Nevada Department of Transportation

I-80 East Widening NEPA

Draft Visual Resources Technical Report

September 2024

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Introduction and Purpose

Project Overview

The Nevada Department of Transportation (NDOT) and the Federal Highway Administration (FHWA) are preparing an Environmental Assessment to evaluate alternatives to improve safety and reduce travel delay on Interstate 80 (I-80) between Vista Boulevard and USA Parkway (State Route 439). The study area is in the City of Sparks and unincorporated Washoe County and Storey County, Nevada (Figure 1). This 13-mile segment of I-80 between Vista Boulevard and USA Parkway is in a canyon adjacent to the Truckee River and Union Pacific Railroad (UPRR) tracks. The growth of the Tahoe-Reno Industrial Center (TRIC), the largest industrial park in the United States, along with the increase in single-occupancy vehicles from commuters traveling to and from the TRIC, has led to increased traffic along this segment of I-80.

The purpose of this report is to evaluate how this project would affect visual resources. It describes the existing visual environment; potential impacts to visual resources; and potential measures to best avoid, minimize, or mitigate adverse impacts of the project.

Figure 1. Project Location

Purpose and Need for the Project

The purpose of the project is to reduce travel delay, improve safety, and address freeway design deficiencies along I-80 between Vista Boulevard and USA Parkway.

The project is needed to reduce travel delays, accommodate traffic associated with past and planned growth in the region, and provide enhanced safety such as wider shoulders, truck parking, and wrong-way driver detection.

The need to improve this segment of I-80 is demonstrated by the following:

- Projected future travel delays caused by high traffic volumes from the proximity of the TRIC
- Crash rates are higher than in other urban and rural interstates in Nevada
- Importance of I-80 in the regional transportation system

Proposed Action and Alternatives

Build Alternative

The proposed action would construct an additional 12-foot travel lane in each direction, 12-foot outside shoulders, and 10-foot inside shoulders along I-80 between Vista Boulevard and USA Parkway. The proposed action would also reconfigure interchanges to increase the length of acceleration and deceleration lanes, as well as construct additional truck parking.

No Build Alternative

The No Build Alternative would make no changes to I-80, and only routine maintenance would continue. This would eliminate the cost of improving I-80 but would not address the project's purpose or need. Other planned transportation improvement projects in the area could still move forward.

Methodology

NDOT analyzed the visual impacts of the project following the guidelines developed by FHWA in *Guidelines for the Visual Impact Assessment of Highway Projects* (FHWA 2015). The FHWA visual assessment methodology requires that visual impacts be determined by assessing changes to the landscape as seen from a freeway project, to determine how people traveling on the proposed project might be affected, and assessing views of the project, to determine how people near the proposed project would be affected. Changes to the visual environment are measured by determining how a proposed project would change the visual quality for selected representative views.

Existing Conditions

Affected Environment

The portion of I-80 within the study area travels through the Truckee River valley, which varies from canyon-like in the western segment of the study area to a broader river valley with more gradual slopes in the eastern segment of the study area. The Rainbow Bend neighborhood in Lockwood, businesses, a gravel pit, and the Frank A. Tracy Generating Station along I-80 are visible from the freeway in locations where they are not obstructed by the hilly topography. The Truckee River meanders along I-80, coming in and out of view along the project area corridor. Vegetation along the corridor is low desert shrub and sagebrush, and some riparian vegetation including cottonwood and willow trees along the Truckee River. Additionally, the UPRR tracks parallel I-80, with their distance from the highway varying between approximately 100 feet to 3,500 feet to the south throughout the study area corridor.

The western project boundary approaches Sparks, Nevada, which is urban with more hotels and retail businesses, and I-80 widens to three lanes in each direction. Billboards line both sides of I-80, obstructing distant mountain views for travelers.

Sensitive viewers of I-80 are in the Rainbow Bend neighborhood in Lockwood, Nevada, and recreational users of the Truckee River Trail and Lockwood Park. The residential and recreation areas are at a lower elevation than the freeway with the topography mostly obscuring the views of the freeway.

Whose view is potentially affected by a transportation improvement?

- Users of the roadway: Commuters, residents, and tourists.
- Viewers from the surrounding environment: Residents, businesses, and recreation area visitors.

