MNDOT DISTRICT 3 FREIGHT PLAN

ADVISORY COMMITTEE MEETING #2

DECEMBER 11, 2019

Introductions

- Andrew Andrusko: Project Manager, Freight Office
- Steve Voss: District 3 Planning Director
- Jon Mason: District 3 Assistant Planning Director
- Stephanie Castellanos: District 3 Public Engagement Coordinator
- Consultant Team: SRF Consulting, Cambridge Systematics
- Advisory Committee Members

Agenda

- Introductions
- Advisory Committee Meeting #1 Recap
- Project Overview
- Project Schedule
- District 3 Economic and Freight System Analysis
  - D3 Economic Profile
  - D3 Freight Multimodal Network
  - D3 Freight System Condition and Performance
- Initial SWOT Analysis / Group Discussion
- Next Steps

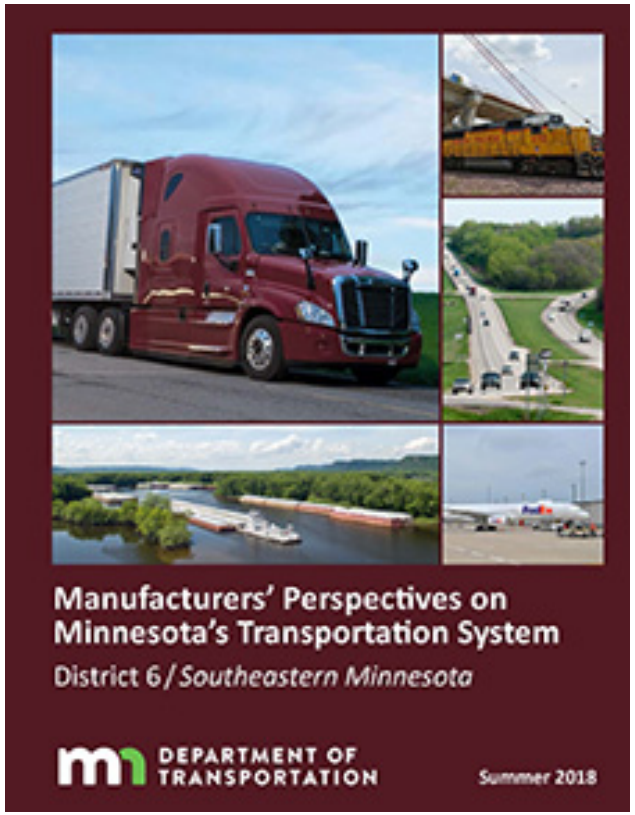
MnDOT Freight Planning Overview

- State Freight Plan Completed in 2016
- Developed as part of Minnesota Family of Plans within the Minnesota GO 50-year Statewide Vision
- Freight Action Agenda outlined steps for MnDOT and freight stakeholders to advance freight performance in Minnesota
- 30 strategies identified
- Updated in 2018 as Minnesota Statewide Freight System and Investment Plan

MnDOT District Planning Effort

- Developing District Freight Plans for all Districts
  - Districts 1, 2, 3, and 8 all currently underway or nearing completion
- Pre-cursor effort to prepare for Statewide Freight Plan
- Identify key issues/opportunities for each District
- Consistent approach for each District

Connection to District 3 Manufacturers' Perspectives Study (MPS)



- Goal 1: Connect and build relationships with manufacturers and shippers
- Goal 2: Obtain actionable information to inform MnDOT's work
- Method:
  - Identify industries – Industry cluster analysis
  - Conduct approximately 125 interviews with businesses
  - Analyze, report, implement feedback
- Schedule
  - Interviews began in October and will proceed into early 2020
  - Report in Summer 2020

D3 MPS Updates (as of 12/10)

- Contacted 418 businesses in District 3
  - 37 carriers
  - 125 North manufacturers
  - 256 South manufacturers
- 107 interviews scheduled – 125 to-be completed by the end of January
  - 13 carrier
  - 38 north
  - 56 south
- 82 interviews completed

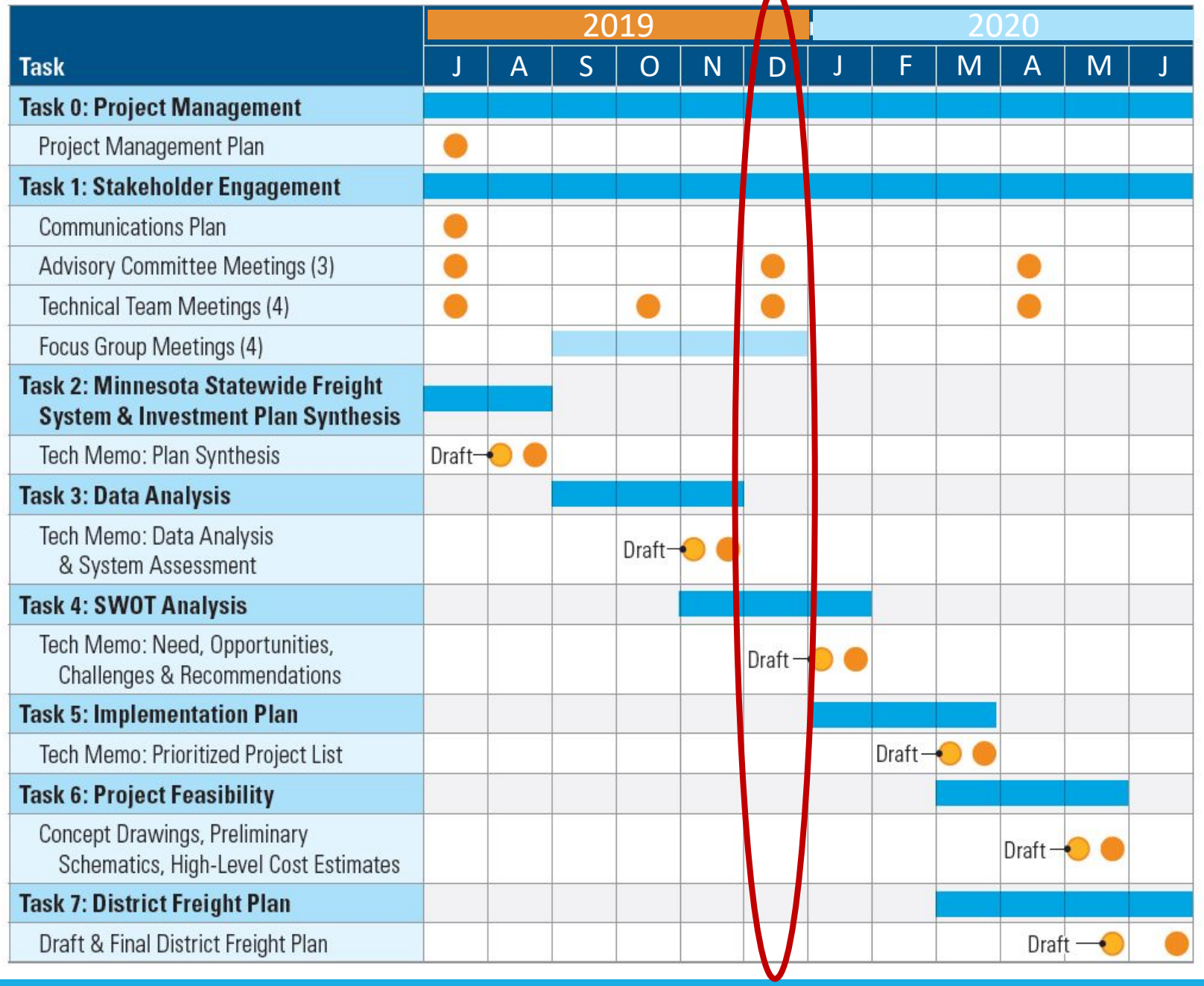
Key MPS Updates

- Businesses between St. Cloud and the Metro often reference congestion as an ongoing concern
- Construction along I-94 (and other roadways) is a common issue raised; this includes communicating construction updates to businesses
- Various location-specific issues have been raised by manufacturers
  - Segments that routinely need additional snow/ice control
  - Problematic intersections due to congestion, traffic signals, and turn lanes
  - Selected comments on signage, advanced warning signs, and bridge clearance
- Selected comments desiring an additional river crossing between Clearwater and Monticello to connect I-94 and US 10
- Other input from MnDOT staff?

Plan of Work

- Task 1: Stakeholder Engagement
- Task 2: MN Freight and Investment Plan Synthesis
- Task 3: Data Analysis
- Task 4: SWOT Analysis  **We are here!**
- Task 5: Implementation Plan
- Task 6: Project Feasibility
- Task 7: District 3 Freight Plan Development

Project Schedule



Key Project Deliverables

- **Project Management Plan: Complete**
- **Communications Plan: Complete**
- **Document Synthesis Tech Memo: Complete**
- **Data Analysis Tech Memo: Physical System Profile, Freight Demand Profile, Regional Economic and Industry Supply Chain Profile – Draft Analysis Complete, Tech Memo forthcoming**
- **SWOT Workshop: Initial SWOT today**
- Implementation Plan
- Conceptual Drawings, Preliminary Schematics and Cost Estimates (1-3 Projects)
- Draft and Final District 3 Freight Plan

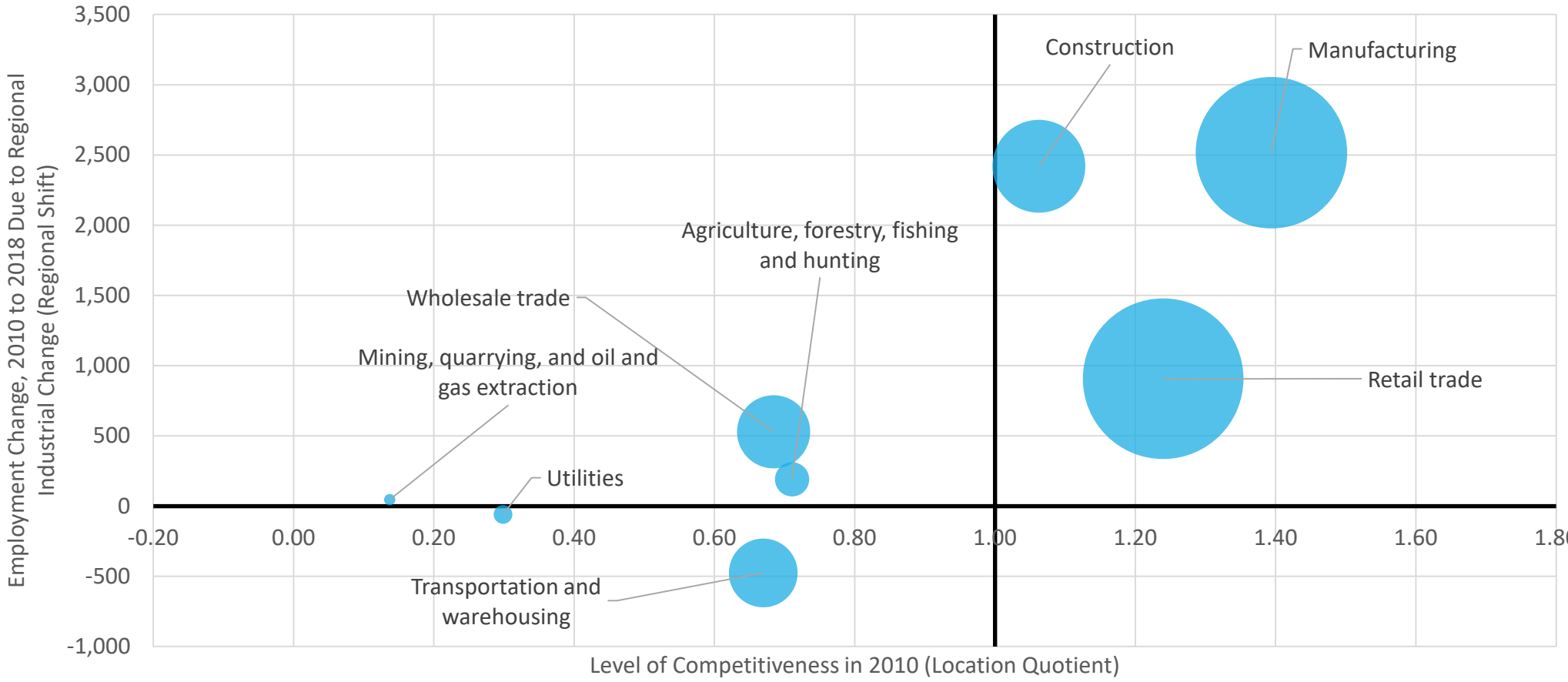
Economic Profile

BUSINESS CLUSTER ANALYSIS OF DISTRICT 3

Economic Methodology Background

- What is a businesses cluster?
  - A geographic concentration of interconnected businesses, suppliers, and associated institutions in a particular field (e.g. a number of manufacturing-related businesses located within a defined area).
- What is location quotient (LQ)?
  - A statistical measure of a region's industrial specialization relative to the nation (regional total/national total).
  - An LQ greater than 1.0 signifies a higher concentration of a certain industry, while 1.0 means the region and nation are equally specialized.

Freight-Related Business Clusters



Source: United States Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2010 and 2018 Annual Averages.

Freight-Related Business Clusters

	Aitkin County	Benton County	Cass County	Crow Wing County	Isanti County	Kanabec County	Mille Lacs County	Morrison County	Sherburne County	Stearns County	Todd County	Wadena County	Wright County	District 3
Manufacturing (31-33)	1.2	2.5	0.7	1.0	1.4	1.3	0.8	1.2	1.7	1.5	2.9	1.1	1.7	1.5
Retail trade (44-45)	1.3	0.9	1.0	1.5	1.6	1.2	0.9	1.3	1.2	1.3	0.9	1.0	1.5	1.3
Construction (23)	0.8	2.2	0.7	1.2	0.9	1.2	0.9	0.8	1.6	1.0	0.5	1.1	1.8	1.3
Agriculture, forestry, fishing and hunting (11)	0.6	1.7	0.6	ND	1.1	ND	ND	4.4	ND	1.3	ND	0.9	ND	0.8
Wholesale trade (42)	0.8	1.8	0.2	0.5	ND	0.3	0.4	1.0	ND	1.0	ND	1.8	0.8	0.7

Note: ND means "no data," meaning the data were not released for the county and industry to preserve the confidentiality of specific businesses when the publication of workforce data could allow competitors to glean proprietary information about each others' operations.

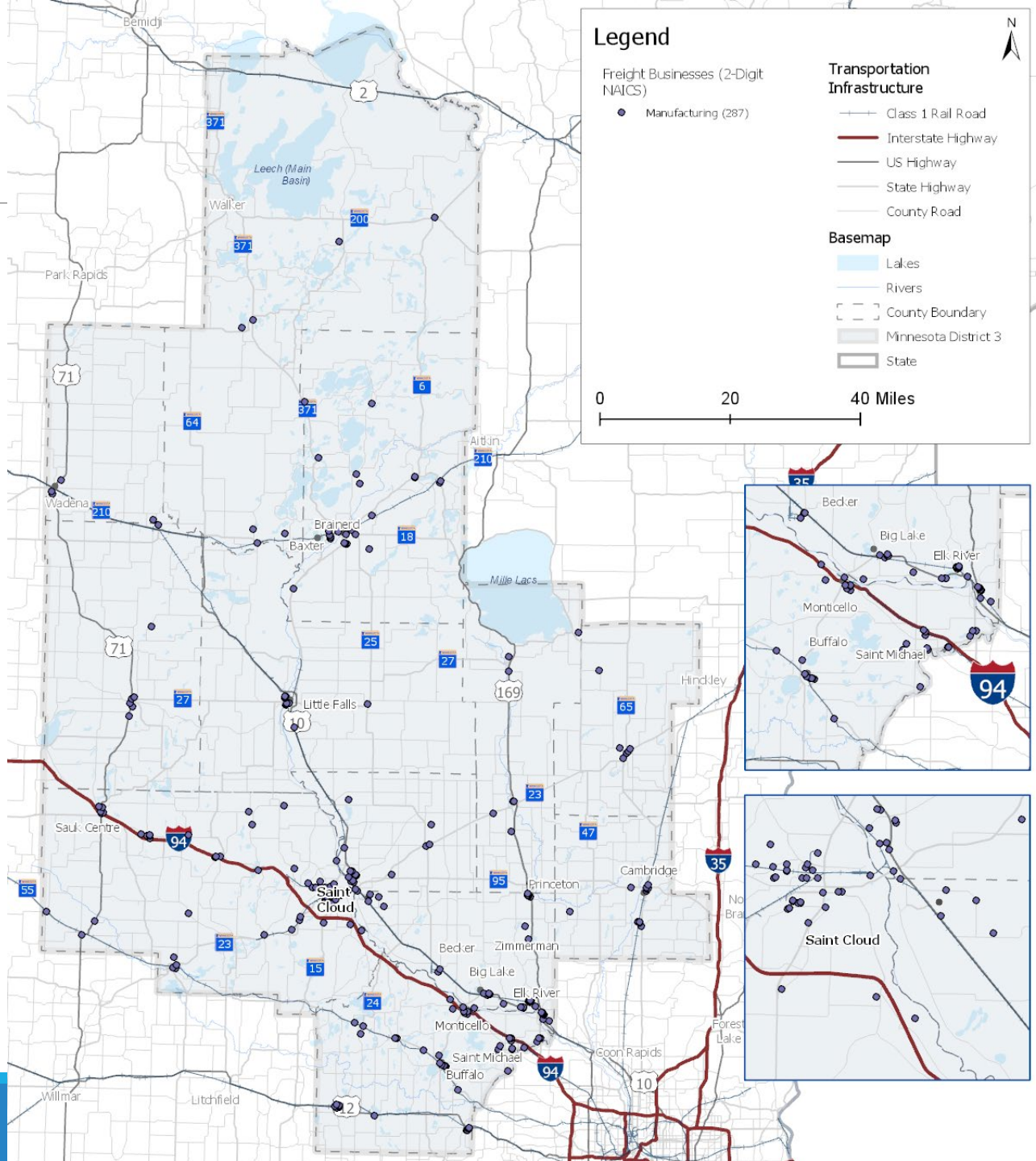
- Freight-related employment concentration is not evenly-distributed across counties
- Benton, Sherburne, and Stearns counties are in the St. Cloud metropolitan area; Crow Wing County includes Brainerd
- Todd and Wadena counties are in the western part of District 3, with stronger agricultural ties

Source: United States Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2018 Annual Average.

