

# **District 8 Freight Plan**

# **Working Paper 5: Investment Priorities**

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# **Acronyms and Abbreviations**

Abbreviation	Definition
BNSF	Burlington Northern Santa Fe Railway
EDC	Economic Development Commission
HCAADT	Heavy Commercial (Truck) Average Annual Daily Traffic
MHFP	Minnesota Highway Freight Program
MnSHIP	Minnesota State Highway Investment Plan
MRSI	Minnesota Rail Service Improvement Program
osow	Oversize Overweight
TIGER	Transportation Investment Generating Economic Recovery
USDOT	United States Department of Transportation

## **Executive Summary**

The Minnesota Department of Transportation (MnDOT) District 8 is made up of 12 counties: Chippewa, Kandiyohi, Lac qui Parle, Lincoln, Lyon, McLeod, Meeker, Murray, Pipestone, Redwood, Renville, and Yellow Medicine. Together, these 12 counties account for about 10 percent of Minnesota's land area and hold about 3.2 percent of its population. The District 8 Freight Plan is being created to provide MnDOT with a clear understanding of District 8's multimodal freight system, how this system is connected to the District's economy, and what the transportation needs and issues of the District's industries are. This understanding will assist MnDOT in making well-informed policy and programming decisions in District 8.

## The District 8 Freight Plan will provide MnDOT with information and guidance so MnDOT's policy and programming decisions can be better informed.

This Working Paper is the fifth of six Working Papers for this project and provides information on the priority of unaddressed needs and issues ("gaps") that were initially identified in Working Paper 4. Investment "gaps" were evaluated and prioritized based on MnDOT's existing process for evaluating and ranking freight system projects, which was originally established for the District 1 Freight Plan. The evaluation process resulted in a rank order of priority needs for District 8 to address, as well as sub-rankings of projects deemed to provide the greatest benefits to freight system safety, condition and mobility.

One of the aims of the District 8 Freight Plan is to ensure that the critical needs in the region have the potential to be addressed by future rounds of funding. One way to do this is to take steps to prepare data and information to support the full slate of criteria used in evaluating/scoring projects in the Minnesota Highway Freight Program (MHFP) process. This includes further developing unaddressed "gaps"/project concepts into clear projects/solutions, so that they can be scored and considered when future investment decisions are made.

While these projects "gaps" have been "ranked" it was ultimately left to MnDOT District 8 and key stakeholders to determine which projects may be in the best interest of the region to advance to the pre-feasibility study phase. A slate of 11 "gaps"/project concepts - out of a possible 178 - are being advanced to pre-feasibility assessment that will include 1) conceptual design of a slate of possible projects/solutions to address the "gap", and 2) order-of-magnitude construction cost estimating. This list represents a mix of "gaps" that when addressed are aimed at improving the safety, condition, and performance on the District 8 freight system. The results of this pre-feasibility work will be presented in the sixth and final Working Paper.

## 1 Freight Project Showcase

#### **Key Findings**

Many project types can provide benefits to both freight users and the traveling public. This chapter provides a showcase of some of the freight-benefitting projects that have been implemented or are underway in District 8. Many of these projects were originally identified as needs and issues during the development of the District 8 Manufacturer's Perspectives Study.

#### 1.1 Introduction

The Minnesota Highway Freight Program is not Minnesota's only freight-relevant funding source, additional programs described in Working Paper 4: Freight System Needs, Issues and Opportunities exist for road, rail and maritime projects, including:

- Railroad At-Grade Crossing Safety Program (Section 130)
- Minnesota Railroad Service Improvement Program (MRSI)
- Weigh Station and Commercial Vehicle Safety/Enforcement Program

In addition to the assistance provided by these freight-specific programs, freight improvements can be made through other non-freight specific funding streams such as the federal Surface Transportation Block Grant Program (STBGP) and the National Highway Performance Program (NHPP). District 8 has numerous examples of freight-benefitting projects that have been funded through more "general" state and federal funding programs.

A variety of general funding programs can be leveraged to provide freight benefits.

This chapter provides a showcase of some of the freight-benefitting projects that have been implemented or are underway in District 8. Many of these projects were originally identified as needs and issues during the development of the District 8 Manufacturer's Perspectives Study. This study sought to improve MnDOT's understanding of freight customers' transportation priorities and challenges, with the ultimate goal of incorporating industry input into planning and project development. The project included meetings with 75 businesses in District 8, and was completed in 2013. After its completion, the District 8 study served as a starting point for freight perspectives studies in the rest of MnDOT's districts. The projects, plans, and operational changes listed below provide some examples of the value of the Manufacturers' Perspectives study, and MnDOT's commitment to continued engagement to improve freight mobility and safety in District.

> Most of the projects or efforts below were originally identified as part of the District 8 Manufacturers' Perspectives Study

### 1.2 Infrastructure Projects

#### MN-23 Passing Lanes

MN-23 was identified as a key regional corridor for District 8 in both the District 8 Freight Plan as well as the 2014 Manufacturers' Perspectives Study. Additionally, both the Perspectives Study, and this freight plan identified potential improvements on this key corridor: a common request was expansion of passing lanes, or creation of four-lane segments. MnDOT conducted an additional Highway 23 Passing Lane Assessment in response to the findings of the Manufacturers' Perspectives study. This effort included additional outreach to 18 businesses. This feedback was used along with additional mobility and safety data analysis to identify the most effective areas for passing lane creation, and the most effective and safe types of passing lanes to construct. Figure 2 shows the locations where passing lanes were proposed.

In 2013, the Minnesota Legislature created the Corridors of Commerce program, which used bond sales to fund construction, reconstruction, and improvement of trunk highways with the goal of improving capacity at current bottlenecks and improve the movement of freight. After completion of the Passing Lane Study, the Corridors of Commerce program funded the 2016 construction of these passing lanes between Willmar and I-90.

#### Willmar Wye

Willmar is a rail chokepoint for the BNSF railway because trains cannot move directly between the Marshall and Morris subdivisions that merge just west of downtown Willmar. The previous Statewide Freight and Rail Passenger Plan had identified the Marshall Subdivision as a particular area in need of investment due to volume and capacity problems. The Willmar Wye project addresses this chokepoint by creating a third track directly connecting the subdivisions and allowing for efficient movement of trains traveling north and south. Additionally, the project reduces the number of trains that must travel through downtown Willmar, reducing traffic delays associated with blocked crossings, and improving local quality of life.

In addition to the construction of a new rail connection on the west side of Willmar, the Willmar Wye project includes realignment and reconstruction of US-12 and MN-40 and construction of two new bridges. The construction of new rail lines, as well as roads and bridges are being financed by public and private stakeholders listed in Figure 1. Construction started in 2019, and is expected to be complete in 2022.

Figure 1: Willmar Wye Project Partners and their Contributions or Commitments.

Project Partner	Contribution / Commitment
BNSF Railway	\$16 million
MnDOT	\$17.5 million
Kandiyohi County	\$459,000 commitment
City of Willmar	\$336,000 commitment of estimate right of way costs
Kandiyohi/Willmar EDC	\$35,000 (for economic development)
Local Road Improvement Program	\$3.77 million
TIGER Grant (USDOT)	\$10 million

Source: MnDOT

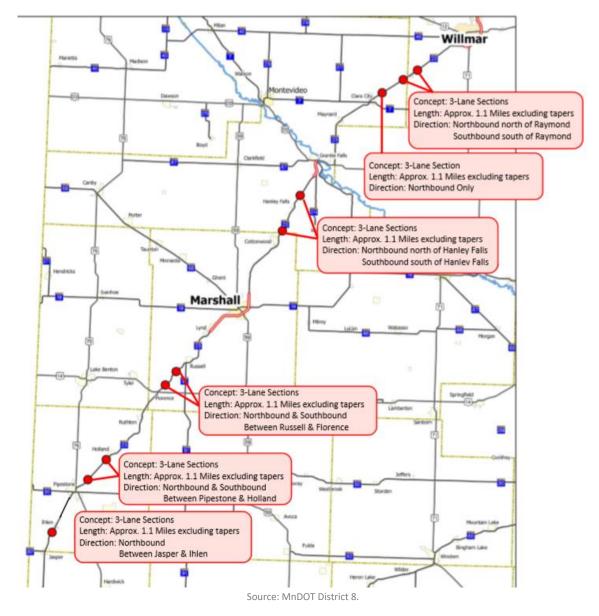


Figure 2: MN-23 Passing Lane Creation

#### MN-7/US-71 Roundabout

The junction of US-71 and MN-7 near Blomkest had a crash rate close to Minnesota's average, but several of the crashes at the site were severe. Given the severity of incidents at this site, MnDOT allocated \$1.9 million for reconstruction of the intersection. Since both MN-7 and US-71 are important routes for oversized (OSOW) loads, MnDOT consulted with OSOW carriers during design of the roundabout to ensure that the final design could accommodate the movement of OSOW loads.

