TH60 CORRIDOR STUDY

DRAFT Purpose and Need

April 2021

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INTRODUCTION

Trunk Highway (TH) 60 is a four-lane highway that serves as the primary route through the City of Windom. The corridor and surrounding roadway network play an important role in maintaining Windom's vitality and economic viability. It serves as the primary route through the commercial district in the City of Windom and connects local businesses to major markets in the Midwest.

To identify potential improvements to the corridor, a review of the roadway was completed. The TH 60 Existing and Future Conditions Report, completed in April 2020, provides a detailed review of the corridor including the areas that pose a constraint or hazard in the corridor. From this report, the primary and secondary needs of the corridor have been identified and are further discussed below. Project needs help to define the purpose of proposed future modifications or improvements. Both evaluation criteria and project alternatives can then be developed based on the project's identified needs to ensure that the selected alternative meets the purpose of the project.

BACKGROUND

Corridor Information

TH 60 corridor carries up to 13,500 vehicles per day through the commercial district in the City of Windom and also serves as a through route for those traveling in the region. The TH 60 cross section changes at several locations throughout the corridor. In the commercial center of the City of Windom, TH 60 is a four-lane undivided urban roadway with sidewalks on both sides (see **Figure 1**). The right-of-way (ROW) through this segment is approximately 66'. In contrast, north of 16th Street the roadway becomes a four-lane divided rural roadway, and then transitions to a five-lane undivided segment north of the northern intersections with US 71. The segment south of the Des Moines River also transitions to a four-lane divided rural roadway. While the entirety of TH 60 is functionally classified as a Principal Arterial, corridor improvements will need to be sensitive to the changing character and function along the corridor.

The land adjacent to TH 60 is a mixture of rural residential and commercial. A portion of TH 60 is zoned 'Highway Business', which allows for commercial establishments and for ease of access and egress to adjacent roads and highways by automobile-oriented customers. There is land zoned primarily for low and medium density residential along TH 62 and areas zoned for light and heavy industrial along segments of US 71 and TH 60 as well.

Over the past 20 years, several investments have been made within the study corridor to improve pavement quality, safety and operations. These improvements include:

- Along US 71 N, a Mill and Overlay project for approximately 12.3 miles from TH 60 to TH 30 was completed in 2020.
- Along US 71 S, a Mill and Overlay and Bridge Replacement project for approximately 17.7 miles from TH60 to CSAH 38 (in Jackson County) in 2020.
- Along TH 60, a mill and overlay was completed in 2019 to improve ride quality. This project also improved storm sewer and updated curb ramps to meet the Americans with Disabilities Act requirements.

- Along US 71 N, turn lanes were added at the Opportunity Drive intersection in 2013.
- Along TH 62, the roadway was fully reconstructed in 1998.

In addition to these improvements, Minnesota Department of Transportation (MnDOT) has identified the following projects within the study area in their 10-year Capital Highway Investment Plan (CHIP) (based on expected funding). These projects include:

- TH 60 – Bridge replacement project located at the Des Moines River Crossing planned for 2025.

While not in the CHIP, the expected use of this Purpose and Need Statement is an anticipated pavement reconstruction project on TH 60 in the study area that is expected in the early 2030's.

Figure 1:Project Location Map

In addition to the past and future projects, several previous studies have also been completed that identified improvements within this study corridor:

- Windom Comprehensive Plan (2018) – In this comprehensive plan, perceived safety issues, for pedestrians and vehicles, were identified at the following intersections: TH 62 and 4th Street; TH 60 and 6th Street; TH 60 and 10th Street; TH 60 and 12th Street; and TH 60 and 16th Street. In addition to safety issues with pedestrians and vehicles, this plan also discussed the need to balance access management between MnDOT's standards and the City's goals for economic development, as well as documented the sidewalk gaps and crossing location issues within this study corridor.
- MnDOT District 7 Bicycle Plan (2016) – In this bicycle plan, TH 60, US 71, and TH 62 within the City of Windom were identified as being high stress routes for bicycle facilities and undesirable for some riders. The plan identified 10th Street, 3rd Avenue, and TH 62 as bicycle investment routes through Windom.
- Des Moines River Valley State Trail Master Plan (2013) – This plan identifies two potential trailheads at Island Park along the TH 62 and Tegels Park. Although there is no specific route through the City of Windom, it did identify TH 60, US 71, and the railroad barriers for any future trail. TH 62 was identified as a potential interim road route because it provides a direct east-west route between the City of Windom and Talcot Lake County Park.
- TH 60 Traffic Study (2008) - MnDOT's 2008 TH 60 Traffic Study evaluated improvements to the intersections of TH 60 and US 71 N and TH 60 and 16th Street to accommodate future traffic volumes and improve pedestrian connections across TH 60. This project ultimately identified the roundabout alternative, shown in Figure 3, because it did not impact the existing frontage road or access. No recommendation was made at TH 60 and 16th Street.
- TH 60 Access Management Plan (2002) – This coordinated plan between MnDOT and the City of Windom was to address land use access along the corridor to improve mobility and retain reasonable and safe access to and from local streets and businesses. Through the development of this plan, the City of Windom and MnDOT were able to implement a number of "early action" driveway closures that were completed before the study was finalized. Other major recommendations made in this study that have yet to be completed include:

    - At the TH 60 and US 71 S intersection, the recommendation was to close the nearest accesses north and south of the intersection and construct frontage roads.
    - Between the TH 60 and TH 62 intersection and the TH 60 and 11th Street intersection multiple access points were recommended for closure or access modification (right-in/right-out).
    - Along TH 60 between US 71 N and John Caldwell Drive, the recommendation was to construct a series of new frontage roads to close access along TH 60.

PURPOSE AND NEED FOR PROJECT

Need for the Project

The purpose and need for this TH 60 corridor study area has been developed under guidance pursuant to 23 CFR 450 Appendix A (Linking the Transportation Planning and NEPA Processes) and MnDOT Purpose and Need Statement Guidance (Version: 02/02/2021). The analysis of existing and future conditions by both past and current studies of this portion of the TH 60 corridor have identified numerous needs/deficiencies that either currently exist or are expected to develop based on future traffic/growth projections. Based on this information, the primary and secondary need types and specifics for these needs are presented in **Table 1** below:

Table 1: Primary and Secondary Needs of TH 60 Corridor

Need Type	Need Level	Specifics of Needs
Pavement Conditions	Primary	» The 2019 overlay project within the TH60 corridor improved the ride quality, surface rating, and pavement quality to 'Good' but it did not mitigate the underlying conditions that are reflected in the 'Fair' to 'Poor' rating for the remaining service life. » See **Appendix A – Figure 2** of the pavement condition by remaining service life within the study area.
Bridge Condition	Primary	» Of the three bridge structures and one culvert in the study area, the TH 60 bridge has the worst condition sufficiency rating. » TH 60 (#17001), 0.3 mile south of TH 62, was built in 1971. The 208-foot bridge crosses the Des Moines River with a main span length of 78 feet and a roadway width of 52 feet. The 2016 inspection found this bridge structure to have a fair deck condition, fair superstructure condition, and satisfactory substructure condition. It has a sufficiency rating of 69.20. » TH 60 over the Des Moines River has been identified for possible replacement in 2025 in 10-year MnDOT CHIP. » See **Appendix A – Figure 2** of the bridge sufficiency ratings within the study corridor. » This need may be addressed prior to the pavement reconstruction project.
Vehicle Safety	Secondary	» Densely spaced access points contribute to challenging operations and safety issues. » Between the years January 1, 2009 to December 31, 2018, MnDOT Crash data showed a total of 194 crashes (157 intersection related, and 37 segment-related) within the TH 60 study area.

Need Type	Need Level	Specifics of Needs
		» The US 71 N and US 71 S intersections with TH 60 have crash rates higher than critical crash rates. There were 20 crashes (6 incapacitating, 4 possible injury, and 10 property damage crashes) reported during the analysis period for a crash rate of 0.52. No fatalities or serious injuries were reported. Angle crashes (10) were the most common type of crashes at the intersection. The skewed approach of the intersection may result in insufficient sight distance and awkward sight lines that may have contributed to the angle crashes at this intersection. » The nearly one-mile segment between TH 62/6th Street and 1st Avenue N experienced 156 total crashes, including 68 right-angle (43.6 percent) and 30 rear-end crashes (19.2 percent), including segment and intersection crashes for a crash rate of 5.56. The observed crash rate is higher than critical crash rate for similar segments. This segment has more than seven times the recommended accesses, which may contribute to the frequency of crashes. Reducing the number of accesses to MnDOT recommended spacing may reduce crash potential by 21.5 percent according to NCHRP Report 420. » US 71 N between TH 60 and CSAH 15/Opportunity Drive, experienced 16 crashes (12 intersection related, and 4 segment-related) reported in the 1.2-mile-long segment during the analysis period for a crash rate of 0.88. None of the intersections or segments exceeded the statewide average or critical crash rates for similar types of facilities. Eight of these crashes were angle or left turn crashes associated with the multiple access points along the corridor. US 71 N from TH 60 to 4th Avenue has 4.5 times the recommended number of access points. » TH 62, the nearly 750-feet segment of TH 62 between 4th Avenue and TH 60 experienced six crashes (2 intersection-related, and 4 segment-related) during the analysis period for a crash rate of 3.51. The segment experienced higher than the critical crash rate for similar types of facilities. No predominant trend was observed for the crashes in this segment.