Visual Impacts Assessment

Build Alternative

Key observation points were established throughout the corridor to assess the visual impact of the Build Alternative (Figure 2). Views from the key observation points are represented on Figures 3 through 17. Photographic simulations that illustrate how existing views would change under the Build Alternative were developed for Key Observation Points 3, 7, 8, and 15 (Figures 21 through 24).

Figure 2. Key Observation Points

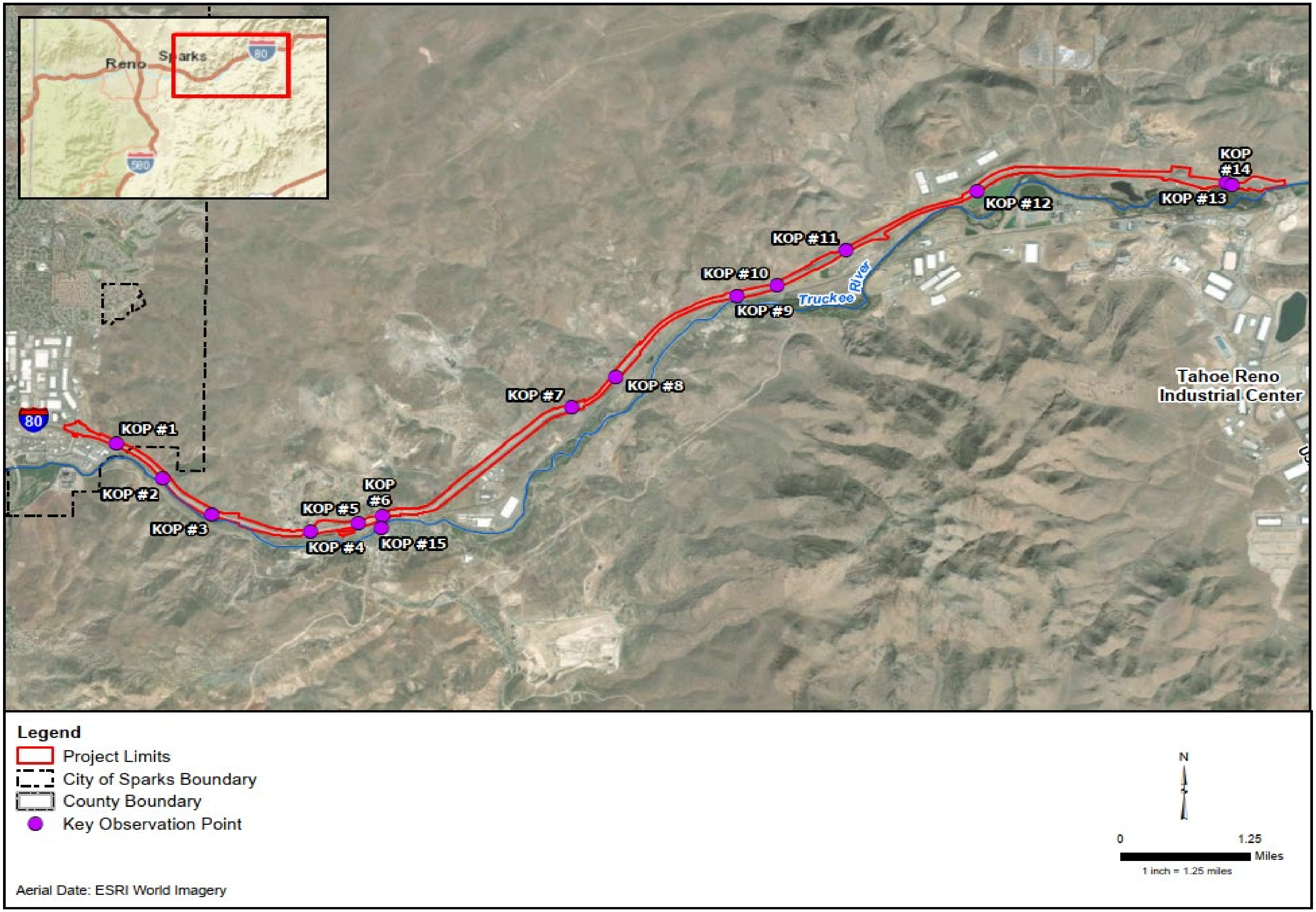

Figure 3. Key Observation Point 1: I-80 Westbound Looking West

Figure 4. Key Observation Point 2: I-80 Westbound near Vista Boulevard Exit

Figure 5. Key Observation Point 3: Looking West at I-80

Figure 6. Key Observation Point 4: I-80 Eastbound Looking East near Exit 22 Toward Lockwood

