

# SD 73 Reconstruction - Improving Mobility, Safety, and Access to the Pine Ridge Reservation

## WHITE RIVER TO KADOKA

FY 2023/2024 Multimodal Project Discretionary Grant (MPDG) Program

## PROJECT REQUIREMENTS

**Project Name:** SD 73 Reconstruction – Improving Mobility, Safety, and Access to the Pine Ridge Reservation

**Project Type:** INFRA/Rural Project

**Total Project Cost:** \$29,692,231

**Total Future Eligible Project Costs:** \$27,967,839

**FY 2023/2024 Rural Request:** \$22,374,271

**FY 2023/2024 INFRA Request:** \$16,780,703

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Supporting Information can be found at:

<https://www.srfconsulting.com/sddot-sd73-248/>



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# STATUTORY PROJECT REQUIREMENTS

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## REQUIREMENT #1:

### THE PROJECT WILL GENERATE NATIONAL, OR REGIONAL ECONOMIC, MOBILITY, OR SAFETY BENEFITS.

The *SD 73 Reconstruction – Improving Mobility, Safety, and Access to the Pine Ridge Reservation Project* (herein known as the Project) will generate national and regional economic benefits while improving mobility and safety for all users of this corridor. SD 73 is classified as one of South Dakota’s Preferential Truck Routes but due to aging and deteriorating concrete will become undrivable by 2037. Currently the highway carries an average of 221 trucks per day. According to the [SDDOT Freight Plan](#), the projected annual daily truck traffic on SD 73 by 2040 will be between 101-500 trucks. By reconstructing nearly nine miles of roadway with funding assistance from the FY 2023/2024 Multimodal Project Discretionary Grant (MPDG) Program, SDDOT will be able to ensure the continued flow of freight throughout the SD 73 corridor with a direct connection to I-90.

In addition to repairing the aging roadway, SDDOT will be expanding and paving the highway’s shoulders as well as installing edge-line rumble strips and addressing geometric deficiencies to improve safety and contribute to the reduction of fatalities and serious injuries in the corridor. Between 2018-2022, there were 33 crashes in the project area resulting in three fatalities, one incapacitating injury, and two possible injuries. Despite modest annual daily traffic volumes, the SD 73 and SD 248 segments have significantly higher crash rates than other rural principal arterial roadways in South Dakota. The 0.87 miles of SD 248 segment within Kadoka for example has a segment crash rate of 13.75 – a rate more than nine times the statewide weighted crash rate of 1.47. Four road segments comprising roughly 7.4 miles of the 8.7-mile corridor along SD 73 south of Kadoka have crash rates above the statewide average.

## REQUIREMENT #2:

### THE PROJECT WILL BE COST EFFECTIVE.

The benefit-cost analysis provides an indication of the economic desirability of a scenario, but results must be weighed by decision-makers along with the assessment of other effects and impacts. Projects are considered cost-effective if the benefit-cost ratio is at least 1.0. The SD 73 Reconstruction – Improving Mobility, Safety, and Access to the Pine Ridge Reservation is considered cost-effective as the benefit-cost ratio is at 2.2, i.e., greater than 1.0. Travel time, vehicle operating costs, crashes by severity, environmental and air quality impacts, and initial capital costs were all analyzed as part of the Benefit Costs Analysis. The full analysis of the benefits can be found [here](#).

## REQUIREMENT #3:

### THE PROJECT WILL CONTRIBUTE TO 1 OR MORE OF THE NATIONAL GOALS DESCRIBED UNDER SECTION 150.

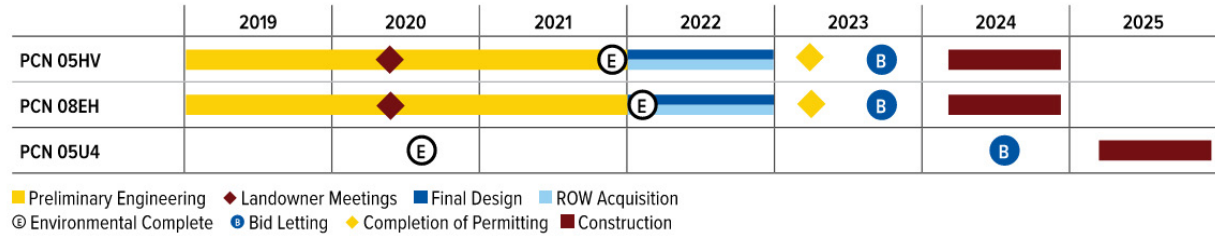
The Project aligns with USDOT priorities and contributes to the following national goals under Section 150 by:

- **Reducing traffic fatalities and serious injuries on public roads** – The project will add a variety of safety features to SD 73 such as edge-line rumble strips, widened and paved shoulders, and the elimination of geometric deficiencies. Improved lighting will also be added along SD 248 within the town of Kadoka to improve safety for pedestrians and drivers in low light environments.
- **Maintaining the highway infrastructure system in good repair** – Without further maintenance or intervention, the project segments will become undrivable by 2037. Reconstruction of SD 73 will modernize the facility and provide a dependable and safe north-south connection to and from I-90 for all users.

- **Improving the efficiency of the surface transportation system** – If SD 73 were to fall into disrepair and be closed the resulting detours would add dozens of miles to a one-way trip. This inefficiency would lead to increased greenhouse gas emissions as well as limited access to goods and services for nearby residents.
- **Strengthening the ability of rural communities to access national and international trade** – SD 73 is a critical north/south connector to I-90 which connects the region via the rest of the Interstate System to the transportation and trade hubs of Minneapolis and Omaha. Without dependable access to the interstate via SD 73, the ability to access national and international trade markets for the rural and disadvantaged communities within the project area will be substantially curtailed.

## REQUIREMENT #4: THE PROJECT IS BASED ON THE RESULTS OF PRELIMINARY ENGINEERING.

The Project was initiated in 2019 and has steadily maintained all major milestones as per the Project schedule. The Project is based on the results of preliminary engineering. Planning activities, including public engagement ([PowerPoint and Video Presentation](#) and [Public Meeting Notice](#)), traffic analysis, environmental documentation, and preliminary design ([ROW Plans](#)) have been ongoing since 2020 and are either complete or expected to be completed by late 2023. The FY 2023/2024 MPDG dollars would be allocated to constructing the project only.



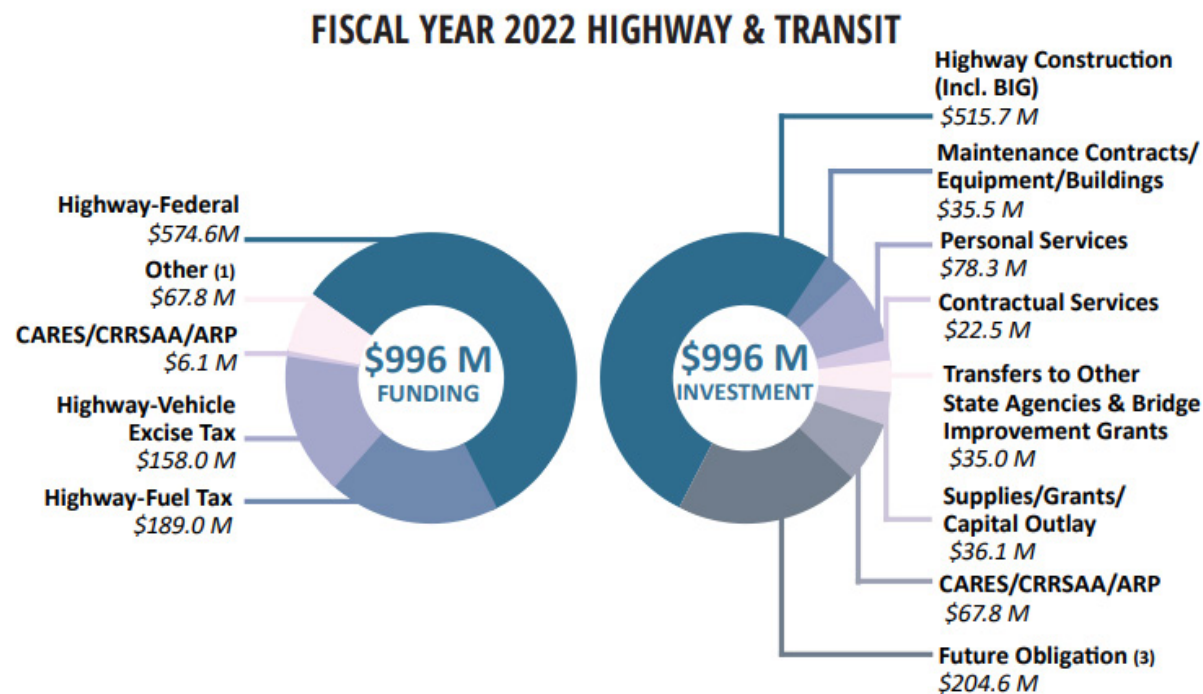
## REQUIREMENT #5: WITH RESPECT TO RELATED NON-FEDERAL FINANCIAL COMMITMENTS, 1 OR MORE STABLE AND DEPENDABLE SOURCES OF FUNDING AND FINANCING ARE AVAILABLE TO CONSTRUCT, MAINTAIN, AND OPERATE THE PROJECT, AND CONTINGENCY AMOUNTS ARE AVAILABLE TO COVER UNANTICIPATED COST INCREASES.