Manufacturing Establishments

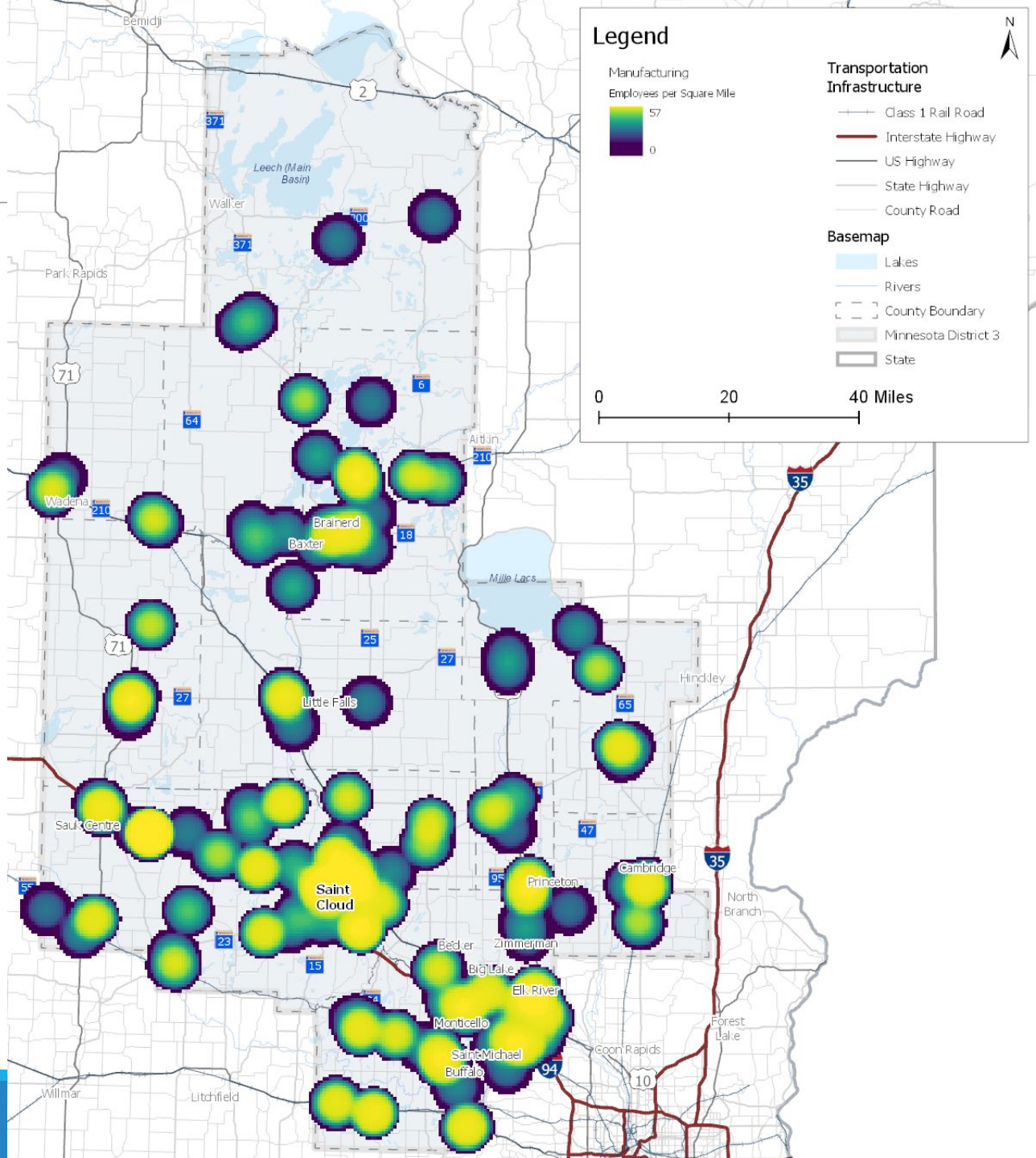
- Minnesota's Manufacturing Sector
  - Contributes $52.7 billion+ to the State's economy
  - Accounts for 14% of statewide GDP
  - Strong statewide clusters in food production, computer and electronics, fabricated metal, machinery, and medical devices
- District 3 Manufacturing
  - Approximately 35,200 jobs in 2018
    - 13% of District total vs. 11% in MN, and 9% in the US)
  - Concentrations around the St. Cloud metro area, Brainerd, and near Elk River
  - High concentrations along I-94
  - Strong clusters in fabricated metal products, furniture, and food manufacturing

Source: ReferenceUSA, 2019.



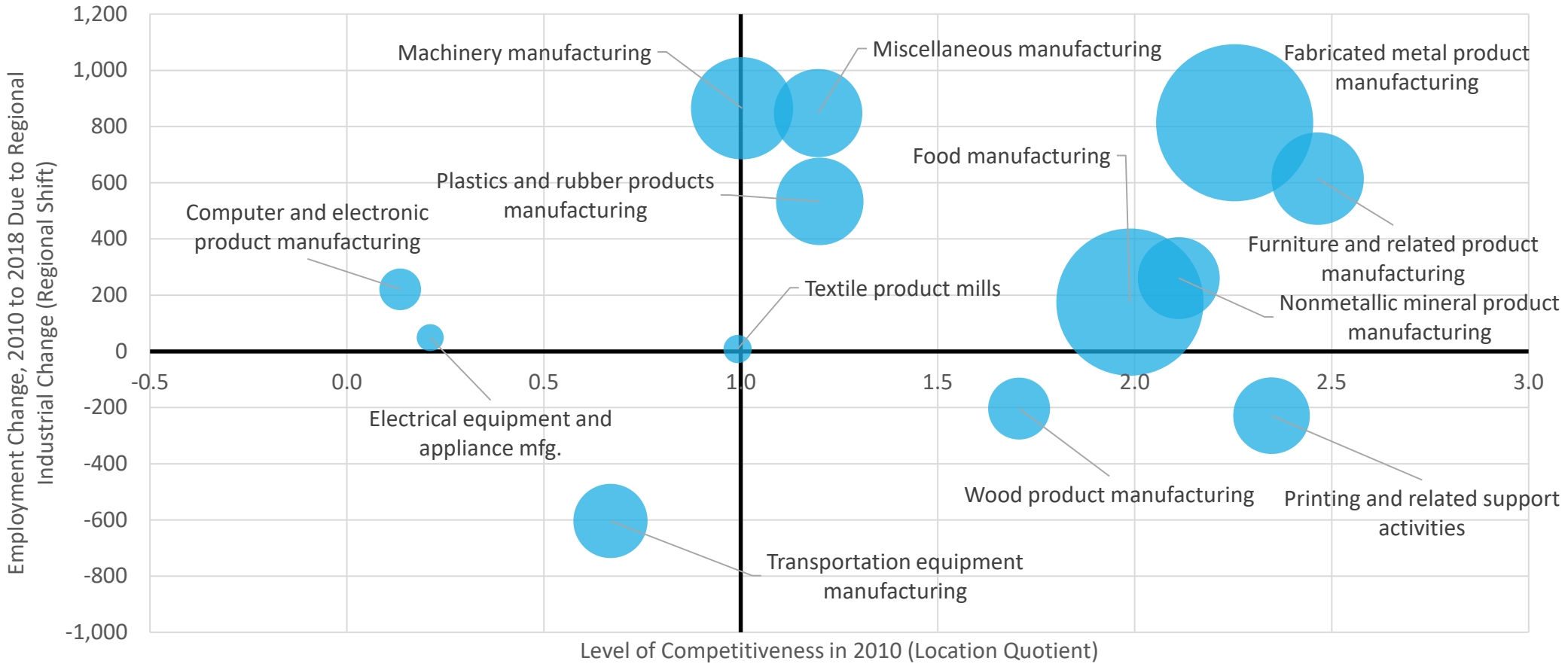
Manufacturing Clusters

- Freight needs vary depending on the value of the product manufactured (higher value products often shipped by faster, costlier modes)
  - Use of rail, truck, and air to ship goods
- I-94 and US-10 are important freight corridors for manufacturers in the region
  - Distribute products eastward to the Twin Cities and beyond to Chicago
  - Distribute products westward to Fargo and beyond



Source: ReferenceUSA, 2019.

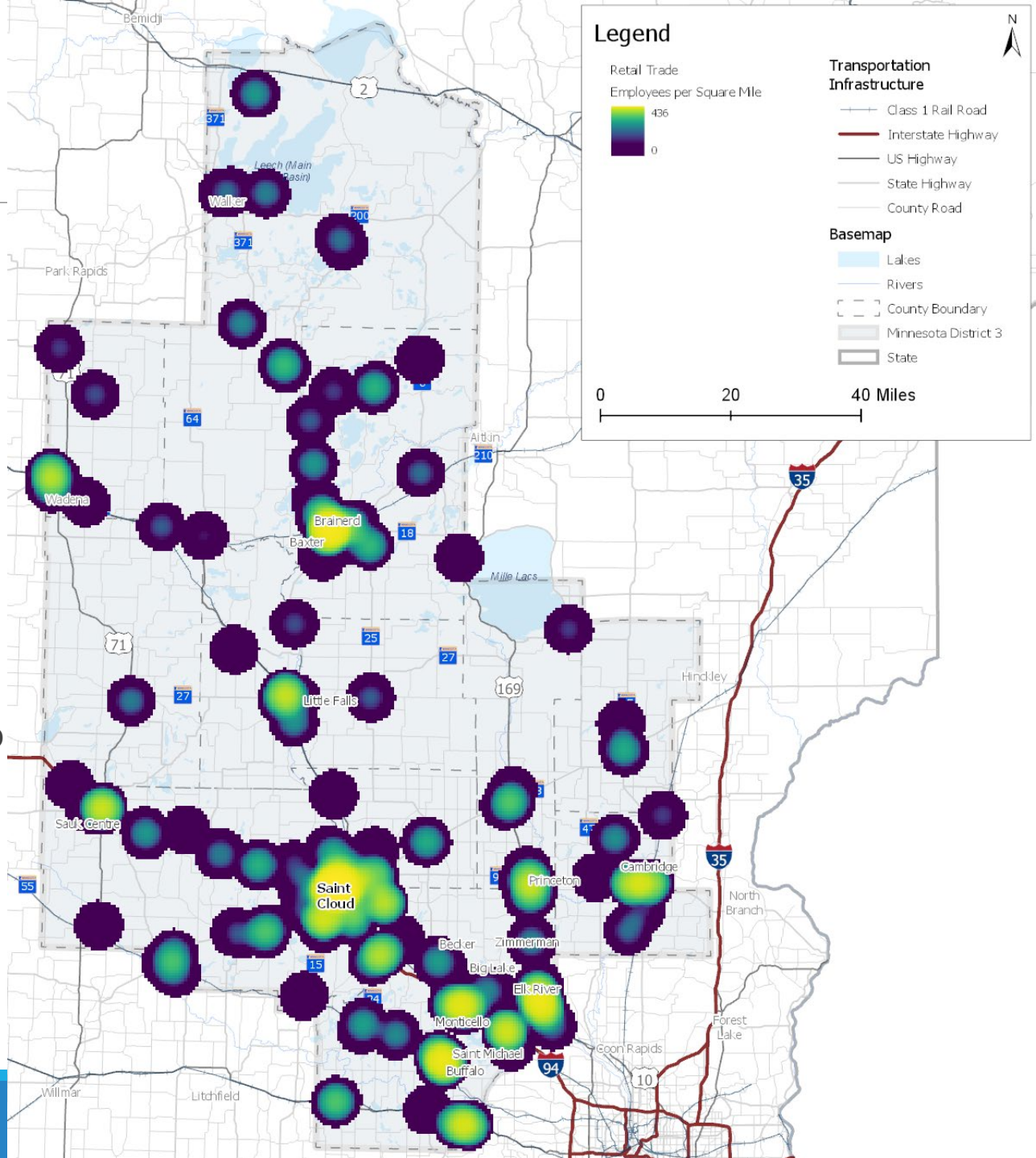
Manufacturing Competitiveness



Source: United States Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2010 and 2018 Annual Averages.

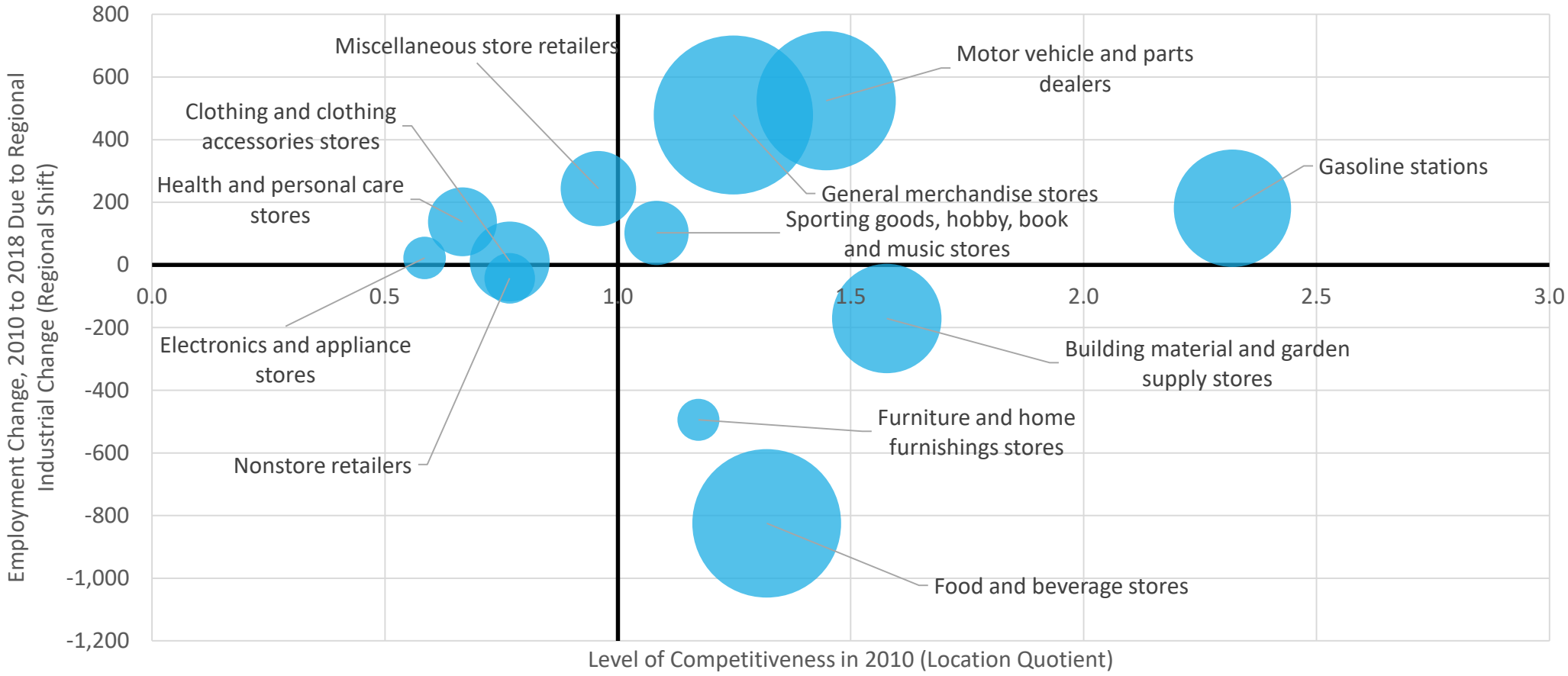
Retail Trade Clusters

- Minnesota's Retail Trade Sector
  - Accounts for roughly 6% of the State's GDP compared to just over 5% for the U.S.
  - Several big retailers are headquartered in Minnesota (Target, Best Buy, etc.)
- D3 Retail Trade
  - Approximately 37,000 jobs in 2018 (14% of District total and most in any industry)
  - Concentrations around the St. Cloud metro area, Brainerd, and near Elk River
  - Higher concentrations than manufacturing due to the array of businesses (e.g., gas stations, small businesses, large retailers, etc.)
  - Strong clusters in gas stations, building material/garden supply stores, and motor vehicle and parts dealers



Source: ReferenceUSA, 2019.

