HIGHWAY 210
BRAINERD, MINNESOTA
Equity, Safety, and Multimodal Connectivity Project

2023 Rebuilding American Infrastructure with Sustainability and Equity (**RAISE**) Program

PROJECT DESCRIPTION

MINNESOTA DEPARTMENT OF TRANSPORTATION

Project Name: Highway 210 Brainerd, Minnesota – Equity, Safety, and Multimodal Connectivity Project
Project Type: Rural Capital Project – Road, Repair/Rehabilitation
Total Eligible Project Cost: $54.9M
2023 RAISE Funds Requested: $24.98M

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Supporting Information can be found at:
https://www.srfconsulting.com/mndot-raise-mn210-brainerd/

DEPARTMENT OF TRANSPORTATION

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PROJECT DESCRIPTION

The Minnesota Department of Transportation (MnDOT) is submitting the FY 2023 Rebuilding American Infrastructure with Sustainability and Equity (RAISE) discretionary grant application to request $24.98 million in federal funds. The requested funds will be used to construct Highway 210 Brainerd, Minnesota – Equity, Safety, and Multimodal Connectivity Project (herein known as the Project) in Crow Wing County, Minnesota. The Project partners are Crow Wing County, City of Brainerd, City of Baxter, and Minnesota Department of Natural Resources (MnDNR). The Project's total eligible cost is $54.9 million and complies with the requirements of a rural capital project.

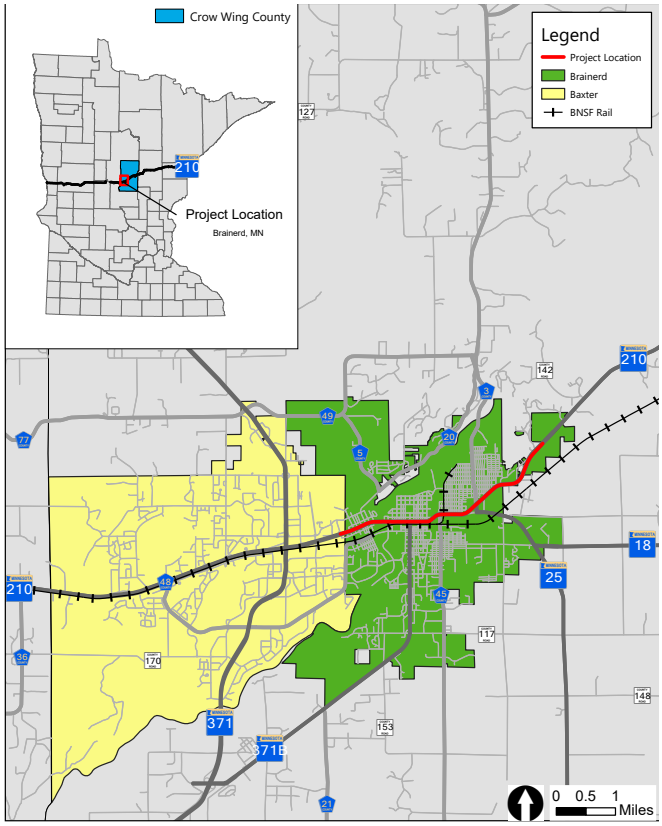

Figure 1 **Project Location Map**

The Project is a roadway repair/rehabilitation project in downtown Brainerd that restores and modernizes the existing transportation infrastructure, improves traffic safety and operations, and enhances non-motorized users' safety, mobility, and connectivity through a Complete Streets Approach.

The Project reconstructs or rehabilitates a four-mile segment of Minnesota Highway 210 (Hwy 210, also known as Washington Street) from Baxter Dr to Pine Shores Rd. This RAISE grant funding will benefit the residents and visitors of Brainerd and its neighboring city of Baxter, together known as the Brainerd Lakes Area, a vital economic hub and quintessential vacation destination in central Minnesota.

Situated on the Mississippi River, the region's diversified economy is a mix of small businesses and large corporations that offer a wide range of job opportunities for the residents. While the economy is largely driven by tourism, manufacturing, and healthcare, there is a sustained growth in the service industry sector, including retail, finance, and education. Brainerd is also a significant location on the Mississippi River Trail, a 600-mile-long scenic bicycle route between the Mississippi River's origin at Itasca State Park to the Minnesota/Iowa border.