State funding for the highway system is mainly derived from motor fuel and motor vehicle excise taxes with remaining funding coming from port of entry fees, prorated commercial license fees, and overweight permit fees. In FY 2022, approximately \$305.1 million or 43.4 percent of SDDOT’s budget was derived from the State Highway Fund. The remaining portion of the agency’s budget came from federal funding. For this project, SDDOT has prepared a detailed budget which extends through the grant obligation date. The Department has substantial lead time to reserve/obligate funding for each project ID, thus if funding adjustments are needed to cover unanticipated cost increases, SDDOT will delay lower priority highway projects to provide adequate funding for the SD 73 Reconstruction – Improving Mobility, Safety, and Access to the Pine Ridge Reservation Project. Non-federal matching and other federal funds allocated to the project are programed in the South Dakota [Statewide Transportation Improvement Program](#) (STIP).

## REQUIREMENT #6: THE PROJECT CANNOT BE EASILY AND EFFICIENTLY COMPLETED WITHOUT OTHER FEDERAL FUNDING OR FINANCING AVAILABLE TO THE PROJECT SPONSOR.

Federal funds are extremely important to South Dakota, as [over 70 percent of the SDDOT construction budget](#) is funded through federal aid. Like the rest of the country, the state’s transportation network is aging at an unsustainable rate, forcing the agency to make difficult decisions on which capital improvement projects to prioritize. According to [a 2023](#)

[report from the National Transportation Research Group](#), a total of 35 percent of South Dakota’s major roads are now considered to be in poor or mediocre condition. In addition to aging roads and bridges, states such as South Dakota are now also facing the prospect of paying more for construction materials due to the rampant inflation that has taken place since the onset of the COVID-19 Pandemic. Influenced by material shortages and oil price hikes highway construction costs grew by 43.7 percent between 2019 and 2022. While the most [recent National Highway Construction Cost Index calculated in June](#) of this year shows a deviation from the consistent inflation trends observed over the past two years, a return to normal construction costs seems to still be in the distant future. Without FY 2023/2024 MPDG funding, the Project would be delayed.



**REQUIREMENT #7:**  
**THE PROJECT IS REASONABLY EXPECTED TO BEGIN NO LATER THAN 18 MONTHS AFTER THE DATE OF OBLIGATION OF FUNDS FOR THE PROJECT.**

SDDOT has successfully delivered several large-scale projects (similar to this project) which were completed through the National Environmental Policy Act (NEPA) review process. The agency also has significant experience with procuring and developing transportation improvement projects using federal funds. Since starting preliminary engineering in 2019, SDDOT has continuously worked to place this project in an ideal position for completion as soon as funding can be acquired. Project activities including traffic analysis, preliminary design, environmental documentation, right-of-way review/acquisition, final design, and final permitting have all been completed. Should SDDOT receive FY 2023/2024 MPDG funding for construction of this project, the necessary procedures and activities for the project will be completed in a timely manner to allow MPDG funds to be obligated sufficiently in advance of the statutory deadline of September 30, 2026, with bid letting and construction slated to begin in the first half of 2024.