### Milan Bridge Replacement

The old MN-40 bridge over Lac Qui Parle Lake (also known as the Milan Bridge) was a through-truss bridge whose design placed limitations on both the width and height of loads traveling through the area. The \$7.7

million 2019-2020 replacement of the bridge will remove height restrictions, expand width restrictions, and improve the potential mobility of OSOW loads on MN-40.

#### MN-23 J-Turns

As noted above, MN-23 is a key north-south freight corridor for the District, and mobility impediments on this route can negatively impact the operations of many businesses. Given the importance of this route, MnDOT has sought to ensure that mainline freight traffic can keep moving. Therefore, MnDOT has installed J-turns in areas where passenger vehicle cross-traffic could block or otherwise impede mainline traffic. Particular areas include the north side of Willmar, and Marshall.

#### MN-68 Shoulder Widening

The need for wider shoulders on many roads was a key finding from the Manufacturers' Perspectives study, as wider shoulders provide additional safety margins. Therefore, MnDOT has begun expanding shoulders on select routes. MN-68 between Minneota and Marshall will receive approximately 11 miles of expanded shoulders in 2021. Additional shoulder planning work is underway, and described in Section 2.3.

#### **US-212** Resurfacing

Smooth, well-maintained pavement surfaces can be important for freight movement, as rough or uneven roads can cause cargo to shift or break. MnDOT is continually undertaking pavement renewal projects, and recent examples particularly relevant to freight include resurfacing of US-212 between the state line and US-75, and upcoming resurfacing on 212 between Granite Falls and Renville.

### 1.3 Programs, Plans, and Operational Changes

In addition to the freight-related infrastructure noted above, MnDOT has made operational changes and begun planning work in response to industry stakeholder feedback. Some of these changes, programs, and plans include:

- Creation of a new shoulder widening study to determine how future shoulder widening funds should be allocated.
- Coordination of snowplow operations in response to outreach results of the Manufacturers' Perspectives
- Improvements to MnDOT's 511 service and website in response to requests for additional information about conditions and construction projects.
- Safety assessments for trunk highways in Marshall, Glencoe, New London, and McLeod County.
- A MN-23 and MN-7 intersection study for Clara City, which is intended to improve safety and mobility on MN-23.

## 2 Prioritizing District 8's Freight Needs and Issues

#### **Key Findings**

Based on the review of MnDOT's past process for evaluating and ranking freight system projects and the resultant process established for evaluating freight needs and issues in the District 8 Freight Plan, investment "gaps" were evaluated. The evaluation process resulted in a rank order of priority needs for the District to address, as well as sub-rankings of projects deemed to provide the greatest benefits to freight system safety, condition and mobility. While these projects are "ranked" it is ultimately left to MnDOT District 8 and key stakeholders to determine which projects may be in the best interest of the region to advance. This decisionmaking process may also include those key freight projects that were not highway infrastructure-related, and may not have been prioritized during evaluation (e.g., projects that are rail or related to other highway facilities like truck parking).

#### 2.1 Introduction

District 8's freight system has a variety of needs and issues, most of which are centered on the road network. In particular, both stakeholder and data analysis reveal the dominant issues in the District are related to roadway safety, including issues specific to trucks due to their slower movement relative to passenger traffic.

By comparison, there were relatively fewer needs and issues related to the topics of mobility or condition. Congestion is not a problem in the District, and relatively common mobility concerns related to weight limits and bridge clearances for large trucks were identified. In terms of system condition, pavements do have issues but analysis found that all will be addressed as part of future capital plans.

The wide range of needs and issues in District 8 were documented in Working Paper 4: Freight System Needs, Issues, and Opportunities, as well as if there were any known plans to address them. Those needs and issues unaddressed by short-term investments (i.e., in the next 5 years) are referred to as "gaps" that could be addressed in the future by projects (as shown in Figure 3). The next steps in the developing this Freight Plan are to determine:

- the type of benefits that could be provided if "gaps" are addressed (i.e., if projects are advanced at these locations), and
- which of these could provide more freight benefits than others (rank order).

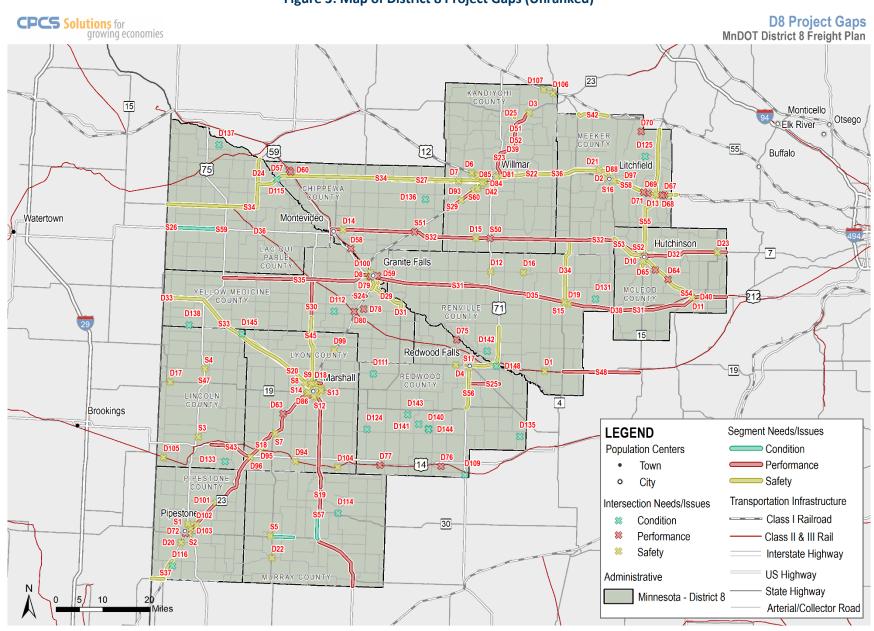


Figure 3: Map of District 8 Project Gaps (Unranked)

#### 2.2 Process

Based on the review of MnDOT's past process for evaluating and ranking freight system projects and the resultant process established for evaluating freight needs and issues in the District 1 Freight Plan, investment "gaps" were evaluated. This approach is intended to:

- Evaluate/screen "gaps" (potential project concepts), not concrete, defined projects.
- Focus on regional issues (i.e., known to be important to District 8) vs. those that may be more important to the Metro District or more urban areas.
- Use as much data as available at the local level, as possible.

A high-level overview of process is documented in Appendix A, and the resultant ranking is documented in Appendix B.

#### Categories and Measures for Evaluation

Figure 4 highlights the categories and measures used for the District 8 freight "gap" evaluation. A few notes on this figure and the evaluation process:

- All measures are weighted equally.
- A high overall score is intended to identify what "gaps" (potential project concepts) have the greatest potential to provide freight benefits (referred to in this Working Paper as "pure ranking").
- As sub-set evaluation can be conducted that indicates those "gaps" (potential project concepts) that score well in safety, mobility or condition.

First/Last Mile Category **Ranking Score Measure/Performance Indicator** Safety Mobility (Condition) **HCAADT** Χ Χ Χ **Truck** Activity Χ Truck percent (%) of total vehicles Χ Χ Addresses a sustained crash location Χ A safety issue identified in a district or county safety Safety Χ plan (provide risk rating) Addresses at-grade crossing safety risk Х Truck Travel Time Reliability Χ Freight Addresses a vertical clearance restriction Χ Χ Mobility Χ Addresses a weight limited bridge Χ Condition Χ Bridge condition rating Y/N if this issue overlaps with a stakeholder Stakeholder Χ Χ Χ identified need Need

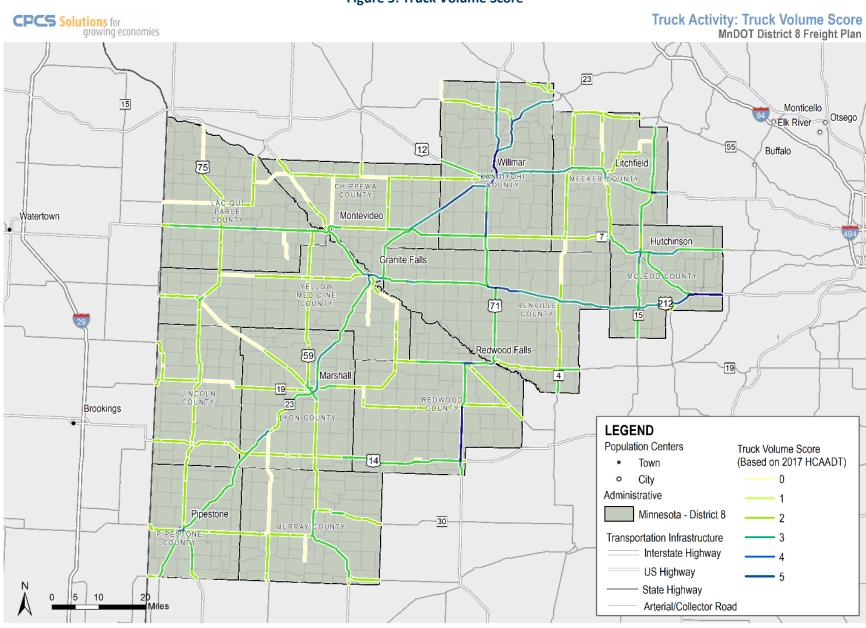
**Figure 4: Categories and Measures for Evaluation** 

Additional information on the criteria for each category and measure is provided in Appendix A.