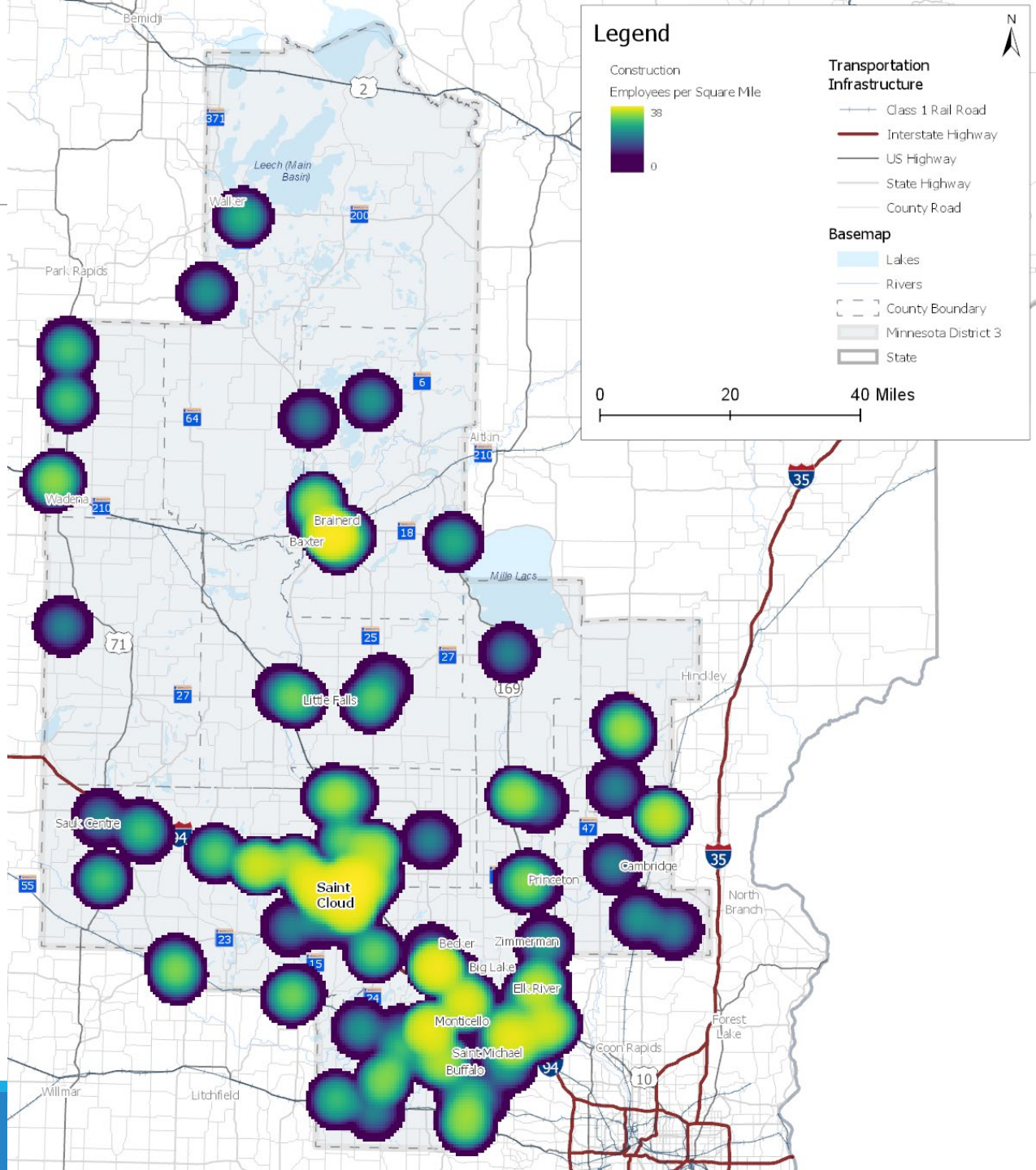
Retail Trade Competitiveness



Source: United States Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2010 and 2018 Annual Averages.

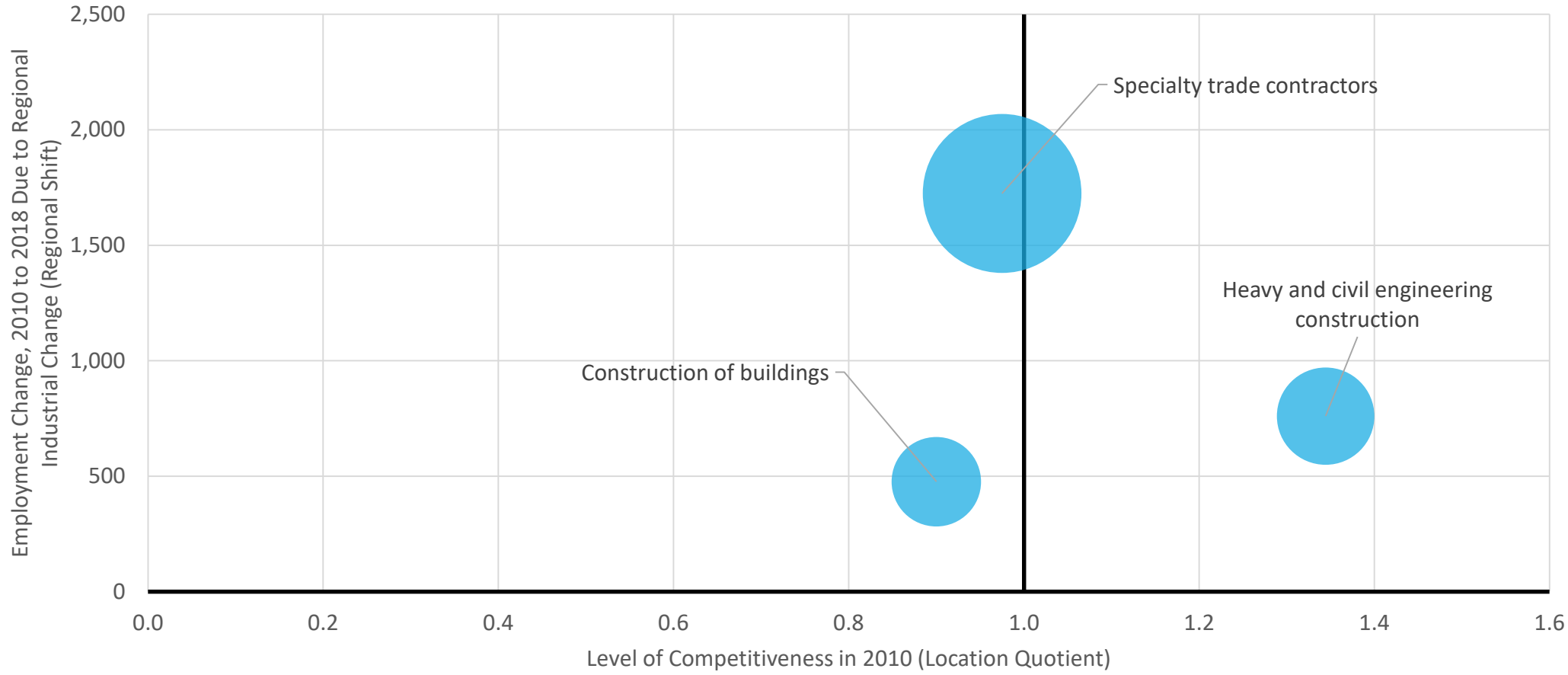
Construction Clusters

- Minnesota's Construction Sector
  - Fast growing industry (expected employment growth of over 8% from 2016 to 2026)
  - Accounts for approximately 4% of statewide GDP
- D3 Construction
  - Approximately 17,000 jobs in 2018 (6% of District total)
  - Concentrations in Benton, Sherburne, and Wright Counties
  - Strongest cluster in heavy and civil engineering construction
  - Strong positive regional shift in specialty trade contractors from 2010 to 2018



Source: ReferenceUSA, 2019.

Construction Competitiveness



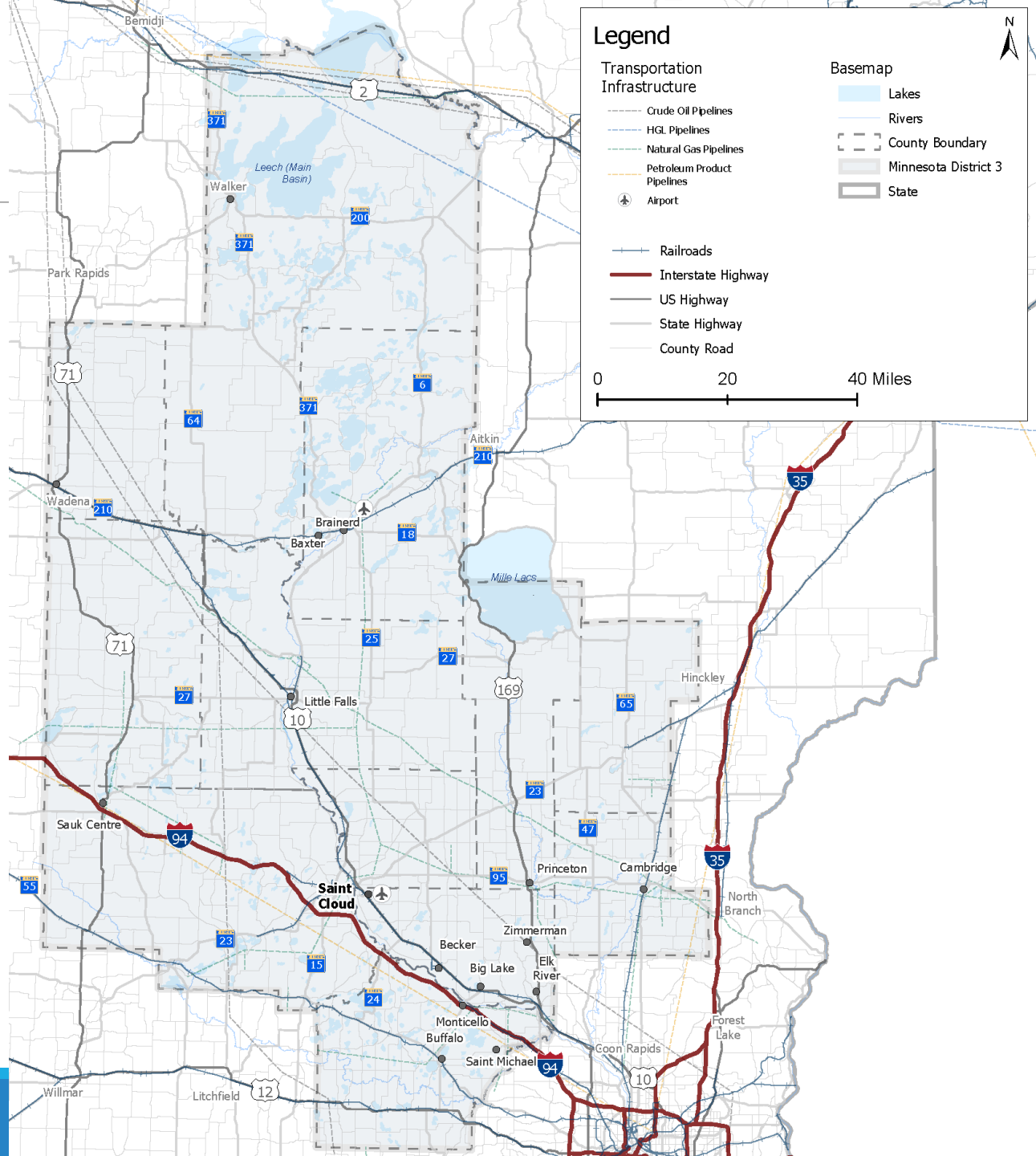
Source: United States Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2010 and 2018 Annual Averages.

Freight Multimodal Network

HIGHWAY & BRIDGE | RAILROAD | AVIATION | WATERWAY | PIPELINE

Freight Multimodal Network

- 8,913 centerline miles of roadway (County Road and above)
- 427 bridges
- 367 miles of Class I railroad
- 2 cargo airports
- Nearby ports in Duluth and MSP
- Numerous pipelines carrying crude oil, natural gas, and other products



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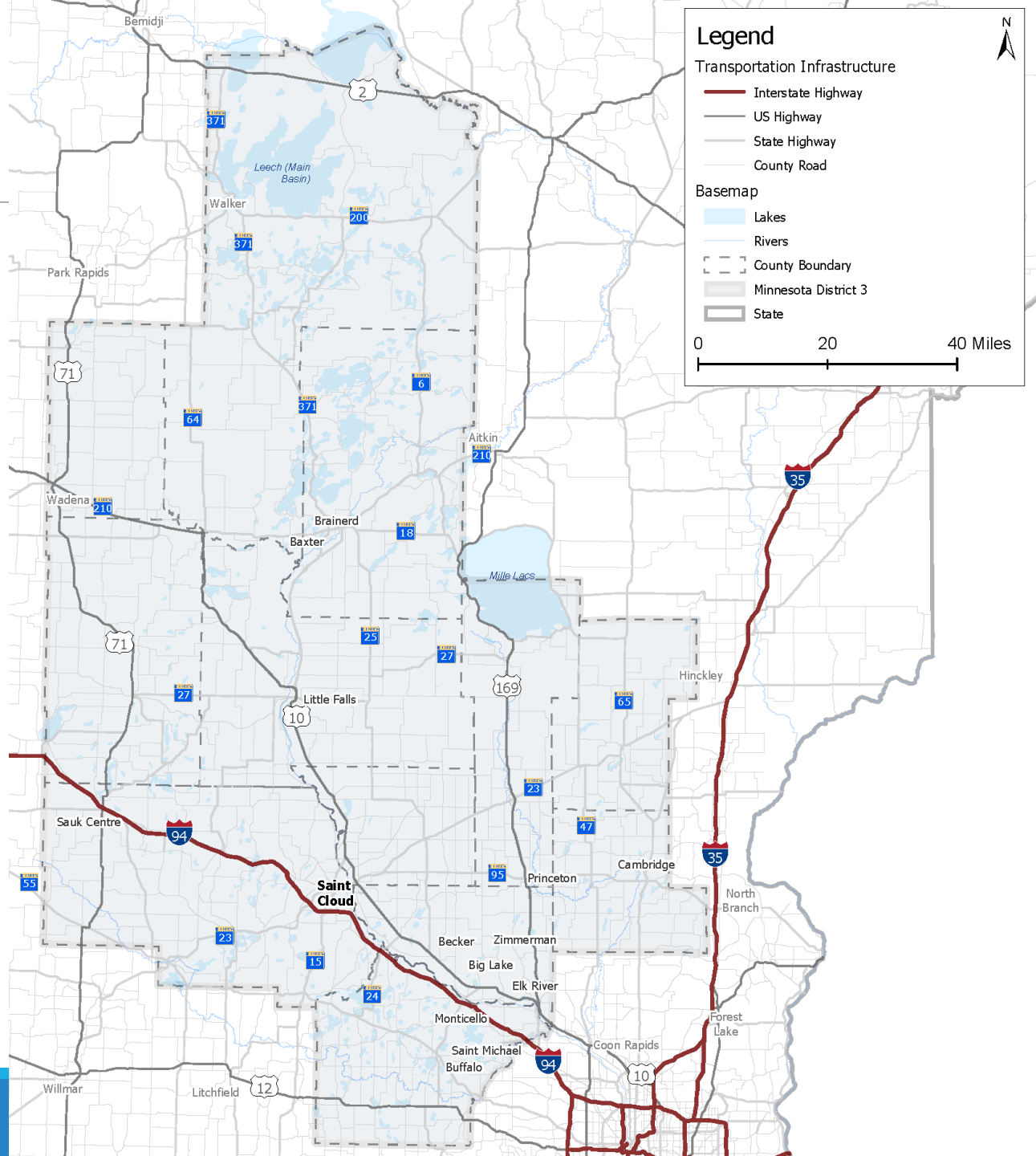
Highway Network

- The District lacks E/W connectivity, most notably the south portion
- Key roadways are ordinal in direction:
  - I-94
  - TH 10
  - TH 23
  - TH 55
- Strong N/S connections facilitated by trunk highways
- Majority of the district is not well-served by the interstate system and inherently more reliant on trunk highways



