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Reconstruction of Interstate 94 Bridges Over Sunset Drive Project in Mandan, ND

FY 2024 Bridge Investment Program (BIP) Discretionary Grant

Project Name	Reconstruction of Interstate 94 Bridges over Sunset Drive Project in Mandan, ND
Project Type	Bridge Project under $100 million
Future Eligible Project Costs	$59.8 million
2024 BIP Funds Requested	$29.9 million

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Supporting Information can be found at:
www.srfconsulting.com/nddot-mandan-sunset/

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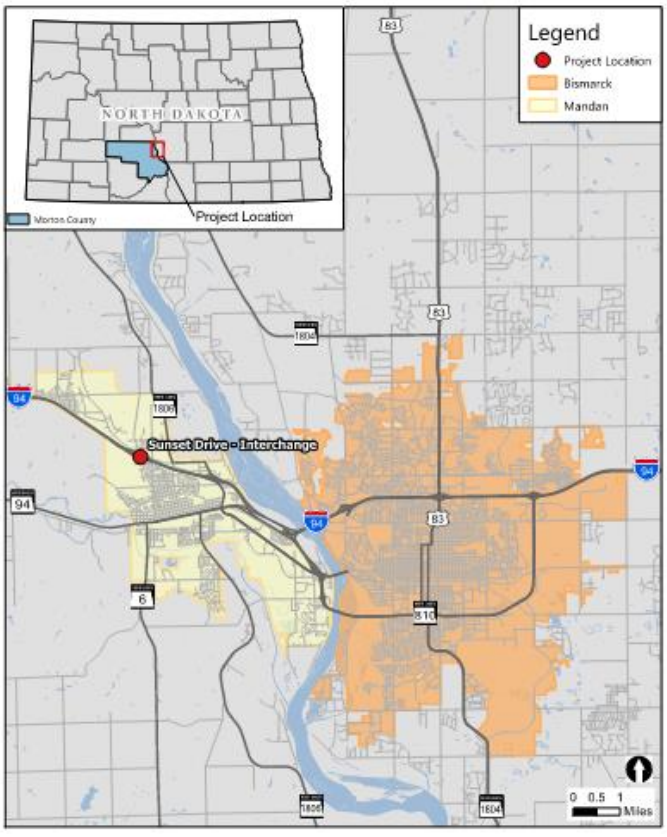
I. BASIC PROJECT INFORMATION

Project Description

North Dakota Department of Transportation (NDDOT) is requesting $29.9 million in FY 2024 Bridge Investment Program (BIP) Bridge Project funds for the Reconstruction of Interstate 94 Bridges over Sunset Drive Project in Mandan, ND project (hereafter referred to as the "Project"). The Project includes reconstruction of two bridges, structure numbers 0094152329 L and 0094152329 R along I-94, including a reconfiguration of the interchange to a single-point urban interchange (SPUI) and associated improvements of the intersecting roadway Sunset Dr. NW. The Project's total future eligible cost is $59.8 million and complies with the requirements of the Bridge Project category. The Project is further categorized as a bridge bundling project to optimize cost and schedule efficiencies.

Interstate 94 (I-94) is an east-west Interstate highway that connects the Great Lakes and northern Great Plains regions of the United States, extending from Billings, Montana, to Port Huron, Michigan, 1,585 miles. It is the only east-west interstate highway to have a direct connection to Canada (Toronto, ON). Locally, I-94 ties the State's capital Bismarck, North Dakota (population 73,762 in 2020) and Mandan, North Dakota (population 24,206). Throughout most of North Dakota, speeds on I-94 are limited to 75mph, although decrease to 60mph through the Bismarck-Mandan metropolitan area. This section of I-94 was constructed in 1964 as part of the original Interstate System and serves as a lifeline connection for commuters travelling between the two cities.

Figure 1. Project Location in Regional Context



The Interstate connects the metropolitan areas of Fargo, ND and Bismarck-Mandan, ND, which produce 42 percent of the state's Gross Domestic Product (FY 2020). In 2023, daily truck traffic on I-94 near the Project area equaled 1,970, or more than nine percent, of the 21,840 annual average daily traffic. I-94 is classified as a **primary national freight corridor** and is part of the Eisenhower Interstate System, National Highway System (NHS) route, National Highway Freight Network (NHFN) Non-Primary Highway Freight System, and National Multimodal Freight Network (NMFN) in the National Freight Strategic Plan. I-94 is also classified by NDDOT as a **Level 1 Highway on the State Strategic Freight System** in the North Dakota State Freight Plan.

Sunset Dr. NW, a principal arterial, maintains a speed limit of 25mph through the Project area and is one of only three locations in the City of Mandan that facilitates movement of people between the north and south parts of the City. The City's only fixed-route bus transit line, known as the "Purple Line" runs along Sunset Dr. through the Project area. A shared-use path exists that connects to a network of other pathways in the vicinity. It is also an important freight corridor, being identified in the North Dakota State Freight Plan as a Critical Urban Freight Corridor. In 2022, average daily traffic volumes through the Sunset Dr. NW underpass totaled 11,335, with 180, or approximately 1.6-percent, being commercial trucks. Sunset Dr. NW provides connection to I-94 for many industrial manufacturing businesses located northwest of the Project. It also provides connection to I-94 Business Loop that runs through the City of Mandan's downtown and other industrial and commercial areas to the southeast.

Current Transportation Challenges

Existing Geometric Deficiencies

Figure 2. Bridge Hit – Exit 152 - 2018

The existing minimum vertical underclearance of the two I-94 bridges – structure numbers 0094152329 L and 0094152329 R – are 14.3 and 14.4 ft. respectively. They are both assigned a rating of 3, or "intolerable", in the National Bridge Inspection (NBI) Report. The vertical underclearance is more than two feet below the NDDOT design standard of 16'6". This results in limited freight movement beneath the structure and has resulted in numerous instances of freight traffic becoming impinged beneath the bridges (See Figure 2). In addition, the existing minimum lateral clearance on the right (Item 55B) is 1.6 ft. and "000" on the left (Item 56) for each bridge, meaning there is little buffer between moving traffic and the bridge piers. The geometric deficiencies related to both the horizontal and vertical underclearance create the potential for a critical event that causes sufficient damage resulting in the closure of the Interstate at this location that would require rerouting traffic until repairs or replacement could occur.

Queueing & Operational Issues

The signalized intersection of Old Red Trail and Sunset Dr. NW is located approximately 325 feet from the westbound entrance/exit ramps. Boundary St. NW is a two-way stop-controlled intersection that is located approximately 380 feet from the eastbound entrance/exit ramps. The eastbound and westbound entrance/exit ramps are located approximately 915 feet from each other. In total, there are four intersections within approximately 1,600 feet on Sunset Dr. NW with two of the intersections facilitating traffic on and off of I-94. The close proximity of intersections leads to significant queuing that spills onto I-94 during peak times or exceeds the storage capacity at the

intersections. Additionally, the skew of Sunset Drive to I-94 creates sight distance constraints at the ramp intersections.