#### 2.3 Evaluation

The following provides an overview of the scoring process and visualization of the results that comprise each component.

- Truck Volume Score. As shown in Figure 5, truck volume scores were assigned to all identified gaps (points and segments) where HCAADT data was available. Where data was not available, a value of N/A was assigned to the gap. This score is provided for context.
- Truck Percent Score. As shown in Figure 6, truck percent scores were assigned to all identified gaps (points and segments) where truck percent data was available. Where data was not available, a value of N/A was assigned to the gap. This score was used as a tiebreaker score for safety and condition projects.
- Crash Location Score. Crash location scores were assigned based on the degree of "overlap" between truck-involved crashes and identified project gaps. Safety Risk Score
- Safety Risk Score. Safety risk scores were assigned to all identified gaps (points and sections) only if they had been previously identified in the District 8 Safety Plan. Gaps that did not overlap with identified problems in the D8 Safety Plan received a value of N/A, and this category was not considered as part of the total possible score for these gaps.
- At-Grade Crossing Score. As shown in Figure 7, at-grade crossing scores were only assigned to the railrelated gaps within the study. Scores were based on the assigned crossing risk categories provided in MnDOT's rail safety risk assessment.
- Truck Travel Time Reliability (TTR). As shown in Figure 8, TTR is generally not considered to be a problem in the District, and this is reflected in the distribution of scores, with most potential projects receiving no points. Additionally, a large number of potential projects lacked TTR data, due to limited StreetLight data coverage in the area.
- Vertical Clearance Score. As shown in Figure 9, vertical clearance scores were assigned to gaps identified from National Bridge Inventory and District bridge clearance and condition data.
- Bridge Operating Score. As shown in Figure 10, bridge operating scores were assigned to gaps identified from National Bridge Inventory and District bridge clearance and condition data.
- Bridge Condition Score. Bridge condition scores were assigned to gaps identified from District bridge condition data.



**Figure 5: Truck Volume Score** 



**Figure 6: Truck Percent Score** 

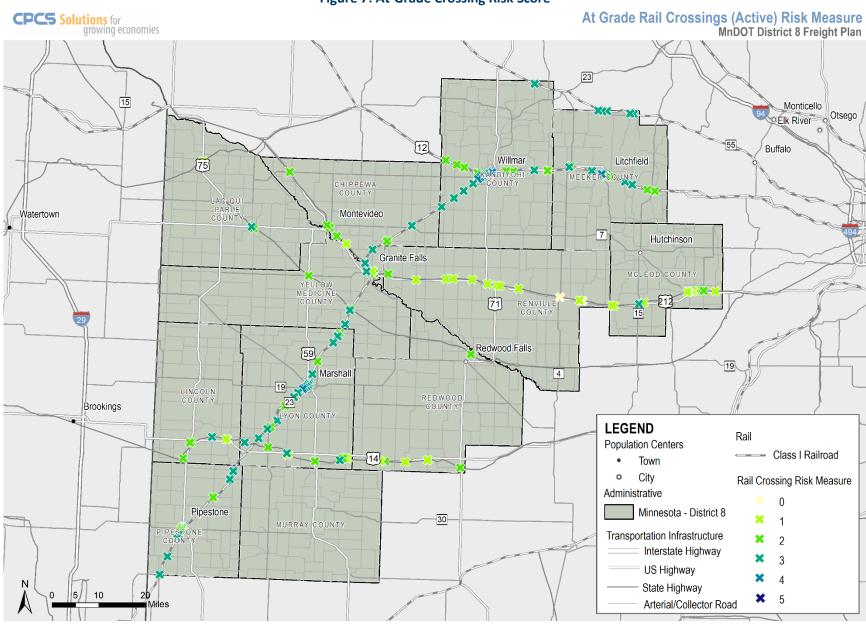
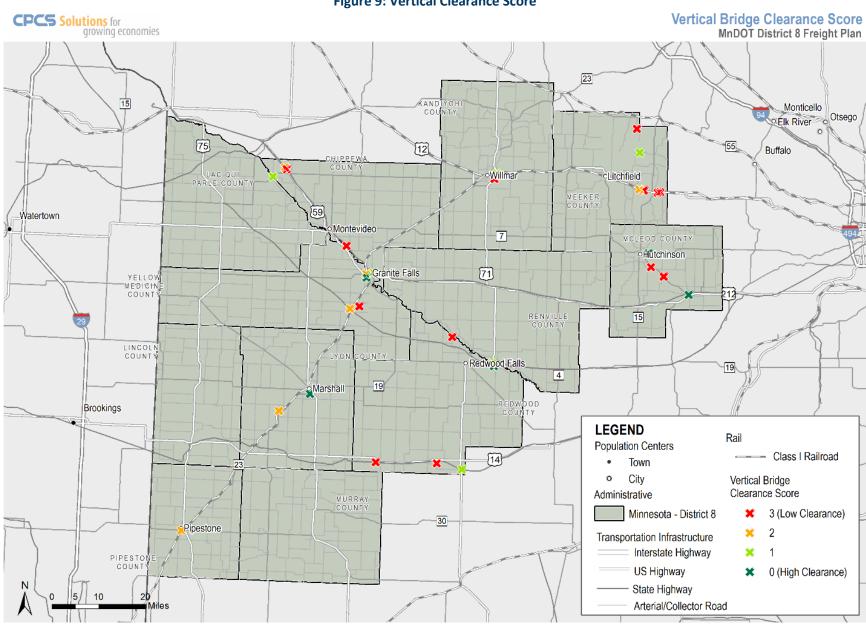


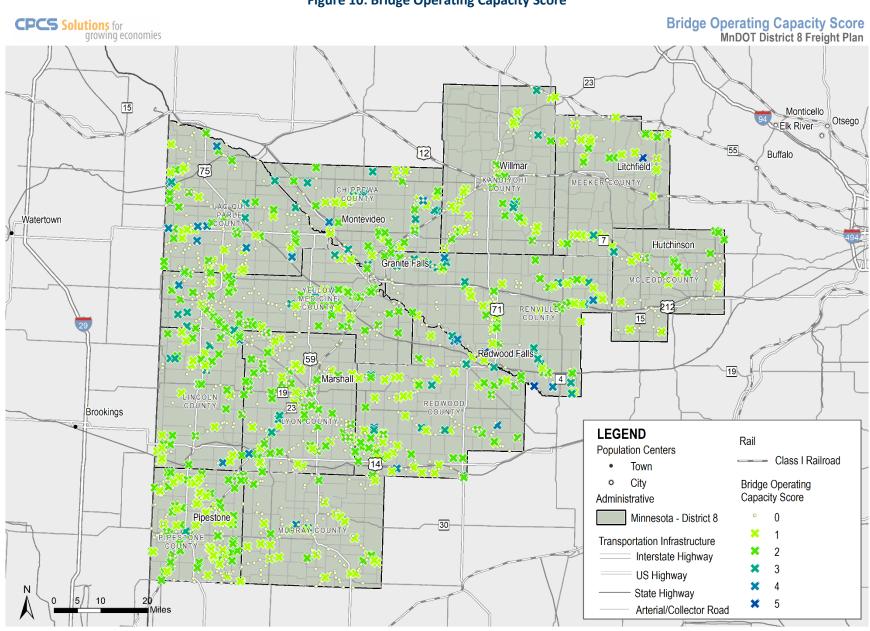
Figure 7: At-Grade Crossing Risk Score

Truck Activity: Truck Volume Score MnDOT District 8 Freight Plan **CPCS Solutions** for growing economies 23 15 Monticello Elk River Otsego 55 12 Buffalo Willmar Litchfield 75 MEEKER COUNTY CHIPPEWA COUNTY LAC QUI PARLE COUNTY Montevideo Watertown Hutchinson Granite Falls COUNTY YELLOW MEDICINE COUNTY [71] RENVILLE 15 Redwood Falls [59] 19 Marshall 19 LIN<mark>COLN</mark> COUNTY REDWOOD LYON COUNTY Brookings **LEGEND Population Centers** Truck Volume Score [14] Town (Based on 2017 HCAADT) City 0 Administrative Pipestone Minnesota - District 8 30 MURRAY OUNTY Transportation Infrastructure Interstate Highway **US Highway** State Highway 10 2þ Arterial/Collector Road

Figure 8: TTR Score



**Figure 9: Vertical Clearance Score** 



**Figure 10: Bridge Operating Capacity Score** 

The following sub-sections present the results of the evaluation. This information was used to inform "gaps"/project concepts advanced to pre-feasibility assessment, described in Chapter 4.

#### **Pure Ranking Evaluation**

MnDOT requires that all "gaps"/project concepts be evaluated and placed in rank order (i.e., 1, 2, 3...), therefore, this is the ultimate goal of the "pure ranking" evaluation.