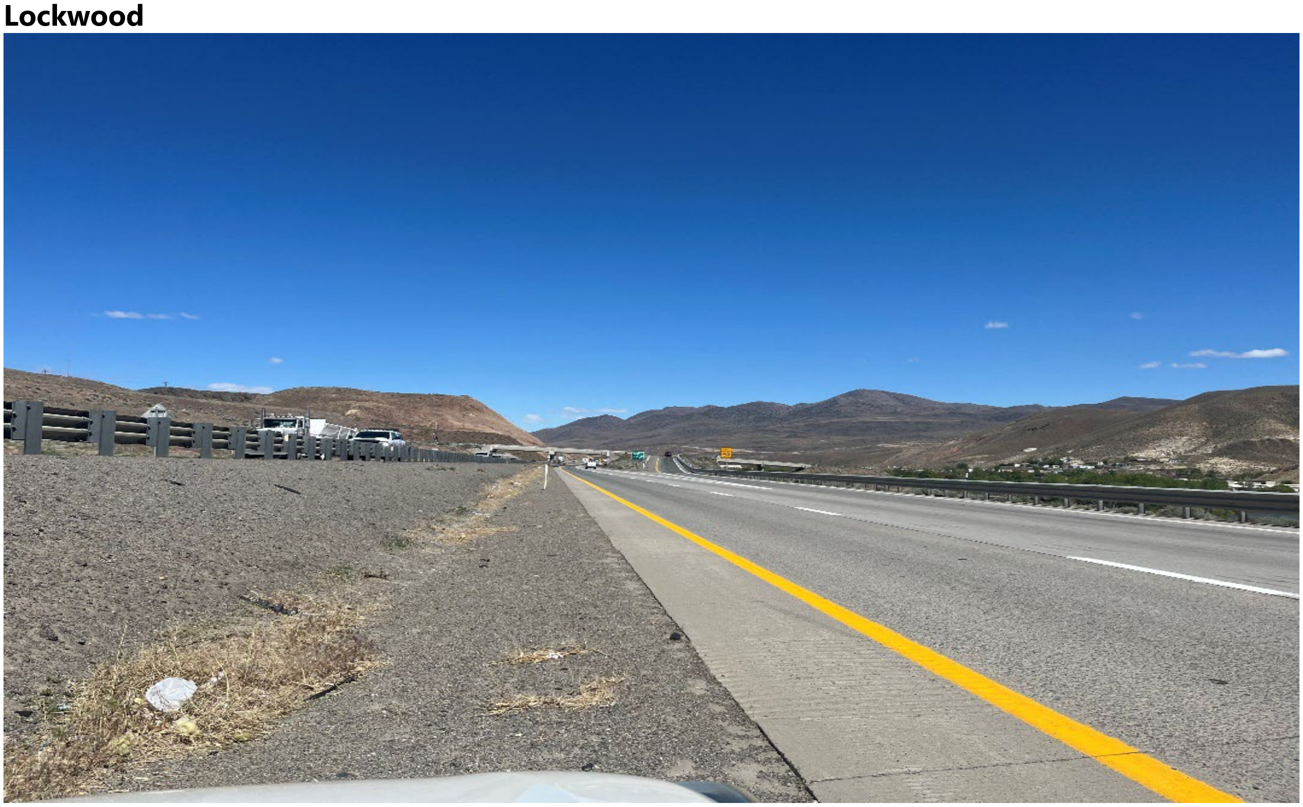

Figure 7. Key Observation Point 5: I-80 from Center Median near Exit 22 to Lockwood

Figure 8. Key Observation Point 6: I-80 Eastbound Looking Southeast Toward Lockwood and Truckee River

Figure 9. Key Observation Point 7: Looking East at I-80

Figure 10. Key Observation Point 8: Looking Northwest at I-80 Eastbound

Figure 11. Key Observation Point 9: I-80 Westbound Looking West

Figure 12. Key Observation Point 10: Looking Southeast from I-80 toward the UPRR Rail Line and Truckee River

Figure 13. Key Observation Point 11: I-80 Eastbound Looking East near Exit 28 to Patrick

Figure 14. Key Observation Point 12: I-80 Eastbound Looking Southeast

Figure 15. Key Observation Point 13: I-80 Westbound Looking West

Figure 16. Key Observation Point 14: I-80 Eastbound Looking East near USA Parkway Exit

Figure 17. Key Observation Point 15: Looking North at I-80 from Avenue of the Colors in the Rainbow Bend Neighborhood in Lockwood

Although adding lanes under the Build Alternative would change the view of I-80, it would not be a major change as there is already a freeway there. Although interchange layouts would be different from the existing interchanges, the overall visual effect of reconstructing the interchanges would be minimal, generally replacing infrastructure where it currently exists.