Need Type	Need Level	Specifics of Needs
		» See **Appendix A – Figure 4** of the crash density and frequency within the study corridor.
Walkability/Bikeability	Secondary	» Windom has an extensive network of pedestrian facilities, but these facilities may not be enough to ensure a safe and comfortable pedestrian experience. Broken concrete, lack of curb ramps, and sidewalk obstructions can often deter people's willingness to walk along the corridor. There are a number of locations lacking continuity with no sidewalks or trails, where roadway shoulders are used by pedestrians. » Between 2009 and 2018, there were three pedestrian crashes, all on TH 62. Two crashes occurred at 4th Avenue, where there are marked crosswalks but the east and west approaches are not stop controlled. The other crash occurred at 3rd Avenue where there are no marked crosswalks and the east and west approaches are not stop controlled. All drivers reported they did not see the pedestrian crossing TH 62. There were no bicycle crashes. » There are no facilities for bicyclists along TH 60. See **Appendix A – Figure 6** for bicycle level of service in the study corridor. Majority of the corridor has an "F" segment LOS as well as several of the intersections. » 2018 Comprehensive plan identified connectivity and safety gaps at: ▪ Unspecified midblock crossing of TH 60 ▪ Crossing safety improvements at Highway 62 and 4th Ave. ▪ Improvements at 3rd Ave. to Cindy St. sidewalk » Need to incorporate local input for improved active living facilities. » **Appendix A – Figure 5** identifies pedestrian facilities and generators.

Additional Considerations

An important consideration that would also be affected by the primary and secondary needs identified above include the economic development along the study corridor. This corridor carries 15 to 20 percent heavy truck traffic to and through the City of Windom. Several large manufacturing plants and

distribution centers operate in Windom in addition to the City of Windom being a regional government hub.

Economic sustainability is important to this area. Per estimates from the 2018 US Census Bureau's American Community Survey:

- 22.6 percent of individuals in Windom are below the poverty level, which is greater than Cottonwood County (10.4 percent) and the state level (9.6 percent).
- Median household income for residents of Windom was $36,642, approximately $16,700 less than the Cottonwood County median household income of $53,354.

Improvements identified for this study corridor and future environmental review will need to take into consideration how both temporary and permanent impacts to both environmental justice populations and non-environmental justice populations may be affected.

Purpose of the Project

Based on the needs identified above, the future purpose and needs statement of this corridor development will be to develop a preferred alternative that supports the long-term vision for TH 60 by improving pavement conditions and addressing TH 60 Bridge condition rating as well as improve safety for both vehicles and pedestrians/bicyclists within the corridor through access management and facility improvements. By addressing these needs, this will also support existing and future economic development, safely accommodate all modes of transportation, and sustain community support.