Hwy 210 is the principal east-west arterial highway that spans 228 miles across central/northeast Minnesota from Lake Superior in the east to North Dakota state border in the west (Figure 1). This Project is regionally and nationally significant since Hwy 210 is classified as one of the Minnesota's Principal Freight Corridor and is designated as a Non-Interstate National Highway System (NHS) route. This major freight route connects commerce from Brainerd Lakes Regional Airport to the 125 businesses directly adjacent to the Project area. As the central spine of the largest town in a 60-mile radius, Hwy 210 balances numerous modes of transportation including automobiles, heavy commercial vehicles, buses, bicycles, and pedestrians, along with critical municipal functions. The posted speed limit, along the Project corridor, varies from 35 mph to 50 mph. The 2021 annual average daily traffic (AADT) volumes along the Project range from approximately 12,200 vehicles per day (vpd) to 29,100 vpd and the 2021 Heavy Commercial Average Annual Daily traffic (HCAADT) counts range from 710 to 1,150 freight vpd.

CURRENT TRANSPORTATION CHALLENGES

Despite the local and regional significance of Hwy 210 through downtown Brainerd, the current pavement is nearing the end of its service life. Additionally, there are limited

provisions for pedestrians and bicyclists to travel along or cross-over the Project corridor. In 2020, MnDOT conducted a corridor study to identify existing transportation challenges in the area. The study grouped the Project corridor into five segments (Figure 2), noted as follows:

1. **West Segment** – Project area between Baxter Dr and NW 4th St is a general commercial district and currently provides on-street vehicle parking and minimal pedestrian access.
2. **Mississippi River Bridge Segment** – Project area between NW 4th St and Chippewa St carries bridge 5060 over the Mississippi River. This segment has wide medians and narrow sidewalks.
3. **Central Segment** – Project area between Chippewa St and Kingwood St is a commercial corridor, with a focus on smaller businesses and access to the historic town center.
4. **East Mall/Railyard Segment** – Project area between Kingwood St and 10th Ave NE is a mixed-use neighborhood that includes residences, restaurants, the local grocery store, and a renovated railyard shopping center.
5. **East Segment** – Project area between 10th Ave NE and Pine Shores Rd is a residential neighborhood with access to Rice Lake and Lum Park.

The following key challenges were identified:

- Poor state of existing pavement throughout the corridor,
- Significant safety issues for pedestrians/bicyclists and vehicles due to heavy traffic volumes coupled with roadway design that does not account for modal equity,
- Traffic operational issues that get compounded during peak hours and summer tourism seasons, and
- Absence of or gaps in multimodal access including absence of Americans with Disabilities (ADA) compliant infrastructure.

The primary need for the Project is deteriorating pavement along the entire length of the Project corridor. The Central and East Mall/Railyard Segments (between NW 4th St and 10th Ave NE) was identified for reconstruction as the service life could no longer be extended with resurfacing, while the pavement service life in the West and the East Segments can be optimized through mill and overlay rehabilitation.

Safety improvements are imperative to update the current corridor design (last major reconstruction was in 1985) as it does not account for pedestrian and vehicular safety. There are numerous conflict points for turning vehicles as well as vulnerable road users such as bicyclists and pedestrians, due to more than 45 cross streets and business driveways with uncontrolled access. Additionally, narrow sidewalks adjacent to a high-volume, high-speed roadway, with no boulevard spacing, depict a lack of modal equity in roadway design.

Figure 2 Transportation Challenges along the Project Corridor (click here to expand)

Sidewalks along the Mississippi River Bridge are only six feet wide and located right next to the travel lanes. These issues are compounded under Minnesota's harsh winter conditions when plowing the roads create significant snowbanks making the bridge impassable until crews clear the sidewalks, often days later.

The Project corridor is a bottleneck for traffic in a rural community and experiences frequent disruption in travel time reliability. Due to the numerous signalized and non-signalized intersections, skewed intersections, variable speed limits through a commercial district and the neighboring residential zones, retail destinations, and significant tourist volumes, traffic often backs up during PM peak hours, leading to delays, congestion, and queuing. **This also leads to increased barriers in bike and pedestrian mobility and accessibility.** Additionally, several segments along Hwy 210 are not ADA compliant. Some of the issues include lack of detectable warning surfaces along pedestrian ramps, blocking of pedestrian access widths due to the presence of signals and light poles, non-ADA compliant driveway cross slopes, unpaved trail connections, among others. These issues create additional challenges for pedestrians with disabilities.

