—300 miles from Reno, 240 miles from Las Vegas, and 240 miles from Salt Lake City. For the small towns in the area, including Ruth, McGill, Baker, and Lund, it provides important amenities, such as a hospital, courthouse, sheriff's department, and other human services and emergency resources. It also serves as the gateway to many regional attractions and recreational amenities:

- Great Basin National Park (63 miles)
- Cave Lake State Park (14 miles)
- Ward Charcoal Ovens State Historic Park (16 miles)
- Nevada Northern Railroad Museum

Ely is also home to cultural and historical assets, including the still functioning historic Northern Nevada Railroad. It has significant historic value and is a state asset in terms of transportation and regional mobility.

Community Context

Ely is not categorized as an Area of Persistent Poverty, is not located in a historically disadvantaged community, and is not considered to be in any of the four federally designated community development zones. (HUD, 2022) (USDOT, 2022a and 2022b) (The Opportunity Zones Database, 2022). However, it is a small community with a population of almost 4,000, which is 43% of the population in rural White Pine County. Of the total population, 21% speak English less than very well according to the U.S Census.; and

Figure 4. Underserved Populations in Ely That Will Benefit from the Project

9.7% of the population in Ely speak a language other than English at home (limited English proficiency populations). (U.S. Census Bureau, 2022)

The median household income of Ely is $60,927, 6% lower than the national median income which is $64,994. 13.1% of Ely's population is below poverty level, which is slightly higher than both the state and national average. 14.9% of the population of Ely are disabled, which is nearly 2.5% higher than the state's disabled population. (U.S. Census Bureau, 2022)

3.0 Grant Funds, Sources and Uses of Project Funds

NDOT is requesting $24.0 million in RAISE program funds for the $42.2 million rural transportation project in Ely. This request is 57% of the total project cost. The 43% match will come from a combination of State (NDOT) and local (City of Ely) funds. Appendix C contains a letter from the City of Ely stating its commitment to the funding match.

Fund Sources

Table 2. Project Funds Sources (Dollars)

SOURCES	FEDERAL	STATE	LOCAL	TOTAL	PERCENTAGE
State Funds		$15,000,000			36%
City of Ely			$3,150,000		7%
Proposed RAISE	$24,009,830				57%
TOTAL				$42,159,830	100%

Fund Uses

Table 3. Project Funds Uses (Dollars)

PROJECT USES	AMOUNT	PERCENTAGE
NDOT Design	$430,000	1.0%
City of Ely Design	$200,000	0.5%
NEPA	$145,000	0.3%
Right-of-Way Acquisition	$162,500	0.4%
Preliminary Engineering Subtotal	**$937,500**	**2.2%**
Roadway	$6,699,812	15.9%
Drainage	$10,052,736	23.8%
Pedestrian Facilities	$2,800,604	6.6%
Signs and Striping	$838,647	2.0%
Lighting Signals and ITS	$4,561,559	10.8%
Landscaping	$1,918,697	4.6%
City Water	$2,750,080	6.5%

PROJECT USES	AMOUNT	PERCENTAGE
City Sewer	$1,828,819	4.3%
Traffic Control	$810,000	1.9%
Construction Engineering	$5,376,826	12.8%
Contingencies	$3,584,550	8.5%
Construction Total	$41,222,330	97.8%
Project Total	**$42,159,830**	**100.0%**

4.0 Selection Criteria

Safety

The project will protect motorized and non-motorized travelers from health and safety risks by emphasizing safety improvements and Complete Streets improvements for cars, trucks, bicycles, and pedestrians. The following improvements will reduce the number of crashes, fatalities, and injuries, resulting in improved safety and operations of Aultman Street:

- Lane Reduction With a Center Lane Two-Way Left-Turn Lane (TWLTL)
- Flashing Pedestrian Beacons
- ADA-Compliant Sidewalks
- Dedicated Bike Lane
- Improved Lighting
- Pavement Resurfacing

Need to Reduce Crashes

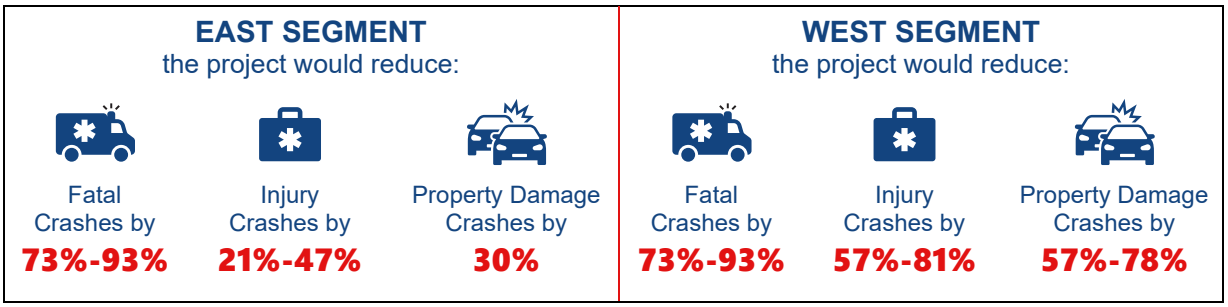
"Our Fire Department is the primary First Responders for our over 8,800 square mile County and we respond to approximately 1,400 calls per year. About 100 of these calls are for crashes each year on the highways. Our Department is most excited about the safety improvements that will be achieved to help protect everyone from motorists, cyclists, and pedestrians."

- April Bath, City of Ely Volunteer Fire Department

Within the project area, there were 15 crashes in a 10-year period (from 2010 to 2020) on US-50 and US-93. Two of these were fatal crashes, and two crashes resulted in injury. Based on the FHWA Crash Modification Clearinghouse (CMF) database method for combining CMFs for projects with multiple safety measures, on the East Segment, from 10th Street to 15th Street, the project is anticipated to reduce fatal crashes by 73-93%, injury crashes by 21-47% and property damage crashes by about 30% due to the lane reduction, bike lane, lighting, and pavement resurfacing improvements. On the West Segment, from 1st Street to Bell Avenue, the project is expected to reduce fatal crashes by 73-93%, injury crashes by 57-81% and property damage crashes by 57-78% because of lighting and pavement resurfacing improvements. (FHWA, 2022)

Over the 20-year period of operation, the project is expected to prevent approximately 5 fatalities, 2 injuries, and 58 damaged vehicles.