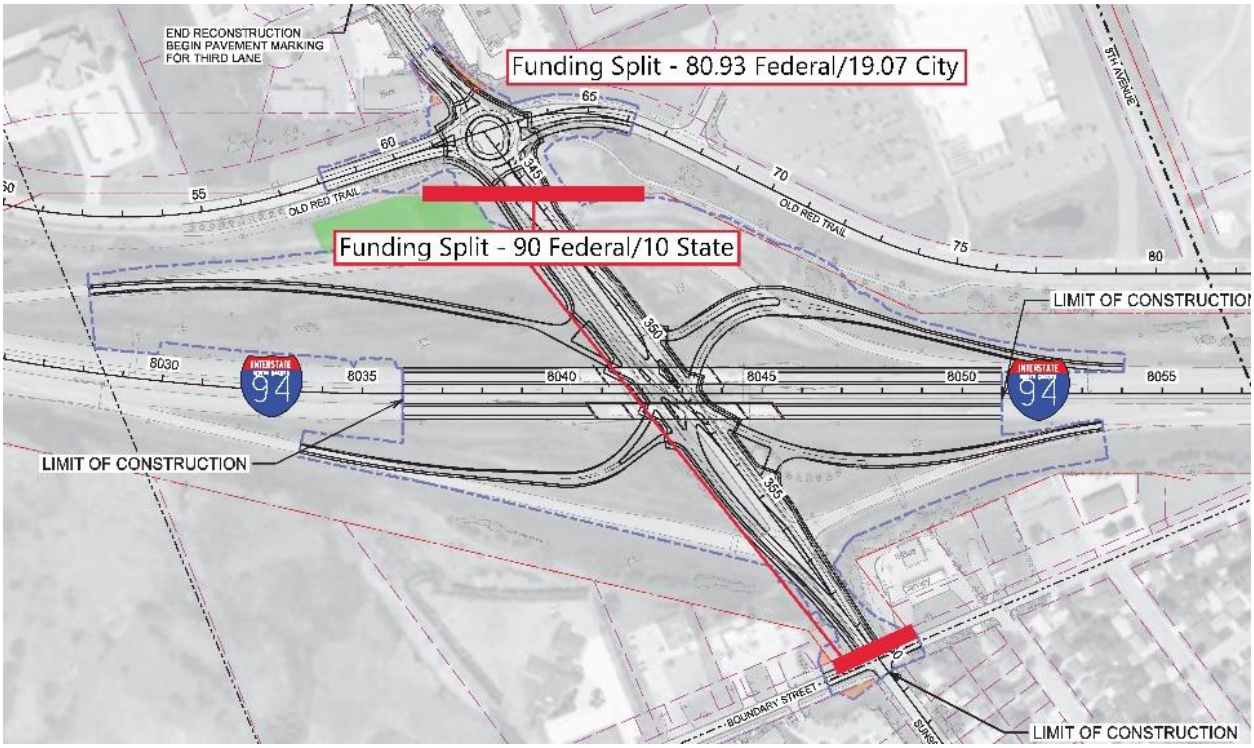
Per the Traffic Operations Report conducted as part of the alternatives analysis for this Project, regional traffic growth is forecasted to increase significantly by 2045, with many traffic movements through the study area expected to operate at an unacceptable level of service (LOS) E or F. The aforementioned challenges will only be further exacerbated by the incremental growth in traffic volumes that occurs each year.

Proposed Improvements

To address the current transportation challenges, the Project will replace two bridges (structure number 0094152329 L and 0094152329 R) along I-94, each serving vehicular movement in one direction, that were constructed in 1964 as part of the original Interstate System. The Project will also reconfigure the existing diamond interchange to a single point urban interchange (SPUI), and will include raised medians, reconfigured entrance/exit ramps that will consolidate the two currently separated signalized intersections into one, and corresponding pavement markings and signage.

In addition to the above detailed improvements within NDDOT's right-of-way, the Project will also redesign the existing stop light-controlled intersection at Old Red Trail and Sunset Drive to the north of the Project. This intersection will be converted to a roundabout to wholistically redesign the corridor to accommodate projected future traffic demand and improve safety. Further into the future, the intersection south of the Project will convert the existing two-way stop sign-controlled intersection of Boundary St. and Sunset Dr. NW to a signalized intersection when it

Figure 3. BIP Eligible vs Ineligible Project Components



becomes warranted. The costs related to these improvements are not a part of this BIP request and a letter of financial commitment has been secured by the City of Mandan.

Figure 3 delineates the eligible and ineligible portions of the Project. A list of eligible and ineligible Project improvements is as follows:

BIP Eligible Improvements (NDDOT Right-of-Way)

- Reconstruction of two bridges along I-94 over Sunset Drive NW (0094152329 L and 0094152329 R) to address structural and safety issues, and reduce future annual maintenance costs
- ROW acquisition of 0.07 acres
- Raising the bridge profile on both bridges to meet the 16'6" minimum vertical underclearance consistent with NDDOT standards for bridge design
- Address drainage issues in the northwest quadrant of the intersection of Boundary Street and Sunset Drive
- Reconstructing ramp connections at the interchange
- Widening of all the reconstructed bridges to include 8-foot paved shoulders along both traffic directions to allow for safer passing of queued vehicles or stopping of emergency vehicles as well as improved sight distances
- Installing a new traffic signal at Sunset Drive
- Incorporate new pedestrian and bicycle facilities along Sunset Dr. NW to include a ten-foot-wide shared-use path (west) and 5-foot-wide sidewalk (east)
- Reconfiguration of existing diamond interchange to single-point urban interchange (SPUI) to include:
  - Raised medians
  - Reduction from two signalized intersections to one
  - Pavement markings
  - Signage

BIP Ineligible Improvements (City of Mandan)

- Right-of-way acquisition (0.68 acres)
- Installation of a roundabout at Old Red Trail and Sunset Dr. NW
- Four overhead sign structures

The project aligns with the goals and priorities of BIP funding opportunity:

1. By improving the safety, efficiency, and reliability of the movement of people and freight over bridges and
2. By reducing the total person miles traveled over bridges that do not meet current geometric design standards (2(b)).

The corresponding ineligible improvements to be completed in tandem with the Project also leverage state and local investments from partners and stakeholders involved in the planning, design, and construction of this critical infrastructure in Mandan (3).

Project History

Plans and Studies

The Project has a significant history, with the Project area being either a part of or the focus of multiple studies that have been conducted over the last decade by the Bismarck-Mandan Metropolitan Planning Organization (BMMPO). The BMMPO identified the Project area as in need of substantial improvement to address previously noted concerns as well as to accommodate future traffic volumes. These included the North Mandan Subarea Study (2013), I-94 Corridor Study (2014/2015), Envision 2040 (MTP – 2015), Mandan-Bismarck Corridor Improvement Study (2016), Arrive 2045 (MTP – 2020), and the Sunset Drive Corridor Study (2023).

As a result of the numerous plans and studies, as well as the recurring bridge hit incidents, NDDOT initiated a preliminary engineering and feasibility study of the Exit 152 Interchange in 2023. This included data collection, public and stakeholder engagement, evaluation of alternatives, environmental report, and preliminary engineering. As part of this process, a Traffic Operations Report and Decision Document were generated.

Prior Maintenance

Previously incurred costs for the bridges beyond routine preventative maintenance, the numerous plans and studies, and the preliminary and engineering report for the Project include:

- 1985 – Structural steel painting, construction of a concrete deck overlay, and installation of a braced double box beam rail retrofit
- 2006 – Installation of a free-standing double box beam rail retrofit, construction of a second concrete deck overlay, construction of new approach slabs, repair of concrete pedestals, and repair of concrete slope protection
- 2019 – Repair of spalls in the concrete deck, approach slab, and abutment; and resealing the joint between the approach slab and deck

Project Location

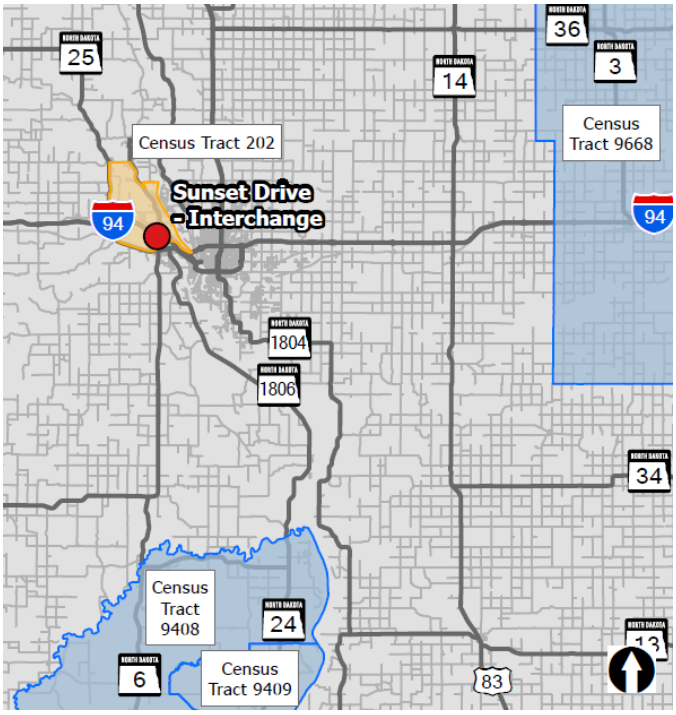
The Project is located along Interstate 94 in the City of Mandan, Morton County, North Dakota. Exit 152 – Sunset Drive is one of four interstate interchanges that serve the City of Mandan – two along I-94 and two along I-194.

