

# CSAH 152 (Washington Ave N) Bridge Replacement Project

## Attachment 01 | Project Narrative

<b>Project Name</b>			
CSAH 152 (Washington Ave N) Bridge Replacement Project			
<b>City(ies)</b>			
Minneapolis	N/A	N/A	
<b>Commissioner Districts</b>			
2	N/A	N/A	
<b>Capital Project Number</b>		<b>Project Category</b>	
2176400		Bridge Replacement	
<b>Scoping Manager</b>		<b>Scoping Form Revision Dates</b>	
Jason Pieper		4/24/2020	



**Project Summary**  
Replace Bridge #91333 along Washington Ave N (CSAH 152) over Bassett Creek in the City of Minneapolis.

**Roadway History**  
The existing culvert (built in 1923) consists of a concrete masonry arch that is entirely buried underneath CSAH 152 (Washington Avenue). The culvert received an NBI rating of 4 based on the rate and extent of deterioration experienced along the walls and arch, especially near the waterline. Additionally, there is evidence of spalling in between masonry blocks. Given its current condition, this structure has been classified as structurally deficient. Bridge maintenance activities are no longer cost effective in extending the useful life of this bridge.

**Anticipated Project Timeline**  
Scoping: 2018 - 2020  
Design: 2021 - 2023  
R/W Acquisition: 2023  
Bid Advertisement: Q1 2024  
Construction: Q2 2024 - Q4 2024

**Project Description and Benefits**  
The project includes a full replacement of the existing structure. The current barrel length is approximately 98' that provides a three-lane section for people driving, buffered bike lanes for people biking, on-road parking accommodations on both sides, along with sidewalk accommodations on both sides (with some streetscaping features) for people walking. It is anticipated that the existing roadway environment will primarily be replaced in-kind as the proposed scope of work will likely require minimal impacts to the roadway surface. The new structure will likely be designed to provide a 75-year (or greater) service life.

**Project Delivery Responsibilities**  
Preliminary Design: Consultant  
Final Design: Consultant  
Construction Services: Consultant

Project Budget -	Project Level
Construction:	\$ 2,740,000
Cost Estimate Year:	2020
Construction Year:	2024
Annual Inflation Rate:	3.0%
Inflated Construction:	\$ 3,080,000
Design Services:	\$ 460,000
R/W Acquisition:	\$ 100,000
Other (Utility Burial):	\$ -
Construction Services:	\$ 310,000
Contingency:	\$ 820,000
<b>Total Project Budget:</b>	<b>\$ 4,770,000</b>

**Project Risks & Uncertainties**  
- The proposed project is located within the Minneapolis Warehouse Historic District which includes specific guidelines for street design in the area

**Funding Notes**  
The project is eligible for federal funding given the bridge length (greater than 20'), condition (NBI Rating of 4 or less) and functional classification of CSAH 152 (A-Minor Arterial).

# CSAH 9 (Rockford Rd) Bridge Replacement Project

Attachment 01 | Project Narrative

## Project Name

CSAH 9 (Rockford Road) Bridge Replacement Project

## City(ies)

New Hope Plymouth N/A N/A

## Commisioner Districts

2 N/A N/A

## Capital Project Number

2163700

## Project Category

Bridge Replacement

## Scoping Manager

Josh Potter

## Scoping Form Revision Dates

4/29/2020

## Project Summary

Participate in MnDOT's Project to replace existing Bridge #27551 along Rockford Road (CSAH 9) at TH 169 in the Cities of Plymouth and New Hope.

## Roadway History

The existing bridge is nearly 50 years old. The bridge currently does not include any accomodations for people walking or biking. Therefore, non-motorized users are required to travel either in the median or along the side of the roadway, resulting in a feeling of discomfort. The bridge is currently designed to provide people driving with a high level of service, allowing vehicles to complete turning movements at relatively high speeds. The existing bridge (#27551) is owned and maintained by MnDOT; who has indicated that improvements are necessary based on its age (built in 1972) and current condition.