Figure 5. Safety Outcomes of the Project



In Support of the National Roadway Safety Strategy. The downtown reconstruction project follows the guidelines of the National Roadway Safety Strategy, including addressing improvements to safety operations on rural roads, incorporating lighting into Complete Streets implementation, and reducing the number of lanes. (USDOT, 2022c).

Safety and Traffic

Traffic volumes on the three converging highways in Ely have notably increased in recent years. The Average Daily Traffic (ADT) on the West Segment in Ely increased by over 16% from 2001 to 2010 and by 34% on the East Segment in Ely (Orth-Rodgers & Associates, 2011). Heavy trucks make up 12.8% of the 9,000 to 12,000 daily vehicles on US-50 and US-93 in Ely (NDOT, 2022). These volumes create unsafe conditions for pedestrians and bicyclists and contribute to back-ups through downtown.

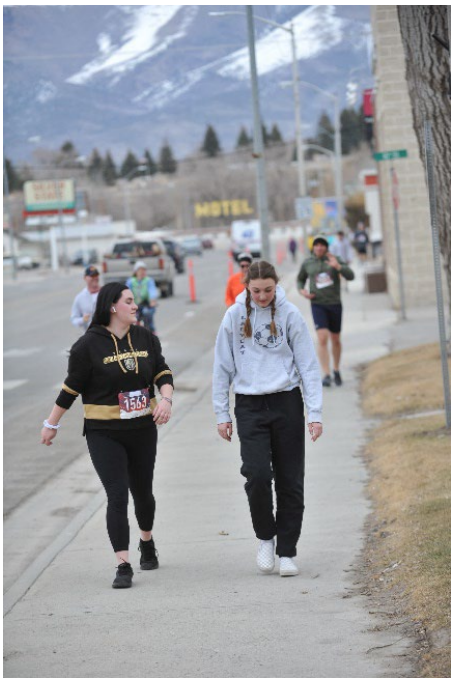
Lane Reduction and TWLTL

US-50 through downtown will be reconfigured to two lanes of opposing traffic with a center two-way left-turn lane (TWLTL) that allows traffic from either direction to make left turns off US-50. Lane reductions have been shown to reduce crashes on U.S. and State routes in small urban areas by 47% (FHWA, 2011).

Improved Bike and Pedestrian Safety

Improved safety for all modes. Currently, bicyclists and pedestrians have few safe crossing routes, drivers have little aid in awareness and visibility of pedestrians (common causes for pedestrian-vehicular conflicts), and there is insufficient lighting making nighttime operations particularly dangerous and uncomfortable.

A Complete Streets design will accommodate the increased traffic volume, alleviate modal conflicts, and increase safety at intersections and pedestrian crossings. It will create an environment where motorists (including truck drivers) can expect to see pedestrians and bicyclists, resulting in increased driver awareness and pedestrian comfort.



Pedestrians walking along a narrow sidewalk adjacent to US-50 West Aultman on an event day.

Safer crossings. A pedestrian crash fatality occurred in 2012 at West 8th Street. Flashing pedestrian beacons have been proven to increase bike and pedestrian safety and reduce crashes by increasing driver awareness of pedestrians (NACTO, 2011). Installing flashing pedestrian beacons at key locations will significantly reduce the risk of crashes and increase comfort of pedestrians. A flashing pedestrian beacons at the crossing on West 9th Street across from the White Pine Middle School will provide a safer route for the students who walk and bike to school and improve safety for anyone crossing the highway from Courthouse Park. A flashing pedestrian beacon placed across from Hotel Nevada on 5th Street will enhance perceived safety and increase mobility at a key community hub and visitor destination. Additional flashing pedestrian beacons will be installed on the East Segment at 10th and 15th Streets.

Improved lighting. In 2016, one fatal crash occurred at 12th Street; the reported lighting condition was dark with spot lighting. One recorded injury crash occurred in dark nighttime conditions with spot lighting in the project's East Segment. The installation of LED lighting will directly reduce the number of crashes associated with a lack of lighting. The USDOT states that visibility is a major issue for people biking and walking and that 75% of all fatal pedestrian crashes occur in the dark (USDOT, 2022c).

Figure 6. Flashing Pedestrian Beacons Installed Near Prior Crash Locations

Environmental Sustainability

Promotes Active Transportation and Modal Shift

The project promotes active transportation by creating a safer and more appealing environment for people to ride their bikes and walk downtown instead of taking their cars for downtown trips. The current layout of downtown Ely has narrow and deficient sidewalks, challenging pedestrian crossings, unsafe lighting, and unsafe biking conditions – everything that would deter residents and visitors from moving around Ely as a pedestrian or bicyclist. The Complete Street design from 1st Street to Bell Avenue will add a bike lane that will connect to the already completed bike routes. Decorative LED lighting will enhance the aesthetic character of the historic downtown.

These changes will support community members and visitors in making more active transportation choices around the downtown area and provide more equitable options by upgrading the current sidewalk system to comply with ADA.

Pedestrians and bicyclists using Courthouse Park, a highly used recreational facility running parallel to US 50-West Aultman, will benefit from Complete Street amenities.

Improves Disaster Preparedness and Infrastructure Resiliency

Ely is located at the edge of the Steptoe Valley at 6,420 feet above sea level, right at the base of the Egan Mountain Range. The primary sources of flooding in Ely are Gleason Creek and Murry Creek, which run underground in downtown Ely through an aging and undersized culvert. The total drainage of the area above the Gleason Creek and Murry Creek confluence in Ely is approximately 88 square miles. A 1983 Flood Insurance Study documented the amount of constant flooding that faced Ely up until that point. Damaging cloudburst floods

Figure 7. Floodwaters of Gleason Creek and Murray Creek Flow to Buried, Undersized Culverts in Downtown Ely