APPENDIX A

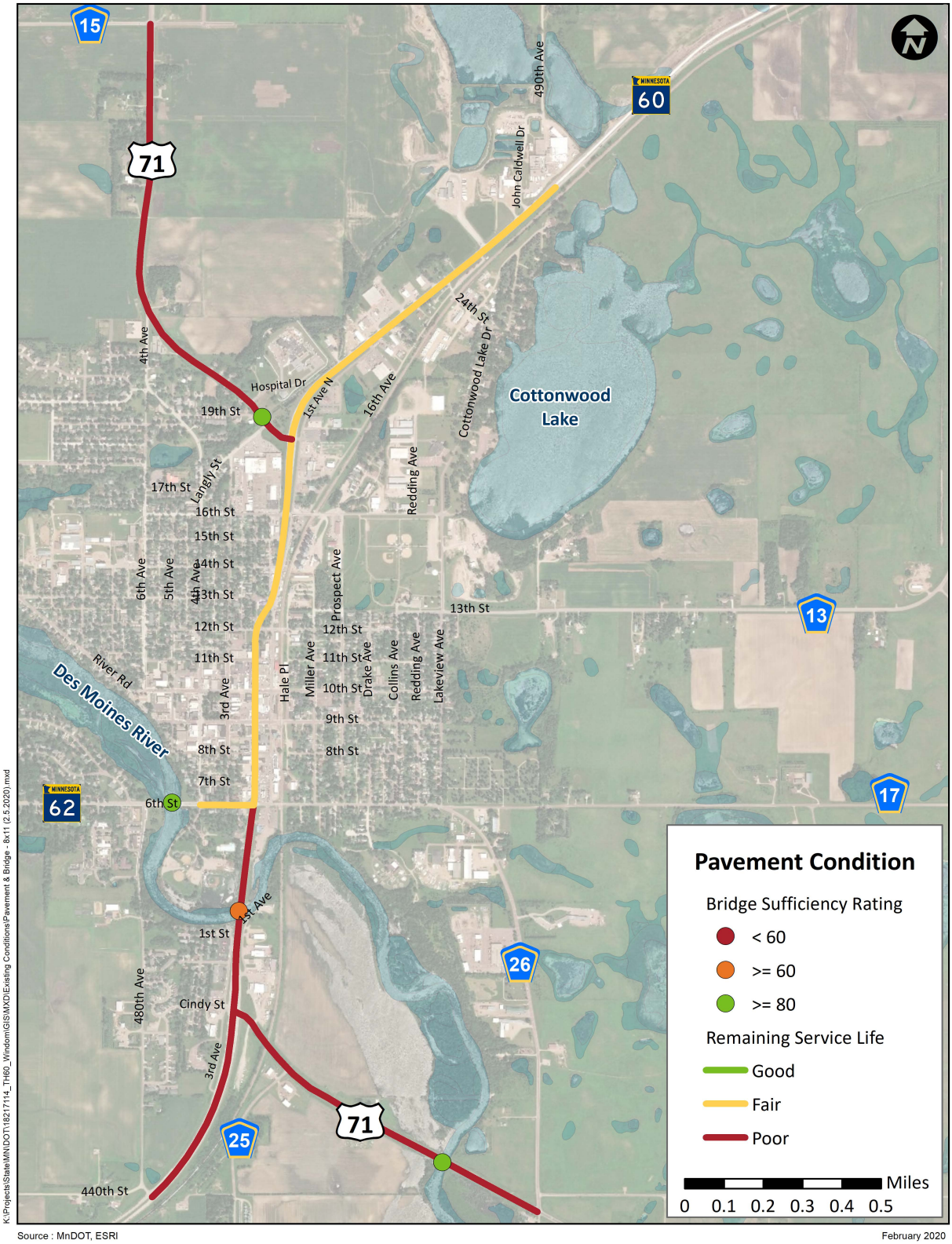
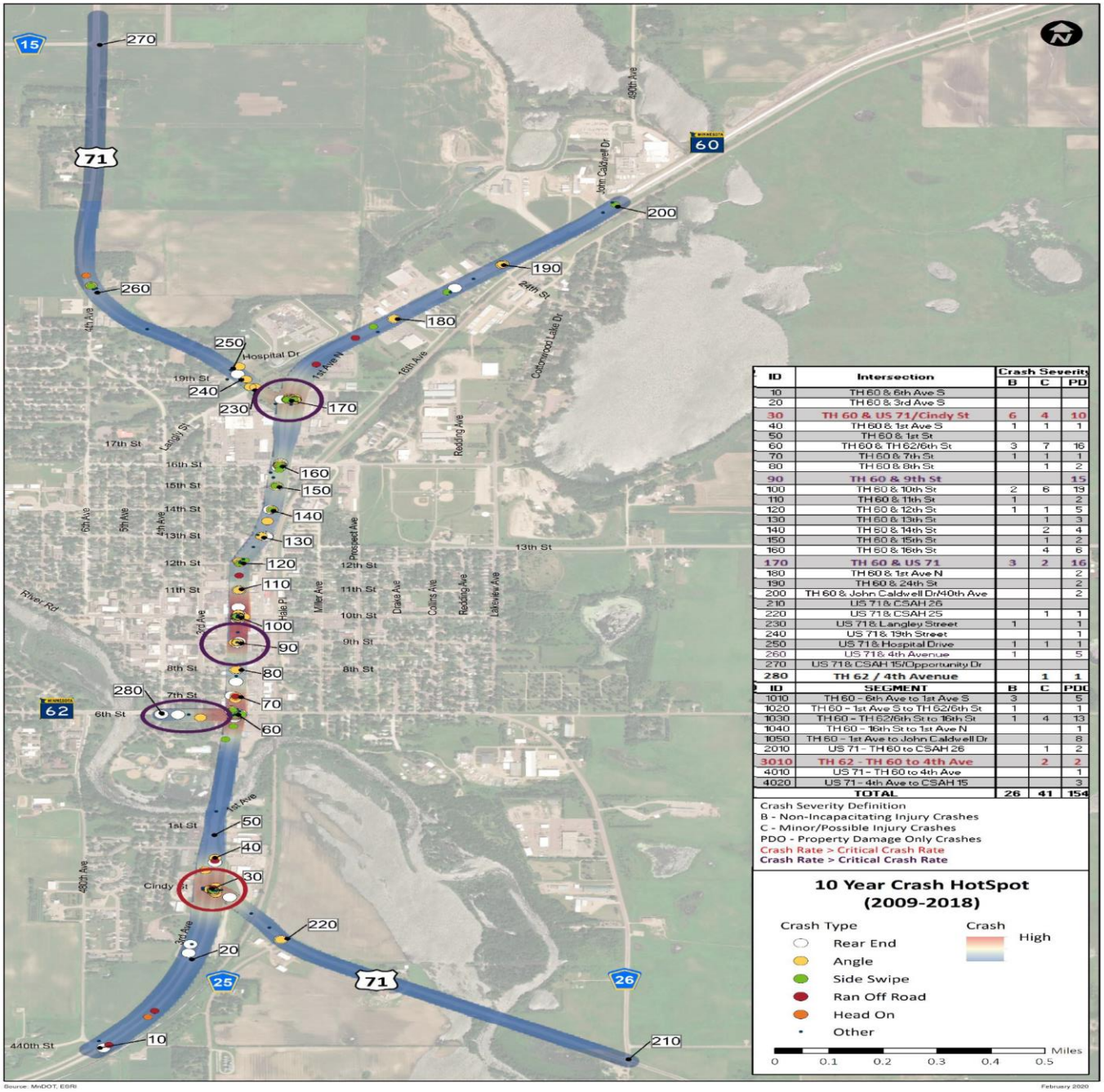