The Project is also within the Bismarck-Mandan Area Metropolitan Planning Organization Urbanized Area, with a total population greater than 50,000, but less than 200,000. The Project is located at 46.845063°N, -100.907341°W.

Land use surrounding the Project area is largely commercial, with Mandan's only Wal-Mart being located directly to the northeast of the Project. Sunset Dr. is one of only three north-south routes providing access to the northside of the City, which is bisected by I-94. The Project provides residents located in the northwest area of the City the most direct access to the City of Mandan's Central Business District located in Mandan's downtown, as well as to Bismarck, which is the employment center for the area and capital of North Dakota.

Disadvantaged Community Status

Figure 4. Census Tract 38059020200 (202) in Regional Context



Per the Grant Project Location Verification mapping tool, the Project is not in an urban area with a population greater than 200,000, is not in an area of persistent poverty (APP), or a historically disadvantaged community (HDC).

The Project is entirely located within Census Tract 38059020200 (Tract), which is not identified as disadvantaged per the Climate and Economic Justice Screening Tool. Nonetheless, the Tract does have one or more abandoned mines and is in the 89th percentile for economic loss to building value resulting from natural disasters and 86th percentile in fatalities and injuries from natural hazards each year.

Per the USDOT Equitable Transportation Community (ETC) Explorer, 18.4 percent of the population within the Tract are at 200 percent or less than the federal poverty level. Average household expenditures as a percentage of income are 12.29 percent for transportation and 14.68 percent for housing. Six percent of households within the Tract do not have a vehicle.

East Morton County, where the Project is located, is considered a Medically Underserved Area by the Health Resources & Services Administration, with an Index of Medical Underservice (IMU) score of 59.9. A community is designated an MUA if their IMU score is 62.0 or less. The Project will improve reliability, mobility, and efficiency of traffic both over and under the bridges, providing critical access to medical appointments and emergency services in the region to help sustain and ultimately improve the IMU score of East Morton County.

The Project area is served by one of Bismarck Mandan Public Transportation System's six fixed routes, which is the only fixed route service in Mandan. The majority of pick-ups occur at the existing Mandan High School (south and west of the Project) and Wal-Mart (northeast of the Project area).

Contribution to the Function and Growth of the Economy

As noted in the Project Description, both I-94 and Sunset Dr. NW are critical to the City of Mandan, the Bismarck-Mandan MSA, and beyond, each being important freight and commuter corridors. I-94 bisects the City of Mandan, and the interchange is one of only three I-94 crossings, where any closure or delay places additional pressure on the remaining two crossings. The City's only middle school and the new Mandan High School currently under construction depend on the continued functionality of this interchange. Numerous commercial and manufacturing businesses located northwest of the Project area rely on the functionality of the interchange for employees and deliveries. The City of Mandan's only fixed route bus service runs along Sunset Dr. NW

through the Project area, frequently stopping at the largest grocer and only Wal-Mart in the City, which is located just northeast of the Project area. The Project is critical to the function and growth of the economy.

Lead Applicant

NDDOT is the applicant and proposed grant recipient. Since 2018, NDDOT has received and successfully managed more than 15 federal discretionary grants from several federal agencies. Should the Project be selected, the NDDOT will continue its success with the management of this grant.

Other Public and Private Parties

As previously described, the Project is presented in terms of eligible and ineligible project costs as they relate to FY2024 Bridge Investment Program (FY24 BIP) funding. Ineligible Project costs are to be covered by the City of Mandan's general fund revenues, which are collected via property taxes. A letter of financial commitment from the City of Mandan for the ineligible portion of the Project can be found here. The City also maintains a special assessment program that it is capable of employing should funding needs exceed general fund balances. In short, the City of Mandan is committed to funding the ineligible Project cost component to produce the optimal corridor outcome for Interstate 94 Exit 152 and Sunset Dr. NW.

Additional Eligibility Requirements

Future Maintenance

Maintenance of the bridges and associated entrance/exit ramps will be funded and managed by NDDOT. The agency will perform routine inspection and maintenance of the structure. Contracted maintenance will be provided through the National Highway Performance Program (NHPP) Interstate Maintenance (IM) funding. Operations, maintenance, and major rehabilitation activities are anticipated throughout the life cycle of the new bridge. NDDOT's Maintenance Operations Manual guides specific activities for bridge preservation and estimated lifecycle costs for both cyclical and condition-based preventative maintenance are provided here. The Project would undergo cyclical and condition-based maintenance activities through the life cycle of the structure (anticipated to be 75 years). NDDOT is committed to funding bridge preservation activities for the Project.

The City of Mandan will maintain that portion of Sunset Dr. NW that lies within the NDDOT right-of-way. In addition, the SPUI signal, medians, signage, and other components of the Project, excluding the bridges and corresponding entrance/exit ramps, will be maintained by the City of Mandan. The City of Mandan covers long-term maintenance of its transportation infrastructure via the collection of property taxes that is placed in the general fund. As mentioned previously, the City of Mandan also has the capability to establish special assessment districts to cover project costs in the event of a general fund shortage or unexpected maintenance obligation.

Maintenance for all portions of the Project that are ineligible for BIP funding – the roundabout, additional signage, etc. – will be addressed in the same way by the City of Mandan and the Mandan Parks District for their respective infrastructure assets.

Pedestrian and Bicyclist Accommodations

North Dakota is one of a few states that permit cycling on the interstate system itself and the paved surface width will not be reduced through the bridge crossing, thereby allowing cyclists to continue through this section of I-94 without requiring exit and reentry using the reconfigured SPUI interchange. Further, the existing shared-use pathway that runs along Sunset Dr. NW providing connection north and south of the Project will be replaced to continue to provide accommodation for both pedestrians and cyclists through the reconfigured interchange. A new sidewalk facility will be constructed on the opposite side of Sunset Dr. NW from the shared-use path that will expand the pedestrian facilities through the Project area.

II. NATIONAL BRIDGE INVENTORY DATA

The detailed National Bridge Inventory Data is provided here for both structure number 0094152329 L and structure number 0094152329 R. The data was obtained using the FHWA's NBI database as recommended in the NOFO, which provided information for the bridges from an April 2021 inspection. The North Dakota Department of Transportation performed an inspection on April 26, 2023, which noted revised information for Item 58 – Deck Condition and Item 90 – Inspection date. The original and revised data for these line items are noted below:

Table 1. Change in NBI Bridge 0094152329 L

Item No.	NBI Data – April 2021	NDDOT Revised Data – April 2023
58 – Deck Condition	8	7
90 – Inspection Date	April, 2021	April 26, 2023

Table 2. Change in NBI Bridge 0094152329 R

Item No.	NBI Data – April 2021	NDDOT Revised Data – April 2023
58 – Deck Condition	8	7
90 – Inspection Date	April, 2021	April 26, 2023

III. PROJECT BUDGET

Total Future Eligible Project Cost: $59.8 million

BIP Request Amount: $29.9 million (50 percent of total future eligible project cost)

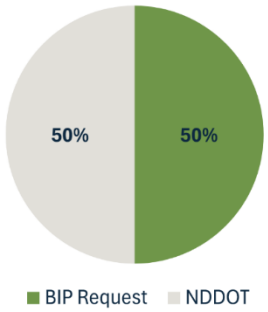


Figure 5. Project Funding Breakdown

Availability and commitment of funding sources:
The total future eligible Project cost is $59.8 million which includes construction, construction delivery, contingency and inflation costs. The construction is estimated to start in June 2026 and end in December 2028. Detailed construction cost estimate for the Project has been prepared and can be found here. The cost estimate is based on a 15 percent preliminary design and reflects bid pricing for the year 2024. It accounts for ten percent contingency to cover any unexpected costs and an annual inflation of 8.2 percent until the mid-point of construction.