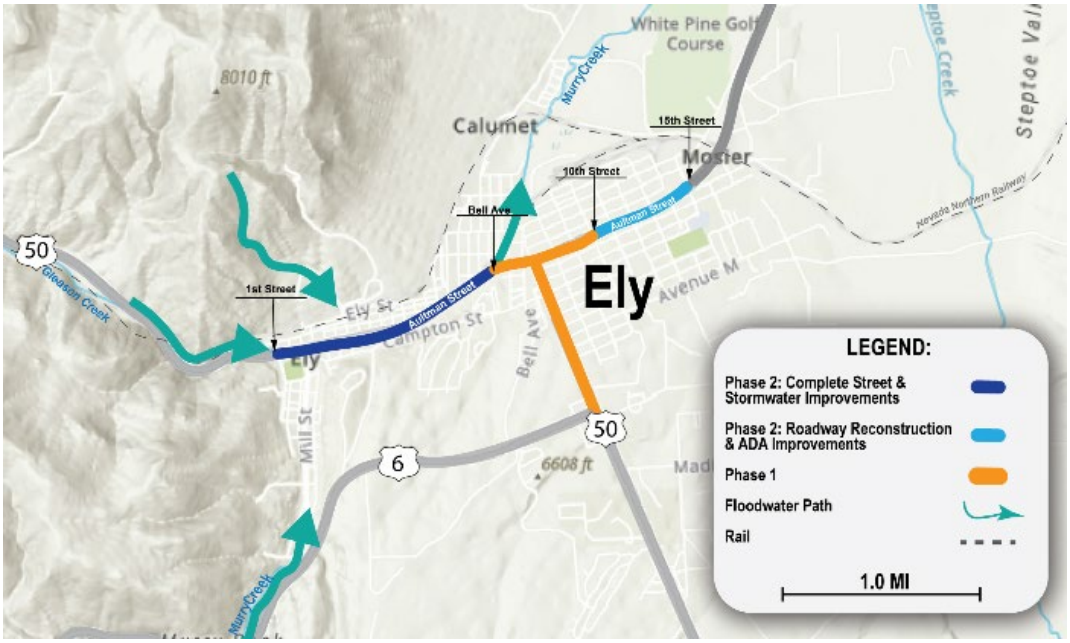


Figure 8. The West Segment is Located Entirely within the Floodplain

are known to have occurred in 1901, 1904, 1906, 1913, 1922, 1936, 1945, 1965, 1968, and 1970. Damaging snowmelt floods are known to have occurred in 1910, 1911, 1922, 1935, 1944, 1945, 1956, and 1969. There is no recent data available, but it can be assumed that the major flooding events have continued to happen with similar consistency, if not more, with the effects of climate change in the region.

The project will replace the existing stormwater culvert with a larger one to increase stormwater drainage capacity, minimizing the risk for flooding that disproportionately affects low- to moderate-income residents and small businesses.

The project will upgrade underground water and sewer infrastructure, replacing aging water and sewer lines, increasing the water and sewer system resiliency.

Additionally, the Tree Board has been actively involved to identify design characteristics of tree species and how to integrate them into the downtown Complete Street design. The trees were chosen specifically to enhance community efforts in environmental sustainability through the well-documented ability of trees to reduce pollution and promote energy efficiency.

Avoids Adverse Environmental Impacts

State of Nevada funds were used for Phase 1 of the project so there was no requirement to complete any National Environmental Protection Act (NEPA) documentation. Through NDOT's due diligence in the planning of Phase 1, a cultural resources survey was conducted that resulted in a finding of No Historic Properties Affected.

Based on the environmental reviews done for Phase 1, it is not anticipated that Phase 2 will have significant environmental impacts and is being cleared as a Categorical Exclusion. The project will be completed within NDOT right-of-way, and it will not affect any nearby waterways.

Quality of Life

Ely residents take a tremendous amount of pride in Ely's wild west mining roots that began in 1878 when a gold mining camp was set up by J.W. Long. The people who choose to call Ely home are industrious with an adventurous spirit, taking advantage of endless outdoor opportunities.

In the 2020 U.S. Census, the median household incomes for Ely ($60,927) and White Pine County ($57,353) were lower than the United States average ($67,521). Many long-time residents in the area have struggled, and the once-thriving downtown continues to struggle to keep businesses in their brick-and-mortar storefronts. Ely is an isolated community, more than

240 miles to the closest urban center. This remoteness makes it critical for the community to be self-sustaining.

This project will improve residents' quality of life in several ways, as evidenced by the high level of participation at the three public meetings and support indicated in the Letters of Support in Appendix D.

Lowers Homeowner and Business Insurance Rates

Typically, low- and medium-income families live in the area affected by the constant flooding. This means they see lower property values and issues related to the compromised infrastructure. Once the project is complete, the City of Ely can apply to the Federal Emergency Management Agency (FEMA) to take Central Ely out of the flood zone, which would lower insurance rates for homeowners and business owners in the area.

Eliminating the cost of flood insurance on homes and businesses will result in lower expenses allowing more money to be invested in the local economy.

Revitalizes Historic Downtown Ely

Dating back to the 1800s, Ely was a booming copper mining community. It even had a stop for the Pony Express that helped connect the nation in 1860. When the Kennecott Copper mine was shut down in 1978, Ely experienced a lot of economic struggles for its residents and downtown businesses.

> "I was raised in Ely when every commercial space in our downtown was filled. With significant sacrifice, both downtown businesses of my parents and husbands' family survived Kennecott Copper's 1978 shutdown of mining operations until 2008. Now every block in Ely's downtown has empty buildings."
>
> - Jennifer Lee, City Clerk and Ely Resident

The threat of significant flood damage in the project area and lack of multimodal friendly transportation infrastructure has driven businesses away from their traditional brick-and-mortar storefronts, leaving the downtown desolate and driving away residents.

This improvement project is hopeful to be a catalyst for development and economic activities to revitalize Ely. In fact, the project includes three gateway signs, Ely historical plaques, shade trees, and an attractive, welcoming design. This project will improve Ely's ability to retain residents and provide an environment that will attract businesses back to downtown, promoting local economic growth and stability.

The project will revitalize downtown with implementation of a Complete Street, retaining residents and attracting businesses.

Increases Travel Mode Choices

The Complete Streets amenities will support accessibility for all modes of travel within the community. A balanced transportation system will bolster accessible and safe connections between residences, schools, parks, public transportation, and retail destinations. The addition of the bike lanes provides a safe new modal option for downtown, increasing affordable and accessible transportation choices for the community. Bringing the sidewalks up to ADA compliance makes Ely a more inclusive community and removes barriers for disabled people to safely access downtown amenities.

Improves Safety and Access to Medical Services

As noted in greater detail in the Safety discussion, the project will increase safety for motorists, bicyclists, and pedestrians. The Complete Streets aspect of the project will improve safety by reducing crashes in the project area and provide a safer commute for school children accessing White Pine Middle School –which is within the project area and sits directly across US- 50 from a popular city park.

