



Blatnik Bridge Project Update
for the MIC Policy Board
Concept Alignments/Screening Criteria/Recommendation

Wednesday, May 19, 2021

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Welcome



PROJECT WEBSITES:

MnDOT: <https://www.dot.state.mn.us/d1/projects/blatnik-bridge/>

WisDOT: <https://wisconsindot.gov/Pages/projects/by-region/nw/blatnikbridge/default.aspx>



CONTACTS:

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Meeting Purpose

- To inform the MIC Policy Board on the current status of the Blatnik Bridge Project
- It will be fast and too much information to digest in 30 minutes
- Reference material will be made available for further study
- Focus on the process
- To solicit input

National Environmental Policy Act (NEPA)

- Is a well-defined process
- Requires Purpose and Need and screening criteria to be developed prior to concepts or alternatives
- Needs must be supported/justified with factual objective information
- Funding and cost cannot be considered until later in the process
- The process is designed to get “everything on the table”
- Think of it as a funnel: We start out with a lot of options – the wide part of the funnel
- Over time, we screen and refine options using pre-defined criteria
- Data does the filtering for us
- In the end, we come to a preferred alternative in an objective and transparent fashion – the narrow end of the funnel

Purpose Statement

“Provide an interstate highway connection across the St. Louis Bay that does not restrict the movement of freight and provides local, regional, and international movement in a reliable and efficient manner.”



Project Needs

Primary needs

- Bridge condition – truss and approach spans
- Vehicle safety – crash rates, level of service, geometric influences, and weather influences
- Vehicle mobility – traffic operations, oversize overweight, and freight

Secondary needs

- Walkability/ bikeability

Additional considerations

- Maritime freight navigation
- Connectivity and redundancy
- Regulatory requirements
- Railroad crossings
- Asset Management
- Asset Security Concern
- Operational Requirements

Primary Need: Bridge Condition

- **High priority improvement project for both MnDOT and WisDOT**
 - Highest priority structure in the MnDOT inventory for risk of service interruption
- **Nearing end of service life**
 - Opened to traffic in 1961
 - Outdated design details
 - Deterioration continues
- **Maintenance frequency increasing**
 - Gusset plates and suspender cables need ongoing maintenance
 - Inspection occurs every year with a major maintenance project every 4 years



Needs: It's Not All About the Bridge Condition Needs

- Bridge condition is where it started
- But there is more to the primary needs (more later)
 - Vehicle safety
 - Vehicle mobility
 - Connection issues in Wisconsin
- Secondary needs:
 - Walkability/bikeability

Project Schedule

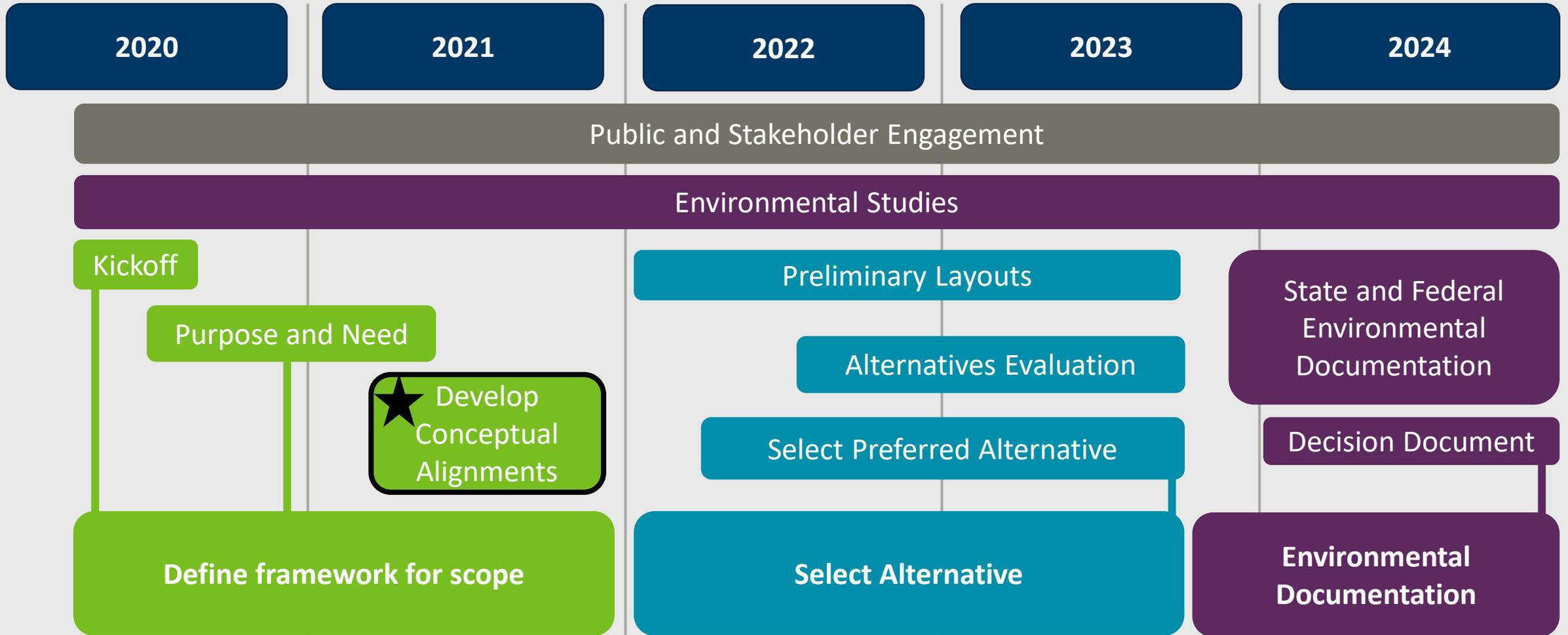
**2020 to 2024:
Preferred Alternative
Selection and
Environmental
Documentation**