This pure ranking is simply the total of all scores, for each measure, for each "gap"/project concept. Not all project concepts have scores for each of the measures, for example a weight limited bridge may not have safety issues (nor safety data available) and will not receive a score in the safety category. However, there are cases where project concepts receive scores in multiple categories, and as a result will receive a higher score and ultimately will be ranked higher in the evaluation.

In Appendix B, a list of the 178 "gaps"/project concepts in pure rank order is shown. These are mapped in Figure 11. For the District 8 Freight Plan, these rankings provide indication of what project concepts have the highest score, considering all measures and establish a general understanding of how project concepts may compare against each other.

In addition to identified, gaps, this analytical process incorporated projects specifically recommended by MnDOT staff. For example, District staff identified needs on US 212 and US 71 for inclusion in the ranking process, even though they were not initially identified as gaps. This was done to understand how additional needs and issues compared with gaps identified solely through data analysis. District feedback on project concepts is also incorporated in later states of review, as District staff can choose which projects will ultimately advance to pre-feasibility.

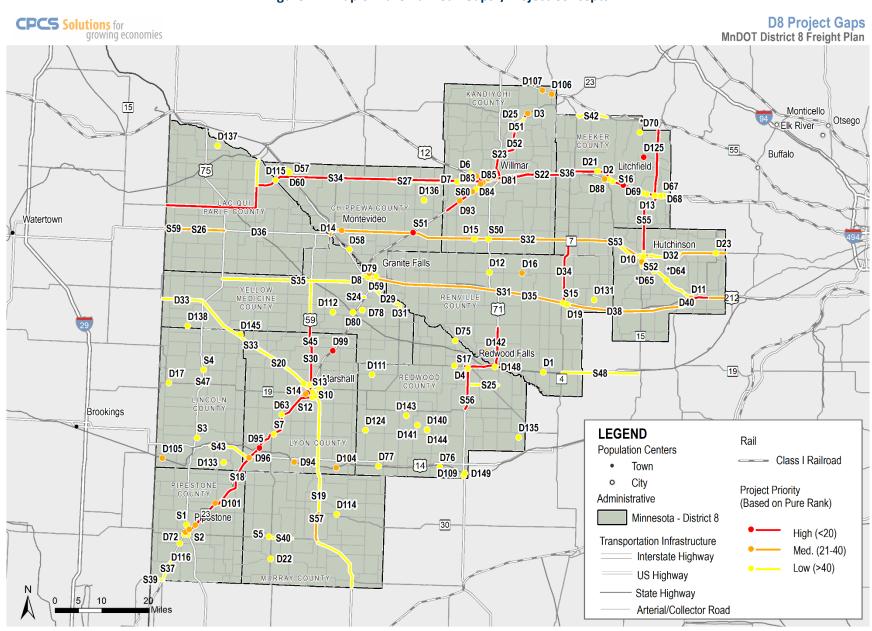


Figure 11: Map of Pure Ranked "Gaps"/Project Concepts

#### Evaluation by Project Type or Expected Benefit

Ranking by project type builds on the concept shown in Figure 4; essentially that certain category measures provide indication of the types of expected benefits addressing a "gap" may provide. For example, "gaps"/project concepts that score highly in safety category measures may be linked to a safety project as a solution (note: at this point the actual solutions have not been determined). Three types of projects and expected benefits have been identified:

- Safety
- Condition (including first-/last-mile connectivity)
- Performance/Mobility

These three project types are directly related to goals of the Minnesota Statewide Freight System Plan, were the focus of the quantitative analysis conducted in the District 8 Freight Plan, and are also tied to existing MnDOT funding programs.

When scored within these categories, top safety, condition, and performance "gaps"/project concepts are more clearly identified, and are not diluted by being combined with all project types in the "pure ranking." The ranking by project type or expected benefit will enable District 8 to advance projects aligned with their interests/goals, as appropriate.

#### Safety-Related Project Concept Evaluation

Safety represented the highest number of unaddressed "gaps"/project concepts. The results of the safety evaluation are listed in Figure 12 and mapped in Figure 15. Many of these highly-ranked projects were identified through crash factor scores calculated as part of MnDOT's previous District Safety Plans, a. These figures show the ranking of the top 30 of 113 total gaps identified. The table includes two columns that provide context to the ranking:

- Pure Rank reflects the competitiveness of a project across all categories. Since pure rank is based on a percentage value assigned to projects, there are ties for pure ranks.
- Safety Rank (w/HCAADT) shows the rank of safety projects after HCAADT-related tiebreaker rules were applied (where data was available).

Project ID	Highway	Location	Pure Rank	Safety Rank (w/ HCAADT)
D34	Broadway	S OF TH7 (ASTRO BLVD) IN COSMOS	9	1
D83		30TH ST NW	1	2
D86		W COLLEGE DR	1	2
D37	Maple	S OF TH212 (HWY AVE E) IN HECTOR	3	3
D40	Maple	W OF CSAH9 (McLEOD AVE S) IN PLATO	2	4
D39	MNTH 23	E OF N JCT TH71 &23	8	5
S34	MN-40	West of Willmar	17	6
D29	Front	NW OF TH67 &CSAH21	45	7
S26	US-212	SD border to TH-75	33	8
S58		US-152	11	9

Figure 12: List of Top Safety "Gaps"/Project Concepts

Project ID	Highway	Location	Pure Rank	Safety Rank (w/ HCAADT)
S36	US-12	Willmar to Twin Cities	34	10
D3	TH 23	NE OF N JCT CSAH31	25	11
S53		MN-22	51	12
S27	MN-40	West of Willmar	53	13
D11	TH 22	N OF 9th ST IN GLENCOE	26	14
S55		MN-15	12	15
S56		US Highway 71 and MN Highway 19/67	13	16
D9	TH 23	NE OF TH59 IN MARSHALL	10	17
S13	TH 23	NE OF TH59 IN MARSHALL	10	17
S45	US-59	US-59 N. of Marshall	4	18
D10	TH 15	NE OF FRANKLIN ST IN HUTCHINSON	28	18
D14	TH 7	0.2 M E OF CSAH15 (24th ST) IN MONTEVI	38	18
D13	TH 15	S OF TH12 IN DASSEL	57	18
D45	MNTH 22	&22 W OF E JCT TH22 IN HUTCHINSON	39	19
D55	MNTH 22	&22 W OF E JCT TH22 IN HUTCHINSON	39	19
D32	MNTH 7	&22 W OF E JCT TH22 IN HUTCHINSON	59	19
S14	TH 19	W OF MARLENE ST IN MARSHALL	60	20
S20	MN-68	West of Marshall	61	21
S33	MN-68	Highway 68 from Marshall to SD	70	22
D95		150TH ST	5	23
D97		650TH AVE	5	23
D99		290TH AVE	5	23

### **Condition-Related Project Concept Evaluation**

Condition represented the fewest number of unaddressed "gaps"/project concepts. The results of the condition evaluation are listed in Figure 13 and mapped in Figure 16. The table includes two columns that provide context to the ranking

- Pure Rank reflects the competitiveness of a project across all categories. Since pure rank is based on a percentage value assigned to projects, there are ties for pure ranks.
- Condition Rank reflects the ranked competitiveness of condition projects. Since many projects have the same condition scores there are ties in the condition rank category.

Figure 13: List of Top Condition "Gaps"/Project Concepts

Project ID	Highway	Location	Pure Rank	Condition Rank (w/ HCAADT)
D125	690 <sup>th</sup> Ave	Bridge 0.1 MI S OF JCT CSAH 27	16	1
D142	316 <sup>th</sup> Street	Bridge 0.3 MI N OF JCT CSAH 2	30	1
D109	S. Main Street	Bridge 0.5 MI S OF JCT CSAH 15	40	1
D131	County 26	Bridge 1.6 MI N OF JCT TH 212	40	1
D133	250 <sup>th</sup> Ave	Bridge 0.4 MI S OF JCT CSAH 9	40	1
D136	20 <sup>th</sup> St NE	1.9 MI E OF JCT CSAH 2	40	1
D137	370 <sup>th</sup> St	0.5 MI W OF JCT CR 59	40	1
D148*	Hwy 19 Access	1.0 MI S OF MORTON	40	1
D111	County 8	0.1 MI S OF JCT CSAH 30	63	1
D112	205 <sup>th</sup> Ave	0.8 MI NE OF JCT CSAH18	63	1
D138	160 <sup>th</sup> St	1.5 MI S OF JCT CSAH 36	63	1
D115*	MN-40	3.8 MI W OF JCT TH 59	71	1
D116	County 20	1.0 MI S OF JCT CSAH 2	85	1
D135	190 <sup>th</sup> St	0.6 MI E OF JCT CSAH 2	85	1
D145	390 <sup>th</sup> St	0.2 MI E OF JCT CR 116	85	1
D114	County 38	0.5 MI N OF JCT TH 30	102	1
D124	County 8	0.6 MI N OF JCT CSAH 4	102	1
D143	230 <sup>th</sup> St	1.6 MI E OF JCT CSAH 10	102	1
D144***	200 <sup>th</sup> St	0.9 MI W OF JCT CSAH 6	102	1
D140****	Hunter Ave	1.1 MI N OF JCT CSAH 4	108	1
D141	Access Rd	0.1 MI S OF JCT CR 66	108	1
S57	US 59	US 59 Slayton to 156 <sup>th</sup> St	27	NA
S59	US 212	US 212 SD County Line to US 75	33	NA
S40	TH 30	W OF TH267 (W OF SLAYTON)	53	NA
S39	TH 23	N OF 10th ST IN JASPER	77	NA

<sup>\*</sup> Based on review of Google Streetview (October 2018), this site has a "Bridge Closed to Vehicular Traffic" Sign posted.