North Dakota Department of Transportation has spent approximately $4.9 million to date in previously incurred costs on preliminary design and environmental document to advance project delivery. Additionally, $13.2 million will be provided towards construction costs (including contingency and inflation) for project components outside the right-of-way of NDDOT. These funds have been committed by NDDOT and City of Mandan.

Sources

North Dakota Department of Transportation

North Dakota Department of Transportation has committed to providing $29.9 million (50 percent of total future eligible costs) in funds towards construction costs, including contingency and inflation, through the Flexible Transportation Fund for the Project. Table 3 presents the detailed funding breakdown, including cost and source of funding for each major project activity, both in dollars and percentages.

Table 3. Project Funding Breakdown

Project Components		Project Funding								Total Cost Estimate
		Federal Funding		Other Federal		Non-Federal				
		BIP		State of ND		NDDOT*		City of Mandan		
		Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent	
Ineligible Costs	Pre-construction Activities - Environmental Assessment - Preliminary Design - Final Design - Right-of-Way Acquisition	$0		$4,400,000		$500,000		$0		$4,900,000
	Construction (non-BIP) Costs incl. inflation	$0		$10,700,000		$0		$2,500,000		$13,200,000
	Total Ineligible Costs	**$0**	**0%**	**$15,100,000**	**83%**	**$500,000**	**3%**	**$2,500,000**	**14%**	**$18,100,000**
Eligible Costs	Construction Costs incl. contigency	$21,800,000		$0		$21,800,000		$0		$43,600,000
	Inflation	$8,100,000		$0		$8,100,000		$0		$16,200,000
	Total Future Eligible Costs	**$29,900,000**	**50%**	**$0**	**0%**	**$29,900,000**	**50%**	**$0**	**0%**	**$59,800,000**
	BIP Request	$29,900,000	50%			**Total Project Cost**				**$77,900,000**
	Other Federal	$0	0%							
	Non-Federal	$29,900,000	50%							

*NDDOT has the flexibility, if necessary, to cover any potential cost overruns by reallocating either additional Flexible Transportation Fund money or FHWA formula funds.

Table 4 presents the cost per bridge if the Project is not bundled. The bundling of the bridges will lead to a cost saving of 15 percent due to increased efficiencies in construction, material procurement, and construction delivery.

Table 4. Unbundled Project Costs

Project Components		Unbundled Cost				Total Unbundled Cost
		0094152329 L		0094152329 R		
		Dollars	Percent Total	Dollars	Percent Total	
Eligible Costs	Construction Costs	$25,070,000		$25,070,000		$50,140,000
	Contingency & Inflation	$9,315,000		$9,315,000		$18,630,000
	Total Future Eligible Cost	**$34,385,000**	**50%**	**$34,385,000**	**50%**	**$68,770,000**

The future eligible costs of the Project will be funded with 50 percent grant funds and 50 percent state funds (Table 3). As documented in the letter from the NDDOT's Director, the department is committed to matching the funds required for the Project. The state's share of the budget will be funded from one of the following sources:

- The Flexible Transportation Fund established by the 68th ND Legislative Assembly with Senate Bill 2113. The fund was created to provide a match for federal funding obtained by the Department of Transportation.
- House Bill 1012 gives the NDDOT the appropriations for matching funds on projects that have been awarded grants.

Uses of all Project Funding

The requested BIP funds will be used towards funding the future eligible costs of the Project. The Project has not received any other federal funds so far. NDDOT may pursue funding under other federal programs as they become available, if this BIP funding request is not awarded. The bundling of the two I-94 bridges together leads to a total saving of $8.97 million compared to constructing them under separate bid projects. As mentioned previously, the Project budget accounts for sufficient contingency amounts to cover unanticipated cost increases.

BIP Funding Needs

If the BIP funding is not awarded, the Project could be significantly delayed from its existing schedule or may have significant scope reduction. Both bridges are reported to have insufficient vertical clearances and therefore are geometrically deficient. The bridges experience frequent hits by freight vehicles which will be exacerbated as the traffic grows in Bismarck-Mandan metropolitan area. As a result, immediate reconstruction is recommended to maintain safe levels of service and operations along I-94. Additionally, the impacts of inflation have required NDDOT to reassess its upcoming capital program.

This Project is a priority project for NDDOT. Securing the BIP funds for this Project will allow NDDOT to reconstruct and maintain the bridges in the most timely and efficient manner possible. In the absence of the BIP award, the schedule and the scope of the Project will be negatively impacted.

IV. MERIT CRITERIA

1. State of Good Repair

Bridges Do Not Meet Current Geometric Design Standards

As mentioned in the Project Description, both bridges maintain an appraisal rating for NBI item 69 surrounding the vertical and horizontal underclearances of 3, or "basically intolerable requiring high priority of corrective action." Both bridges are more than two feet less than the North Dakota Department of Transportation standard of 16'6", resulting in the bridges being hit in 2007, 2012, 2016, 2018, 2020, and 2022 (See Figure 6).

Figure 6. Bridge Hit – Exit 152 – 2012

This leads to significant disruptions when this segment of roadway is closed until the heavy truck and its cargo is extricated from beneath the bridge. Being one of only three I-94 crossings to reach the north side of the City of Mandan, any closure significantly impacts the ability of commuters, commercial trucks, and first responders that need to reach their destination to the north of I-94. The nearest alternative route when the closure of this segment of Sunset Dr. NW occurs is 2.1 miles in-town and 3.5 miles utilizing the interstate and nearest exit/entrance (Exit 153) to circle back to the other side of the obstructed Sunset Dr. NW crossing.

A critical event damaging one or both of the bridges could occur, such as the tanker fire that led to the collapse of a section of I-95 in Philadelphia in 2023. It is reasonable to expect these events to continue, resulting in safety concerns, traffic delays, and the need for emergency repairs. This would be devastating to the functionality of the State's most heavily traversed roadway for commuters and freight.

Threat to Future Transportation Network

The area north of the Project has developed significantly in the past twenty years and provides the most abundant and readily developable land area in the City of Mandan. This is due to topographical challenges moving west of Sunset Dr. NW and south of the City. To the east is the Missouri River, which bisects the cities of Mandan and Bismarck, and prohibits development eastward. The City of Mandan's first and only Wal-Mart opened in 2013 and is located just northeast of the Project.

Figure 7. Known Development in the Project Area

Several major developments are underway on the north side of the City of Mandan. Most notably, the City's only high school is in-process of being

relocated to a site east of the Wal-Mart. Its current location is south and west of the Project along Sunset Dr. NW. When the new high school opens in Fall 2024, it is expected to provide education for 1,400 students, significantly altering commuting patterns for drivers south of I-94. Other notable developments include more than 300 new residential units and a new commercial development north of the new high school site. The relocation of the high school will further drive private investment north of the City for years to come.

As further elaborated in the Safety and Mobility - Improve the Mobility, Efficiency, or Reliability of the Movement of People and Freight subsection of this application, average daily traffic is expected to increase significantly by 2045. Without the Project, many traffic movements through the study area expected to operate at an unacceptable level of service (LOS) E or F.

Reduced Maintenance Costs

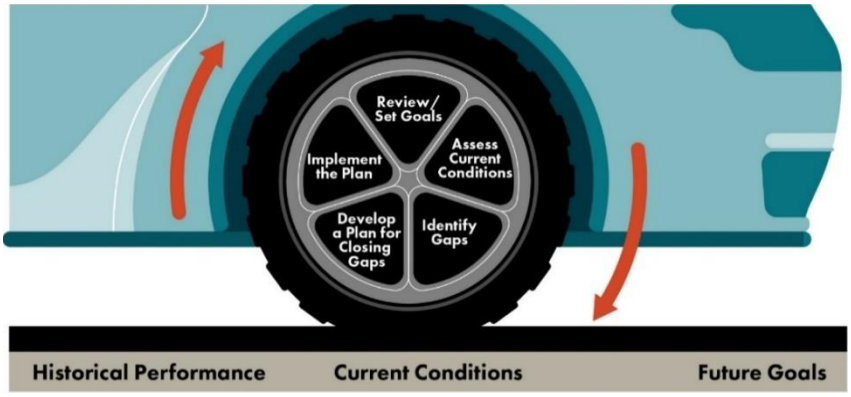
An inherent reduction in maintenance cost of the Project will come from addressing the deficient vertical and horizontal deficiencies of the two bridges to the NDDOT standard height of 16'6". As mentioned previously in addressing this criterium, the bridges have been struck six times since 2007, resulting in costly repairs and road closures above and beyond routine maintenance. Damage stemming from the bridge hits ranged from scratches and scrapes requiring reapplication of the protective coating to more significant repairs including the heat straightening of multiple steel girders. These costs will be avoided in the future due to the reduction in bridge hits.