The William Bree Ririe Critical Access Hospital, located on the east end of Ely, is one of the most rural medical facilities in the lower 48 states. There is not another medical facility for

hundreds of miles in any direction of the facility. The project will improve safety conditions and result in a reduction in crashes and avoidable injuries, which will help alleviate stress on the hospital capacity.

Provides Fiberoptic Backbone for Future Connections

Broadband access is no longer considered a luxury but a necessity for any community to survive and thrive within the U.S. As a rural community, Ely does not yet benefit from the opportunities being connected to broadband service can provide. Residents have noted that it is difficult to run businesses without access to reliable broadband and faster internet speed, and there is a concern that it is affecting the economic viability of the community. People who have wanted to move to the area because of the access to recreational activities have been deterred because of the limited access to reliable broadband.

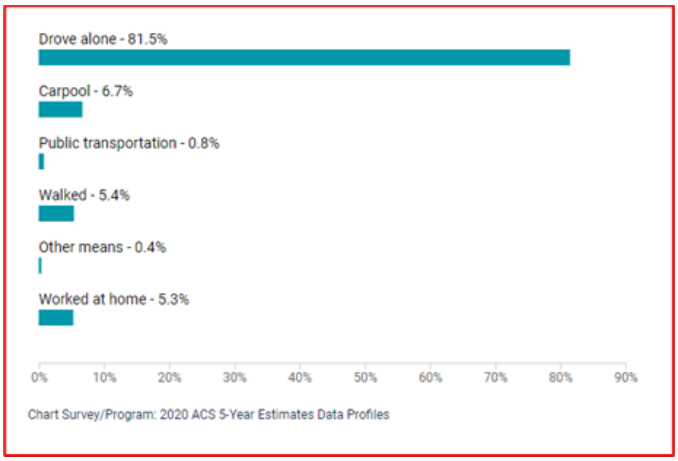
Installing conduit for future fiberoptic lines on both sides of Aultman Street will create opportunities for economic growth and innovation in the technology brought to Ely. It will provide a backbone that will facilitate future fiber share opportunities and bring reliable broadband to the community and underserved populations. This is essential in providing adequate broadband access for Ely residents and allowing local businesses to operate more efficiently and be more competitive in the market.

Broadband also supports NDOT's Transportation Management Center by providing reliable connections to closed-circuit television (CCTV) and variable message signs on the highway system. Information gained from the transportation management systems supports the Nevada State Police and emergency services so they can respond quicker to highway incidents.

Improves Mobility and Community Connectivity

Downtown Ely is at the crossroads of three US highways and two prioritized bike routes, and serves as a hub for surrounding communities to access important human and natural resources. This project will address several mobility factors related to the state's transportation infrastructure and local community needs and provide more equitable and robust multimodal transportation options.

Figure 9. Expanded Multimodal Options Decrease Residents' Dependence on Cars



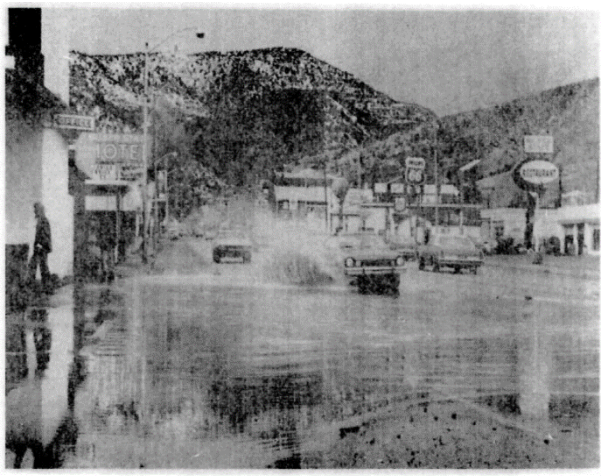
Currently, few people use modes other than motorized vehicles to get to work. The project is expected to improve almost 4,000 miles of travel by cyclists annually, more than 120,000 pedestrian trips, and improve over 100,000 school-related pedestrian crossings per year over the 20-year period of operation.

Increases Vehicular Mobility. There is need to accommodate the increased traffic volumes described in the Safety section related to overall traffic volumes and truck traffic volumes. Truck traffic consists of trucks transporting mineral concentrate 24-hours-a day, as well as general truck traffic transporting goods throughout the region.

US-50 and US-93 are freight routes that will be improved with the project.

The TWLTLs will improve vehicular mobility, as well as bicycle and pedestrian mobility. TWLTLs have been shown to improve truck free-flow and travel speeds over four-laned streets that prohibit easy vehicular flow, with speeds that can vary between lanes and vehicles that may have to stop to wait to make a turn (NCHRP, 2018). With a center turn lane, traffic can flow more freely because left-turning traffic is not stopped in a travel lane. The center turn lane also provides easier and safer pedestrian and bike mobility, as described in the Safety section.

Avoids Road Closures Due to Flooding. The stretch of Aultman Street through downtown is the only corridor connecting all three converging highways, and road closures caused by flooding create significant mobility impairment. There are two basins that flood the Ely downtown area. One basin floods the area with rainfall, the other floods with snowmelt.



Expanded storm drainage facilities will prevent flooding in downtown Ely.

The drainage improvements for the project are designed to avoid the "flood of record," a historical flood event in which the two basins drain into the Ely

downtown area simultaneously. A flood analysis was performed to determine the expected flood mitigation and expected annual damages avoided with the improved drainage system. Snow melt floods are estimated to occur every 30 years. They are often damaging and occur over several days, or until snowmelt is reduced. Cloud burst floods have an estimated reoccurrence of every 10 years and result in damaging floods carrying sediment and obstructive objects that block channels and conduits and cause damage (FEMA, 2010).

This project will alleviate flooding by replacing an undersized, aging culvert with a larger reinforced concrete box culvert (RCB). A preliminary water depth improvement assessment shows that RCB would eliminate the flood risk from Murry Creek and provide a 16-23% reduction of flood risk from Gleason Creek in a 1-in-100 year or .01% chance event (NDOT, n.d.).

Removes Barriers for Non-Motorized Travelers. Currently, US-50 and US-93 are barriers to both pedestrians and cyclists, who find it difficult and uncomfortable to cross the highways. The addition of bike lanes, ADA-compliant sidewalks, safer crossings, and wider sidewalks will encourage and enable people within the community to move around freely both with and without a car and help create a community where people can live, work and play more easily.