### Performance-Related Project Concept Evaluation

The results of the performance evaluation are listed in Figure 14 and mapped in Figure 17. The table includes two columns that provide context to the ranking:

- Pure Rank reflects the competitiveness of a project across all categories. Since pure rank is based on a percentage value assigned to projects, there are ties for pure ranks.
- Performance Rank (w/HCAADT) shows the rank of performance projects after HCAADT-related tiebreaker rules were applied (where data was available).

<sup>\*\*</sup>This condition gap may be addressed by the ongoing Milan Bridge project.

<sup>\*\*\*</sup>This gap appears to connect to an unused road grade.

<sup>\*\*\*\*</sup>This gap serves a private agricultural facility.

In several cases in the following figure, the unidentified locations are low clearance bridges and can be located on the corresponding map.

Figure 14: List of Top Performance "Gaps"/Project Concepts

Project ID	Highway	Location	Pure Rank	Perf. Rank (w/ HCAADT)
D58	N/A	Railroad underpass off State Rd in Wegdahl	86	1
D60	160 <sup>th</sup> Ave NW	Off US 59, northwest of Milan	86	1
D67	735 <sup>th</sup> Ave	Adjacent to US 12 east of Dassel	86	1
D68	730 <sup>TH</sup> Ave	Adjacent to US 12 east of Dassel	86	1
D69	700 <sup>th</sup> Ave	Adjacent to US 12 west of Dassel	86	1
D75	Kenwood Ave	Crossing Minnesota River	103	1
D76	Jade Ave	South of US-14, east of Lamberton	103	1
D77	Crown Avenue	Adjacent to County 20	103	1
D78	A9	Between County 3 and 18, east of MN-23	103	1
D63	190 <sup>th</sup> Ave	Northwest of MN-23, south of Lynd	107	2
D71*	237 <sup>th</sup> St	East of Darwin	107	2
D80	West Ave	Hanley Falls	111	2
S51	TH 23	NE OF TH7 IN CLARA CITY	19	3
S49	MN-33 and US-59	Marshall	81	4
D79	US 212	Granite Falls	47	5
D72	MN 30	Pipestone	50	6
D59	145 <sup>th</sup> St SE	Granite Falls	116	7
D57	US 59	NW of Milan	111	8
S50	TH 7	W OF TH71	42	9
S18	MN-23	Marshall to Pipestone	6	10
S22	US-12	Willmar to Twin Cities	22	11
S31	US-212	Marshall to Twin Cities	36	12
S23	MN-23	Willmar to I-94	15	13
S32	MN-7	MN-7	37	13
S54	MN-22	MN-22 in Glencoe	96	14
S52	TH 15	S OF WASHINGTON AVE IN HUTCHINSON	100	15
S21	Kandiyohi CR-9	East of Willmar	117	16
D149	TH 71	N OF CSAH15 (CENTRAL ST) IN SANBORN	62	17
S25	CR-12	Redwood Falls	64	18
S48	MN-19	MN-5 to US-169	74	19

<sup>\*</sup>D71 appears to be an unused road connection to US-212.

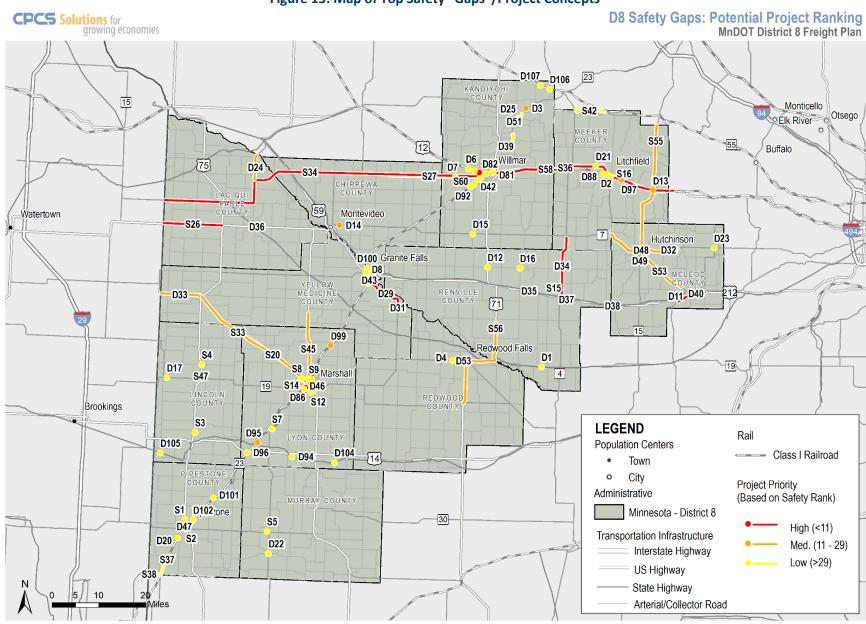


Figure 15: Map of Top Safety "Gaps"/Project Concepts

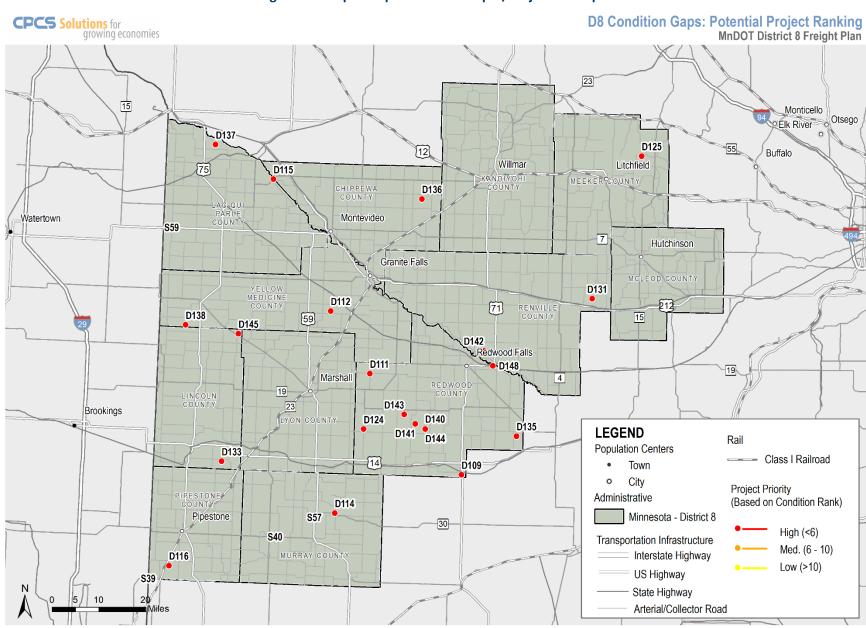


Figure 16: Map of Top Condition "Gaps"/Project Concepts

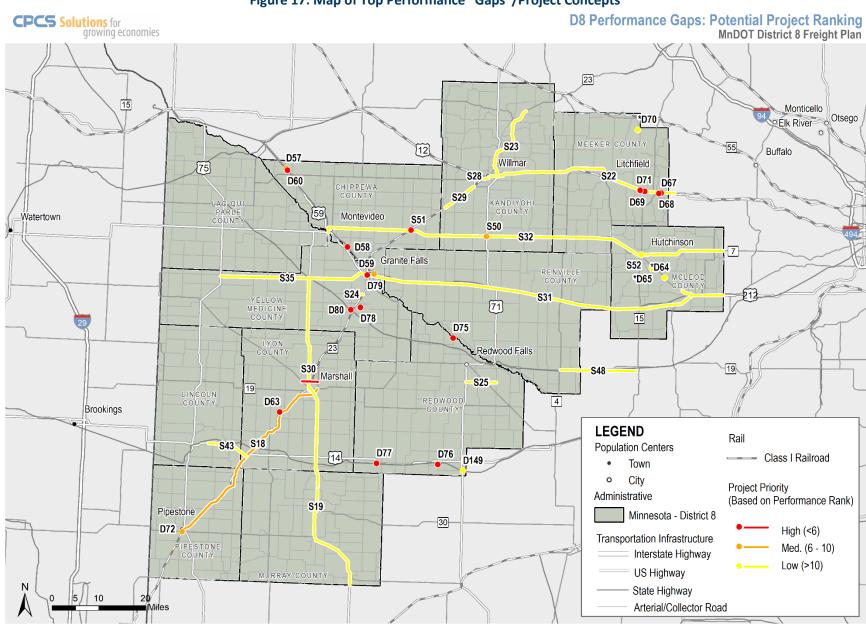


Figure 17: Map of Top Performance "Gaps"/Project Concepts

# 3 Selection of Projects to Advance to Pre-**Feasibility**

#### **Key Findings**

One of the aims of the District 8 Freight Plan is to ensure that the critical needs in the region have the potential to be addressed by future rounds of funding. One way to do this is to take steps to prepare data and information to support the full slate of criteria used in evaluating/scoring projects in the Minnesota Highway Freight Program (MHFP) process. This includes further developing unaddressed "gaps"/project concepts into clear projects/solutions, so that they can be scored and considered when future investment decisions are made.