Figure 2: Pavement Condition and Bridge Sufficiency Rating

Figure 3: TH 60 Bridge over the Des Moines River



ID	Intersection	Crash Severity		
		B	C	PD
10	TH 60 & 6th Ave S			
20	TH 60 & 3rd Ave S			
30	TH 60 & US 71/Cindy St	6	4	10
40	TH 60 & 1st Ave S	1	1	1
50	TH 60 & 1st St			
60	TH 60 & TH 62/6th St	3	7	16
70	TH 60 & 7th St	1	1	1
80	TH 60 & 8th St		1	2
90	TH 60 & 9th St			15
100	TH 60 & 10th St	2	8	19
110	TH 60 & 11th St	1		2
120	TH 60 & 12th St	1	1	5
130	TH 60 & 13th St		1	3
140	TH 60 & 14th St		2	4
150	TH 60 & 15th St		1	2
160	TH 60 & 16th St		4	6
170	TH 60 & US 71	3	2	16
180	TH 60 & 1st Ave N			2
190	TH 60 & 24th St			2
200	TH 60 & John Caldwell Dr/40th Ave			2
210	US 71 & CSAH 26			
220	US 71 & CSAH 25		1	1
230	US 71 & Langley Street	1		1
240	US 71 & 19th Street			1
250	US 71 & Hospital Drive	1	1	1
260	US 71 & 4th Avenue	1		5
270	US 71 & CSAH 15/Opportunity Dr			
280	TH 62 / 4th Avenue		1	1

