



HIGHWAY 11 CORRIDOR STUDY

Executive Summary

August 2016



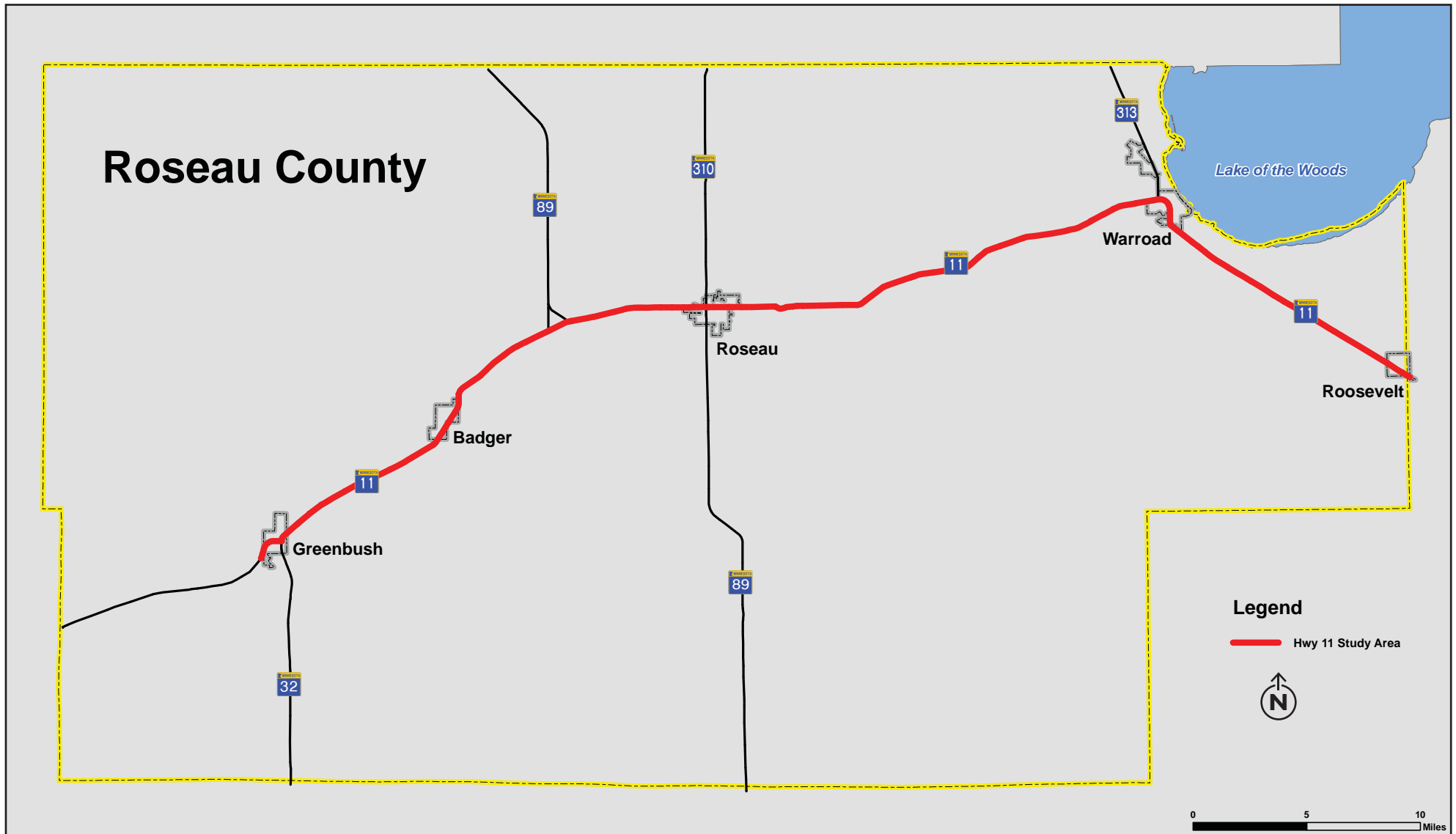


Figure I: Corridor Study Limits

Study Partners

The Highway 11 Corridor Study was a joint effort between:

- MnDOT District 2
- Roseau County
- Northwest Regional Development Commission (NWRDC)
- City of Badger
- City of Greenbush
- City of Roosevelt
- City of Roseau
- City of Warroad

Corridor Context

Highway 11 in Roseau County is an important roadway that provides essential connections between a number of communities within Minnesota, and serves as a major route used for commerce between the US and Canada. The 60-mile corridor serves as the primary east-west arterial route for the communities of Greenbush, Badger, Roseau, Warroad, and Roosevelt. It is a primary link to one of four international border crossings that is open year-round, 24 hours per day; accordingly, the corridor supports a high number of freight trips. Highway 11 also provides regional access to recreational destinations including outdoor activities and resorts around Lake of the Woods. Along with these connections, the corridor is home to two large manufacturing facilities in Roseau (Polaris) and Warroad (Marvin Windows & Doors) that are vital to the stability of the local economy. The corridor is classified as a principal arterial route and, based on its important role in linking regional trade centers; the Minnesota Department of Transportation (MnDOT) has designated this segment of Highway 11 as a High Priority Regional Corridor.

Because of the role that Highway 11 plays within the region, the Highway 11 Corridor Study was initiated by MnDOT to identify existing and future conditions along the corridor. The focus of the study was to identify strategic improvements (along with ongoing maintenance and asset protection) that can be made between now and 2040 to provide for both safety and mobility on the corridor and to help support local and regional economies.

Study Objectives

The overall objective of the Highway 11 Corridor Study is to develop a long-term plan that identifies and prioritizes safety and mobility improvements that compliment ongoing maintenance and preservation activities and can be implemented between now and 2040. Strategic investments will require coordination with partner agencies and input from the public as projects move towards implementation.

Due to statewide challenges in securing adequate, predictable and stable sources of transportation funding, it is important for MnDOT and its partners to identify needs and to prioritize potential improvements. This requires a general understanding of existing and future conditions, identifying and agreeing on key problem areas, developing alternatives to solve those problems, and prioritizing investments so that the corridor can function to the best of its ability. To formalize this process, the study has established the following goals:

- Obtain community and agency agreement on identified needs, concerns, and opportunities in the corridor
- Identify improvements that address recognized safety concerns
- Identify improvements that increase travel predictability and reliability
- Identify mobility improvements that address congested intersections and/or corridor segments
- Identify projects that serve community, agency, and corridor needs and minimize negative impacts to the natural and cultural environment
- Identify projects that support community and economic development opportunities
- Identify improvements that are implementable over the next 20–25 years
- Prioritize improvements based on funding availability, community and stakeholder support, and identified need

Corridor Needs

The corridor study process included a review of existing demographics, development patterns, safety, and traffic conditions. Future traffic and development were also considered. This review was supplemented by public and agency input. The following corridor needs were identified through this process:

- **Safety improvements:** Safety problems were identified at five intersections and 11 highway segments.
- **Access management:** Ten segments were identified with high concentrations of driveway access to the highway. High concentration of access is associated with safety and congestion problems.
- **Congestion:** No areas of Highway 11 are currently congested. The current two-lane design will accommodate existing and future traffic. The exception is within the City of Warroad, where congestion is expected to occur by 2040.
- **Passing opportunities:** Highway users would like to see improved passing opportunities. Passing can be difficult due to the volume of truck and recreational vehicle/trailer traffic on the highway. Passing can also be difficult around shift changes at Polaris and Marvin Windows & Doors.

The study also identified ongoing maintenance and preservation needs to keep pavement, bridges, culverts, stormwater conveyances, traffic signals, and sidewalks in good condition. MnDOT will need to keep up with maintenance and preservation to avoid costly projects in the long term.