A slate of 11 "gaps"/project concepts – out of a possible 178 – are being advanced to pre-feasibility assessment that will include 1) conceptual design of a slate of possible projects/solutions to address the "gap", and 2) orderof-magnitude construction cost estimating. This list represents a mix of "gaps" that when addressed are aimed at improving the safety, condition, and performance on the District 8 freight system.

#### 3.1 Introduction

One of the aims of the District 8 Freight Plan is to ensure that the critical needs in the region have the potential to be addressed by future rounds of funding. One way to do this is to take steps to prepare data and information to support the full slate of criteria used in evaluating/scoring projects in the Minnesota Highway Freight Program (MHFP) process. This includes further developing unaddressed "gaps"/project concepts into clear projects/solutions, so that they can be scored and considered when future investment decisions are made.

For the "gaps"/project concepts that scored highly in the District 8 evaluation, the following sub-section describes the process to advance a sub-set of well scoring concepts to pre-feasibility evaluation. The project feasibility work will include two key components – 1) conceptual design of a slate of possible projects/solutions to address the "gap", and 2) order-of-magnitude construction cost estimating.

All designs will meet current MnDOT standards and follow the guidelines for a Level 1 Geometric Layout. The results of the evaluation will be presented in Working Paper 6 – Project Feasibility.

### 3.2 Selecting Project Concepts to Advance to Pre-Feasibility

The list of 178 "gaps"/project concepts evaluated across the District is provided in Appendix B. This listing was used as the basis for determining which projects would be carried forward into Task 6 - Project Feasibility for evaluation. The process for selecting the priority projects to evaluate involved the following steps:

- "Gaps"/project concepts were rank ordered according to the "Pure Rank" scoring.
- The individual condition, safety, and performance categories were considered for each project concept to ensure that the items advanced reflected a mix of potential issues and solutions.
- Understanding that not all project concepts on the "pure rank" listing could be evaluated, it was decided to initially review the top 30 ranked projects. For each "gap" the review included:
  - Use of GoogleEarth to consider the situation on on-the-ground and the context surrounding each issue.
  - Review of project history that is, several of the "gaps" are well known and have already been studied extensively, and have identified solutions.

 Consider areas with relatively higher AADT'S and HCAADT'S (where available) – this was done to ensure advancement of "gaps" that when addressed could provide travel benefits (as compared to those areas with fewer overall vehicles and trucks).

After consulting with MnDOT District 8, a slate of 11 "gaps"/project concepts were identified for pre-feasibility evaluation. The list touches on the variety of safety, condition and mobility issues identified in the District, and are geographically dispersed. These items are described in brief below. Note that Items D79 and D61 were initially not in the top ranking, but were added based on stakeholder feedback. Additionally, several locations were reviewed for potential solutions that could be applied at multiple locations.

- D9 TH 23/TH 19-TH 68 intersection in Marshall. This site had a high truck-involved crash rate (crash score was 5 out of 5 points), as well as a moderate overall truck volume (5 out of 10 points).
- D79 Railroad overpass on US 212 in Granite Falls. Data indicated this site has a mobility problem, with low bridge clearance. This site was elevated in this study because of high truck traffic (6 of 10 points), as well as being specifically called out by MnDOT as a mobility problem, particularly for OSOW loads like manufactured homes.
- D99 Rural at-grade railroad crossing along TH 23 southwest of Cottonwood. This passively protected crossing was identified as a safety risk due to its MnDOT safety rating (got 7/10 stars, or 4/5 points).
- \$57 Segment of US 59 north of Slayton. This stakeholder-identified condition project had a high truck crash score (5/5), and received extra points since it was stakeholder-identified. Truck volumes were lower, with 4/10 points given for truck volumes.
- **D61** Railroad overpass on **US 71** in Sanborn. This was not initially picked up as a gap area because it had overlapped with programmed pavement condition projects. However, MnDOT asked that it be included for analysis because the low-clearance bridge is a barrier for OSOW truck movement.
- **S34 TH 40 west from Willmar.** This stakeholder-identified safety project had a high truck-related crash frequency, and got a boost in scoring because it was stakeholder-identified. Truck volumes are low, but truck percentages are moderately high.
- **S58 US 12 between Willmar and Litchfield.** This stakeholder-identified safety issue had a high truckrelated crash frequency, as well as moderately high truck volumes. Additional boost for scoring came from the fact that it was stakeholder-identified as well.
- D37 US 212/TH 4 in Hector. This data-identified safety issue was scored 3/5 for safety risk, and 5/5 for previous crash history.
- D53 TH 19 westside of Redwood Falls. This safety issue had a low crash history score, but a higher assessed risk. Additionally, it scored 4/5 for truck volumes (10k+ HCAADT), pushing it higher in the rankings.

This slate of projects are being advanced to Task 6 pre-feasibility assessment will be documented in Working Paper 6: Project Feasibility.

Figure 18: List of Project Concepts Recommended for Pre-Feasibility Evaluation

ID	Project Type	Primary Roadway	Location	Type of Need/Issue	Pure Rank
D83	Rail		30TH ST NW - Willmar	Safety	1
D86	Rail		W COLLEGE DR - Marshall	Safety	1
D37	Road	US 212	S OF TH212 (HWY AVE E) IN HECTOR	Safety	2
D40	Road	US 212	W OF CSAH9 (McLEOD AVE S) Glencoe	Safety	3
S45	Road	US-59	US-59 N. of Marshall	Safety	4
D95	Rail		TH 23 NE of Florence	Safety	5
D97	Rail		650TH AVE - TH 12 east of Litchfield	Safety	5
D99	Rail		290TH AVE - TH 23 SW of Cottonwood	Safety	5
S18	Road	MN-23	Marshall to Pipestone	Mobility	6
S29	Road	US-23	SW side of Willmar	Mobility	7
D39	Road	MNTH 23	TH71 &23 near Spicer	Safety	8
D34	Road	TH 4	S OF TH7 IN COSMOS	Safety	9
D9	Road	TH 23	NE OF TH59 IN MARSHALL	Safety	10
S13	Road	TH 23	NE OF TH59 IN MARSHALL	Safety	10
S56	Road	TH 71	TH 71 and TH 19/67 - Redwood Falls	Safety	11
S55	Road	TH 15	MN-15 - Hutchinson to Kimball	Safety	12
S58	Road	TH 12	TH 12 - Willmar to Darwin	Safety	13
D53	Road	280th	W OF SWAIN ST IN REDWOOD FALLS	Safety	14
S23	Road	MN-23	Willmar to I-94	Mobility	15
D125	Bridge		0.1 MI S OF JCT CSAH 27 - NE of Litchfield	Condition	16
S34	Road	MN-40	West of Willmar	Safety	17
D35	Road	US 212	W OF E JCT CSAH 3 - Bird Island	Safety	18
S51	Road	TH 23	NE OF TH7 IN CLARA CITY	Mobility	19
D38	Road	US 212	W OF CR57 - Stewart	Safety	20
D47	Road	USTH 75	NE OF N JCT TH75 &23 IN PIPESTONE	Safety	21
S22	Road	US-12	Willmar to Twin Cities	Mobility	22



ID	Project Type	Primary Roadway	Location	Type of Need/Issue	Pure Rank
D36	Road	US 212	W OF 2nd ST IN DAWSON	Safety	23
D54	Road	US 212	TH 212 & TH 23 - Granite Falls	Safety	24
D3	Road	TH 23	NE OF N JCT CSAH31 - NE of New London	Safety	25
D11	Road	TH 22	N OF 9th ST IN GLENCOE	Safety	26
S57	Road	US 59	US 59 - Slayton	Condition	27
D10	Road	TH 15	NE OF FRANKLIN ST IN HUTCHINSON	Safety	28
D79	Bridge	US 212	Granite Falls		47
D61	Bridge	US 71	Sanborn	Safety	



## **4 Conclusions and Next Steps**

#### 4.1 Conclusions

A key aim of the District 8 Freight Plan is to ensure that the critical needs in the region have the potential to be addressed by future rounds of funding. One way to do this is to take steps to develop unaddressed "gaps"/project concepts into clear projects/solutions so that they can be scored and considered when future investment decisions are made.