PROPOSED IMPROVEMENTS

The above noted challenges have presented an opportunity to bring equity and modernization to this important and historic corridor using a Complete Streets Approach. The design solutions for each segment were customized to the needs identified during extensive public outreach, conducted between 2020 and 2022 for the Project, and further balanced with the cost-effectiveness of the proposed improvements. The proposed improvements include:

- Reconstruction of the Central Segment and the East Mall/Railyard Segment (total of 1.93 miles) to improve the conditions of deteriorating pavement which is nearing the end of its service life and to improve the flow of traffic,
- Rehabilitation of the West Segment and the East Segment (total of 1.62 miles) using bituminous mill and overlay, to improve the deteriorating pavement,
- Redecking bridge 5060 over the Mississippi River (Bridge Segment) to improve lane configuration, widen sidewalks to accommodate enhanced multimodal connectivity, and add concrete barriers to provide safe pedestrian and bicyclist movements,
- Realignment and reconstruction of a quarter-mile segment of Hwy 25 to improve access and connection to Hwy 210,
- Construction of two roundabouts (RABs), along Hwy 210 at Hwy 25 intersection and 8th Ave NE intersection, to streamline access, enhance safety, and reduce travel delays for motorists,
- Replacement and widening of a total of 1.42 miles of mixed-use trails and 2.72 miles of sidewalks along the entire Project corridor to address the current gaps in multimodal connectivity. The width of the proposed trails varies from 7 feet to 10 feet along the corridor,
- Construction of raised medians throughout the corridor to create right-in/right-out turns and extended left-turn lanes to improve safety and address queuing issues,
- Several pedestrian and bicycle enhancements with ADA upgrades to eliminate conflict points and accommodate safer pedestrian movements. These improvements include:
  - » traffic bumpouts, raised medians, and pedestrian refuges to reduce pedestrian crossing distances,
  - » closing and reconfiguring 8th Ave NE, between Hwy 210 and Hwy 25, to a multi-use trail to provide access and improve multimodal connectivity,
  - » narrowing of boulevards to provide improved alignment with street connections,
  - » rectangular rapid flashing beacons (RRFB) to alert motorists of pedestrian crossing, and
  - » marked crosswalks to provide safe crossing zones for pedestrians and bicyclists.
- Repaving of 95 driveway entrances along the Project corridor to ensure cross slopes for sidewalks and trails meet ADA compliance,
- Replacement of five signal systems at the intersections of Hwy 210 with Baxter Dr, NW 4th St, N 4th St, N 8th St, and Gillis Ave. to improve signal timings corresponding to the current traffic demands,

- Removal of the signal systems at 4th Ave NE and 8th Ave NE,
- Replacement of stormwater infrastructure to expand capacity to resolve flooding along the corridor,
- Replacement of or improvements to city utilities (sanitary sewer, water main, and storm sewer) to provide improved and resilient infrastructure, and
- Replacement of landscaping and streetlighting along Hwy 210 to upgrade the urban visual quality of the area.

These Project improvements will benefit the Brainerd Lakes community by improving multimodal safety, travel time reliability, access, and connectivity to everyday destinations.

DETAILED STATEMENT OF WORK/DESIGN STATUS

The Project is currently proceeding through the preliminary engineering design phase. MnDOT has hired engineering consultant teams to work on developing the preliminary design for the Project including environmental documentation. The Project layout is currently under MnDOT review and is expected to be approved by March 2023. The environmental assessment is currently progressing through a Federal Categorical Exclusion (CATEX) and is 90 percent complete. The CATEX document approval is expected by November 2023. The Project cost estimates are based on 30 percent engineering design. So far MnDOT has spent $1 million, in MnDOT Project Development funds, on the corridor study, public engagement, environmental assessment, and preliminary design of the Project. The public outreach for the Project has been going on since early 2020.

Final design plans and specifications will be prepared in accordance with MnDOT Design Manuals, Standards, and as otherwise indicated in the Request for Proposals issued for this work. Description of the technical and engineering scope of work is detailed here. Final design engineering will include preparation of 60 percent, 90 percent, and 100 percent construction plans, cost estimates, signal, signing, and lighting designs, traffic management plans, right-of-way acquisition plans, and risk management plans, among others. MnDOT will hire contractors to construct the Project in accordance with its workforce and labor development plans. Construction is scheduled to begin in February 2026. MnDOT will be responsible for facilitating the coordination of all activities necessary for implementation of the Project with the project partners. **MnDOT along with Crow Wing County, the City of Brainerd, the City of Baxter, and MnDNR will cover the maintenance costs of infrastructure components under their respective jurisdictions, upon completion of the Project.**

PROJECT HISTORY

The city of Brainerd was established in 1871 and celebrated its 150th anniversary in 2021. Nicknamed “The Crossing”, it had the Union Pacific Railroad crossing bridge over the Mississippi River. The gravel street, which would later become Hwy 210, was adjacent to the railroad. The segment of Hwy 210 through Brainerd was most recently reconstructed in 1985. The bridge over the Mississippi River was built in 1932 and was reconstructed in 1984. The Project corridor received bituminous overlays in 1997 and 2007. Spot improvements to place concrete medians and pedestrian curb ramps at several places, were also a part of the overlay projects.