- **Bicyclists.** This project will enhance and expand the existing bike network. It will also add to and fulfill the requirements of the prioritized bike facilities included in the Nevada State Bike Plan, as well as the White Pine County Bike Plan. The project will fulfill all the following requirements pertinent to Ely listed in the Nevada State Bike Plan:
    - Installation of a bike lane within Ely, which is part of a 12-mile roadway segment from Ely to McGill designated as a U.S. Alternate Bike Corridor.
    - Necessary improvement to bike facilities to schools.
    - Establishment of bikeways and pedestrian paths in new construction and reconstruction projects in all urbanized areas.
    - "Design, construct, and maintain all sidewalks, shared use paths, street crossings, pedestrian signals, signs, street furniture, transit stops and facilities, and all connecting pathways so that all pedestrians, including people with disabilities, can travel safely and independently."

> 56% of participants stated that they do not believe that their community supports bicycling.
>
> - Nevada State Bike Plan

The new bike lanes on US-50 West Aultman Street will allow for safer and more desirable biking conditions for residents of Ely, as well as those visiting. Since the new

bike lanes will connect to the regional bike network and those completed on Great Basin Boulevard in Phase 1 of the project, this project offers increased connectivity as well as more mobility options within Ely and regionally.

- **Pedestrians:** Nearly 15% of Ely's population is disabled. The installation of ADA-compliant c will improve mobility within Ely for all users. ADA-compliant curb ramps and wider sidewalks are important equity assets for the community. For many people, including children, older people, and people with vision and mobility impairments, the sidewalk is an important and sometimes only means to connect to amenities. This project will improve neighborhood attractiveness, walkability, and mobility for people with disabilities and enable this population to move more freely and easily (NACTO, 2004).

The project will widen deficient sidewalks and provide ADA-compliant curb ramps, increasing accessibility for all pedestrians.

Economic Competitiveness and Opportunity

Historic Ely is a chance to take a step back in time, as it was founded as a stagecoach station on the Pony Express and Central Overland Route, and its mining boom came later than the other towns along US-50 with the discovery of copper in 1906. Ely is the eastern end of the portion of US-50 known as "The Loneliest Road in America."

Increases Tourism and Job Creation

Making a more attractive, functional, and welcoming downtown for visitors will enhance the community as a first-rate tourist destination. The cumulative effect of the roadway and Complete Street improvements will help stabilize and diversify the community, supporting the economy of the area and state. The lower-income residents in the project area will have increased job opportunities as Ely becomes a more attractive hub for tourists in the region.

Historic Railroad. Downtown Ely has a National Historic Landmark, the Nevada Northern Railroad, which allows riders to take a ride in an open-air car throughout the Egan Range mountain. It is one of the last operating steam locomotives of its kind. 30,000 people visit the museum every year and ride the six daily trains that go to a nearby copper mining community and a historic smelter.

Dark Sky. Great Basin National Park is one of only 113 Certified IDA International Dark Sky Parks in the World. The remoteness of the area, coupled with low humidity and high elevation create the perfect conditions for stargazing. "Half the Park is After Dark" is offered by the Park, which attracts visitors to observe some of the darkest nighttime skies in the whole country – more than 7,000 stars are visible to the naked eye.

Art District. The City of Ely has been investing in its downtown. Artists from all over the world have been commissioned to create images of the area's history. It has created an 11-block art walk with more than 20 murals and sculptures showcasing the town's history and cultural diversity. The project will further increase the attractiveness and revitalization of downtown Ely.

One of many art installations in downtown Ely.

Great Basin National Park. Ely is the gateway to the Great Basin National Park. Parks like Great Basin are becoming more appealing to travelers because of their remoteness, ease of entry, and general solitude they provide. The Great Basin National Park has dramatic elevation changes (5,000 to 13,000 feet) is home to the oldest trees in the world, and contains the ancient Lehman Cave system.

World-Class Events. Ely is home to some unique events that draw people from all over the world to participate. A revitalization of downtown will help Ely to capitalize and grow the economic revenue gained from the following events.

- Ely hosts the annual Nevada Open Road Challenge, where driving enthusiasts drive on 120 miles of closed two-lane public highway traversing through the desert.
- The annual Race the Rails challenge pits road cyclists against the historic steam engines with all proceeds going to the Great Basin Trails Alliance.

Dedicated bicycle lanes will protect bicyclists who participate in several events during the year.

- Fears, Tears, and Beers is the oldest endurance mountain bike race in the country and brings experienced racers from across the country to Ely every year
- The Ely Film Festival brings the embodiment of old west characters to film every March.
- Fire and Ice Winter Festival is three days of arts and athletics in "Nevada's Best Mountain Town."

U.S. 50 Designated Official U.S. Bicycle Route. US-50 is designated as Nevada's first Official U.S. Bicycle Route, expanding tourism in the region and providing long-term economic potential. The 2015 White Pine Bicycle Plan has a goal to increase bicycle tourism in the county. The project will support this increase in tourism from cyclists worldwide.

Revitalizes Business District

As the letter of support from the City's Building Department notes, as one of the most remote cities in the lower 48 states, Ely requires additional development, support, and opportunities to keep and attract residents to the area. With the recent trend of people leaving larger cities for smaller towns with more opportunities and a lower cost of living, now is the prime time to invest in Ely – where there are diversified interests and confidence in small business development. The project will revitalize the downtown area at this pivotal time.

Necessity to attract and retain employees

A revitalized downtown will increase the number of jobs available to lower-income residents and be a reason for people to remain in Ely and contribute to the local economy. 56% of participants stated that they do not believe that their community supports bicycling.

Improves Truck Route for Mining Industry

Ely has its roots in the mining industry, and that is still true today. Robinson Mine, located 10 miles outside of Ely, is the County's largest employer with 369 employees. Mining trucks transport the copper concentrate from the mine site through downtown Ely daily. . The two-way center left-turn lane will improve traffic flow and improve the efficiency and safety of these deliveries through downtown Ely.

Increases Economic Competitiveness as a Community Supporting a Growing Hemp Industry

There is an emerging market of the hemp industry in White Pine County that has the potential to have a positive economic impact for jobs and revenue for the County and Ely. A revitalized downtown area makes Ely an attractive option for the influx of workers to this new industry, contributing to the Ely's economic competitiveness in the region. In 2018, the Farm Bill was passed removing barriers to hemp farming and a 2.80- acre hemp farm is being built 60 miles north of Ely. Ely has largely been reliant on mining and resource management careers to support its economy; the new hemp industry has the potential to diversify jobs and bring new residents and workers to the area.