**2024 to 2026:
Preliminary Design**

**2026 to 2028:
Final Design**

**2028 to 2031:
Construction**

Milestones



Alternatives Development and Screening Process



DEVELOPMENT OF CONCEPTUAL ALIGNMENTS



Step 1: Does the Concept Alignment Meet Purpose and Need?

- Does the conceptual alignment...
 - Provide the opportunity to extend service life of the structure?
 - Provide the opportunity to improve structural robustness?



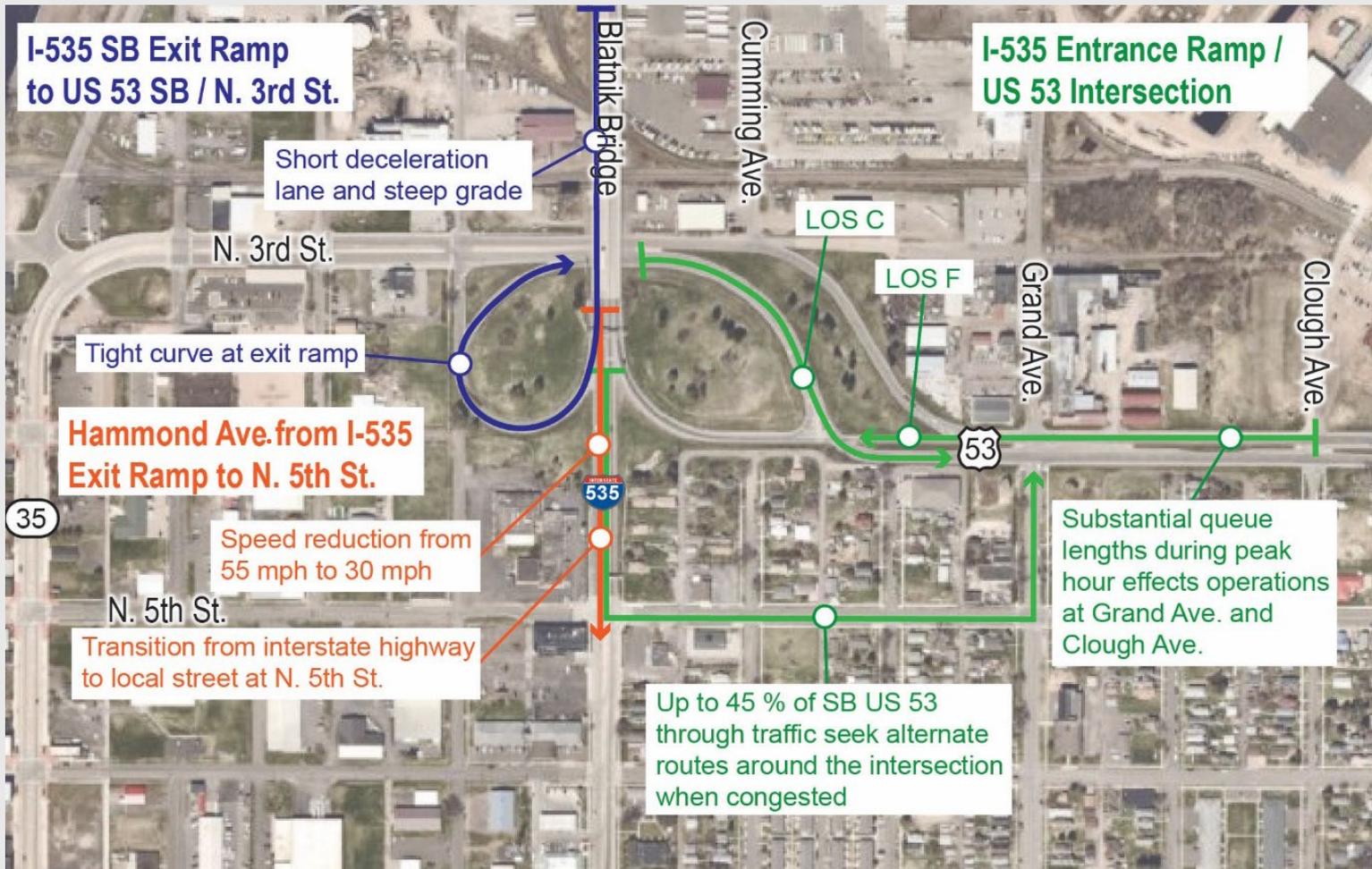
Step 1: Does the Concept Alignment Meet Purpose and Need?