New retaining walls on the north side of the freeway will be installed along the project corridor between Milepost (MP) 20 and MP 32, ranging from 4 to 27 feet tall (Figures 18 through 20). These retaining walls would hide the natural look of the canyon walls. Figure 21 depicts the proposed retaining wall along the north side of the freeway (westbound I-80) at Key Observation Point 3.

Retaining walls on the south side of the freeway would be built intermittently between MP 25 and MP 32 (Figures 19 and 20). Figures 22 and 23 illustrate the proposed retaining walls at Key Observation Points 7 and 8.

Additionally, a traffic noise wall is proposed on the south side of the freeway between MP 22.5 and MP 23.5 for noise mitigation (Figure 18). These noise walls would alter the viewshed by blocking views of the Truckee River and the surrounding mountains for drivers on I-80. The new traffic noise walls would change the view of the Rainbow Bend neighborhood in Lockwood from I-80 by obstructing views of the neighborhood from drivers on I-80. Views of I-80 from the Rainbow Bend neighborhood in Lockwood would change because the walls would block views of the freeway including views of vehicles using the road and the freeway signs. Figure 24 depicts the view of I-80 with the proposed noise walls under the Build Alternative from the Rainbow Bend neighborhood in Lockwood.

As part of the project improvements, NDOT would remove some existing light poles along I-80 and install new lighting. Fourteen existing light poles would be removed at on and off ramps. NDOT would install 98 new 32-foot and 4-inch-tall light poles at on and off ramps throughout the project.