State of Good Repair

Addressing the state of good repair is an important aspect of this project. The project immediately improves the mobility and safety of all users and results in decreased long-term maintenance costs for NDOT.

This project will directly improve deficient stormwater drainage with a higher-capacity reinforced RBC. Currently, in flood years or high snow melt years, the water collected in the Gleason Creek and Murry Creek flood basins overwhelms the aged and under-capacity

stormwater infrastructure in Ely, and waters flood businesses and residences in downtown Ely. This becomes a higher concern when both of these creeks overflow at the same time. Damaging floods have occurred over 20 times since 1900. During highwater years, a closure of US-50 is a common occurrence.

Phase 2 will complete the stormwater capacity improvements completed in Phase 1, adding stormwater drainage through downtown Ely, greatly reducing the likelihood of street flooding in Ely.

Phase 2 will also replace the water and sewer lines under US-50 West Aultman Street. Currently, this aging infrastructure suffers frequent breaks requiring the City to dig up the road and make repairs to the water and sewer lines. New lines will reduce maintenance costs, delays caused by construction, and improve the City's water and sewer resiliency.

The project includes full-depth pavement rehabilitation on US-50 decrease the amount NDOT spends to maintain this stretch of highway. In 2017, the pavement condition of US-50 through Ely was rated with a Present Serviceability Index of Fair, meaning it displayed environmental stress with longitudinal, transverse, and rut fatigue cracks (NDOT, 2017). The quality of the pavement has deteriorated since 2017.

Sidewalks along US-50 and US-93 are deficient and aged.

Partnership and Collaboration

Community Engagement

A robust community engagement strategy was conducted starting in 2017 for the full project, which encompassed both Phase 1 and Phase 2 project elements. The project had widespread support from a diverse range of stakeholders and community groups. The project was implemented in two phases because of funding availability. Documentation of the public involvement activities is in Appendix E.

The project team held yearly meetings from 2017 to 2019 at the Bristol Cone Convention Center with community members and key stakeholders to discuss the intent of the project,

answer questions, and solicit opinions. The annual meetings were publicized through print and online newspapers, a mailing list for the area using a quarter-mile buffer of the project area, press releases to local, county, and state media outlets, and social media. Attendance at the meetings was high – on average, 50 to 80 people, approximately 2% of Ely's population.

For Phase 2, a concerted, meaningful effort is being made to inform and identify equity considerations of the more underserved parts of the Ely population, including the disabled community, lower-income populations, and LEP populations. Ongoing public outreach will be conducted during preparation of the Categorical Exclusion. Notices of the public meetings will be translated into Spanish and a translator will be provided at the public meetings. NDOT will continue to engage the communities affected by the project, informing them about construction plans, detours, and overall project progress.


mid-September.
More information can be found at www.elymarts.com.

at 5:00 pm with the northern California fiddling group "Senior Moments". The group includes Kathy Kaempschmidt, Al Meyers, Nicki Carlisle, Gail Kirk, Barry Breen, and Don Nichols.
Their performance will be followed by a hot fiddle contest. A fiddle jam session and twin fiddling exhibition will top off the night.

sions. These include age groups rangin from jr. - junior to sr. - senior.
Competition in the Nevada State Di sists, which includes juniors (up to ag 17) and adults (18 and up) will follow; it open to Nevada residents only. A gran champion contest open to all ages wi decide the best fiddler for 2022.
>See Fiddlers, Page 4

t teaming up

It could save your life!
When you're not wearing your seat belt, you're risking serious injury or death. Life is not like a TV show or a movie, there are no rewinding and no do-overs.
In real life, you don't get a second chance! This Click it or Ticket campaign is funded through the Department of Public Safety, Office of Traffic Safety.
"Click it or Ticket" is a national program sponsored by the National Highway Traffic Safety Administration (NHTSA). It is the country's most successful seat belt enforcement campaign ever.

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NEVADA DOT
TRANSPORTATION NOTICE
PUBLIC INFORMATION MEETING
FOR
ELY ROADWAY REHABILITATION PROJECT

PURPOSE OF MEETING: The Nevada Department of Transportation (NDOT), in cooperation with the City of Ely, invites you to attend a public information meeting to solicit input from the community for the Roadway Rehabilitation Project in Ely, NV. Project elements include roadway reconstruction, lane reconfiguration, drainage and utilities improvements, traffic signal improvements, lighting and aesthetics features, and pedestrian safety enhancements.

PROJECT BENEFITS: The purpose of the project is to improve roadway conditions throughout the project area, alleviate flooding during storm events, upgrade water and sewer facilities, and enable safe access for all roadway users.

WHEN AND WHERE: Thursday, June 1, 2017, 4 – 7 p.m. **PRESENTATION AT 5:30 p.m.**
Bristlecone Convention Center, 150 West 8th Street, Ely, NV 89301.

WHERE YOU COME IN: Members of the public are encouraged to attend at their convenience any time during the meeting hours of 4 to 7 p.m. Project representatives will be on hand to discuss and answer your questions. There will be a brief project presentation at 5:30 p.m., followed by a short question and answer period from the audience. Before and after the presentation, the meeting will be conducted as an open-house format to provide an opportunity to view displays and individually discuss the project with representatives. At the meeting, your comments may be submitted for public record in writing or verbally to a court reporter, who will be available throughout the meeting. In addition to any comments received at the meeting, written or email comments will be accepted through **Friday, June 16, 2017**. Please email your comments to: info@dot.nv.gov with a reference to this project in the subject line. You may also mail your comments using the contact information below.

CONTACT:
John Bradshaw, NDOT, Design Engineer, 1263 South Stewart Street, Carson City, NV 89712.
Phone: 775.888.7070 or email: jbradshaw@dot.nv.gov

SPECIAL ACCOMMODATION REQUESTS: Reasonable efforts will be made to assist and accommodate persons with disabilities desiring to attend the meeting. Requests for auxiliary aids or services to assist individuals with disabilities or limited English proficiency should be made with as much advance notice as possible to Julie Maxey, NDOT Public Hearings Officer at 775-888-7171 or email at jmaxey@dot.nv.gov

nevadadot.com

Public meetings have been well attended, indicating widespread support for the project.

Project Parties

NDOT will be the primary recipient of the award, responsible for administering and delivering the project. NDOT will engage consultants to design the project, and will engage a general contractor to build the project. NDOT will define a Phase 2 contract-specific goal for DBE participation. In Phase 1, the DBE percentage goal was 8.07%. Over the last five fiscal years, NDOT has awarded an average of 7% of their transportation program to DBE firms.