- Does the conceptual alignment have the ability to improve roadway and geometric deficiencies?



I-535 looking north towards Blatnik Bridge

Step 1: Does the Concept Alignment Meet Purpose and Need?



Does the conceptual alignment have the potential to improve traffic operations?

- Short deceleration lane, steep grade, and tight curve leaving bridge
- High-conflict intersection at Hammond Ave. & N. 5th St.
- Traffic queueing on US 53

Step 1: Does the Concept Alignment Meet Purpose and Need?

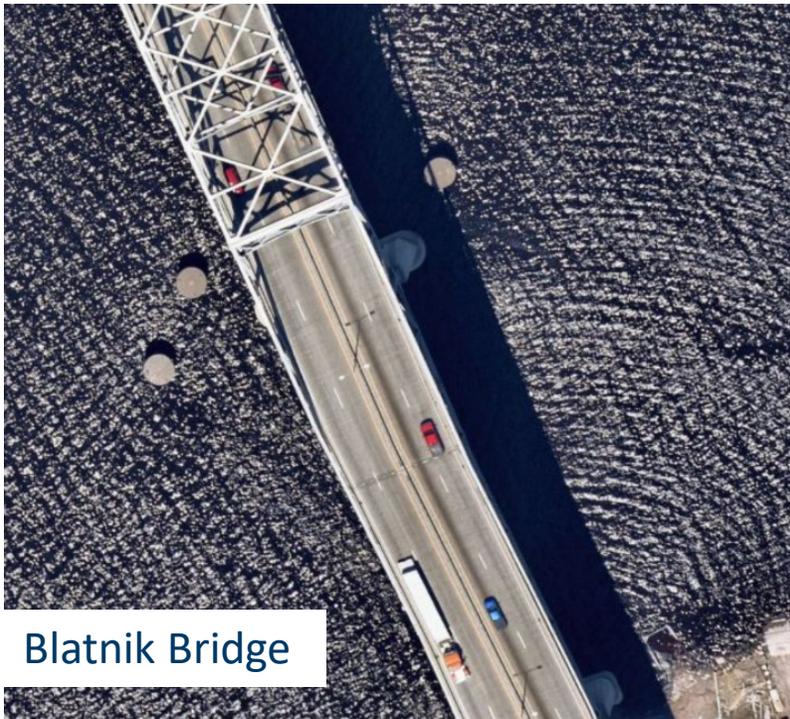
- Does the conceptual alignment...
 - Restore the intended freight movements of the crossing?
 - Maintain port access?



Oversized load using both lanes of the Bong Bridge

Step 1: Does the Concept Alignment Meet Purpose and Need?

- Walkability/bikeability – Does the conceptual alignment improve bike and pedestrian connectivity?