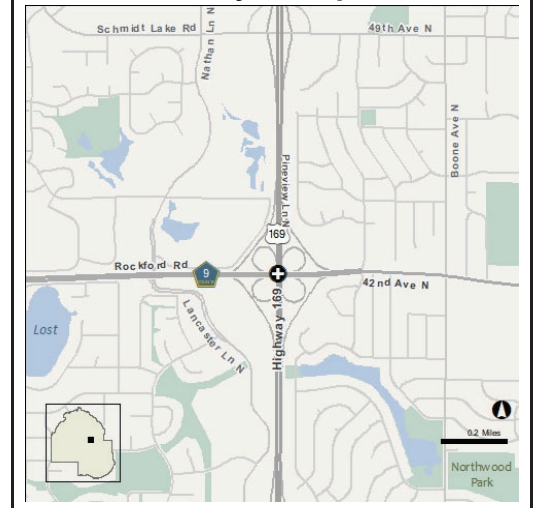
## Project Description and Benefits

The proposed project will replace the existing bridge over TH 169. The existing structure is deteriorating and reaching the end of its serviceable life. Replacing the bridge will keep the bridge open for people biking, driving, walking, and using transit. It is anticipated that the new bridge will include a wider deck to allow for the introduction of trails on both sides. These facilities are key to promoting choices in transportation, especially at TH 169 which is currently acting as a barrier to multi-modal users.

## Project Risks & Uncertainties

- Potential for scope creep given the nearby interchange design (full cloverleaf) that is not typical for this area

## Project Map



## Anticipated Project Timeline

Scoping: 2018 - 2019

Design: 2020 - 2022

R/W Acquisition: 2022 - 2023

Bid Advertisement: Q1 2023

Construction: Q2 2023 - Q4 2024

## Project Delivery Responsibilities

Preliminary Design: MnDOT

Final Design: MnDOT

Construction Services: MnDOT

Project Budget -	Project Level
Construction:	\$ 6,620,000
Cost Estimate Year:	2020
Construction Year:	2023
Annual Inflation Rate:	3.0%
Inflated Construction:	\$ 7,230,000
Design Services:	\$ 1,080,000
R/W Acquisition:	\$ -
Other (Utility Burial):	\$ -
Construction Services:	\$ 720,000
Contingency:	\$ 1,990,000
<b>Total Project Budget:</b>	<b>\$ 11,020,000</b>

## Funding Notes

This project is eligible for federal funding through the Metropolitan Council's Regional Solicitation given the bridge length (greater than 20') and condition (NBI Rating of 4 or less) and the functional classification of CSAH 9 (A-Minor Arterial).

# 3rd Street Bridge

## Background, Scope & Impact

### **Background**

The Third Street Bridge is a critical arterial bridge that connects the Mounds Park neighborhood to Lowertown and the downtown Entertainment District. Built in 1982, it is the longest bridge owned by the City of Saint Paul, spanning over 2100 feet. When operating at full four-lane capacity, average daily bridge traffic was 14,400 vehicles. The bridge has been restricted to three traffic lanes and one 6-foot wide sidewalk since September 2014 due to structural deficiencies.

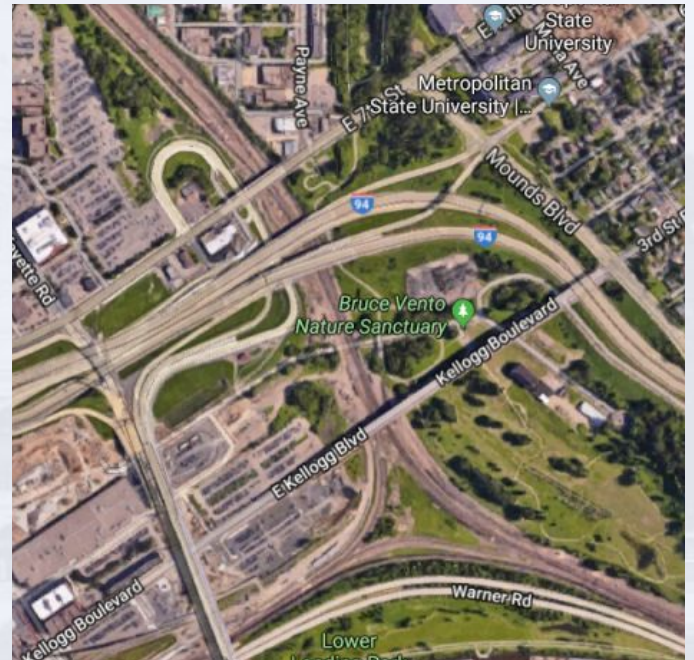
### **Scope**

The project will reconstruct the Third Street Bridge from Lafayette St to Mounds Blvd. The construction project will cost \$63 million and involves demolition of the current structure and reconstruction of piers, abutments, beams, bridge deck, railings, parapets and approach roadways. The City of Saint Paul is requesting \$48 million from the State to complete this project.

The Third Street Bridge is the proposed route for Gold Line BRT as it enters downtown Saint Paul, enroute to the Union Depot transportation hub. The City will coordinate with its regional partners to improve traffic signal and intersection accommodations for BRT as part of this project.