It has been 38 years since the roadway was last reconstructed. With 29,100 vehicles per day crossing the bridge alone, this corridor is crucial to Minnesota’s transportation network. MnDOT has been pursuing construction of the Project actively since 2019, noting the existing deficiencies for pedestrians and the deteriorating pavement. The ongoing efforts of public engagement began in 2020 for gauging public interests in project improvements. The Hwy 210Corridor Study to study the Existing and 2045 No-build conditions, was completed in November of 2020.

PROJECT LOCATION

The Project is located in Minnesota's Eighth congressional district in Crow Wing County. Founded 150 years ago, the Brainerd Lakes Area is a historical community and a vital economic hub for central Minnesota. Brainerd is a popular vacation destination for residents of the Twin Cities metropolitan area to experience fishing, skiing, and festivals like Brainerd International Raceway. The Project runs approximately four miles along Hwy 210 bound by Baxter Dr to the west and Pine Shores Rd to the east. The geospatial location of the Project is approximately 46.35814°, - 94.20199°.

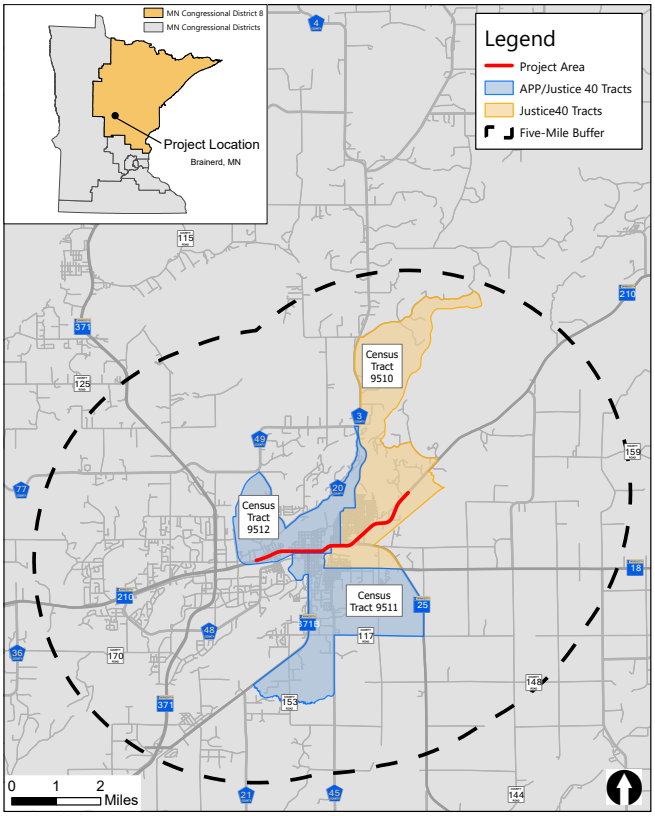

Figure 3 **Project Location in Regional context**

Brainerd is the county seat for Crow Wing County. According to the Crow Wing County 2021 Economic Development Report, the County has a lower median household income, median family income, and per capita income than the state of Minnesota. The County also has a higher percentage of households with incomes below $50,000. Overall, Crow Wing County has the 37th highest median household income of the 87 counties in Minnesota. The County suffered a negative natural increase, i.e., more deaths than births from 2020 to 2021, but also experienced net in-migration, i.e., more people moved in than moved out. In addition to domestic in-migration, Crow Wing County welcomed net international in-migration, gaining new Minnesotans from foreign countries. Brainerd has a population of 14,395 and Baxter has a population of nearly 8,612 residents as per the 2020 American Community Survey (ACS) estimates.

According to the RAISE grant mapping tool, the Project is located outside of an urbanized area of population 200,000, and therefore, is designated as a rural project. The Project sits across two census tracts (9512 and 9510), of which census tract 9512 is an Area of Persistent Poverty (APP). Census tract 9510 does not qualify as an APP but is designated as a Justice 40 Disadvantaged community under workforce development (low median income and high school degree non-attainment) category.

Since more than 50 percent of the Project cost is spent in census tract 9512, the Project directly benefits the underserved communities in Brainerd.

Census tract 9512 and the neighboring census tract 9511 are the only two Areas of Persistent Poverty (APP) in Crow Wing County and are also designated as a Qualified Opportunity Zone. The Project is not located in Historically Disadvantaged Communities (HDC), Empowerment Zones, Promise Zones, or Choice Neighborhoods.

SUPPORTING DOCUMENTS

Links to supporting documents are included throughout this narrative. All supporting documents and the RAISE grant application narrative are available to view at the following webpage:

https://www.srfconsulting.com/mndot-raise-mn210-brainerd/