Project Identification and Prioritization

Based on the assessment of corridor needs, design concepts were developed to address issues at 13 key areas shown on **Figure 2**. The design concepts focused on the following:

- **Safety improvements:** reducing intersection skew, turn lanes
- **Access management:** frontage roads, center left-turn lanes, and closing/consolidating driveway access
- **Future congestion:** Expansion to three-lane roadway with center left-turn lanes
- **Passing opportunities:** Expansion super-two roadway by adding passing lanes, expansion to four-lane roadway in key locations

Projects were prioritized based on feedback from the public, study partners, and MnDOT staff. This feedback was used to categorize each recommended concept into three priority levels: A, B, and C. Concepts that address documented safety and congestion issues were ranked higher than other concepts. Project areas and prioritization are shown in **Table 1** and on **Figure 2**.

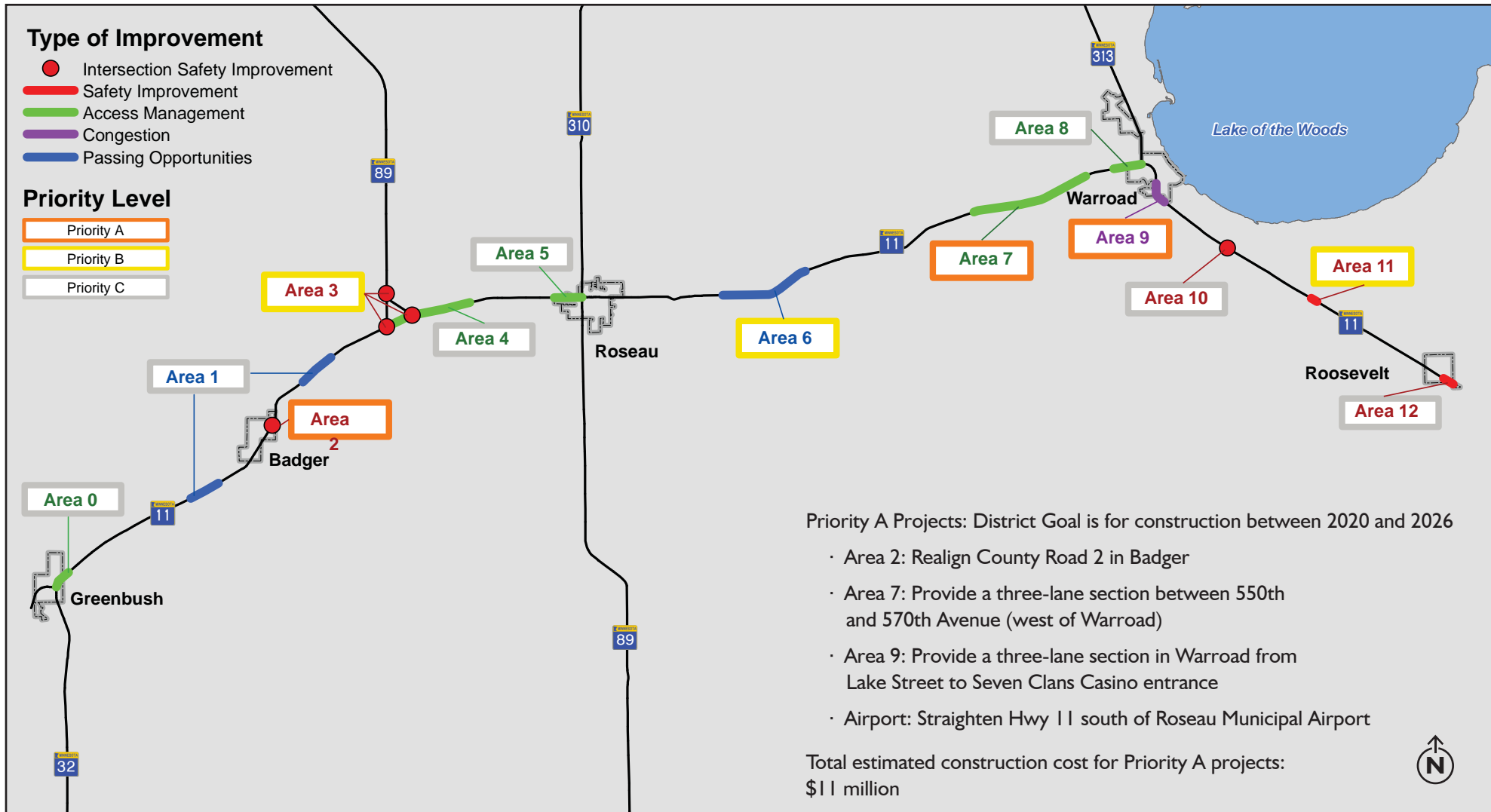


Figure 2: Priority Areas on Highway 11

Area	Option	Description	Estimated Cost	Priority Level
2	A	Realign Cty Rd in Badger and close/realign access north of Cty Rd 2	\$1.9-2.2 million	A
7	B	Convert Hwy 11 to three-lane section between 550th and 570th Avenues and construct frontage road west of 560th Avenue	\$2.3-2.5 million	A
9	A/C	Reconstruct Hwy 11 with three-lane section with sidewalk and no parking	\$3-4 million	A
Airport	I	Realign Hwy 11 south of Roseau Municipal Airport	\$3 million	A
3	A	Realign intersections so Hwy 308 is route to border and construct frontage road north of Hwy 11	\$2-2.5 million	B
6	C	Construct staggered east and westbound passing lanes on new roadway alignment between 440th Avenue and Hay Creek	\$1.2-1.5 million	B
7	D	Construct westbound passing lane between 530th and 550th Avenues	\$1.5-2 million	B
11	A	Realign intersection with 650th Avenue and construct turn lanes at 650th Ave and Cty Rd 34	\$500,000-700,000	B
0	A	Consolidate access between Hwy 32 and Cty Rd 4	\$50,000-100,000	C