In addition, the Project will reduce the number of signalized intersections for the I-94 entrance/exit ramps from two to one, which will also inherently reduce maintenance costs due to the more efficient reconfigured SPUI.

In the long-term, bridge maintenance costs for the Project are expected to be much less than under the No Build Alternative, as more condition-based preventative maintenance activities would be required to keep the existing bridge in a state of good repair.

Maintained in a State of Good Repair

Figure 8. NDDOT TAMP Process



NDDOT has a proven history of fully funding maintenance improvements. Robust transportation asset management is a core and influential principle of decision-making processes to provide a safe and efficient transportation infrastructure throughout the state. NDDOT updated it's Transportation Asset Management Plan (TAMP) in November 2022, which it implements through goal-oriented, data-supported methods of managing transportation infrastructure that provides system managers with the information needed to make decisions necessary to reach desired outcomes. The TAMP serves as a guide to

analyze life-cycle costs, evaluate risks, develop mitigation strategies, establish asset condition performance measures and targets, and develop investment strategies.

For bridges, NDDOT analyzes a variety of criteria related to condition, safety, and mobility to make decisions about bridge maintenance, preservation, rehabilitation, functional improvement, and replacement. In the past four years the Department has significantly enhanced its inspection data quality by implementing the American Association of State Highway and Transportation Officials (AASHTO) Manual for Bridge Element Inspection. The manual places particular emphasis on protective elements, such as deck wearing surfaces and paint systems, with the goal of protecting the underlying, high-value structural material. The TAMP will serve as a guide to ensure all necessary Project operation and maintenance is implemented.

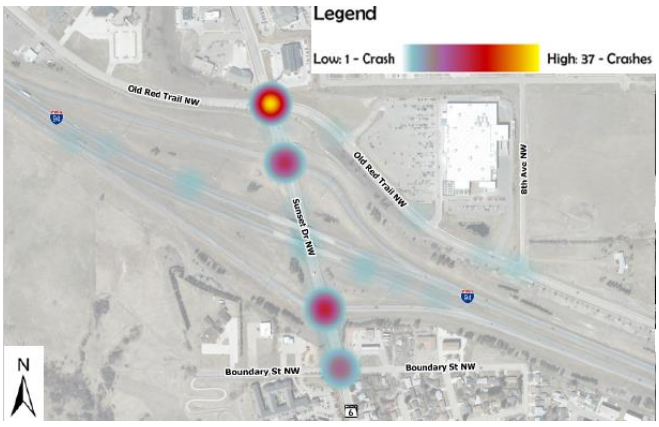
2. Safety and Mobility

New and Continued Safety Benefits that will Reduce Crashes

As mentioned in the Project Description section of this application, four intersections are present along approximately 1,600 feet of Sunset Dr. NW, including the two entrance/exit ramp intersections. The reconfigured SPUI will consolidate the entrance/exit ramps, relocating them beneath the new bridge structures. This will add separation between the entrance/exit ramps and the Old Red Trail/Sunset Dr. NW and Boundary St. NW/Sunset Dr. NW intersections of approximately 515 and 435 feet respectively. Further, a SPUI operates with three traffic signal phases rather than four phases in a conventional diamond interchange, which reduces overall interchange delay and improves efficiency. These improvements will address the queuing and site distance transportation challenges as identified in the Project Description.

Further, as part of the ineligible Project costs, the intersection of Old Red Trail and Sunset Dr. NW will convert from the current signalized intersection to a roundabout, further reducing the potential for significant queuing and reducing speeds through this intersection.

Figure 9. Project Area Crash Heat Map



The greatest number of crashes in the ten-year span between 2014 and 2023 occurred north of the I-94 bridges at the intersections of the westbound entrance/exit ramps and the intersection of Sunset Dr. NW and Old Red Trail. Together, these intersections account for 106, or 65.8 percent, of the 161 total crashes between 2014 and 2023. One crash was incapacitating, 18 were non-incapacitating injuries, 16 were possible injuries, and 126 were property damage only (PDO). At the time of writing this application, one fatality did occur as a driver was heading northbound on Sunset Dr. NW and rear-ended a vehicle stopped at one of the four intersections part of the Project.

Table 5. Crash Rates - No Build vs. Project

Annual	No Build		Project	
	FI	PDO	FI	PDO
Average Predicted	3.36	6.05	1.69	3.17

The Project is expected to produce a significant safety benefit, reducing the annual average predicted crash rate for fatal and serious injury (FI) from 3.36 to 1.69, or 47.6 percent (see Table 5). For property damage only (PDO), the crash rate is expected to decrease from 6.05 to 3.17, or 47.6 percent.

The Project is projected to reduce total crashes overall, leading to cost savings of nearly $26M when compared to a No Build scenario (see Table 6).

Table 6. Crash Costs - No Build vs. Project

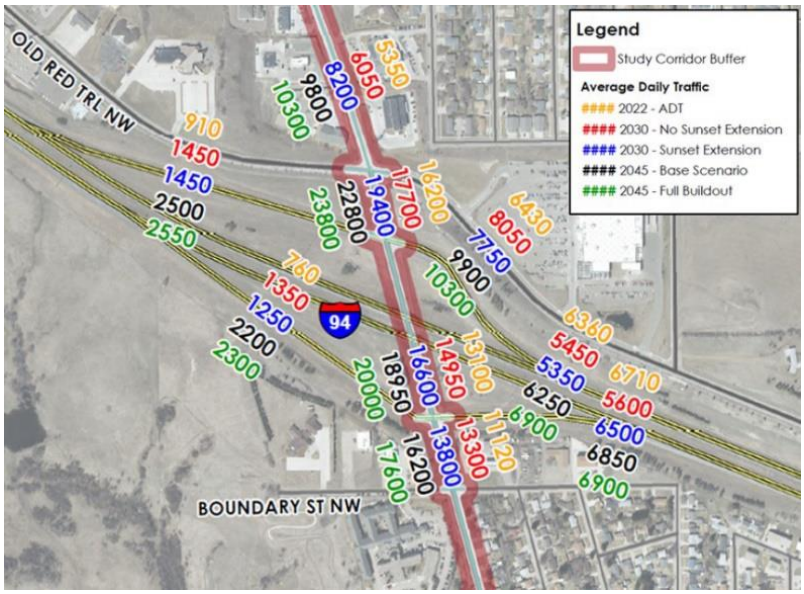
FI Crash	PDO	FI Crash	PDO	No Build	Build
67.20	121.00	33.80	63.40	-$22,134,700	-$11,156,340

Target Known Safety Hazards Related to the Bridges Geometry

As explained in more detail in the State of Good Repair section, both bridges are more than two feet less than the North Dakota Department of Transportation standard of 16'6" and have been struck six times since 2007. The Project will increase the vertical distance to 16'6" and incorporate additional width between moving traffic and the adjoining bridge piers, which will help reduce the likelihood of this type of crash occurring.

Improve the Mobility, Efficiency, or Reliability of the Movement of People and Freight

Figure 10. Average Daily Traffic Volumes



Traffic operations were analyzed as part of the Project study. Provided in Figure 10, traffic is shown for each of the road segments that are part of the Project area, with the blue number residing on the associated road segment for which the volumes have been generated. The yellow number reflects conditions in 2022 and the green number is forecasted volumes in 2045 presuming full build-out of the Sunset Dr. NW corridor. The Sunset Dr. NW corridor is expected to be extended and connect to other arterial roadways in the future from its current terminus, with additional commercial business planned along the extension. All segments are expected to increase substantially by 2030 even without a planned extension of Sunset Dr. NW, with the exception of the eastbound entrance ramp. This is, in part,

because the new Mandan High School site relocation from south and west of the Project will funnel traffic north beneath the two I-94 bridges and then east along Old Red Trail. Drivers that previously would utilize the eastbound entrance ramp will access I-94 at the Mandan Ave. Interchange (Exit 153) to the east.