### **Decision to Reconstruct**

In order to provide safe and reliable access into downtown Saint Paul, the City must invest now to restore service and operations to the Third Street Bridge. It is essential to address this issue with a long-term, fiscally-responsible solution. Reconstruction provides this solution, offering a 75-year service life, eliminating costly and inefficient maintenance of a substandard bridge, and providing multimodal facilities that encourage, rather than restrict, future transportation demands.



Reconstruction of the Third Street Bridge will allow Saint Paul and the State of Minnesota to maximize the potential of its valuable resources to meet the region's current and future public infrastructure needs.

### **Future Impact on Saint Paul**

More people are choosing to live and work downtown, and that trend is expected to continue over the next decade. As downtown Saint Paul continues to grow, the Third Street Bridge will become an increasingly essential link between Lowertown, the Mounds Park neighborhood, and multimodal regional transportation systems. It further provides access for east side residents to the workforce opportunities generated by recent downtown business development.

## County Road C (CSAH 23) Bridge 62519 over BNSF RR Bridge Replacement Proposal

- Bridge Sufficiency Rating- 43.6
- Bridge 62519 is Fracture Critical
- Bridge 62519 is Load Limited to 36 Tons- Single Axle; 40 Tons- Double Axle; 40 Tons- Semi
- Bridge 62519 Lacks Bike and Pedestrian Accommodations
- County Road C is a Major County-Wide Bicycle and Pedestrian Corridor
- Federal STP Funding Request- \$5,000,000; Local Match- \$6,098,829

### View of Bridge 62519, Eastbound Lanes



## Old Highway 8 (CSAH 77) Bridge 4533 over Minnesota Commercial RR Bridge Replacement Proposal

- Bridge Sufficiency Rating- 45.9
- Bridge 4533 is Load Limited to 26 Tons- Single Axle; 40 Tons- Double Axle; 40 Tons- Semi
- Bridge 4533 Lacks Bike and Pedestrian Accommodations
- Old Highway 8 is a County-Wide Bicycle and Pedestrian Connector Corridor
- Federal STP Funding Request- \$1,937,365; Local Match- \$484,341

### View of Bridge 4533, Detail of Beam Deterioration



# CSAH 152 (Osseo Rd) Bridge Rehabilitation Project

Attachment 01 | Project Narrative

<b>Project Name</b>			
CSAH 152 (Osseo Rd) Bridge Rehabilitation Project			
<b>City(ies)</b>			
Minneapolis	N/A	N/A	N/A
<b>Commissioner Districts</b>			
2	N/A	N/A	
<b>Capital Project Number</b>		<b>Project Category</b>	
2176500		Bridge Rehabilitation	
<b>Scoping Manager</b>		<b>Scoping Form Revision Dates</b>	
Jason Pieper		5/12/2020	

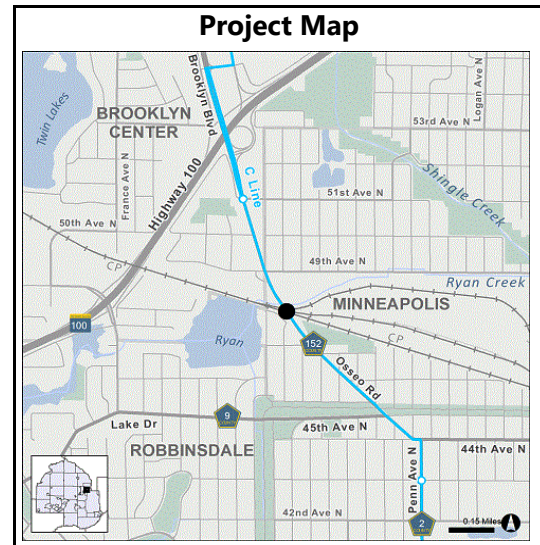
**Project Summary**  
Rehabilitate Bridge #27152 along Osseo Road (CSAH 152) over the Canadian Pacific (CP) Railroad in the City of Minneapolis.

**Roadway History**  
The existing bridge (built in 1972) consists of a pre-stressed concrete beam design that spans over the CP Railroad. The overall bridge is generally in good condition as major structural components are all rated fair to good. However, the bridge expansion joints are in relatively poor condition; showing signs of leaking. This has resulted in failure of slope paving located in the south abutment. If left unrepaired, the structural integrity of the foundations could be compromised.