1	A	Construct eastbound bound passing lane between 290th Avenue and Cty Rd 26	\$1.1-1.3 million	C
	B	Construct westbound passing lane between 250th Avenue and 260th Avenue	\$0.9-1 million	C
4	B	Convert Hwy 11 to a three-lane section between 330th and 350th Avenues	\$1.5-2 million	C
5	A/B	Consolidate access and construct/extend frontage roads between 380th Ave and Hwy 89	\$400,000-500,000	C
8	A	Frontage roads south of Hwy 11, between 580th Ave and Hwy 313	\$1.4-1.6 million	C
10	A	Realign Hwy 11 intersection with Cty Rd 12 and construct turn lanes	\$1-1.2 million	C
12	A	Left turn lanes on Hwy 11 near 697th Avenue	\$300,000-500,000	C

Table 1: Project Priorities

Implementation and Funding

The concepts developed as part of this study are high-level and will need refinement.

Additional design, studies, and public input will be needed for each of the recommended concepts to move forward.

Current funding for Highway 11 appears adequate for maintenance/preservation needs as well as limited smaller improvements such as turn lanes and shoulder widening. The larger projects recommended in the study are considered unfunded at this time. MnDOT will seek funding for these projects through competitive state and federal funding programs and as additional funding becomes available at the district level.

MnDOT aims to complete Priority A projects within the next 10 years. Given the need for additional study and design, 2020 is the soonest these projects would be constructed. The total estimated construction costs for Priority A projects is approximately \$11 million. MnDOT intends to get these projects ready so that as funding becomes available, they are ready for construction. MnDOT will also work to tie improvements into planned maintenance and preservation projects, but opportunities to do so are limited given current funding levels.

To view more information about this study and the recommended improvements, please visit the MnDOT project website at: <http://www.dot.state.mn.us/d2/projects/hwy11assessment/index.html>