A slate of 11 "gaps"/project concepts – out of a possible 178 – are being advanced to pre-feasibility assessment that will include 1) conceptual design of a slate of possible projects/solutions to address the "gap", and 2) order-of-magnitude construction cost estimating.

### 4.2 Next Steps

As shown in the following figure, this Working Paper represents the results of Task 5 and provides input for Task 6. The slate of projects that have been identified for Task 6 pre-feasibility assessment will be documented in Working Paper 6: Project Feasibility. All Working Papers will then be consolidated to present a concise, informative and implementable District 8 Freight Plan.

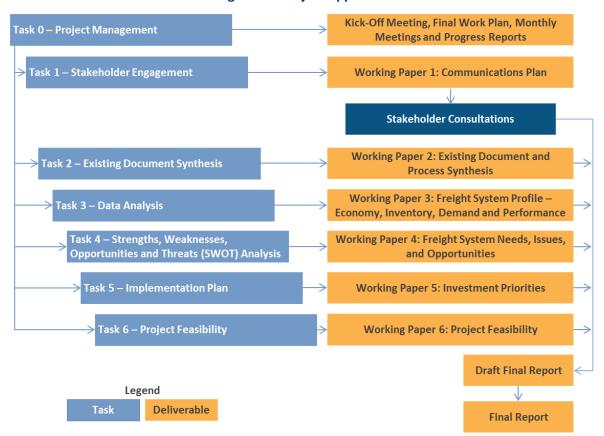


Figure 19: Project Approach



# **Appendix A: Identifying Investment Priorities**

This appendix contains an overview of the process used to prioritize identified "gaps."

## **Appendix B: Findings**

This Appendix presents the summary findings from the application of the approach to Identifying Investment Priorities described in Appendix A. The fields in the table below are:

- ID: This code refers to the need/issue ID printed on maps in this Working Paper. IDs beginning with "S" denote needs or issues identified by stakeholders, while IDs beginning with "D" denote needs or issues identified by analysis of data.
- Type: road, rail or bridge specific
- Highway Name or Number (as available)
- Location
- Need/Issue Type: This field corresponds to the primary need or issue associated with the location. Needs and issues were coded in four ways: safety, condition, or mobility.
- Pure: The "pure ranking" is simply the total of all scores, for each measure, for each project concept. Not all project concepts will have scores for each of the measure categories, e.g., a weight limited bridge may not have a safety issues and will not receive a score in the safety category. However, there may be cases where project concepts do receive scores in multiple categories, and as a result will receive a higher score and ultimately will be ranked higher in the evaluation. Truck percent has been used to break ties in ranks, as available.
- Safety: The total of all safety-related scores. Truck percent has been used to break ties in ranks, as
- Mobility: The total of all mobility-related scores. Truck percent has been used to break ties in ranks, as available.
- Condition: The total of all condition-related scores. Truck percent has been used to break ties in ranks, as available.

ID	Туре	Highway	Location	Need/issue	Pure	Safety	Mobility	Condition
D83	Rail		30TH ST NW	Safety	1	2		
D86	Rail		W COLLEGE DR	Safety	1	2		
D40	Road	Maple	W OF CSAH9 (McLEOD AVE S) IN PLATO	Safety	2	4		
D37	Road	Maple	S OF TH212 (HWY AVE E) IN HECTOR	Safety	3	3		
S45	Road	US-59	US-59 N. of Marshall	Safety	4	18		
D95	Rail		150TH ST	Safety	5	23		
D97	Rail		650TH AVE	Safety	5	23		
D99	Rail		290TH AVE	Safety	5	23		
S18	Road	MN-23	Marshall to Pipestone	Mobility	6		10	
S29	Road	US-23	SW side of Willmar	Mobility	7		20	
D39	Road	MNTH 23	E OF N JCT TH71 &23	Safety	8	5		
D34	Road	Broadway	S OF TH7 (ASTRO BLVD) IN COSMOS	Safety	9	1		
D9	Road	TH 23	NE OF TH59 IN MARSHALL	Safety	10	17		
S13	Road	TH 23	NE OF TH59 IN MARSHALL	Safety	10	17		
S58	Road		US-152	Safety	11	9		
S55	Road		MN-15	Safety	12	15		
S56	Road		US Highway 71 and MN Highway 19/67	Safety	13	16		
D53	Road	280th	W OF SWAIN ST IN REDWOOD FALLS	Safety	14	31		
S23	Road	MN-23	Willmar to I-94	Mobility	15		13	
D125	Bridge		0.1 MI S OF JCT CSAH 27	Condition	16			1

ID	Туре	Highway	Location	Need/issue	Pure	Safety	Mobility	Condition
S34	Road	MN-40	West of Willmar	Safety	17	6		
D35	Road	Maple	W OF E JCT CSAH3	Safety	18	36		
S51	Road	TH 23	NE OF TH7 IN CLARA CITY	Mobility	19		3	
D38	Road	Maple	W OF CR57	Safety	20	37		
D47	Road	USTH 75	NE OF N JCT TH75 &23 IN PIPESTONE	Safety	21	25		
S22	Road	US-12	Willmar to Twin Cities	Mobility	22		11	
D36	Road	Maple	W OF 2nd ST IN DAWSON	Safety	23	39		
D54	Road	Maple	&23 W OF E JCT TH212 &23	Safety	24	40		
D3	Road	TH 23	NE OF N JCT CSAH31	Safety	25	11		
D11	Road	TH 22	N OF 9th ST IN GLENCOE	Safety	26	14		
S57	Road		US 59	Condition	27			NA
D10	Road	TH 15	NE OF FRANKLIN ST IN HUTCHINSON	Safety	28	18		
D100	Rail		DIKE RD	Safety	29	35		
D101	Rail		WASHINGTON AVE	Safety	29	35		
D102	Rail		121ST ST	Safety	29	35		
D103	Rail		9TH ST NE	Safety	29	35		
D104	Rail		310TH AVE	Safety	29	35		
D105	Rail		CSAH 1	Safety	29	35		
D106	Rail		190TH ST NE	Safety	29	35		
D107	Rail		160TH ST NE	Safety	29	35		

ID	Туре	Highway	Location	Need/issue	Pure	Safety	Mobility	Condition
D81	Rail		LAKELAND DR SE	Safety	29	35		
D82	Rail		7TH ST SW	Safety	29	35		
D84	Rail		WILLMAR AVE SW	Safety	29	35		
D85	Rail		30TH ST SW	Safety	29	35		
D87	Rail		240TH AVE	Safety	29	35		
D88	Rail		CSAH 1	Safety	29	35		
D89	Rail		8TH AVE NE	Safety	29	35		
D90	Rail		E MAIN ST	Safety	29	35		
D91	Rail		45TH ST NW	Safety	29	35		
D92	Rail		45TH AVE SW	Safety	29	35		
D93	Rail		75TH AVE SW	Safety	29	35		
D94	Rail		220TH AVE	Safety	29	35		
D96	Rail		BLAINE ST	Safety	29	35		
D142	Bridge		0.3 MI N OF JCT CSAH 2	Condition	30			1
D16	Road	TH 212	E OF CSAH5 (MAIN ST) IN BIRD ISLAND	Safety	31	48		
D41	Road	13th	E OF CSAH5	Safety	32	44		
S26	Road	US-212	SD border to TH-75	Safety	33	8		
S59	Road		US-212	Condition	33			NA
S36	Road	US-12	Willmar to Twin Cities	Safety	34	10		
D43	Road	MNTH 23	S OF S JCT TH23 &67 IN GRANITE FALLS	Safety	35	38		

ID	Туре	Highway	Location	Need/issue	Pure	Safety	Mobility	Condition
S31	Road	US-212	Marshall to Twin Cities	Mobility	36		12	
S32	Road	MN-7	MN-7	Mobility	37		13	
D14	Road	TH 7	0.2 M E OF CSAH15 (24th ST) IN MONTEVI	Safety	38	18		
D45	Road	MNTH 22	&22 W OF E JCT TH22 IN HUTCHINSON	Safety	39	19		
D55	Road	MNTH 22	&22 W OF E JCT TH22 IN HUTCHINSON	Safety	39	19		
D109	Bridge		0.5 MI S OF JCT CSAH 15	Condition	40			1
D131	Bridge		1.6 MI N OF JCT TH 212	Condition	40			1
D133	Bridge		0.4 MI S OF JCT CSAH 9	Condition	40			1
D136	Bridge		1.9 MI E OF JCT CSAH 2	Condition	40			1
D137	Bridge		0.5 MI W OF JCT CR 59	Condition	40			1
D148	Bridge		1.0 MI S OF MORTON	Condition	40			1
D22	Road	TH 91	N OF CARLTON ST IN CHANDLER	Safety	41	46		
D15	Road	TH 7	W OF TH71	Safety	42	47		
S50	Road	TH 7	W OF TH71	Mobility	42		9	
S60	Road	TH 23	E OF CSAH5	Safety	43	69		
D19	Road	TH 212	.7 MI E OF TH4 (MAIN ST) (E OF HECTOR)	Safety	44	49		

