## DBE WORKSHOP & Networking Summit

January 29-30, 2025

# Blatnik Bridge Replacement Project

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## **Project Background**





#### **Partnership – MnDOT and WisDOT**

- Two DOTs but one Twin Ports
- Frequent Collaboration
  - Border bridges
  - Maintenance
  - Inspection

Recent examples:

- Red Wing Bridge (US 63)
- St. Croix Crossing (WI 64/MN 36)
- Dresbach Bridge (IH 94)





#### **History and Future of the Blatnik Bridge**



# History and future of the Blatnik Bridge





#### Blatnik Bridge Overview

- Opened to traffic in **1961**
- Approximately 8,000 feet long (1.5 miles)
- 120-foot clearance over St. Louis Bay
- Carries 4 traffic lanes (2 in each direction)
- Accommodates 33,021 vehicles per day (2019)
- Bridge conditions limit vehicle weight to about 60% of a standard highway bridge





## Blatnik Analogy...

#### Looks good from 50 ft at 50 mph...





## Looks good from 50 ft at 50 mph...





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## Leading Up to the Project

- 2009 memo from MnDOT State Bridge and Maintenance Engineer
  - Recommendation to replace at least the truss spans in 2030 2035 timeframe

#### 2017 Blatnik Management Study

- Strategies to maintain the bridge for 15 40 years within parameters with life cycle costs
- Lowest life cycle cost to replace the entire bridge

#### 2017 – 2020 Blatnik Technical Studies

- Filling information gaps/needs identified in the 2017 Management Study
- Boots on the ground physical testing on the bridge
- August 2020: Joint project team kick-off for environmental and early engineering



#### Where We Have Been (NEPA Process)





#### **Alternatives Development**

## **Detailed Evaluation**







## **Selecting the Preferred Alternative**

## The preferred alternative:

- 1. Utilizes existing alignment
- 2. Provides a direct connection to USH 53 in WI
- 3. Includes Shared Use Path
- 4. Provides local road connection via interchange





## Why Existing Alignment was Selected

- Minimizes impacts to property and wetlands
- Allows for one phase construction, providing the shortest overall construction duration
- Provides the greatest schedule acceleration opportunity since crews can work on any portion of the project at any time
- Closing the existing bridge eliminates risk of construction next to traveling vehicles
- Provides the lowest cost alternative





## **Project Scope and Design**





#### **Project Plans – General Layout**





#### **Project Plans – Minnesota Approach**





### **Project Plans – Wisconsin Approach**





## **Current Wisconsin Approach**





## **Project Layout**

## Proposed Wisconsin Interchange

#### City of Superior USH 53/IH535 Interchange

- Offset RAB Interchange
- Pedestrian connections
- OSOW Compliant





#### **Project Layout – Bridge Profile**





#### **Technical Studies & Preliminary Engineering**

Navigation Openings





#### MAIN NAVIGATION OPENING

#### HOWARDS POCKET NAVIGATION OPENING



## **Visual Quality and Impact**





## **Visualizations of Main Span Options**

#### **Tied Arch**





## **Visualizations of Main Span Options**

## **Cable Stayed**





## **Project Schedule**





#### **Federal Funding Awarded**

The project received its full federal funding request **(\$1.058 Billion)** on the INFRA Grant. Minnesota and Wisconsin have applied for additional grant funding for the project.





#### **Project Procurement and Schedule**

- Largest interstate bridge project between MN and WI
- First Joint D-B project between MN and WI
- Requirement to be under contract by September 2026
- WI currently D-B program in pilot stage.

"This is the biggest...grant in the history of America for this particular program for highways and bridges" U.S. Senator Amy Klobuchar.

The Blatnik Bridge Replacement on IH 535 between Duluth, MN and Superior, WI recently received a historical INFRA grant from the US Department of Transportation (US DOT) of \$1,058,398,200.

The grant requires that we have the project under contract by September 2026.

#### SUPERIOR, WISCONSIN

SUPER



## **Project Schedule**





## **Project Schedule**





## **Design Build**



#### **Design-Build Method**

Why was this method chosen for the Blatnik Bridge project?