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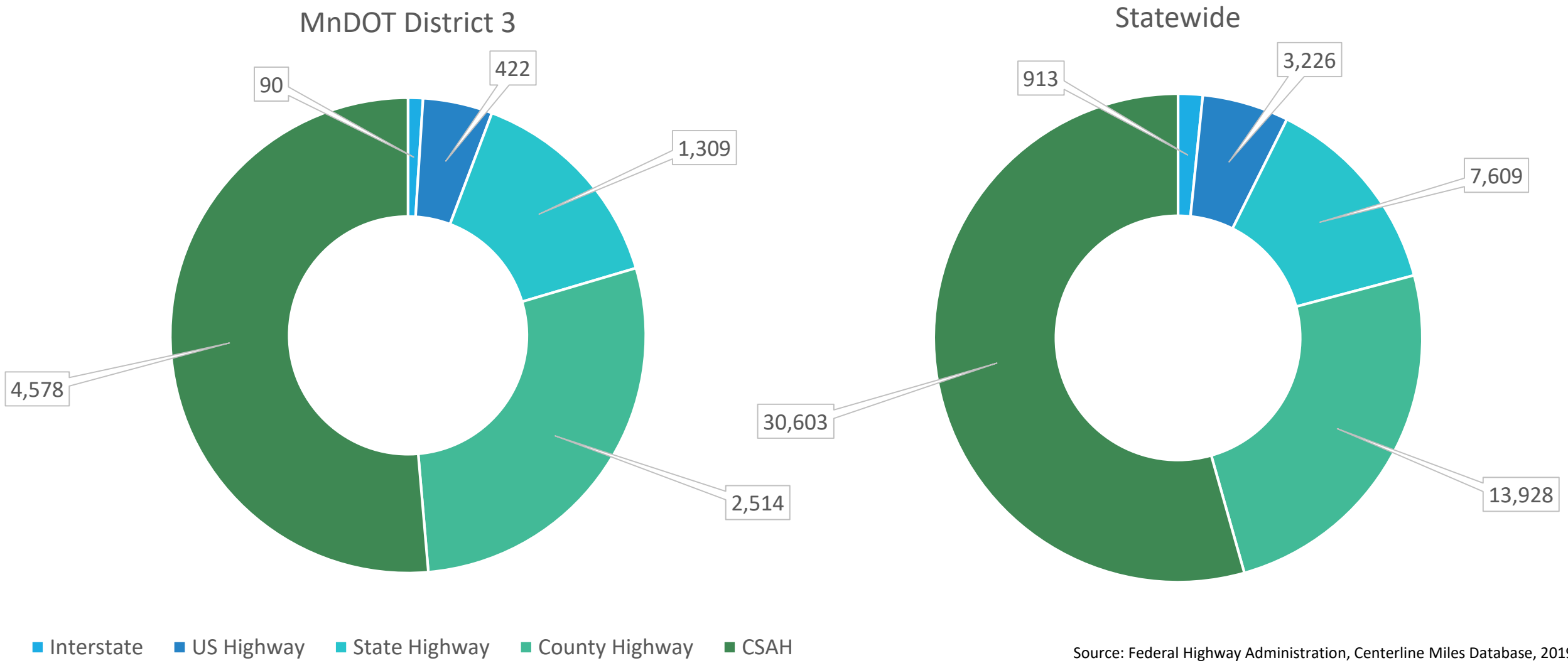
Centerline Mileage District 3 vs. Statewide

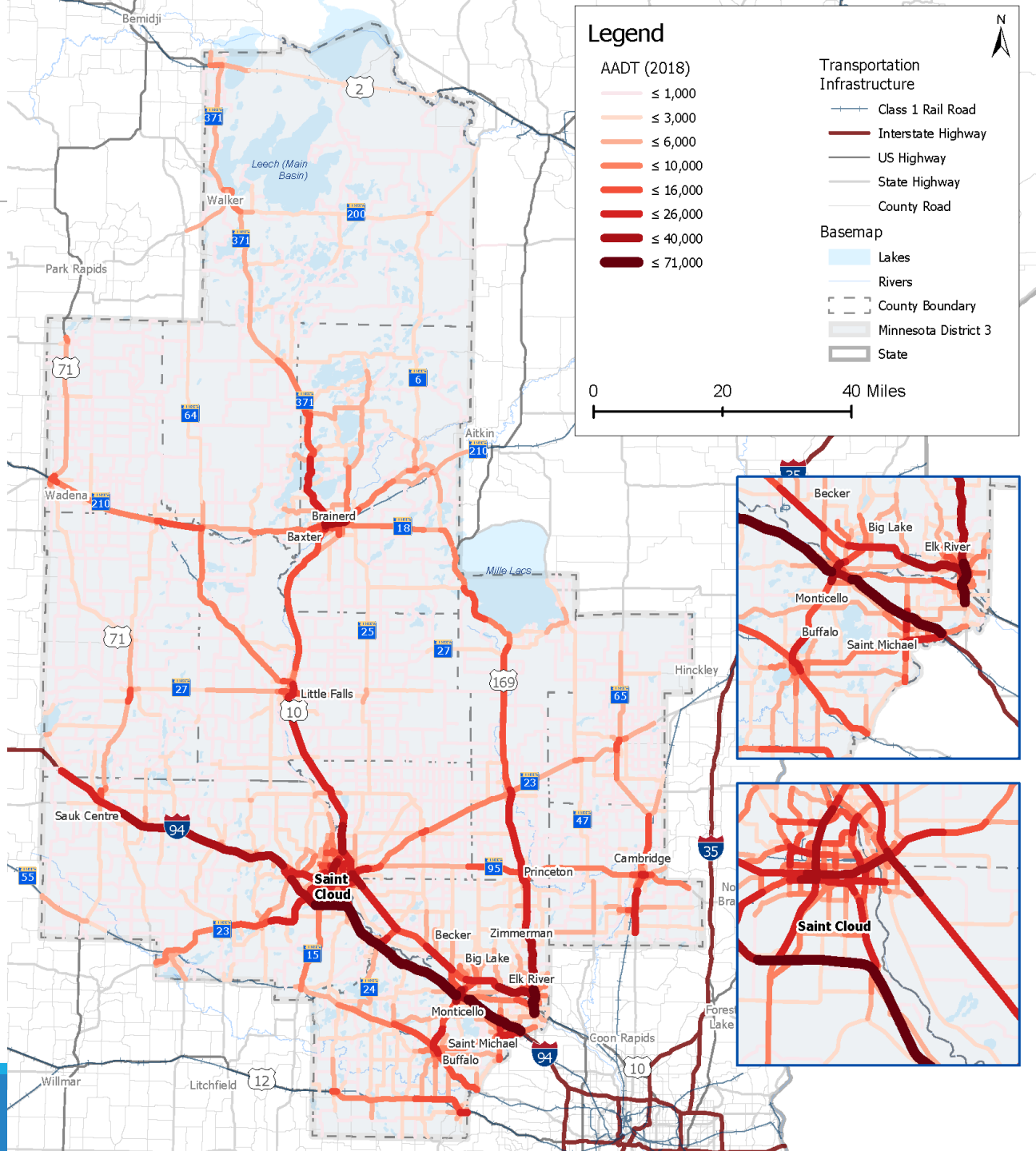


Source: Federal Highway Administration, Centerline Miles Database, 2019.

Average Daily Traffic (all traffic)

Roadway	AADT Range
I-94	21,000 – 71,000
TH 101	44,000 – 52,000
TH 169	8,000 – 48,000
TH 25	1,500 – 39,000
TH 15	6,000 – 37,000
TH 23	4,600 – 34,000
TH 371	3,000 – 32,000
TH 10	7,300 – 31,000
TH 210	1,000 – 31,000
TH 95	4,800 – 25,000

Source: MnDOT Average Annual Daily Traffic Counts, 2018.



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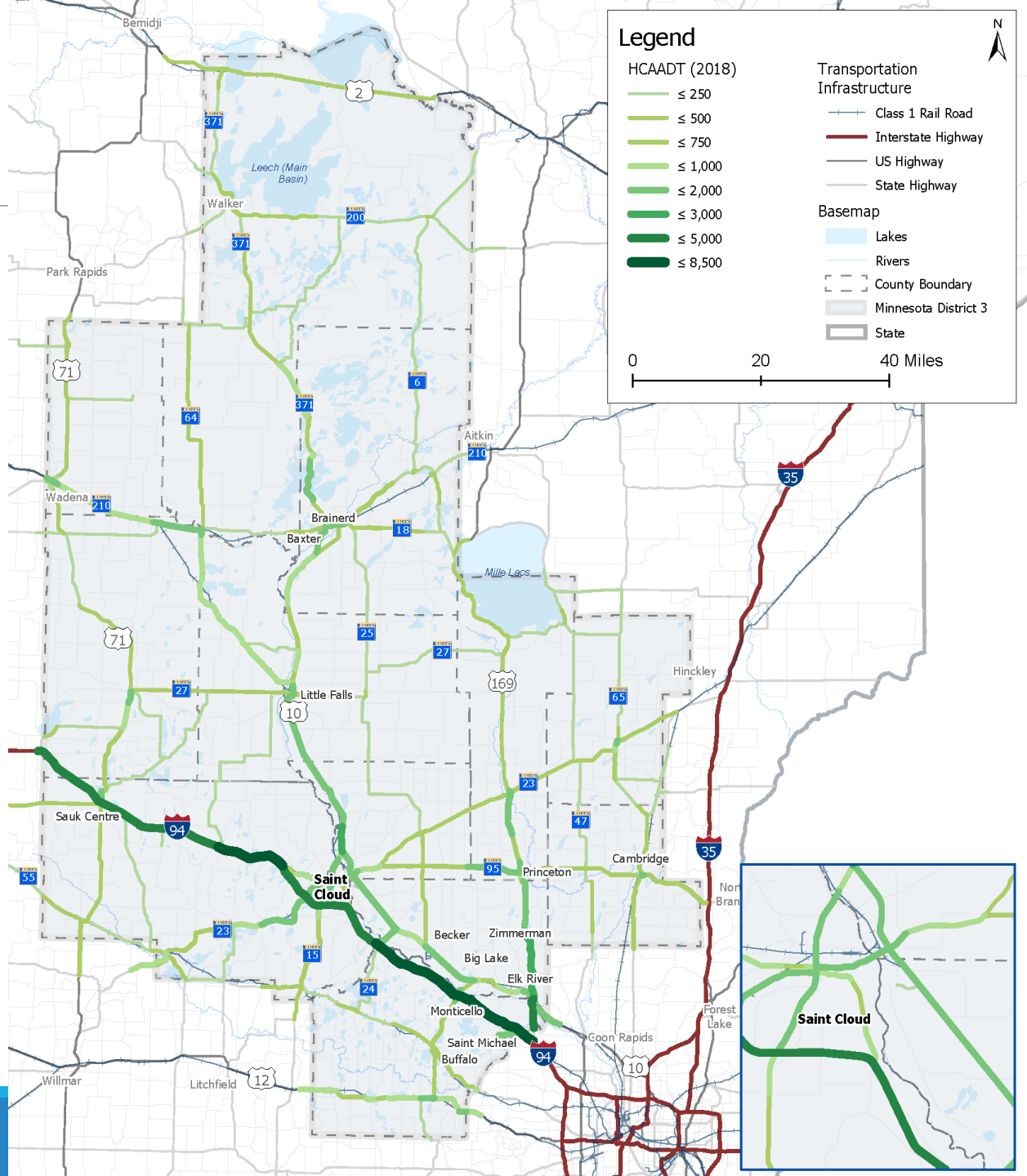
Average Daily Traffic (Heavy Commercial)

Roadway	HCADT Range	Roadway	Heavy Vehicle %
I-94	3,800 – 8,500	I-94	11% – 20%
TH 101	2,900 – 3,300	TH 64	15% – 19%
TH 169	200 – 2,900	TH 71	5% – 18%
TH 10	700 – 2,200	TH 2	5% – 14%
TH 23	300 – 2,000	TH 28	4% – 14%
TH 15	440 – 1,800	TH 23	5% – 13%
TH 24	40 – 1,700	TH 55	3% – 13%
TH 371	100 – 1,600	TH 25	3% – 13%
TH 241	1,300 – 1,400	TH 27	3% – 13%
TH 25	60 – 1,400	TH 95	4% – 12%

Source: MnDOT Average Annual Heavy Commercial Daily Traffic Counts, 2018.



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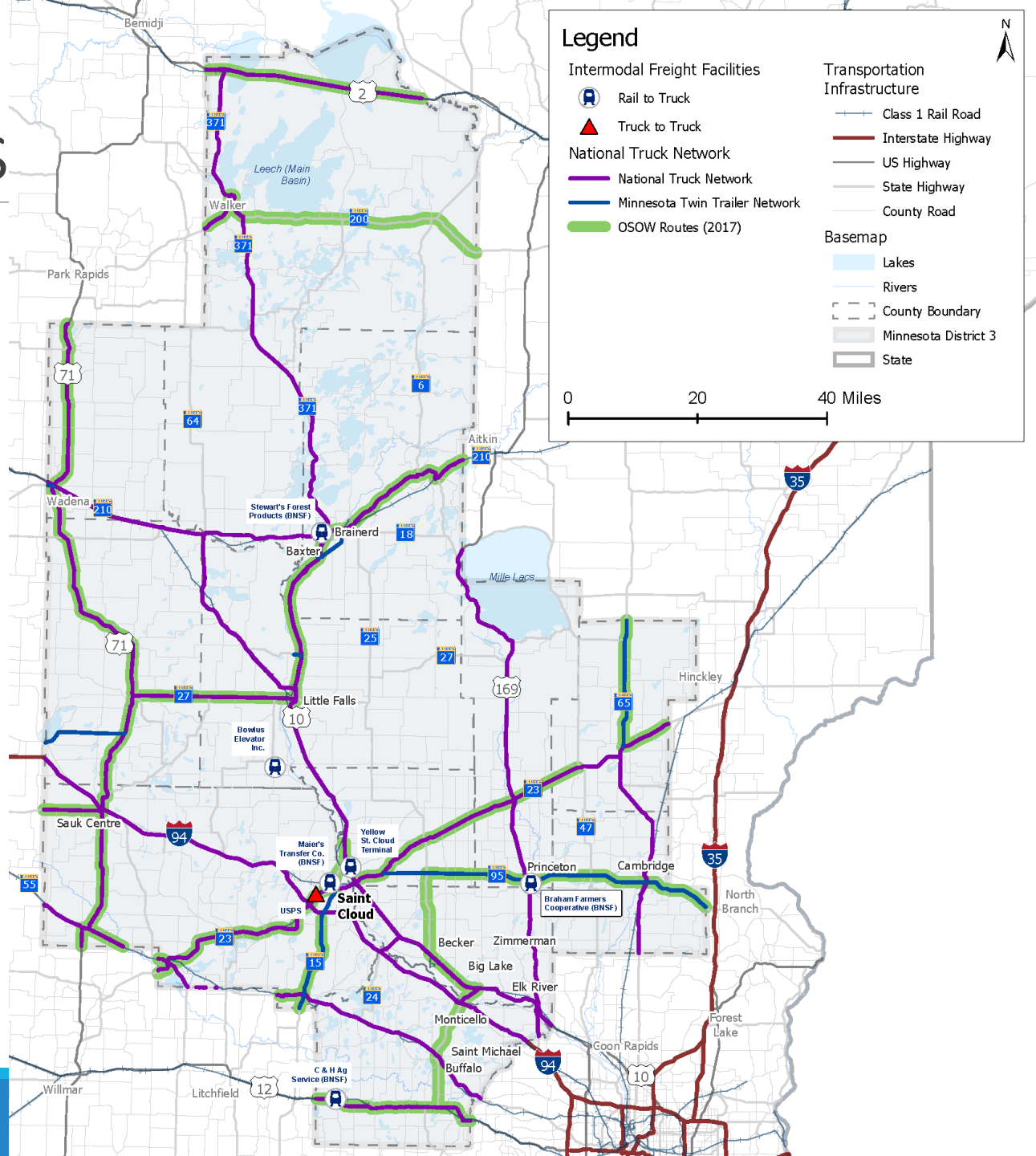
Freight Corridors & Intermodal Connectors

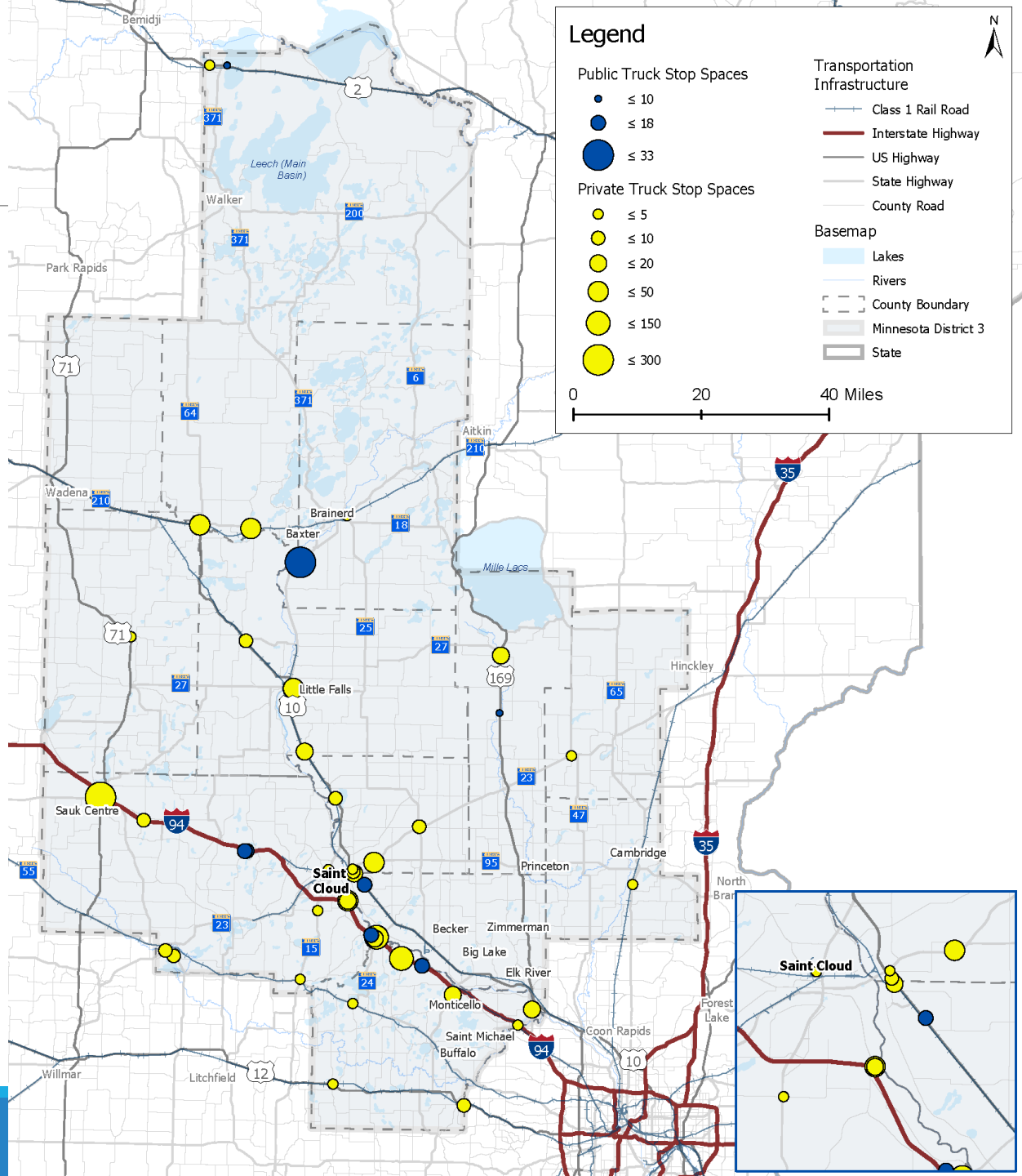
- Corridor Types:
  - **National Truck Network**: Approved state highways and interstates that provide adequate geometrics for commercial trucks.
  - **Minnesota Twin Trailer Network**: Approved for twin trailer combinations in addition to the NTN.
  - **Oversize-Overweight/Superload Network**: Accommodates trucks up to 16’ tall, 16’ wide, 150’ long and up to 250,000 pounds.
- Seven Intermodal Connections:
  - One truck-to-truck facility (long-haul to local vehicles) owned by USPS
  - Six rail-to-truck facilities, mainly ag-oriented



Source: MnDOT Freight Routes, 2017. Bureau of Transportation Statistics, 2019.