ID	Туре	Highway	Location	Need/issue	Pure	Safety	Mobility	Condition
D29	Road	Front	NW OF TH67 &CSAH21	Safety	45	7		
D33	Road	MNTH 68	0.47 MI W OF JCT CSAH 15, E OF S DAK BORDER	Safety	46	26		
D79	Bridge			Mobility	47		5	
D8	Road	TH 212	&67 W OF CSAH45 (17th ST) GRANITE FLS	Safety	47	52		
D24	Road	MNTH 119	S OF TH40	Safety	48	27		
D30	Road	Front	1 MI SE OF S JCT TH23 &67	Safety	49	28		
D72	Bridge			Mobility	50		6	
S53	Road		MN-22	Safety	51	12		
S35	Road	MN-67	Granite Falls to US-75	Mobility	52		23	
S27	Road	MN-40	West of Willmar	Safety	53	13		
S40	Road	TH 30	W OF TH267 (W OF SLAYTON)	Condition	53			NA
S19	Road	MN-29	Marshall to Worthington	Mobility	54		24	
S30	Road	US-59	North and South of Marshall	Mobility	54		24	
D51	Road	MNTH 23	N OF CSAH40 (4th AVE S) IN NEW LONDON	Safety	55	30		
D52	Road	MNTH 23	E OF N JCT TH71 &23	Safety	56	41		
D13	Road	TH 15	S OF TH12 IN DASSEL	Safety	57	18		
D48	Road	MNTH 15	N OF MILLER AVE SW IN HUTCHINSON	Safety	58	43		

ID	Туре	Highway	Location	Need/issue	Pure	Safety	Mobility	Condition
D32	Road	MNTH 7	&22 W OF E JCT TH22 IN HUTCHINSON	Safety	59	19		
D44	Road	MNTH 22	&22 W OF E JCT TH22 IN HUTCHINSON	Safety	59	32		
S14	Road	TH 19	W OF MARLENE ST IN MARSHALL	Safety	60	20		
S20	Road	MN-68	West of Marshall	Safety	61	21		
D149	Bridge	TH 71	N OF CSAH15 (CENTRAL ST) IN SANBORN	Mobility	62		17	
D111	Bridge		0.1 MI S OF JCT CSAH 30	Condition	63			1
D112	Bridge		0.8 MI NE OF JCT CSAH18	Condition	63			1
D138	Bridge		1.5 MI S OF JCT CSAH 36	Condition	63			1
S25	Road	CR-12	Redwood Falls	Mobility	64		18	
D31	Road	Front	NW OF TH67 &CSAH21	Safety	65	24		
D25	Road	MNTH 9	S OF NEW LONDON NCL	Safety	66	29		
D26	Road	MNTH 9	S OF NEW LONDON NCL	Safety	66	29		
D27	Road	MNTH 9	S OF NEW LONDON NCL	Safety	66	29		
D28	Road	MNTH 9	S OF NEW LONDON NCL	Safety	66	29		
D42	Road	13th	S OF TH71 &23 IN WILLMAR	Safety	67	45		
D5	Road	TH 23	N OF TH1 (E COLLEGE DR) IN MARSHALL	Safety	68	58		

ID	Туре	Highway	Location	Need/issue	Pure	Safety	Mobility	Condition
D49	Road	MNTH 15	S OF BALTIMORE AVE IN HUTCHINSON	Safety	69	42		
S33	Road	MN-68	Highway 68 from Marshall to SD	Safety	70	22		
D115	Bridge		3.8 MI W OF JCT TH 59	Condition	71			1
S3	Road	TH 75	N OF CSAH12	Safety	72	68		
S47	Road	US-75	Hwy 75 and Co. 25	Safety	73	70		
S48	Road	MN-19	MN-5 to US-169	Mobility	74		19	
S38	Road	MN 269	Jasper to SD	Safety	75	50		
S2	Road	TH 75	SE OF E JCT TH75 &30 IN PIPESTONE	Safety	76	71		
S39	Road	TH 23	N OF 10th ST IN JASPER	Condition	77			NA
S37	Road	MN-23	Ihlen to Jasper Deer Crossing	Safety	78	73		
S17	Road	TH 71	S OF TH67 (BROADWAY) IN REDWOOD FALLS	Safety	79	74		
D20	Road	TH 23	SW OF CSAH15	Safety	80	51		
D18	Road	TH 59	S OF ONTARIO RD IN MARSHALL	Safety	81	60		
S49	Road	MN-33 and US- 59	Marshall	Mobility	81		4	
S9	Road	TH 59	S OF ONTARIO RD IN MARSHALL	Safety	81	61		
D2	Road	TH 12	&22 S OF CSAH11 (5th ST) IN LITCHFIELD	Safety	82	66		
D50	Road	280th	&68 SW OF W MARSHALL ST IN MARSHALL	Safety	83	33		

ID	Туре	Highway	Location	Need/issue	Pure	Safety	Mobility	Condition
D46	Road	280th	&68 W OF MUSTANG TR IN MARSHALL	Safety	84	34		
D116	Bridge		1.0 MI S OF JCT CSAH 2	Condition	85			1
D135	Bridge		0.6 MI E OF JCT CSAH 2	Condition	85			1
D145	Bridge		0.2 MI E OF JCT CR 116	Condition	85			1
D58	Bridge			Mobility	86		1	
D60	Bridge			Mobility	86		1	
D67	Bridge			Mobility	86		1	
D68	Bridge			Mobility	86		1	
D69	Bridge			Mobility	86		1	
S4	Road	TH 75	2.5 MI N OF TH19	Safety	87	70		
S24	Road	CR-17	Prairies Edge	Mobility	88		21	
S1	Road	TH 75	0.5 MI S OF CSAH7 (151ST ST), N OF PIPESTONE	Safety	89	72		
S42	Road	MN 55	Eden Valley to Paynesville	Safety	90	75		
D17	Road	TH 19	E OF TH271/CSAH1	Safety	91	53		
D12	Road	TH 71	N OF TH212 IN OLIVIA	Safety	92	54		
D4	Road	TH 19	&67 W OF E JCT CSAH17	Safety	93	55		

ID	Туре	Highway	Location	Need/issue	Pure	Safety	Mobility	Condition
D21	Road	TH 12	W OF N JCT TH12 &22 (NW OF LITCHFIELD)	Safety	94	56		
D6	Road	TH 12	PENNOCK ECL	Safety	95	57		
S54	Road		MN-22	Mobility	96		14	
S12	Road	TH 23	E OF CSAH7 (240TH AVE) IN MARSHALL	Safety	97	63		
D23	Road	TH 7	E OF CSAH1	Safety	98	64		
S16	Road	TH 12	NW OF CSAH34 IN LITCHFIELD	Safety	99	65		
S52	Road	TH 15	S OF WASHINGTON AVE IN HUTCHINSON	Mobility	100		15	
S11	Road	TH 23	SW OF TH59 IN MARSHALL	Safety	101	67		
D114	Bridge		0.5 MI N OF JCT TH 30	Condition	102			1
D124	Bridge		0.6 MI N OF JCT CSAH 4	Condition	102			1
D143	Bridge		1.6 MI E OF JCT CSAH 10	Condition	102			1
D144	Bridge		0.9 MI W OF JCT CSAH 6	Condition	102			1
D75	Bridge			Mobility	103		1	
D76	Bridge			Mobility	103		1	
D77	Bridge			Mobility	103		1	
D78	Bridge			Mobility	103		1	

ID	Туре	Highway	Location	Need/issue	Pure	Safety	Mobility	Condition
S43	Road	US 14	E. and W. of Tyler	Mobility	104		22	
S5	Road	TH 91	SE OF TH91 (MN AV) IN LAKE WILSON	Safety	105	76		
S15	Road	TH 4	N OF TH212 (HIGHWAY AV) IN HECTOR	Safety	106	77		
D63	Bridge			Mobility	107		2	
D71	Bridge			Mobility	107		2	
D140	Bridge		1.1 MI N OF JCT CSAH 4	Condition	108			1
D141	Bridge		0.1 MI S OF JCT CR 66	Condition	108			1
D1	Road	TH 19	E OF E JCT CSAH3	Safety	109	59		
D7	Road	TH 40	E OF CSAH1	Safety	110	62		
D57	Bridge			Mobility	111		8	
D80	Bridge			Mobility	111		2	
S28	Road	Kandiyohi CR-55	West side of Willmar	Mobility	112		25	
\$8	Road	TH 68	SE OF SE JCT CSAH8 (COLLINS ST) GHENT	Safety	113	78		
S7	Road	TH 23	E OF TH91 IN RUSSELL	Safety	114	79		

ID	Туре	Highway	Location	Need/issue	Pure	Safety	Mobility	Condition
S10	Road	TH 19	&68 SW OF W MARSHALL ST IN MARSHALL	Safety	115	80		
D59	Bridge			Mobility	116		7	
S21	Road	Kandiyohi CR-9	East of Willmar	Mobility	117		16	
D64	Bridge			Mobility	118		25	
D65	Bridge			Mobility	118		25	
D70	Bridge			Mobility	118		25	