**Project Description and Benefits**  
The proposed project includes the rehabilitation of the existing bridge as maintenance activities are no longer cost effective in extending the bridge's useful life. At this time, the primary activities include repairs to the expansion joints and the slope paving. In addition, minor repairs to the approach panels and sidewalk. These improvements are anticipated to extend the useful life of the bridge by approximately 20 years.

It is anticipated that this project will be coordinated with the county's Osseo Road Reconstruction Project (CP 2174100) that is located within the project limits.

**Project Risks & Uncertainties**



**Project Timeline**

- Scoping: 2018 - 2020
- Design: 2021
- R/W Acquisition: 2021
- Bid Advertisement: Q1 2022
- Construction: Q2 2022 - Q4 2022

**Project Delivery Responsibilities**

- Preliminary Design: Hennepin County
- Final Design: Hennepin County
- Construction Services: Hennepin County

Project Budget -	Project Level
Construction: \$	2,630,000
Cost Estimate Year:	2020
Construction Year:	2024
Annual Inflation Rate:	3.0%
Inflated Construction: \$	2,960,000
Design Services: \$	150,000
R/W Acquisition: \$	50,000
Other (Utility Burial): \$	-
Construction Services: \$	-
Contingency: \$	790,000
<b>Total Project Budget: \$</b>	<b>3,950,000</b>

**Funding Notes**  
The project is eligible for federal funding given the bridge length (greater than 20'), condition (NBI Rating of 5 or less) and functional classification of CSAH 152 (A-Minor Arterial).

# Nicollet Avenue South over Minnehaha Creek

## Applicant: City of Minneapolis



Minnehaha Parkway under Nicollet Ave. Bridge



Project Location

Requested Award Amount = \$7,000,000

Project Cost = \$20,500,000

### Project Description

This project is for the rehabilitation of Bridge No. 90591. The 16-span bridge carries Nicollet Avenue South over Minnehaha Creek and Minnehaha Parkway in the City of Minneapolis. The roadway is classified as an A minor reliever roadway. Project limits are: East Minnehaha Parkway to West 52nd Street (total project length of 1,020 ft.; bridge length of 818 ft.).

The bridge was built in 1923 and repaired in 1973. Bridge 90591, is 63 ft. wide has a total roadway width of 36 ft., and carries two 11 ft. lanes of traffic, two 7 ft. bike lanes, and two 12 ft. sidewalks. It has a Sufficiency Rating of 56.6.

MnDOT traffic data indicates that the AADT in 2015 was 8,900 and City of Minneapolis counts indicate that over 1000 cyclists and over 600 pedestrians travel beneath the bridge each day. This segment of Nicollet Avenue currently includes Metro Transit local bus Route 18 which runs from Downtown Minneapolis to South Bloomington. Nicollet Avenue is also designated as a transit priority corridor in the draft Transportation Action Plan. An on-street bikeway was added to Nicollet Avenue from 40th Street to 61st Street in 2016, which includes Bridge 90591.

The bridge was last inspected by the City of Minneapolis on July 10, 2019. Cracks and deteriorated concrete were found on the underside of the deck, spandrel columns, and piers. The concrete deck is in poor condition, it has an NBI rating of 4. The deck joint system has failed allowing salt water to penetrate through the joints and into the cap beams and spandrel columns. The 2019 report states, "Most of the underside of the deck has advanced spalls, rebar is exposed and there is section loss through the 2nd reinforcement mat. City crews are applying shotcrete to many places during inspection". The funds from the Met Council regional solicitation will go toward the repairs and rehabilitation of Bridge 90591. The bridge is eligible for listing on the National Register of Historic Places and rehabilitation is the City's preferred solution. Rehabilitation will allow the bridge to successfully continue as an important transportation artery for over 30 more years. In general, the funds will support deck removal and replacement, spandrel column and beam removal and replacement, concrete surface repairs at the arch ribs and piers, sidewalk replacement, a new concrete railing, protected bike lanes, a new drainage system, and a new lighting system.

### Project Benefit

The bridge supports Nicollet Avenue over Minnehaha Creek and Parkway in a beautiful park-like setting. This portion of the parkway is heavily used, providing a scenic route for over 1000 cyclists and over 600 pedestrians per day as well as many kayakers, rafters and canoers who utilize the creek. This cost effective rehabilitation will save taxpayers millions of dollars and improve the safety conditions for drivers, bicyclists, pedestrians and kayakers. Repairing the bridge will improve the sufficiency rating and functional capacity of the bridge for increased roadway usage such as for the proposed Nicollet Avenue BRT. Repairs will maintain the structure as an important historic resource and will improve the aesthetics of the bridge, enhancing the livability and quality of life for Minneapolis residents and parkway/trail/creek users.