Truck Parking

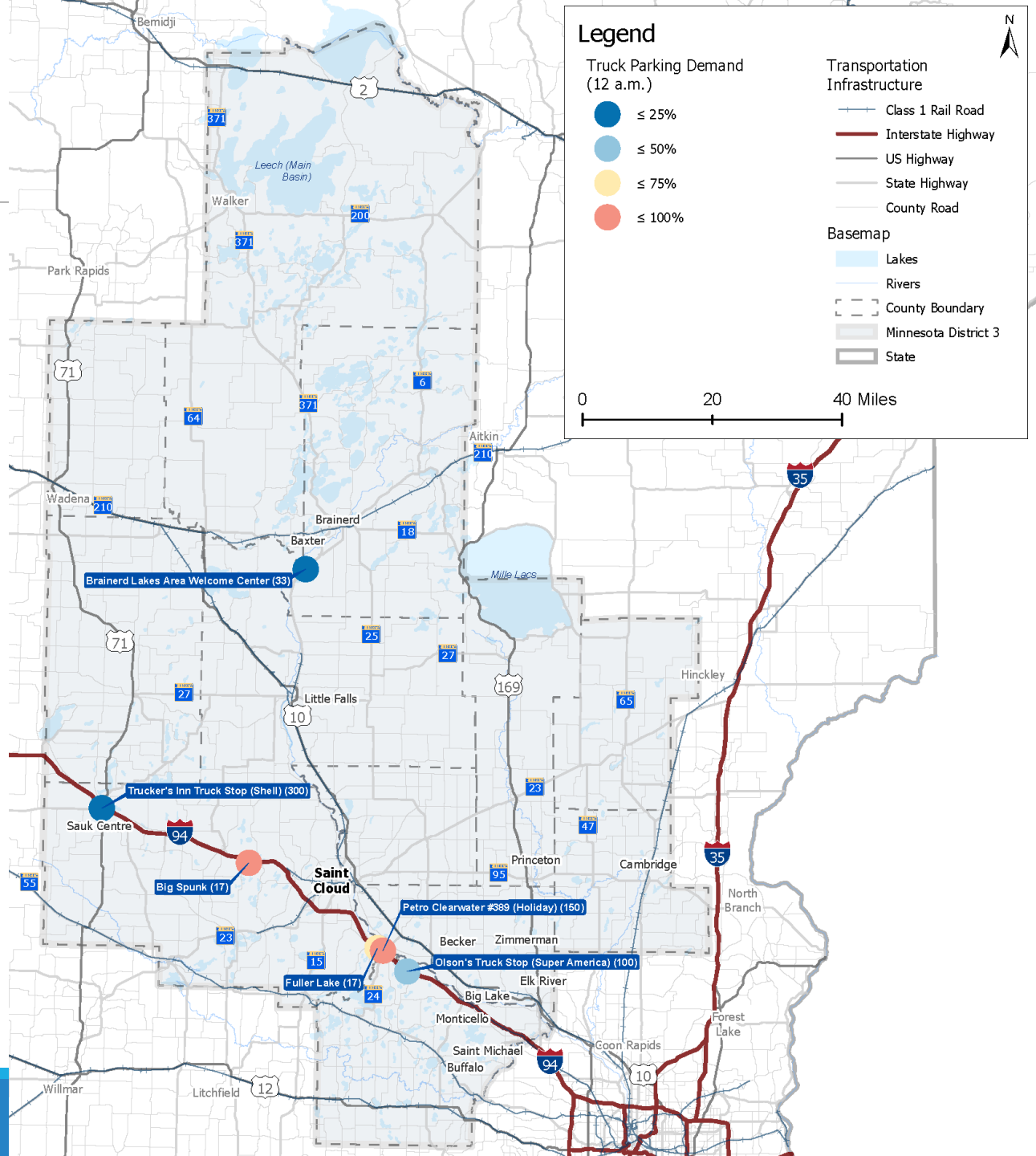
- Eight Public Rest Stops
  - Brainerd Lakes has the highest capacity (33 spaces)
  - Most have a capacity of 17-18 spaces
- 36 Private Truck Stops
  - Two-thirds are located along I-94 or TH 10
  - Largest locations have 100-300 spaces along I-94



Source: MnDOT Truck Parking Study, 2019.

Truck Parking Capacity

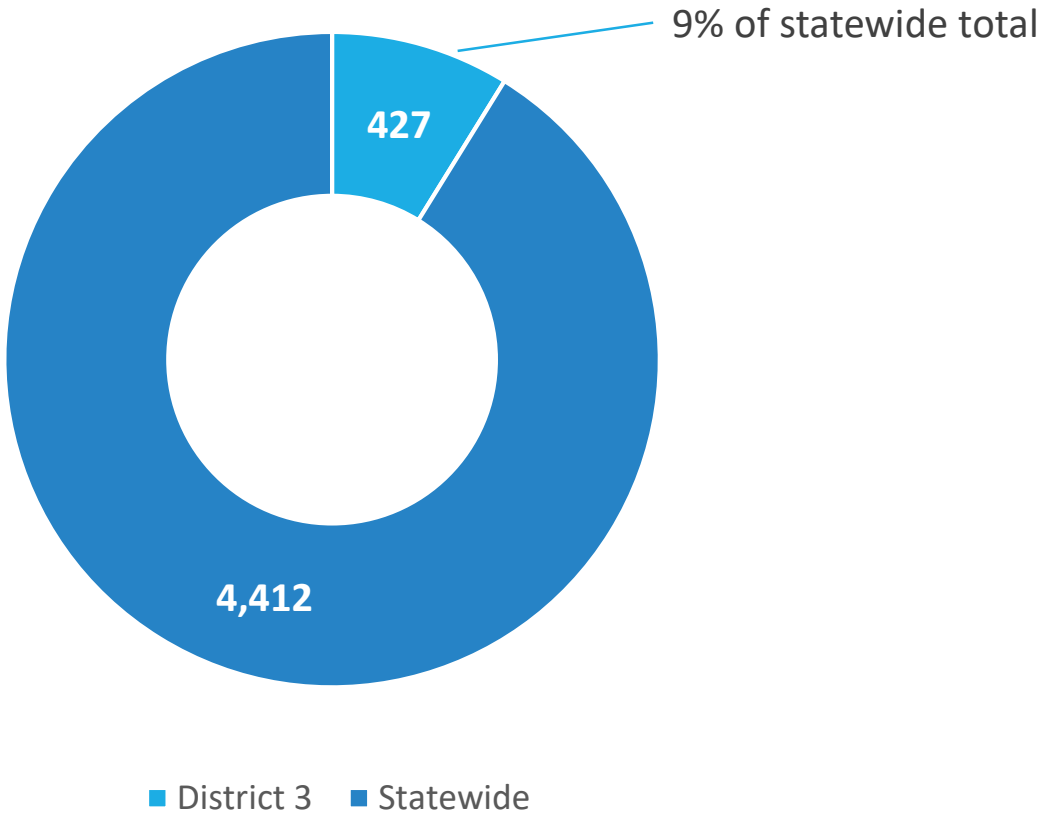
- Occupancy recorded at 12 am per the MnDOT Truck Parking Study
- Two locations are at capacity in D3:
  - Big Spunk Public Rest Area
  - Petro Clearwater Private Truck Parking
- Fuller Lake Public Rest Area is approaching capacity



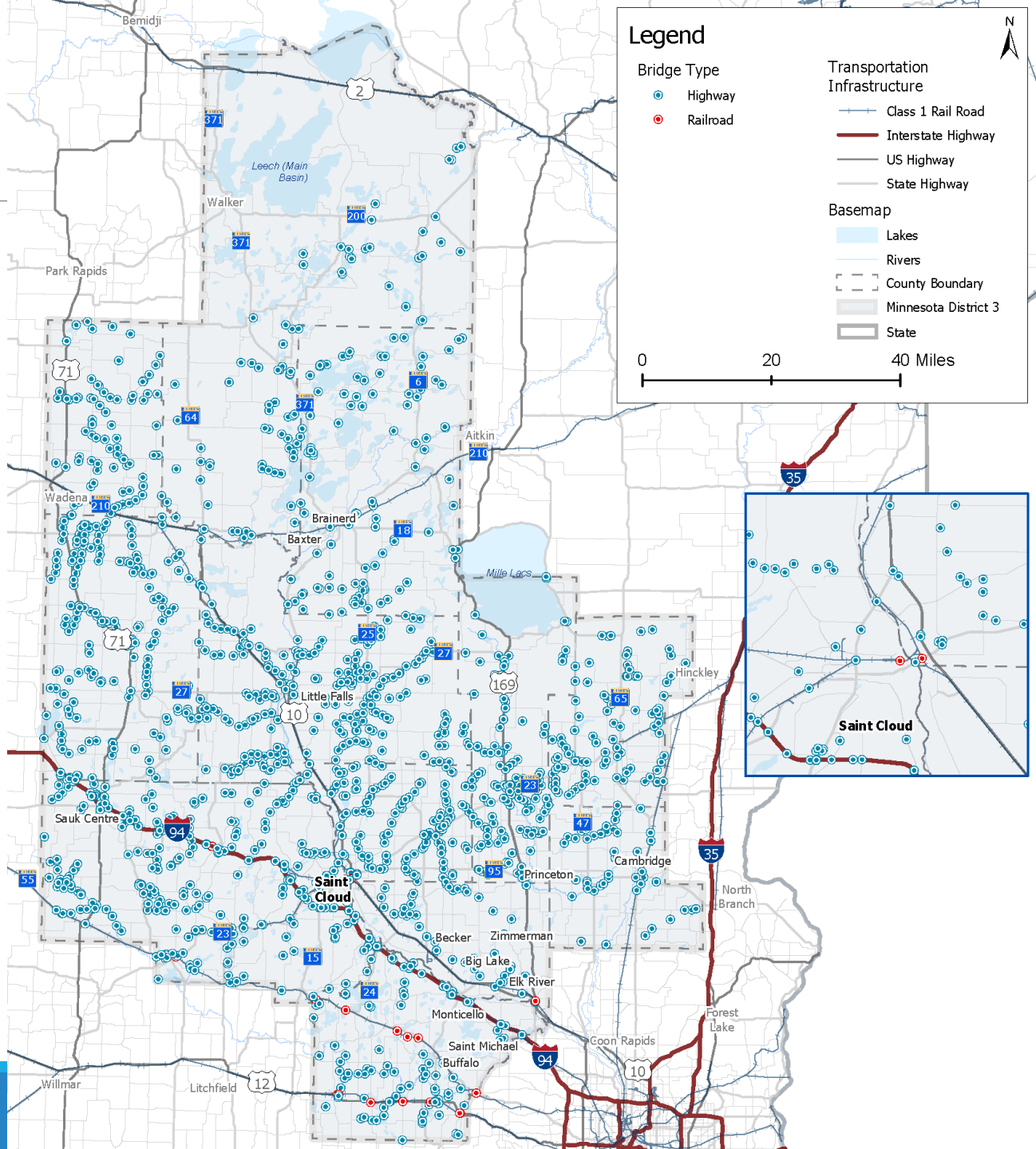
Source: MnDOT Truck Parking Study, 2019.

Bridges

Number of Bridges

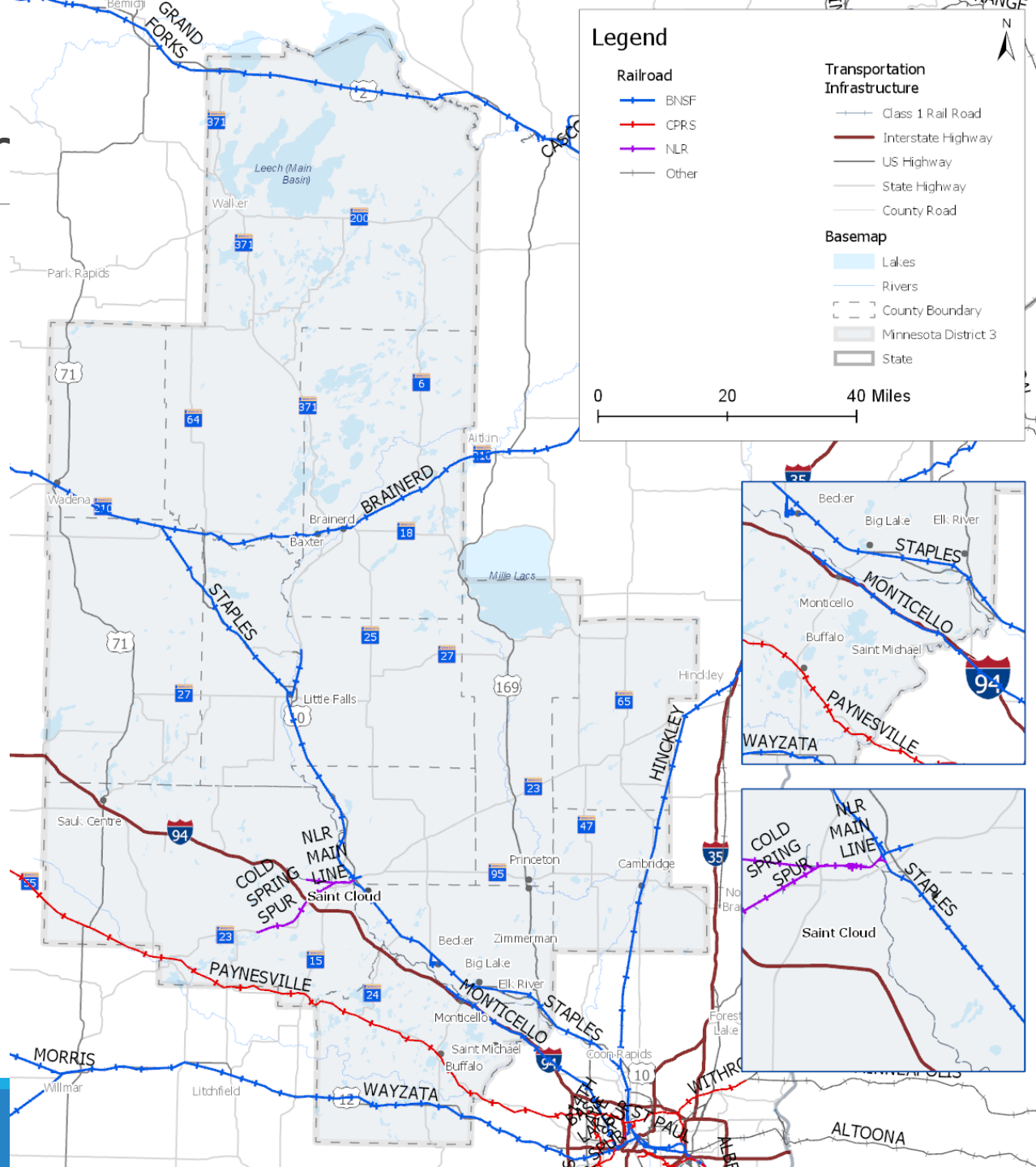


Source: MnDOT Bridge Inventory, 2019.