> "The Ely Downtown Project will provide an additional layer of protection for our members as they access Veterans Park [Courthouse Park], which is across the street from White Pine Middle School. The Ely Downtown Project will also provide a safer route for the students who walk and bike to school."
>
> - Wike Wurn; Boys & Girls Club

Right-of-Way Acquisition Plan

The small amount of right-of way needed for the project is for reconstructing sidewalks, curb ramps, and driveways, as the project is largely within the NDOT right-of-way. There is a need for approximately 35 temporary easements, and no relocations are needed. Therefore, there will be minimal to no impact to disrupt community cohesion.

Innovation

As a rural community, Ely will benefit from two innovative project elements. Once fiberoptic cable is in place, broadband service providers will be incentivized to come into the community to provide service. Fiberoptic cable broadens the accessibility of lower-income and LEP populations to educational and essential services. It also will attract businesses and visitors to the area. More detail about the benefits of broadband service is included in the Quality of Life section.

There are currently no pedestrian safety features in downtown Ely. Flashing pedestrian beacons will be installed as a critical safety feature for the community, increasing driver awareness of pedestrians, and allowing a safer passage for children to school and safer access to the local Courthouse Park, also known as Veterans Park.

5.0 Environmental Risk

Project Schedule

RAISE grant funds will be obligated by August 2024 when construction is planned to begin, well in advance of the June 30, 2026, statutory deadline. The project milestones are shown in Figure 10. There are no anticipated risks to cause delays. A detailed project schedule is included in Appendix B.

Figure 10. Project Schedule

2022			2023		2024			2025
FEB	MAR	MAY	JUL	SEPT-NOV	MAY	JUNE	AUG	OCTOBER
60% Design Complete	NEPA Start (Categorical Exclusion) Public Involvement	Right-of-of-Way Plan	90% Design NEPA Complete	Public Involvement	Right-of-of-Way Acquisition Complete Plans, Specifications, Estimates Approved	General Contractor Procurement	Begin Construction	Construction Complete

Required Approvals

Environmental Permits and Reviews

NEPA Status

NDOT, in coordination with FHWA, conducted an initial environmental screening that determined that a Categorical Exclusion would be the appropriate level of NEPA documentation for this project. NDOT and FHWA have a Programmatic Agreement that allows for expedited processing of Categorical Exclusions, considerably decreasing the

processing time required for approval. This will help ensure the project can meet the proposed schedule while still providing quality environmental documentation as approved by the NDOT Environment Services Division. Development of the Categorical Exclusion document is already underway.

Phase 1 of the project was completed with all state funds. Because there were no federal funds for the project, there was no need to complete any National Environmental Protection Agency (NEPA) processes or documentation. For Phase 2, NDOT and FHWA agreed that there would be no significant or cumulative impacts, and are documenting that in a Categorical Exclusion.

To complete Phase 2, the following are expected:

- 23 CFR 771 Environmental Impact and Related Procedures
- 23 CFR 772 Procedures for Abatement of Highway Traffic Noise and Construction Noise
- 40 CFR 93 National Ambient Air Quality Standards (NAAQS) will be reviewed unclassifiable/attainment.
- 23 CFR 650 Part B National and State water quality standards will be reviewed
- 33 CFR 323 Section 404 of the Clean Water Act 33 USC 1344 - Section 401 and 404 permit will be required
- Hazardous waste, materials and/or substances: Certification is based upon the contractor's adherence to applicable federal, state, and local laws, regulations, and ordinances.

There are historic properties requiring compliance with Section 106 of National Historic Preservation Act. Any finding of adverse effects and mitigation for those adverse effects will be done in consultation with the State Historic Preservation Office. Those mitigated adverse effects in all likelihood would not be considered significant.

Review, Approvals, and Permits by Other Agencies

Two environmental permits will be required for this project—a U.S. Army Corps of Engineers Nationwide Permit 14 and a Nevada Division of Environmental Protection Section 401 Water Quality Certification Permit from the Nevada Water Quality Division. Phase 2 is almost entirely located within NDOT right-of-way, and only minimal additional right-of-way or easements will be needed.

Environmental Studies and Other Documents

The Categorical Exclusion for this project is currently underway and will identify project impacts and possible mitigation for those impacts.

Discussions with FHWA

NDOT and the City of Ely coordinated with FHWA to determine the project's class of action as a Categorical Exclusion. Ongoing coordination is occurring during preparation of the Categorical Exclusion.

Right-of-Way Acquisition Plans

Right-of-way required for the project is primarily temporary easements. The plans are under development. The land value of the needed temporary easements is $5.00 per square foot. The total estimated right-of-way cost, inclusive of the land, appraisals, title and escrow, travel, and contingency, is $162,500.00.

Community Input

NDOT and the City of Ely have conducted extensive outreach and received community input for the overall project. Broad support for the project demonstrates full regional partnership and enthusiasm from community stakeholders across all sectors for multiple project benefits. Support includes enthusiasm to kick-start the economy in the area, creating a more equitable environment for low- to medium-income families in the area, and creating a space for expanding the access to outdoors. The passion from the residents and stakeholders is one of the strongest elements of the project.

Appendix D contains 36 letters of support for this project. They include letters from the City of Ely, White Pine County, the private sector, community organizations, medical services, and first responders. Letters in the Appendix include those from the Ely Tree Board, the Volunteer Fire Department, William Bree Ririe Hospital, and the Boys and Girls Club of Truckee Meadows. Letters are included from Ely residents and City staff.

State and Local Approvals

The project is included in NDOT's 2021 Annual Work Program. NDOT is amending the State Transportation Improvement Program (STIP) the spring of 2022 to include this project. No additional planning coordination or approvals are needed to initiate construction.

During the development of transportation planning and programming activities (i.e., Statewide Long Range Transportation Plan and STIP), NDOT routinely meets with non-metropolitan local officials and tribal government leaders to promote an open and collaborative planning process. As part of this process, NDOT meets with White Pine County twice a year, including a workshop in the fall, to identify county concerns and again in the spring to present the STIP, Annual Work Program, and Long-Range Plan elements to the County Commission.

Federal Transportation Requirements Affecting State and Local Planning

To move forward with construction, this project will need to be included in the STIP. NDOT will be amending the STIP in the spring of 2022 for FY 2023 based on anticipated funding.