- Efficient coordination between the design team and the construction team is especially important for the unique portions of the project (large bridge, shipping channel, etc.)
- Design-Build projects typically result in lower cost growth after construction begins, fewer construction claims, and less delays.
- Allows for alternative design and construction innovation.
- Other recent Design-Build projects at major river crossings:
  - I-35W Mississippi River Bridge (St. Anthony Falls)
  - Hastings Bridge Replacement
  - I-35W Minnesota River Bridge



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#### **Design-Build Method**

#### **DBE/Small Businesses**

How are DBEs Required in a Design-Build Contract?

- Percentage set similarly to "normal" Bid-Build prior to letting
- Scope <u>partially</u> known: no quantities
- Open-Ended Performance Plans (OEPPs)
- DBE/Small Business plan/narrative
- Continued coordination for entire life of project
- Best-Value Scoring
  - OEPP narrative
  - Small business/contract criteria? (Example: MN IH 494)
  - Only possibilities: no decisions made





#### **Design-Build Method**

## **DBE/Small Businesses**

#### DBE and Small Business Involvement

- Shortlisting: teams known
- Pairing of contractor and consultant
- RFP Kickoff/DBE Meet and Greet
- Teams highly interested in confidentiality
- May ask high-priority questions during advertisement
- DBEs encouraged to investigate DB subcontract structures







## **Typical DBE Opportunities**

We are a few years away from major construction. At this point, what do you foresee as the biggest DBE opportunities with this project?

While we're a few years away from construction on the bridge, the project team will be looking for opportunities to increase opportunities for DBEs. The project team is currently discussing how to develop the DBE plan for this project. In terms of opportunities during construction, the team is currently identifying the following areas:

#### SUBS

Ironworkers Concrete Pumping Erosion Control Trucking Electrical Design

#### SUPPLIERS

Rebar Supplier Structural Metals (bearings, railing, expansion joints.)



### **Stay Connected**

- Sign up for email updates on the project website
- Click "Sign up for project email updates"

#### I-535 Blatnik Bridge Duluth, Minn. and Superior, Wis.

Project Home Accessibility Meetings History Contacts

#### About this project

MnDOT is working toward a future project to address concerns about the John A. Blatnik Bridge, one of two bridges that connects Duluth, Minn., to Superior, Wis. Carrying I-535 over the St. Louis Bay, the Blatnik is an important freight and commercial connection between the Twin Ports.

Jointly owned and managed by MnDOT and WisDOT, it is Minnesota's second longest bridge and serves an average of 33,021 cars traveling between the two cities each day. MnDOT will lead the project, which will address aging infrastructure, improve safety and better accommodate oversize/overweight loads.

For more information on the bridge, click here.

#### Project purpose

Significant deterioration in truss elements



Duluth

Blatnik Bridge Project

Click image for full-size PDF

Work zone

#### 2020 to 2024: Preferred Alternative Selection and Environmental Documentation 2024 to 2026: Preliminary Design

- 2026 to 2028: Final Design
- 2028 to 2031: Construction

#### Location

Schedule

 I-535 over the St. Louis Bay between Duluth, Minn., and Superior, Wis.

#### Benefits

- Improve safety
- Better accommodate oversize/overweight loads

#### Cost

Unknown at this time



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2025

## **Stay Connected**

• Under questions select "Yes" to the "Are you a consultant and/or work in an industry . . . "





## **Stay Connected**

#### • MnDOT's Design-Build Program webpage:

Here we are!!!

#### Design-Build

Home About Projects Resources Contacts

Design-Build project information public site: Ask the Design-Build contact for permanent access.

#### Projects

#### **Potential future projects**

Blatnik Bridge Project
 SP 6981-26, Letting Summer 2026

#### **Projects currently in procurement**

#### **Projects under construction**

- <u>Statewide Pedestrian Bridge</u> SP 8816-3427, May 8, 2024
- <u>I-494 Airport to Hwy 169</u>
  SP 2785-424, Letting Jan. 18, 2023
- I-90 Unbonded Overlay from Hwy 169 to 22 SP 2280-143, Letting Oct. 12, 2022



The Hastings Bridge replacement Main Span was constructed off-site and lifted into place from barges in the river.





## **Thank You!**

#### Blatnik Bridge Replacement Team

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# Don't forget to fill out the evaluation for this session.

## These evaluations help shape future events.

# **THANK YOU**