Railroad Lines & Owner

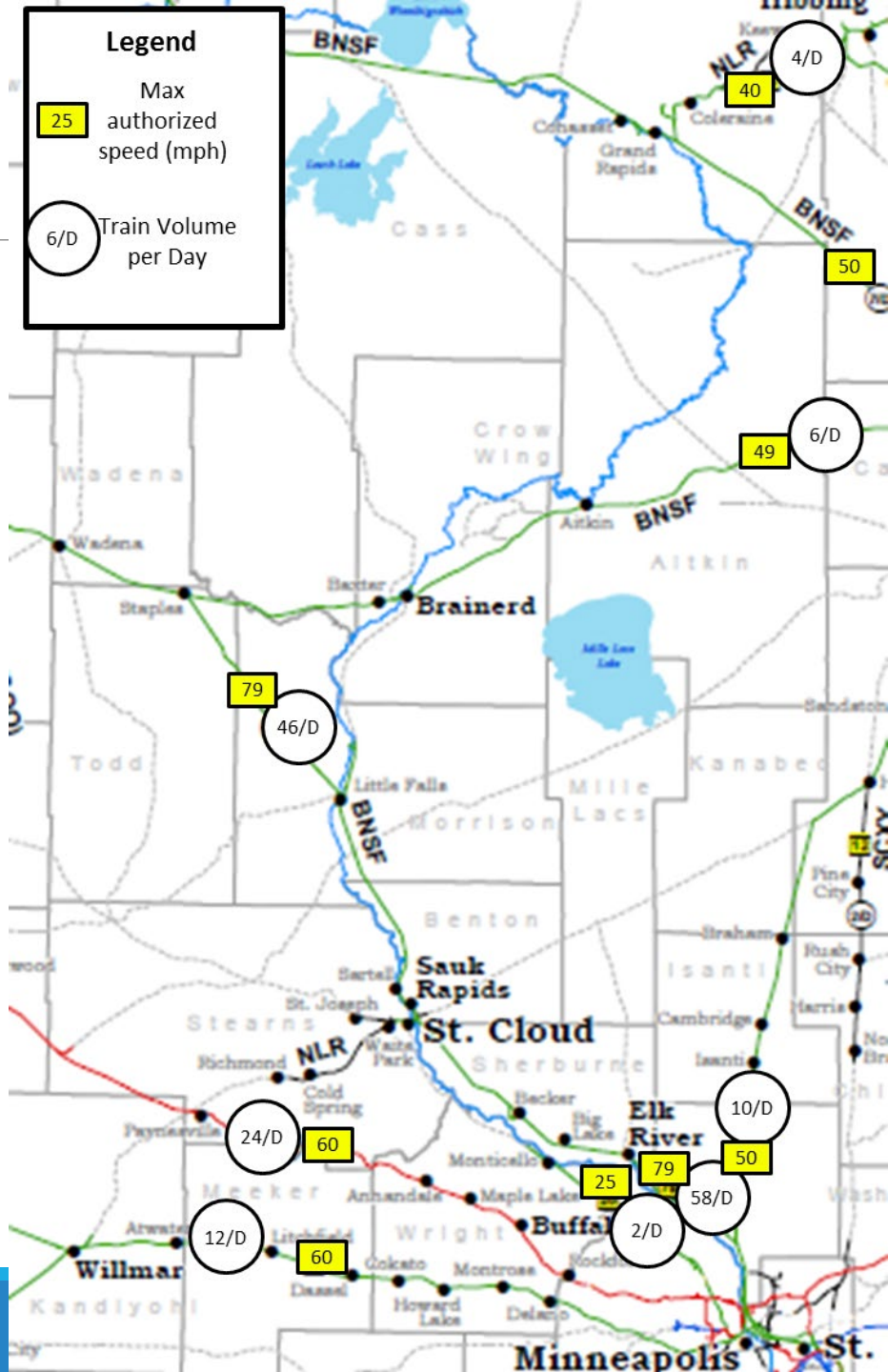
- 367 Miles of Class I Rail in D3
  - Six BNSF Subdivisions
    - Northstar Commuter Service from Minneapolis to Big Lake
  - One CP Subdivision
  - Northern Lines Railway



Source: Bureau of Transportation Statistics, National Transportation Atlas Database, 2019.

Rail Volumes & Average Track Speeds

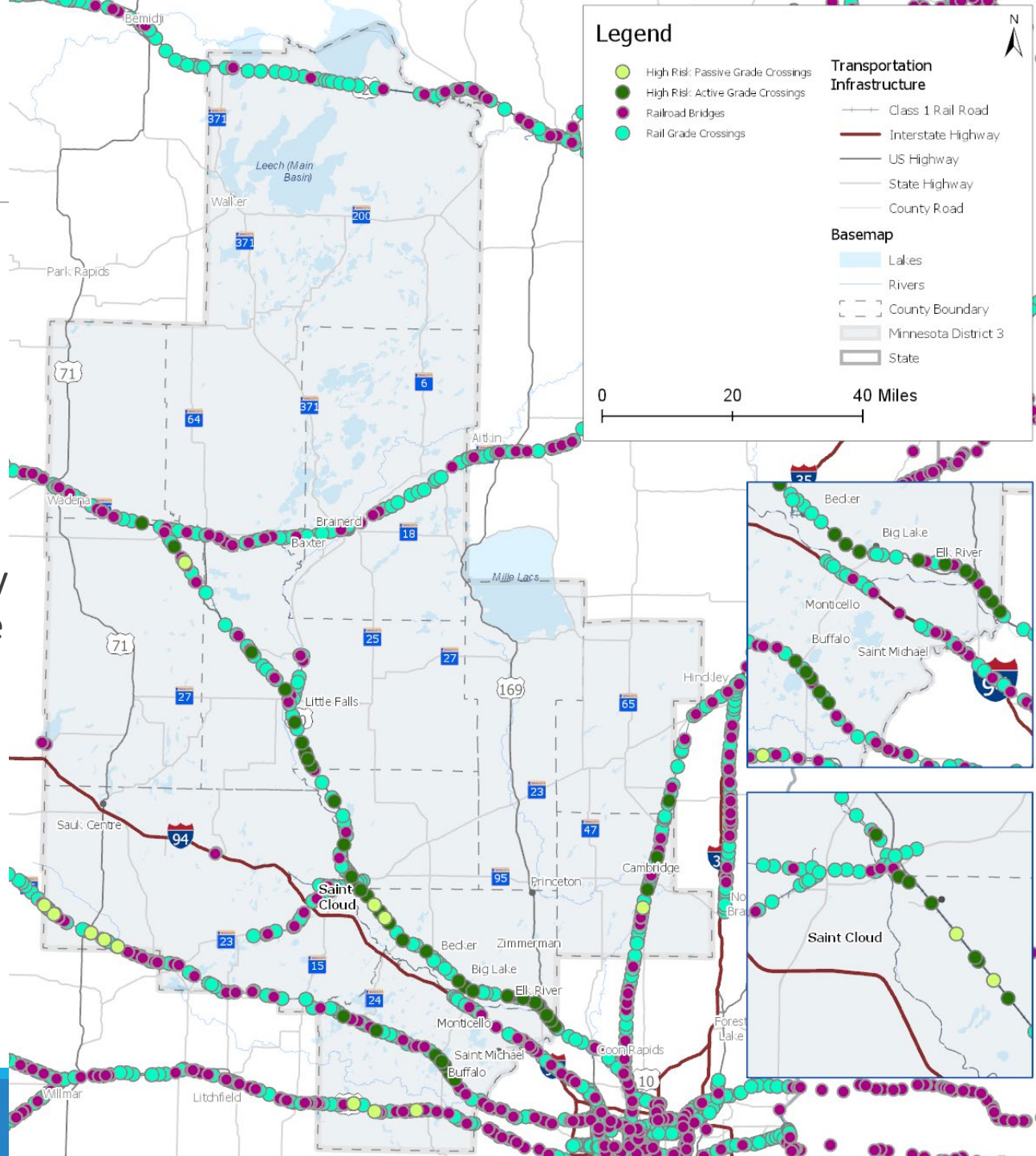
- Highest rail volumes are on the BNSF line from the Twin Cities through St. Cloud, with up to 58 trains per day
- Track speeds vary from as low as 25 mph near Buffalo to 79 mph (passenger)/60 mph (freight) on the BNSF Staples mainline



Source: MnDOT, Minnesota Freight Railroad Map, June 2015.

Rail Crossings

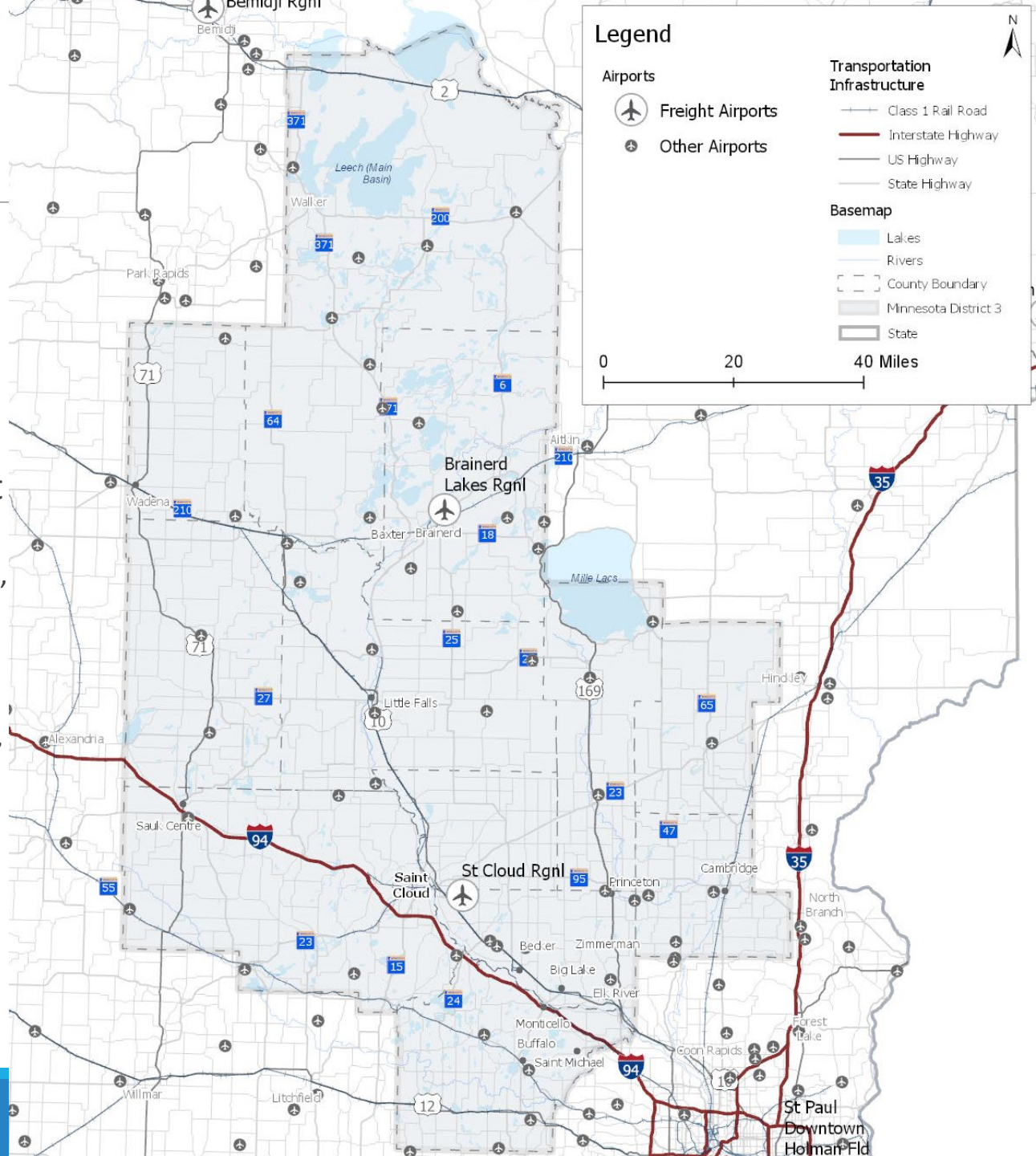
- High number of rail crossings in District 3
  - 335 at-grade crossings
  - 115 bridge crossings
- Concentration of at-grade crossings along US 10 and the BNSF Staples mainline
- Grade crossing safety is a concern on three key corridors due to high volumes of Bakken crude oil unit trains passing through District 3
- Sherburne County is among the top counties in the State for all crashes and fatal-specific crashes (Rail Grade Crossing Safety Project Selection report).



Source: Bureau of Transportation Statistics, National Transportation Atlas Database, 2019.

Aviation Cargo Network

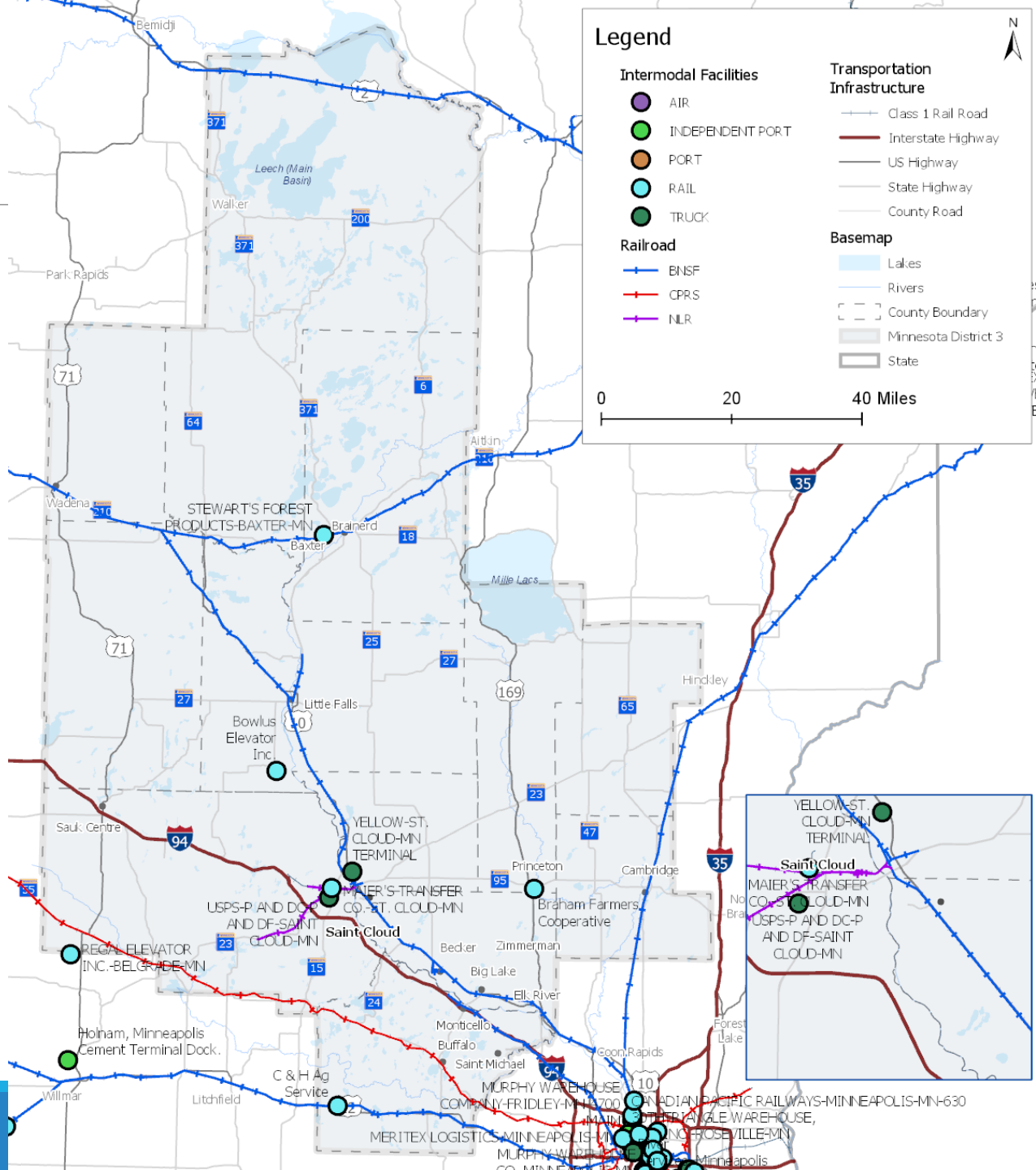
- Two Airports with Freight Service
  - Brainerd Lakes Regional
  - St Cloud Regional
- Total air cargo freight traffic in 2018:
  - 81,500 pounds at Brainerd Lakes Regional Airport
    - Package delivery
    - Bemidji Airlines (Encore Air Cargo), contractor with UPS, DHL, and XPO
    - Roughly 40% terminating and 60% originating
  - 14,700 pounds at St. Cloud Regional Airport
    - Mostly (99%) on-demand cargo delivered by USA Jet Airlines, originating in St. Cloud
    - Some belly cargo on Sun Country and Southwest
- Total air cargo in District 3 is 0.02% of the total at MSP (536.8 million pounds in 2018)



Sources: Bureau of Transportation Statistics, National Transportation Atlas Database, 2019.
Bureau of Transportation Statistics, Form T-100, 2019.