ID	SEGMENT	B	C	PDO
1010	TH 60 – 6th Ave to 1st Ave S	3		5
1020	TH 60 – 1st Ave S to TH 62/6th St	1		1
1030	TH 60 – TH 62/6th St to 16th St	1	4	13
1040	TH 60 – 16th St to 1st Ave N			1
1050	TH 60 – 1st Ave to John Caldwell Dr			8
2010	US 71 – TH 60 to CSAH 26		1	2
3010	TH 62 - TH 60 to 4th Ave		2	2
4010	US 71 – TH 60 to 4th Ave			1
4020	US 71 – 4th Ave to CSAH 15			3
	TOTAL	26	41	154

Crash Severity Definition
B - Non-Incapacitating Injury Crashes
C - Minor/Possible Injury Crashes
PDO - Property Damage Only Crashes
Crash Rate > Critical Crash Rate
Crash Rate > Critical Crash Rate

Figure 4: Crash Density and Frequency

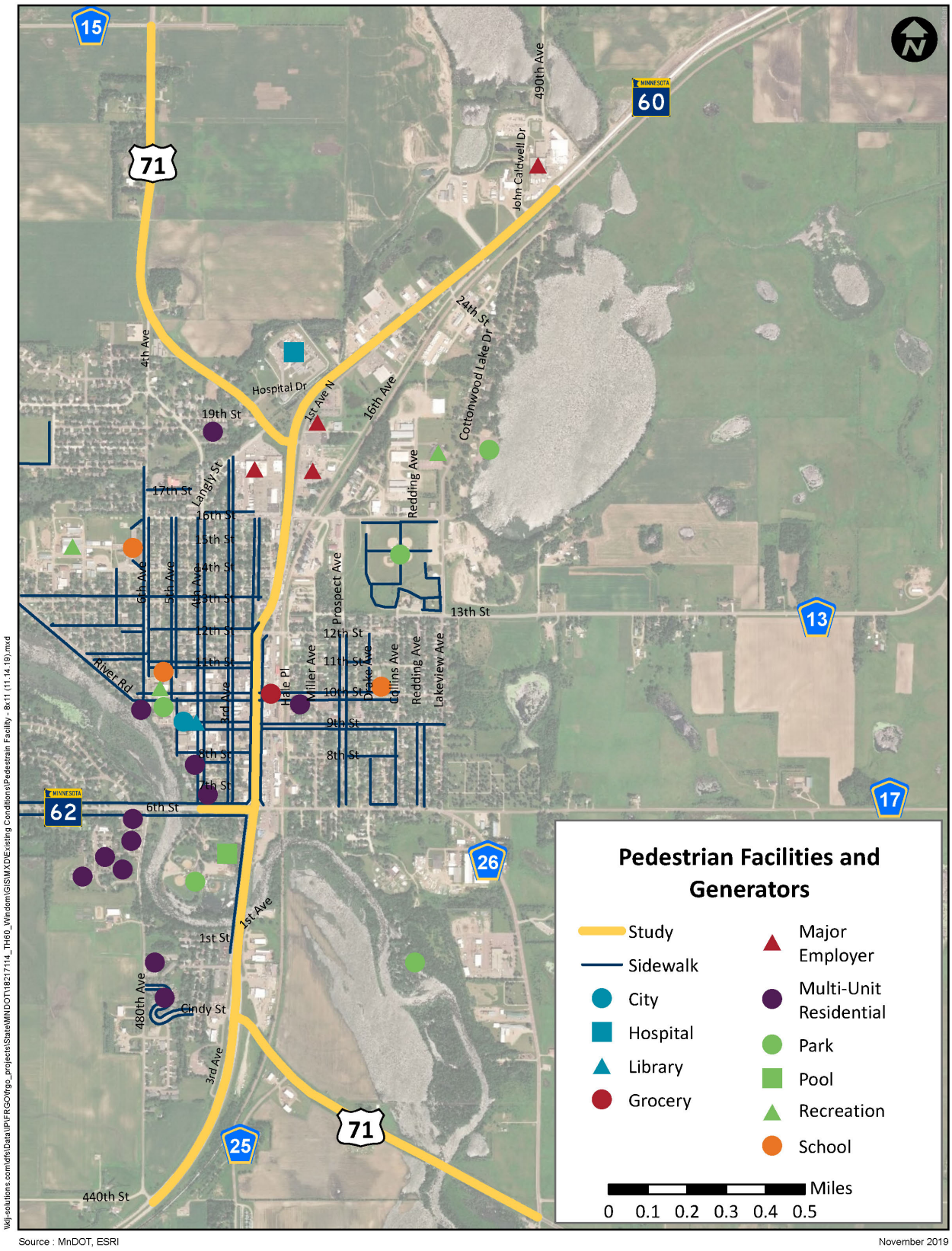


Figure 5: Pedestrian Facilities and Generators

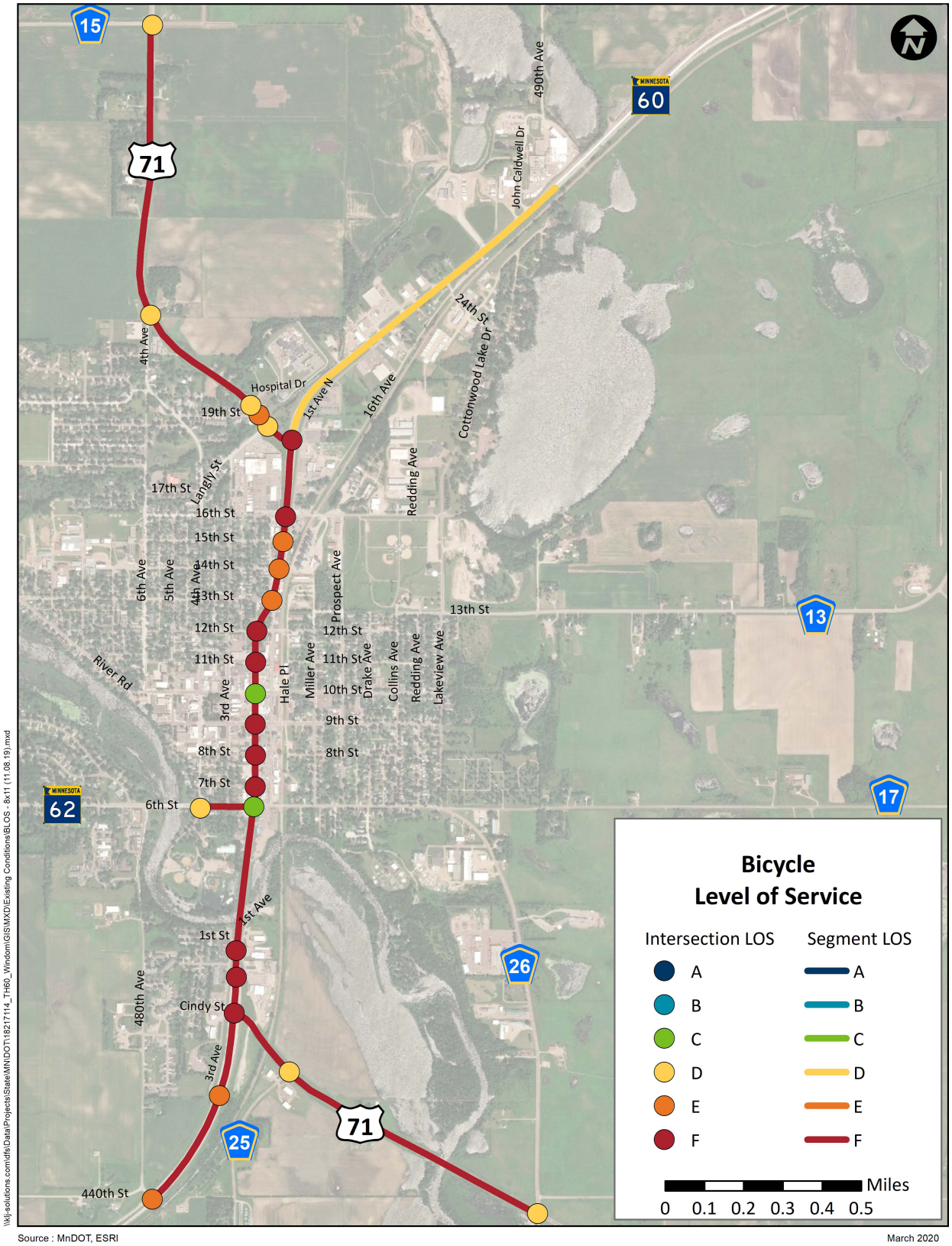


Figure 6: Bicycle Level of Service in Corridor