STEP 1: MATRIX



DEVELOPMENT OF SUB-ALIGNMENTS



Step 2: Comparison of High-Level Potential Impacts

- **Social, Economic, and Environmental Considerations**
 - Potential parkland and/or historic property impacts (i.e. Section 4(f))
 - Minimizing wetland and waterway impacts
 - Right-of-way needs (including railroad implications and land-use changes)
 - Economic impacts (due to construction closure and changes in travel patterns)

Step 2: Comparison of High-Level Potential Impacts

- **Additional Considerations***

- Comparison of new structure length to existing
- Asset security concern
- Operational requirements needed to maintain new structure

*NOTE: The additional considerations of maritime freight navigation, connectivity and redundancy, regulatory requirements, and railroad crossings are not included as evaluation criteria in Step 2 because they do not represent differentiators at this level of design. Three new additional considerations have been identified which do represent differentiators at this stage.

STEP 2: MATRIX



Not recommended for further evaluation

- **Tunnel Concepts**

- Restriction to freight mobility
- Substantial asset management
- Operational requirements

- **Connors Point**

- Property/railroad impacts
- Redirection of travel away from Superior Central Business District
- Traffic under structure

Looking toward Superior, during construction (1960)



1940



2021



Photo Courtesy of Minnesota Historic Aerial Photos Online

Project Interactive Feedback Map

- <https://www.publiccoordinate.com/#/projects/blatnikbridge/map>

The screenshot displays the PublicCoordinate web interface for the Blatnik Bridge project. At the top, the PublicCoordinate logo is on the left, and the text "Created By Kimley»Horn" is on the right. Below the logo are the Wisconsin Department of Transportation logo and the project name "Blatnik Bridge". Navigation buttons include "Welcome", "Project Description PDF", and "Admin". A language selection dropdown is set to "Select Language", and a note indicates "Powered by Google Translate".

The main map area shows a satellite view of the bridge location. A legend on the left, titled "Legend", lists three concepts: "1a - Bridge Existing Alignment - Hammond Connection" (represented by a brown line), "1b - Bridge West Alignment - Hammond Connect" (represented by a blue line), and "1c - Bridge East Alignment - Hammond Connect" (represented by a purple line). The "Currently Viewing" dropdown is set to "Concept 1a, 1b, and 1c".

On the right side of the map, there are zoom controls (+, -, and a pan arrow) and two buttons: "Filter Comments" (green) and "Add Comment" (blue). A "Basemap" dropdown menu is also visible, currently set to "Default".

At the bottom of the map, the Mapbox logo is on the left, and the copyright notice "© Mapbox © OpenStreetMap Improve this map" is on the right.

Next Steps – Step 3: Detailed Evaluation & Screening

- Conduct social, economic, and environmental evaluations and project studies
- Cost estimation
- Bridge type
- Intersection/interchange concept layouts
- Local road modifications
- Development of alternatives

Questions/Comments

Public Comments Due May 21

- **Project Website:**

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- **Mail:**

MnDOT, 1123 Mesaba Ave., Duluth, MN 55811

Stay Connected

- Sign up for email updates on the project website
- Summary of public comments will be posted on the project website by summer
- Look for upcoming events in fall 2021

I-535 Blatnik Bridge

Duluth, Minn. and Superior, Wis.

[Project Home](#) [Accessibility](#) [Meetings](#) [History](#) [Contacts](#)

About this project

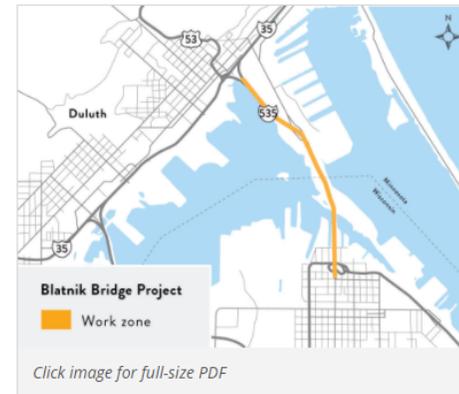
MnDOT is working toward a future project to address concerns about the John A. Blatnik Bridge, one of two bridges that connects Duluth, Minn., to Superior, Wis. Carrying I-535 over the St. Louis Bay, the Blatnik is an important freight and commercial connection between the Twin Ports.

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



Schedule

- 2020 to 2024: Preferred Alternative Selection and Environmental Documentation
- 2024 to 2026: Preliminary Design
- 2026 to 2028: Final Design
- 2028 to 2031: Construction

Location

- 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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Thank you!