Navigable Waterways & Intermodal Connections

- No barge service north of the Port of Saint Paul as of 2015
- Navigable waterways
  - Mississippi River System via truck through Saint Paul
  - Great Lakes-Saint Lawrence Seaway via truck through Duluth
- Intermodal container service in Minneapolis (CP), Saint Paul (BNSF), and Duluth



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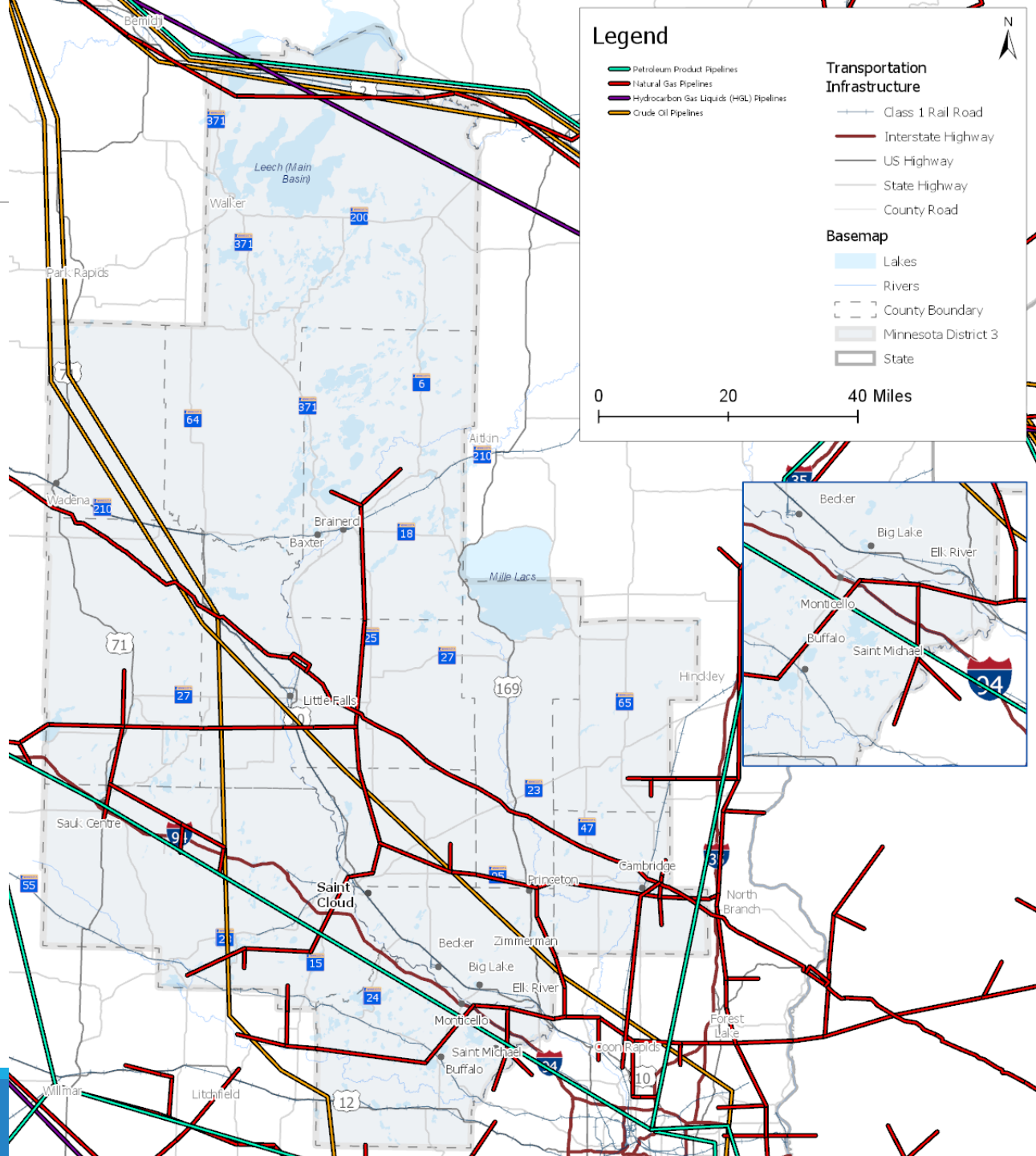
Pipeline

- Pipeline Types
  - Crude Oil
  - Hydrocarbon Gas Liquids (HGL)
  - Natural Gas
  - Petroleum
- Minnesota Pipe Line carries crude oil between terminal in Clearwater County and the Twin Cities
- Terminal for refined petroleum products in Sauk Center (Stearns County)



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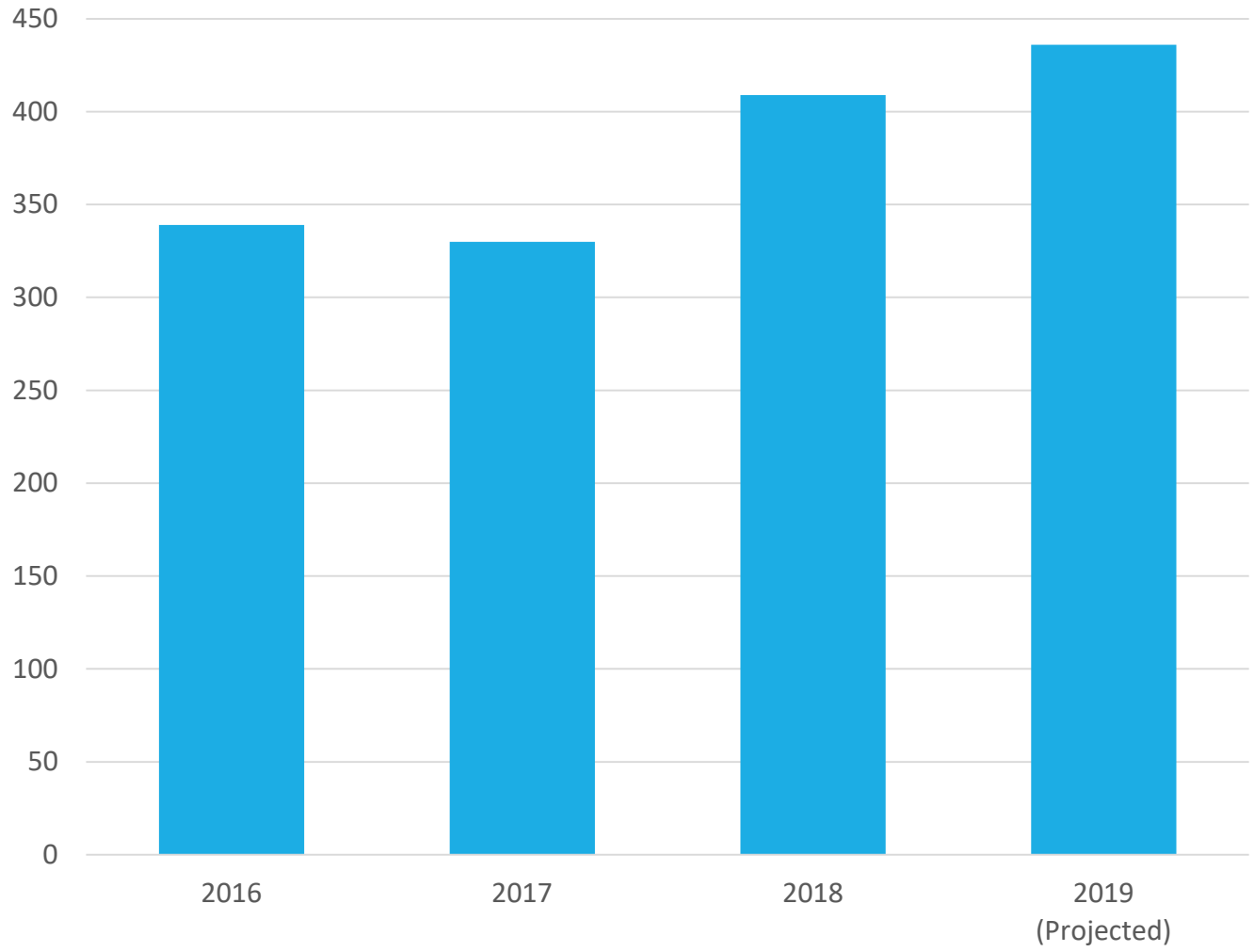
Freight System Condition & Performance

SAFETY | MOBILITY | BRIDGE CONDITION

Truck Crashes in District 3

- Crash data from MnDOT's Crash Mapping Analysis Reporting Tool (CrashMART)
  - Data from January 1, 2016 through October 11, 2019
  - Involving only trucks of various sizes
  - Analysis included all State highways and above
- Total crashes decreased from 2016 to 2017, but have since trended upward
- The remainder of 2019 was calculated using the average number of crashes per day in 2019 to develop the annual forecast



Comparison of Truck Crashes by Severity

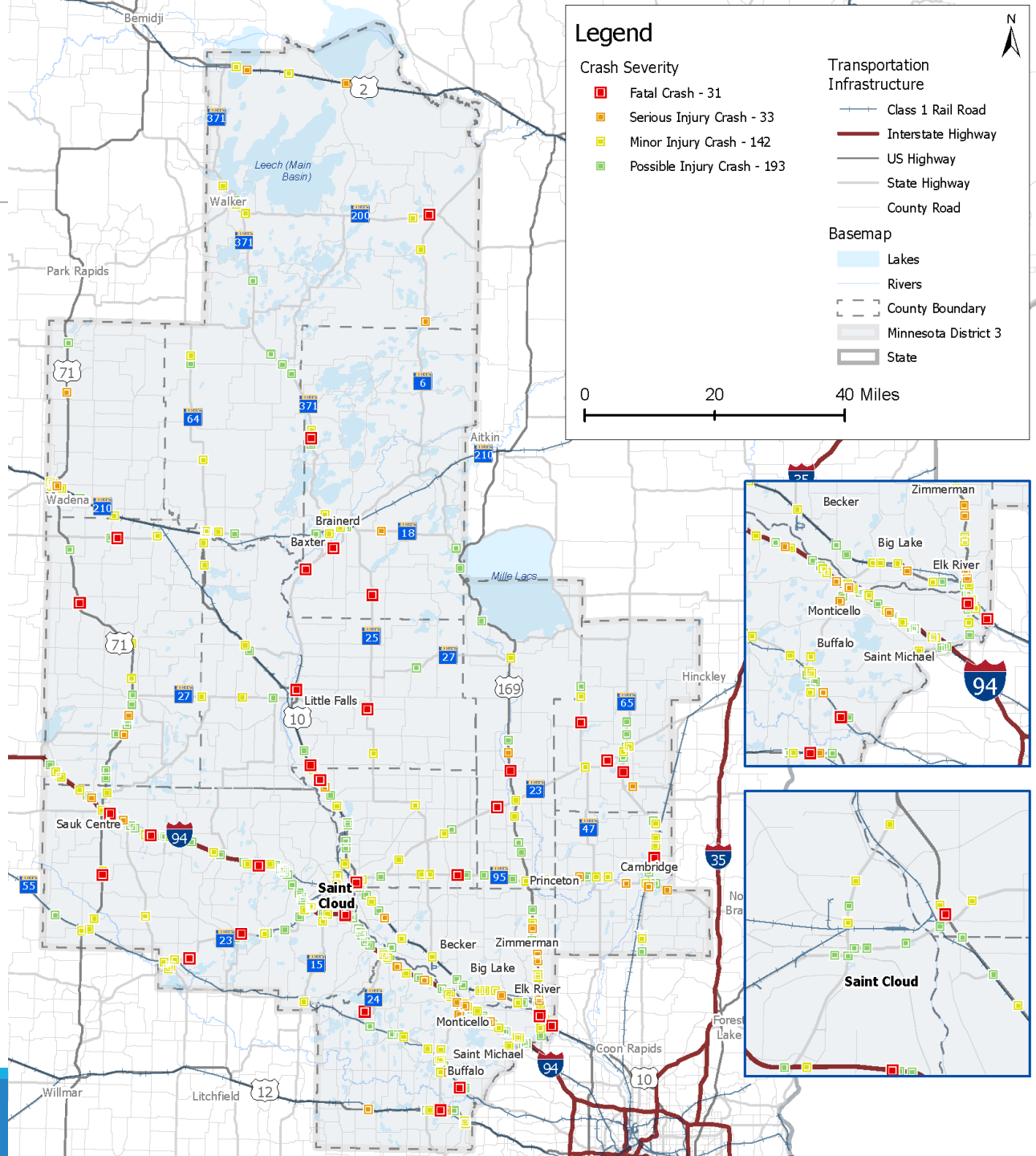
- **1,416 truck crashes** reported during the study period (only includes 2019 data through October)
- District 3 experienced the highest number of total truck crashes including all crash severities compared to all other districts excluding the Metro
- District 3 is the most urbanized and highest traveled district outside of the Metro which in-turn increases the total number of crashes

Severity	D1	D2	D3 (% total)	D4	D6	D7	D8	Total
Fatal	12	8	**31 (22%)**	10	19	15	13	77
Serious Injury	16	12	**33 (16%)**	17	22	24	23	114
Minor Injury	67	32	**142 (14%)**	70	123	135	81	508
Possible Injury	68	18	**193 (13%)**	64	120	81	62	413
Property Damage Only	427	140	**1,017 (11%)**	493	1,000	678	367	3,105
Unknown Severity	1	-	-	1	3	3	1	9
Total	591	210	**1,416 (11%)**	655	1,287	936	547	4,226

District 3 Truck Crashes by Severity

- **2017:** disproportionally high number of fatal crashes involving trucks, though a lower number of crashes overall
- **2018:** total crashes increase but reductions in crashes of high severity
- **2019 (thru mid-Oct.):** meets the 2018 totals for fatal and severe injury crashes

Severity	2016	2017	2018	2019*	Total
Fatal	7	16	4	4	31
Serious Injury	13	10	5	5	33
Minor Injury	37	39	35	31	142
Possible Injury	39	59	51	44	193
Property Damage	243	206	314	254	1,017
Total	**339**	**330**	**409**	**338**	**1,416**



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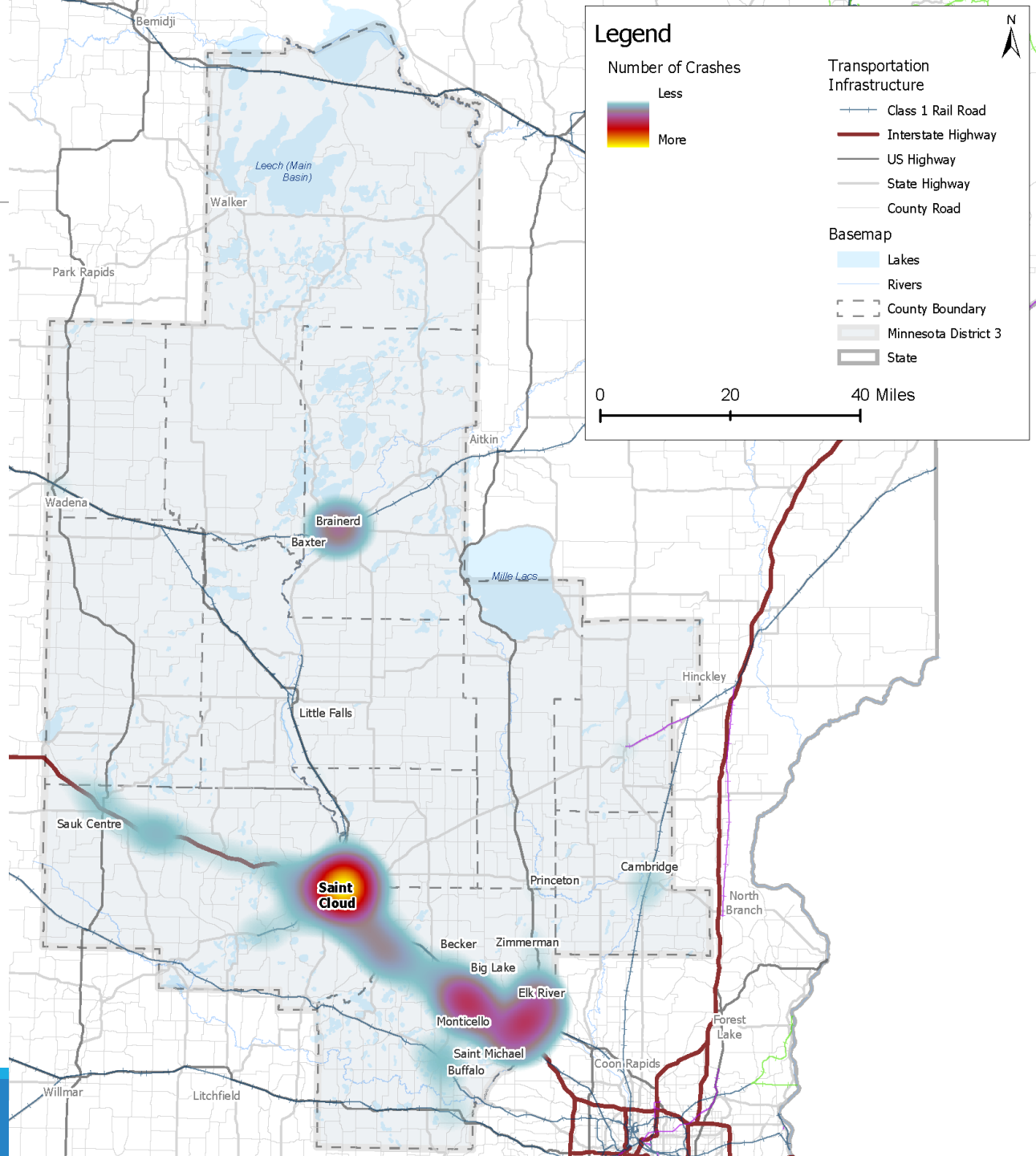
Key Crash Locations (truck specific)