Figure 18. Proposed Retaining and Noise Walls – Western Terminus to Milepost 25

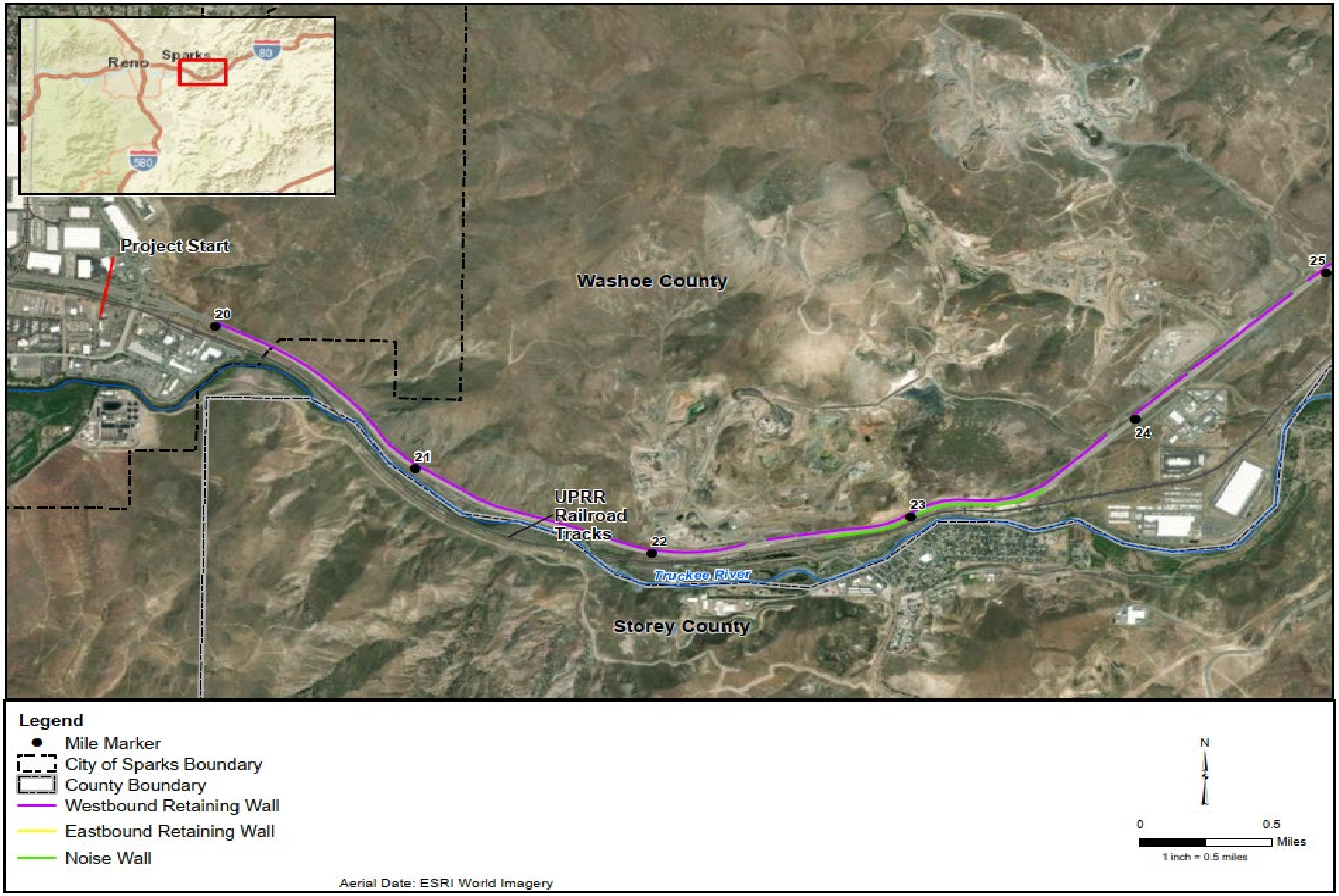

Figure 19. Proposed Retaining Walls – Milepost 25 to Milepost 28

Figure 20. Proposed Retaining Walls – MP 29 to Eastern Terminus

Figure 21. Simulation of Build Alternative at Key Observation Point 3, Looking West

Figure 22. Simulation of Build Alternative at Key Observation Point 7, Looking East

Figure 23. Simulation of Build Alternative at Key Observation Point 8, Looking Northwest

Figure 24. Simulation of Build Alternative at Key Observation Point 15, Looking North

As part of the project improvements, NDOT would remove some existing light poles along I-80 and install new lighting. Fourteen existing light poles would be removed at on and off ramps. NDOT would install 98 new 32-foot and 4-inch-tall light poles at on and off ramps throughout the project.

In addition, freeway signs would be replaced within NDOT right-of-way, and new dynamic message signs (DMS) would be added (Figure 25). The posts for the DMS would be 30 feet tall and 11 feet wide and hang over the freeway. The signage would moderately change the views from I-80 and of I-80 from surrounding areas with that typical of freeways. One DMS that would be installed on the south side of I-80 west of Exit 23 to Mustang may be visible from some homes along the northern edge of the Rainbow Bend neighborhood in Lockwood. The DMS sign would be constructed approximately 700 feet from the closest homes in the neighborhood. The DMS being a large, illuminated structure could contribute to light pollution and alter existing nighttime views for those residents.

Figure 25. Example Dynamic Message Sign

Source: NDOT 2021.

No Build Alternative

Under the No Build Alternative, the visual resources in the area will remain the same as they are today.

Measures to Mitigate Impacts

Aesthetic treatments consistent with NDOT's Landscape and Aesthetic program and *I-80's Landscape and Aesthetics Corridor Plan* for color and texture would be incorporated. This includes applying tan colored paint and decorative textures on all new proposed new bridge barrier rails, piers, pier caps, retaining walls, and flyovers. These measures would visually blend the proposed improvements with the existing environment.

References

Federal Highway Administration (FHWA). 2015. Guidelines for the Visual Impact Assessment of Highway Projects. Document No. FHWA-HEP-15-029. https://www.environment.fhwa.dot.gov/env_topics/other_topics/VIA_Guidelines_for_Highway_Projects.aspx. January. Accessed on May 6, 2024.

Nevada Department of Transportation (NDOT). 2021. NDOT to Install Driver Information Sign on I-80 East of Sparks, Benefitting TRIC/Other Commuters. https://www.dot.nv.gov/Home/Components/News/News/6708/395?npage=3.