Figure 11. Levels of Service - No Build - 2045

Levels of service (LOS) are expected to degrade significantly by 2045 per the no build scenario. At the westbound on/off ramp intersection, LOS is projected to decline from an existing LOS of B/B to B/C. The eastbound on/off ramp is projected to decline from an existing LOS of B/A to E/D, with northbound traffic on Sunset Dr. NW experiencing an LOS of F.

The Project will reduce the number of entrance/exit ramp intersections by one, funneling all interstate traffic to a consolidated intersection rather than to the existing two separate intersections today. The proposed consolidated intersection of the SPUI is anticipated to provide a LOS of C/C by 2045.

If the bridges are not improved, the levels of service through this corridor will degrade and negatively affect the efficiency of the transportation network, mobility of goods, accessibility and mobility of people, and the economic growth of the surrounding area.

3. Economic Competitiveness and Opportunity

NDDOT Workforce Development and Hiring Policies

NDDOT maintains many programs that provide economic opportunity to contractors and their employees. One such program is the On-the-Job Training (OJT) Program. All highway construction contractors are required to participate in the on-the-job training program that focuses on providing skills to minority, female, or economically disadvantaged individuals. This provides training opportunities for several different occupations, such as equipment operators, truck drivers, concrete finishers, structural carpenters, or other skilled craft workers.

The NDDOT also maintains the Disadvantaged Business Enterprise (DBE) Program, which encourages the development and use of companies owned and controlled by minorities, women, and socially and economically disadvantaged individuals on federally aided highway construction projects.

NDDOT also complies with all other federal regulations including Title VI/Nondiscrimination & ADA, Davis-Bacon, Title VII/Internal Equal Employment (EEO). Under the Contractor Compliance Review Program (CCR), NDDOT performs routine and randomized audits of contractors where federal funds were utilized to ensure compliance with all federal and state regulations/programs.

Improving Supply Chains

I-94

As mentioned in the State of Good Repair - Bridges Do Not Meet Current Geometric Design Standards subsection of the application, a critical event involving a bridge strike due to deficient vertical and horizontal underclearance would cause significant disruption to commuters and freight along I-94.

Sunset Dr. NW

As mentioned in the Safety and Mobility – Improve the Mobility, Efficiency, or Reliability of the Movement of People and Freight subsection, increases in future traffic volumes will result in many traffic movements through the study area operating at an unacceptable level of service (LOS) E or F.

Table 7 provides travel times for existing conditions, the 2030 No-Build scenario, the 2045 No-Build scenario, and 2045 with the single-point urban interchange (SPUI). The Project will greatly improve the average travel time in 2045 versus its 2045 No-Build scenario counterpart for southbound travel in the morning and evening timeframes. Average travel time will be reduced by 38 seconds in the morning and 8 seconds in the evening by the Project.

Northbound travel will experience slightly poorer performance in the morning, with the 2045 No-Build taking approximately 94 seconds to traverse the intersection compared to 100 seconds with the SPUI. This is compensated by an evening average travel time savings of 10 seconds between the 2045 SPUI at 101 seconds and its No-Build equivalent at 111 seconds.

Table 7. Travel Time Through Project Area - No Build vs. Project

Direction	Segment	Distance (mi)	Existing Conditions		2030 No Build		2045 No Build		2045 SPUI (Project)	
			Average Travel Time (Sec)		Average Travel Time (Sec)		Average Travel Time (Sec)		Average Travel Time (Sec)	
			AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)

SB	**Old Red Trail to Boundary St. NW**	0.31	55	(55)	58	(60)	107	(80)	69	(72)
NB	**Boundary St. NW to Old Red Trail**	0.31	84	(84)	87	(94)	94	(111)	100	(101)

While there is a six second delay between the 2045 SPUI and the 2045 No-Build scenarios, the SPUI is the only alternative that created additional separation between entrance/exit ramps and the intersections of Old Red Trail/Sunset Dr. NW and Boundary St. NW/Sunset Dr. NW. The Project will produce supply chain efficiencies by reducing congestion and overall travel times through the corridor.

4. Climate Change, Sustainability, Resiliency, and the Environment

Reduction of Air Pollution/Greenhouse Gases

The project will reduce overall emissions by nearly 12,000 metric tons over a 20-year period which has a real value of about $2.6 million. Reductions and savings, by pollutant are displayed in Table 8.

Table 8. Emissions Reduction and Cost Savings by Pollutant

Pollutant	CO_2	NO_X	SO_2	$PM_{2.5}$	Total
Change (tons)	-11,743	-9.36	-0.067	-0.202	-12,021
Real Value	$2,400,000	$112,000	$2,500	$130,000	$2,600,000

Increased emissions will be avoided by eliminating the detour necessary if the bridge were to be closed. The Project will also have a positive impact on emissions through the associated traffic operations improvements by addressing the deteriorating LOS, congestion, and traffic delays anticipated as growth continues in the area.

Resiliency of At-risk Infrastructure

Built in 1964, the Exit 152 bridge was designed prior to modern design specifications that NDDOT uses to improve resiliency to extreme weather events. North Dakota experiences extreme temperatures, precipitation events, and other severe weather. Drainage issues in the northwest quadrant of the intersection of Boundary Street and Sunset Drive cause water to sit on the roadway during heavy rains and snowmelt conditions. These drainage issues will be addressed through the Project and ensure the facility does not prematurely degrade.

In addition, NDDOT's design specifications have adapted to withstand expansion and contraction associated with acute cold and hot temperatures. Under hot conditions, concrete buckling has been a growing issue for NDDOT, and is more common in pavements associated with outdated specifications. For reenforcing steel, deicing chemicals are the primary cause of accelerated bridge concrete deterioration. Chlorides cause the steel to corrode and the corrosion expansion causes concrete to crack and spall. Traffic breaks up the delaminated concrete leaving potholes on the deck surfaces. The Project will replace the bridges using current design specifications, providing more resilient structures built to withstand the extreme climate that North Dakota infrastructure must accommodate.

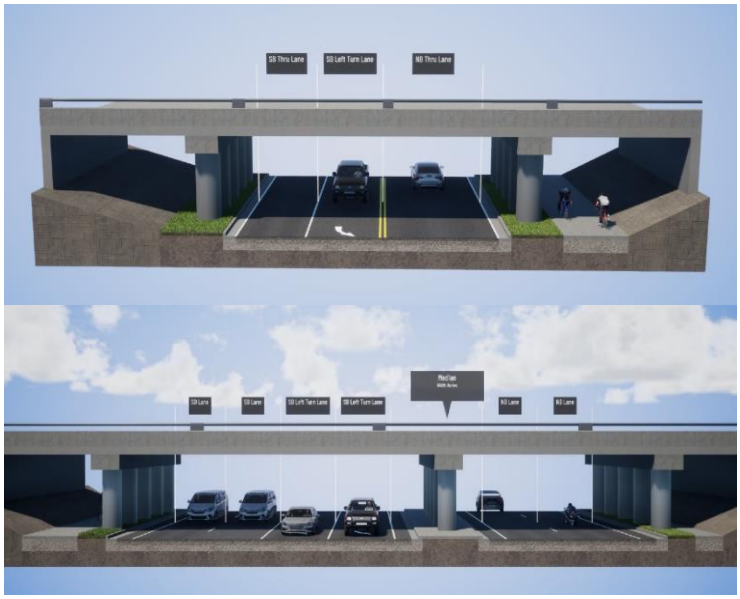
Figure 12. Concrete Buckling - I-94 Exit 152

5. Equity and Quality of Life

Incorporating Non-vehicular Transportation

The Project will relocate the existing shared-use path that is currently located on the east side of Sunset Dr. NW to the west side. This will better tie into the existing shared-use path system north and south of the Project area. In addition, a five-foot sidewalk will be provided on the east side of Sunset Dr. NW. Figure 13 illustrates the existing (top) and proposed (bottom) cross section of Sunset Dr. NW beneath the two bridges. The non-vehicular transportation options will be expanded via the provision of pedestrian-accessible routes on each side of Sunset Dr. NW.