Assessment of Project Risks and Mitigation Strategies

Potential risks to project implementation and mitigation strategies for those risks are shown in Table 4. Most of the identified risks are considered to be low risk.

Table 4. Risks and Mitigation Strategies

RISK	RISK LEVEL	MITIGATION STRATEGIES
Engineering feasibility	Low	No engineering issues were revealed in a 2018 Value Engineering report.
NEPA delay	Low	No issues are anticipated for the documented Categorical Exclusion
Receipt of permits	Low	No issues are anticipated
Right-of-way acquisition delays	Low	Very minimal right-of-way is needed; NDOT Right-of-Way Supervisory Agent is skilled at acquisitions.
Uncommitted local match	Low	The City of Ely has committed to the match; early coordination to develop an IGA will be conducted.
Added utility relocation cost	Medium	Increase contingencies/incidental construction amounts for utility breakouts
Flooding during construction	Low	Maintain existing drainage facilities as much as possible during construction

6.0 Benefit Cost Analysis

The cost effectiveness of the improvements described in this application were measured through a BCA to monetize, as thoroughly as possible with the data available, benefits generated under the merit criteria defined in the RAISE program and to compare them against the project's costs. The full BCA report is included in Appendix F.

Results of the Benefit-Cost Analysis

The results of the analysis show that the project generates monetizable benefits that do not exceed the project's costs when using a 7% discount rate, based on a benefit-cost ratio of 0.90. In other words, for each dollar spent in project costs, approximately $0.90 worth of benefits will be generated by the improvements when costs and benefits are discounted at 7% annually. However, when costs and benefits are discounted at using a 3% discount rate, the benefit-cost ratio is greater than 1.

Table 5: Key Results of the BCA

PROJECT EVALUATION METRIC	CONSTANT DOLLARS	DISCOUNTED AT 7%	DISCOUNTED AT 3%
Total Benefits (millions of 2020 $)	$78.3	$26.9	$47.9
Total Costs (millions of 2020 $)	$40.7	$29.9	$35.5
Net Present Value (millions of 2020 $)	$37.6	($3.0)	$12.3
Benefit-Cost Ratio	N/A	0.90	1.35
Internal Rate of Return (%)		5.9%	
Payback Period	N/A	N/A	20 Years

Note: The internal rate of return is the discount rate that makes the net present value (NPV) of all cash flows from the project equal to zero. The payback period represents the number of years it would take for the cumulative discounted benefits to become equal to the cumulative discounted costs.

The project will generate benefits that have not been monetized due to lack of guidance/methodology from the U.S. Department of Transportation (USDOT) or a lack of relevant data. The inclusion of these benefits will increase the overall benefit-cost ratio and likely create a net benefit to society from the project. These benefits are:

- **Economic Development Benefits:** The project improves local access and condition of transportation infrastructure in the historic downtown area. This will further enable and encourage local business investment and tourism in the area, and improve local and visitor user-experience.
- **Active Transportation (Journey Quality) Benefits:** The project accommodates more cycling trips along the National Bicycle Highway, and enhances local walking and cycling trips through the historic downtown area. Flashing pedestrian beacons will be installed at four key locations, including the Hotel Nevada, a key tourist attraction, and at the White Pine County Middle School. The enhanced active transportation infrastructure may contribute to the demand for leisure activities, school trips, and tourism.
- **Avoided Road Closures:** The project incorporates water and sewer infrastructure improvements for the entire corridor. The City of Ely will avoid periodic maintenance work on the aging system and the corresponding road closures for repair, which will consolidate the construction inconvenience and road closure impact on roadway users.

Table 6: Preliminary Benefit Estimates, Millions of 2020 Dollars

BENEFIT CATEGORIES	CONSTANT DOLLARS	DISCOUNTED AT 7%	DISCOUNTED AT 3%
Accident Reduction from Safety Measures	$59.73	$21.59	$37.59
Residual Value	$13.56	$2.50	$6.47
Operation & Maintenance Cost Savings	$2.78	$1.98	$2.38
Journey Quality Benefits	$1.45	$0.55	$0.93
Travel Time Savings	$0.53	$0.20	$0.34
Avoided Flood Damage Benefits	$0.22	$0.08	$0.14
Total Estimated Benefits*	**$78.3**	**$26.9**	**$47.9**

Total may not sum up due to rounding.

A 24-year period of analysis was used in the estimation of the project's benefits and costs. Based on the project schedule, preliminary engineering costs will be spent from February 2022 to March 2024, right of way dollars will be spent from March 2022 to March 2024, and construction costs are assumed to be incurred from July 2024 to October 2025. The analysis assumes 20 years of operation starting in 2026. Annual benefits are estimated through 2045.

The project's main benefit is crash cost savings associated with several safety measures. The project also produces some operation and maintenance cost savings, journey quality benefits to pedestrians and cyclists, travel time savings for pedestrians, and avoided flood damages. Additionally, the residual value of the assets at the end of the analysis period are included as a benefit from the project.

A flashing pedestrian beacon will be installed on adjacent to the White Pine Middle School so that school children can cross US-50 West Aultman safely to Courthouse Park.

If the project is not implemented, the current conditions are maintained. Sidewalks are not ADA-compliant, the drainage systems are not adequate for flooding events, there is no dedicated bike lane or left turning lane through downtown. Accidents are not mitigated, and the local use of active transportation modes will continue to be stilted for a lack of safe and accessible infrastructure. Businesses and residents in Ely will continue to deal with possible flooding, expensive insurance rates, and the inconvenience and fear of future detrimental flooding events. The pavement and other assets will continue to deteriorate, and it will become more costly to the local and state agencies to maintain and rehabilitate further in the future. The City of Ely will continue repairing the water and sewer system as pieces break, with continued periodic road closures and roadway repairs, causing delays and inconvenience to roadway users. This will overlap with the highway pavement rehabilitation that will eventually be required by NDOT based on the future expected priority level for this highway section, though the work may not be condensed with the City of Ely utility repairs, resulting in duplicated work and wasted materials.

The roadway reconstruction project will implement a Complete Streets design, address a drainage capacity issue, and update the water and sewer system for the entire US 50/US 93 corridor through downtown Ely. The project will also bring all sidewalks up to ADA compliance, upgrade street lighting, and resurface pavement along the corridor. Specifically, project improvements from West 1st Street to Bell Avenue will convert a four-lane undivided road to a two-lane roadway plus a two-way turning lane, install dedicated bike lanes and on-street parking, and widen sidewalks.