Figure 13. Existing (top) and Project (bottom) Profiles



Improving Access to Daily Destinations

There is a breadth of different users of transportation facilities in the Project area that will benefit should the Project be selected. As previously mentioned in the Project Description, I-94 bisects the northern portion of the City of Mandan from the City's downtown and other major commercial and industrial areas of the City to the southeast. There are several major employers that reside north of I-94, most notably Cloverdale Foods, Pepsi-Cola, Mor-Gran-Sou Electric Co-op, and Walmart that rely on transportation facilities in the Project area to provide convenient access for employees and commercial truck deliveries. Several healthcare institutions abut the Project on both the north and south sides, including Virba Hospital of the Central Dakotas, CHI St. Alexius Health – Mandan Medical Plaza, and Prairie Rose Family Dentists. The City's only middle school is located north of the Project along Sunset Dr. There are a handful of places of worship, including Messiah Lutheran Church, Antioch Center, and Surprise Church – Mandan. HIT, Inc. is located

just north of the Project area, which is a non-profit organization that focuses on providing a variety of services to people with disabilities, including supported employment, work skills development, residential services, and many others. There is also a variety of housing near the Project area, including single-family residential, townhomes, and condominiums/apartments.

The Mandan Parks District maintains a shared use path system that provides connection through the Project area to the City's disc golf course and skate park, as well as the Mandan Aquatic Center, Pepsi All Seasons Arena, and existing Mandan High School. Finally, the City's only fixed bus transit route, known as the "Purple Line", runs through the Project area.

As noted in the Safety and Mobility – Improve the Mobility, Efficiency, or Reliability of the Movement of People and Freight and Economic Competitiveness and Opportunity – Improving Supply Chains subsections related to levels of service and travel times, the No Build scenario is expected to result in significantly poorer performance overall than the proposed Project.

The Project will improve access to countless daily destinations by a variety of different users whether traveling by personal vehicle, public transit, or active transportation.

6. Innovation

Project Delivery

North Dakota's highway system ranks among the best in the nation overall for cost-effectiveness and condition, according to the Annual Highway Report by the Reason Foundation. NDDOT also employs one of the smallest staff of all state DOTs, which represents the driven, hard-working, and responsible ethic characterizing the state's workforce. To deliver and sustain this cost-effectiveness and condition of the highway system, NDDOT has used innovative administrative practices to maximize investment, make data-driven decisions, and respond to the needs of residents. In 2022, the Department was awarded FHWA funds to implement a vendor agnostic e-Ticketing portal as well as to pilot the use of an asphalt extractor to analyze the properties of Recycled Asphalt Pavements. The agency continues to use innovation to keep residents safe, care for existing infrastructure, connect residents across the state, increase mobility, and invest in the future. In November 2023, the Department once again issued a solicitation for innovative transportation projects, processes, and products through its Transportation Innovation Program (TRIP), an ongoing program with annual solicitations supported by State Transportation Innovation Councils (STIC) funding.

With regard to this Project, NDDOT is bundling the two bridges into a single let project, as it will produce cost and schedule savings overall. Receiving a BIP grant for the Project will uphold NDDOT's continued use of innovation to deliver cost-effective and high-quality transportation infrastructure across the state.

Financing

In 2023, the North Dakota Legislature (Legislature) created the Flexible Transportation Fund (FTF) through Senate Bill 2113. The FTF provides funding for state projects and matching for federal funding obtained by the NDDOT. The Legislature also passed House Bill No. 1012 which

provided appropriations for the FTF. The creation of this fund built on the success of House Bill No. 1015 which was passed in 2021 and provided $100 million for matching discretionary federal grants – the first time that NDDOT received an appropriation from the state's general fund for the sole purpose of matching federal discretionary grants. This innovative and forward-thinking financing tool allows NDDOT to provide a 50-percent match for this Project.

V. BENEFIT COST ANALYSIS

The objective of a benefit-cost analysis (BCA) is to bring all the direct effects of a transportation investment into a common measure (dollars), and to account for the fact that benefits accrue over an extended period while costs are incurred primarily in the initial years. The results of the BCA are briefly summarized below.

No Build Alternative

The No Build Alternative assumes no major changes in the future to interchange design or alignment. The maintenance scheduled in 2035 would occur, but the fundamental operational issues, like the vertical clearance of the existing overpass, would not be addressed by this maintenance. As traffic grows overtime, the severity of delay is expected to increase as existing operation issues are magnified by higher volume of traffic.

Build Alternative

The Project will address deficient vertical clearance of the two bridges and will reduce instances of vehicle impingement and corresponding closures. The Project will also provide safety improvements via the reconfigured interchange design. The added capacity will reduce queues that presently extend onto the interstate during peak hours.

BCA Methodology

The following methodology and assumptions were used for the benefit-cost analysis. The main components analyzed included:

- Travel time/delay
- Crashes by severity
- Environmental and air quality impacts
- Initial capital costs: These costs were applied evenly over the duration of the construction period.
- Remaining Capital Value: The remaining capital value (value of improvement beyond the analysis period) was considered a benefit and was added to other user benefits.
- Operating and maintenance costs

Project Costs

Year 2022 Project costs for the BIP components of the overall Project are expected to be about $51.3 million. The current 2022 project costs discounted at a rate of 3.1 percent is approximately $44.0 million.

BCA Results

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 larger the ratio number, the greater the benefits per unit cost. Results of the benefit-cost analysis are shown in Table 99, with detailed documentation presented in the technical memorandum and workbook.

Table 9. Total Project Results

	Initial Capital Cost (2022 Dollars)	**Project Benefits (2022 Dollars)**	**Benefit-Cost Ratio (3.1% Discount Rate)**	**Net Present Value (2022 Dollars)**
No Build vs. Build	$44.0 million	$154.4 million	3.51	$110.4 million

Additionally, the Project benefits under various categories results in the cost benefits/savings listed in Table 1010.

Table 10. Project Benefits

Benefit Categories	**Benefit (2022 Dollars)**
Safety	$26,020,164
Air Quality Sans CO2	$243,039
Air Quality: CO2 (2%)	$2,427,349
Delay Savings	$114,838,149
Operations and Maintenance	$8,519,362
Remaining Capital Value (3.1%)	$2,387,632
Total	$154,435,695

VI. PROJECT READINESS & ENVIRONMENTAL RISK

Technical Feasibility and Technical Competency

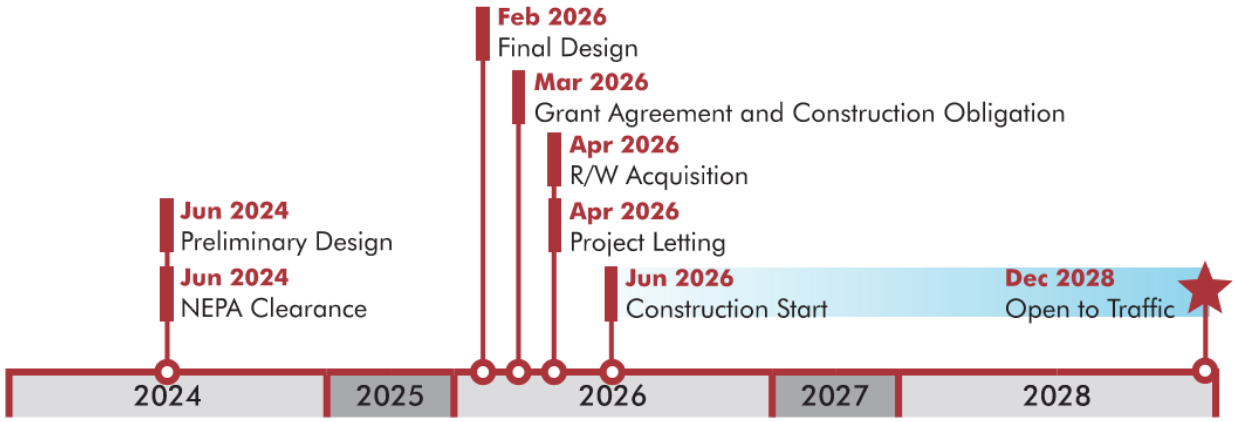
The Project is well positioned to begin construction on schedule in June 2026. As part of the feasibility and preliminary engineering report, preliminary environmental screening was conducted to identify areas that may become a concern. A full environmental review (NEPA), final design, project approvals, and ROW acquisition will be completed by April 2026. The technical challenges are well understood by NDDOT, which has a portfolio of approximately 8,518 miles of roadway and 4,858 bridges, including all interstates and interchanges in the State. It oversees the development of surface transportation including highways, bridges, rail, transit, pedestrian, and bicycle paths across the state.

Project Schedule

The Project schedule identifying the completion of major milestones is presented below (Figure 14). All planning agreements, review periods, and approvals have been considered. NDDOT will

be prepared to begin construction in June 2026 and will be completed at the end of 2028. The Project requires minimal ROW. There are minimal project risks associated with the Project as indicated throughout the Project narrative.

Figure 14. Project Schedule



*Project obligation deadline for FY 2024 funds is September 30, 2027.
** Project End Date is March 2031.
***All dates assume the grant agreement is in place prior to the project's Construction Obligation Deadline.

Required Approvals

Environmental Permits & Reviews

Required approvals will be fully understood and refined through the preliminary engineering and environmental documentation process; however, the approvals in Table 11 will be necessary:

Table 11. Permits Required

Agency	Permits/Approvals	Action Required (Status)
U.S. Army Corps of Engineers	Section 404	To be acquired
ND Department of Environmental Quality	NDPDES Construction Permit	To be acquired

State and Local Approvals

There is a broad base of support for the Project, as shown by the Letters of Support submitted as part of this application. As explained in the Project History section, the Project has been a part of numerous plans and studies. The Project will be amended in the NDDOT's 2024-2027 Statewide Transportation Improvement Program (STIP), once BIP funding is awarded. The Project is included in the Bismarck-Mandan Metropolitan Planning Organization (BMMPO) Transportation Improvement Program (TIP) in project funding year 2027.

Upon award of BIP funding, the Project will be included in the STIP through annual development cycle and/or amendment. The Project will remain programmed in the STIP through obligation (i.e., 2025-2028 STIP).

Federal Transportation Requirements Affecting State and Local Planning

As summarized above, following obligation of BIP funds, the Project will be programmed into the STIP as applicable. Obligation phasing and any revisions associated with the completed final design and/or BIP award and subsequent grant agreement will be reflected in the STIP pursuant to 23 CFR § 450.218.

Assessment of Project Risks and Mitigation Strategies

NDDOT will use risk and mitigation strategies as the project progresses through preliminary engineering, environmental documentation, ROW acquisition, and design. As noted in the Lead Applicant subsection, NDDOT has received and successfully managed more than 15 federal discretionary grants from several federal agencies since 2018. Should the Project be selected, the NDDOT will continue its success with the management of this grant, including analyzing potential risks and necessary mitigation strategies.

VII. ADMINISTRATION PRIORITIES AND DEPARTMENTAL STRATEGIC PLAN GOALS

The Project will advance USDOT's priority policy areas of equity, climate change and sustainability, and safety.

Safety

As summarized in the State of Good Repair - Bridges Do Not Meet Current Geometric Design Standards subsection, the Project will address known geometric deficiencies related to the vertical and horizontal underclearance. In addition, as summarized in the Safety and Mobility – New and Continued Safety Benefits that will Reduce Crashes subsection, the Project will create additional separation between the four intersections along Sunset Dr. NW by consolidating the I-94 entrance/exit ramps and relocating them beneath the reconstructed bridges. Lastly, as summarized in the Safety and Mobility - Improve the Mobility, Efficiency, or Reliability of the Movement of People and Freight subsection, the Project will accommodate traffic into 2045 compared to the No Build scenario, which is projected to provide unacceptable levels of service (LOS) of E or F for many traffic movements through the Project area.

Climate Change and Sustainability

As summarized in the Climate Change, Sustainability, Resiliency, and the Environment - Reduction of Air Pollution/Greenhouse Gases subsection, the project will reduce overall emissions by nearly 9,300 metric tons over a 20-year period which has a real value of about $2.2 million. Increased emissions will be avoided by eliminating detours necessary if I-94 or Sunset Dr. NW were to be closed. The Project will also have a positive impact on emissions through the associated traffic operations improvements by addressing the deteriorating LOS, congestion, and traffic delays anticipated as growth continues in the area.

A full environmental review (NEPA) will be completed by June 2024. Preliminary environmental screening shows the project is not located in Special Flood Hazard Aare (SFHA), documented

wetlands are not present, and there are no concerns with air and water quality as part of the Project. Environmental justice will be evaluated further through the environmental review (NEPA) process. Both census tracts where the Project is located and any adjoining census tracts are not classified as an Area of Persistent Poverty (APP) or a Historically Disadvantaged Community (HDC).

As noted in the Climate Change, Sustainability, Resiliency, and the Environment - Resiliency of At-risk Infrastructure subsection, there exists drainage issues northwest of the intersection of Boundary St. NW and Sunset Dr. NW within the NDDOT right-of-way that will be addressed as part of the Project. This will ensure the structure does not prematurely degrade.

Equity

A technical advisory committee comprised of staff from the Bis-Man MPO, NDDOT, City of Mandan, Morton County, and Federal Highway Administration (FHWA) was established as part of this Project. The group was engaged throughout all stages of the project, from data collection to the final report. In addition, stakeholders were invited to an in-person open house that was held at the Mandan Middle School near the Project area. City officials, business owners, landowners adjacent to the interchange, and emergency services were asked their opinions of the alternatives for the study. Finally, the general public were invited to attend an open house format meeting to learn about the Project and provide comments. The presentation to the general public and an online comment portal were made available for a fifteen-day period following the event.

The Project includes both a 10-foot shared-use path on the west side of Sunset Dr. NW and a five-foot sidewalk on the east side of Sunset Dr. NW. This is an expansion of pedestrian facilities, where only a 10-foot shared-use path exists today.

As noted in the Safety and Mobility - Improve the Mobility, Efficiency, or Reliability of the Movement of People and Freight subsection, more significant traffic delays are expected through the No Build scenario vs. the Project. The Project will help to ensure that the City's only fixed-route bus transit service that runs through the Project area will operate with less delay through 2045.

Workforce Development, Job Quality, and Wealth Creation

As provided in the Economic Competitiveness and Opportunity – NDDOT Workforce Development and Hiring Policies subsection, the NDDOT maintains several programs, including the On-the-Job Training (OJT) Program and the Disadvantaged Business Enterprise (DBE) Program that will help train, place, and retain people, and promote disadvantaged businesses.

VIII. DOT PRIORITY SELECTION CONSIDERATIONS

As the Project does not include a bridge that is in poor condition or in fair condition and at risk of falling into poor condition within the next three years, it presently may not meet DOT's priority selection considerations under (A), however, due to the current geometric deficiencies in vertical and horizontal underclearances and the documented history of bridge hits caused by freight

vehicles, it is a priority for NDDOT to address these critical safety concerns and keep the bridges from falling into poor condition in near future. Additionally, as documented in Section III, page 10, without the award of BIP funds NDDOT will not be able to complete the Project (B).

The Project also meets the following characteristics:

2) The Project will be ready to proceed to the next stage of project delivery (final design) within 12 months of a DCE Determination, as outlined in Section VI.
3) The Project includes accommodation for bicycles along the bridges as per NDDOT design standards, at a reasonable cost.
4) The contract to design and construct the Project will be in accordance with NDDOT's OJT Program and DBE Program which provide robust economic opportunity to people from all walks of life above and beyond compliance with Federal law.
5) As described in Section III, if BIP funding is not awarded, the Project would be significantly delayed from its existing schedule, unlikely to commence before September 30 of the funding fiscal year plus three years.

IX. SUPPORTING DOCUMENTS

Links to supporting documents are included throughout this narrative. All supporting documents and the BIP grant application narrative are available to view at the following webpage: www.srfconsulting.com/nddot-mandan-sunset/