- Locations with the highest number of crashes corresponds with areas that have a higher population density or traffic volumes
  - I-94 corridor
  - St. Cloud and urbanized areas in the southeast portion of the district
  - Brainerd/Baxter area
- Density of crashes along a 20-mile segment of I-94 from Sauk Centre to Freeport

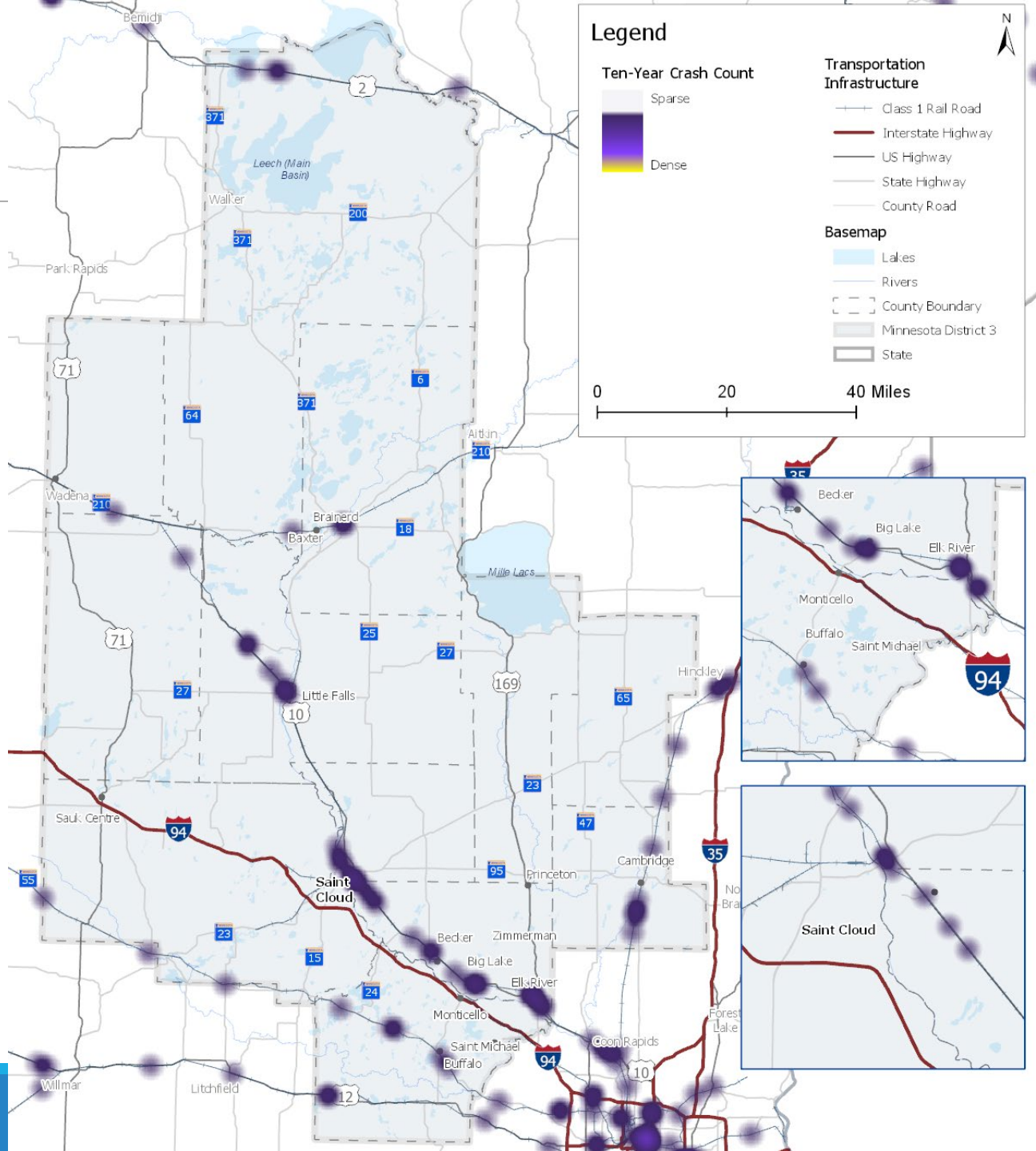


Source: MnDOT Crash Data, 2016-2019.

Rail Crossing Crash Analysis

- At-grade rail crossings are a concern in District 3 with rail lines running parallel to five trunk highways:
  - US 10
  - US 12
  - US 2
  - TH 55
  - TH 210
- There are hot spots for crashes at rail grade crossings along US 10 due to both high traffic volumes coupled with high railroad speeds and numerous daily trains
- District 3 has the highest injury rate per AADT of any district in Minnesota related to rail crossings
- 19 crossings rank in the top 200 (top 5% of all crossings) in Minnesota in terms of crashes per AADT
- Sherburne County is ranked ninth in the State for total crashes by county

Source: FRA, Office of Safety Analysis, Accident Data as reported by Railroads, 2019.



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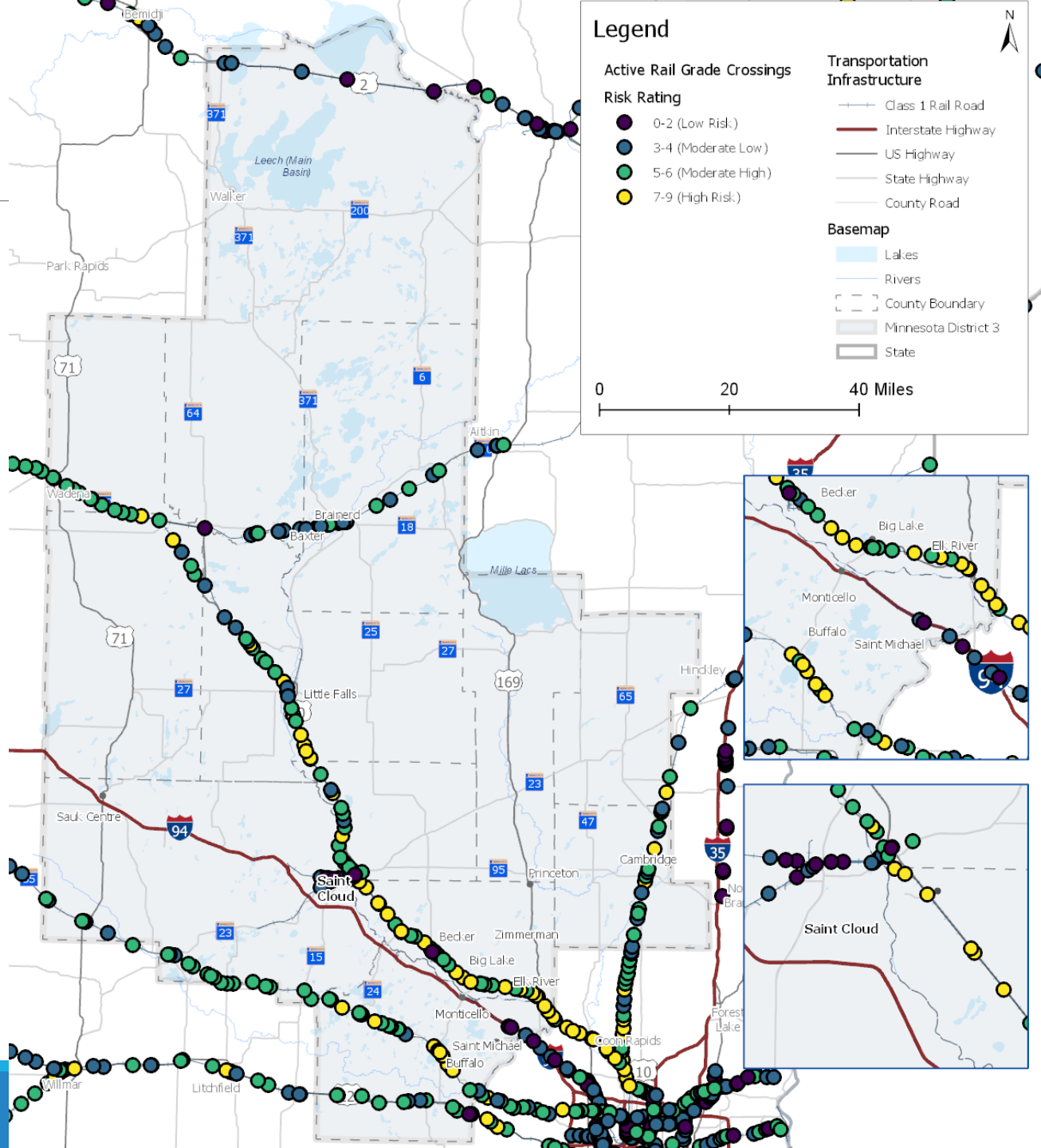
Active Grade-Crossing Risk Analysis

- Risk factors include:
  1. roadway AADT,
  2. total trains per day,
  3. volume cross product,
  4. roadway speed limit,
  5. max timetable speed,
  6. number of mainline tracks,
  7. skew,
  8. distance to nearby intersection,
  9. distance to nearest crossing, and
  10. clearing sight distance
- 40 active crossings (19% of total) have a risk rating of at least 7, indicating high-risk
- A majority of high-risk crossings are located along US 10

Source: MnDOT, Rail Grade Crossing Safety Report, 2016.



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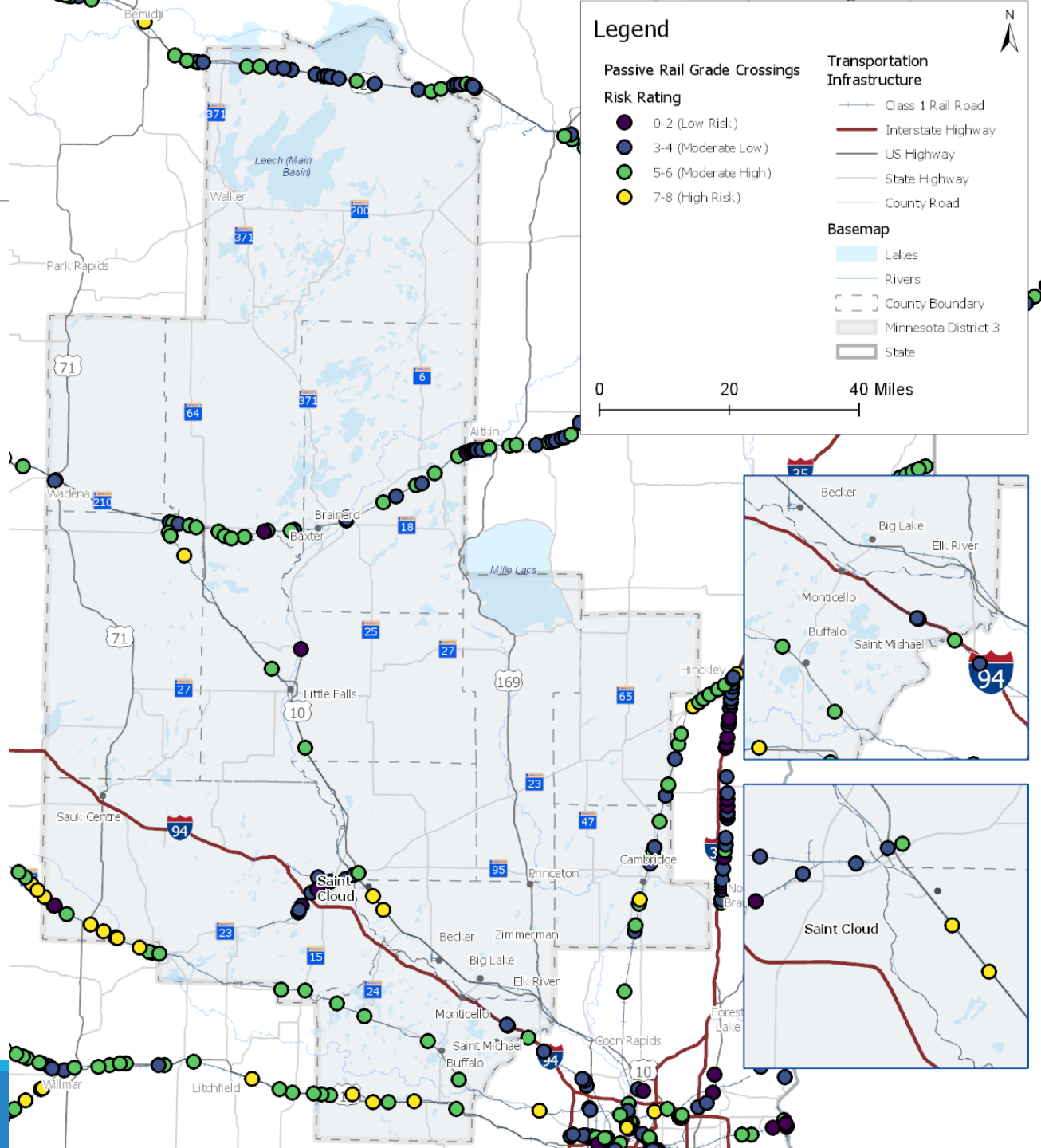
Passive Crossing Risk Analysis

- Risk factors include:
  1. roadway AADT,
  2. total trains per day,
  3. volume cross product,
  4. max timetable speed,
  5. skew,
  6. distance to nearby intersection,
  7. distance to nearest crossing,
  8. clearing sight distance, and
  9. approaching sight distance
- 12 passive crossings (12% of total) have a risk rating of at least 7, indicating high risk
- A majority are located along TH 55 and US 12

Source: MnDOT, Rail Grade Crossing Safety Report, 2016.



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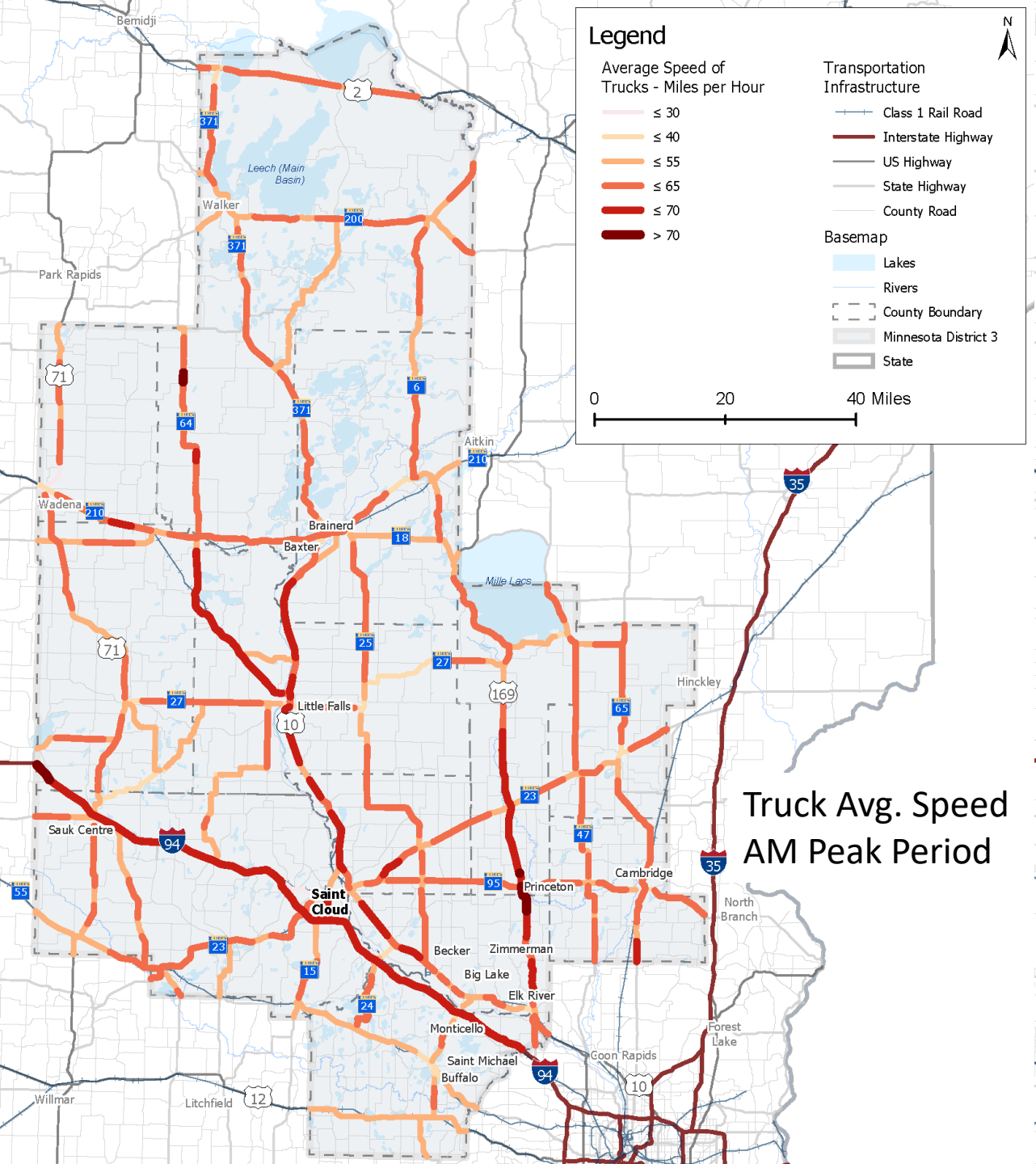
Key Safety Takeaways

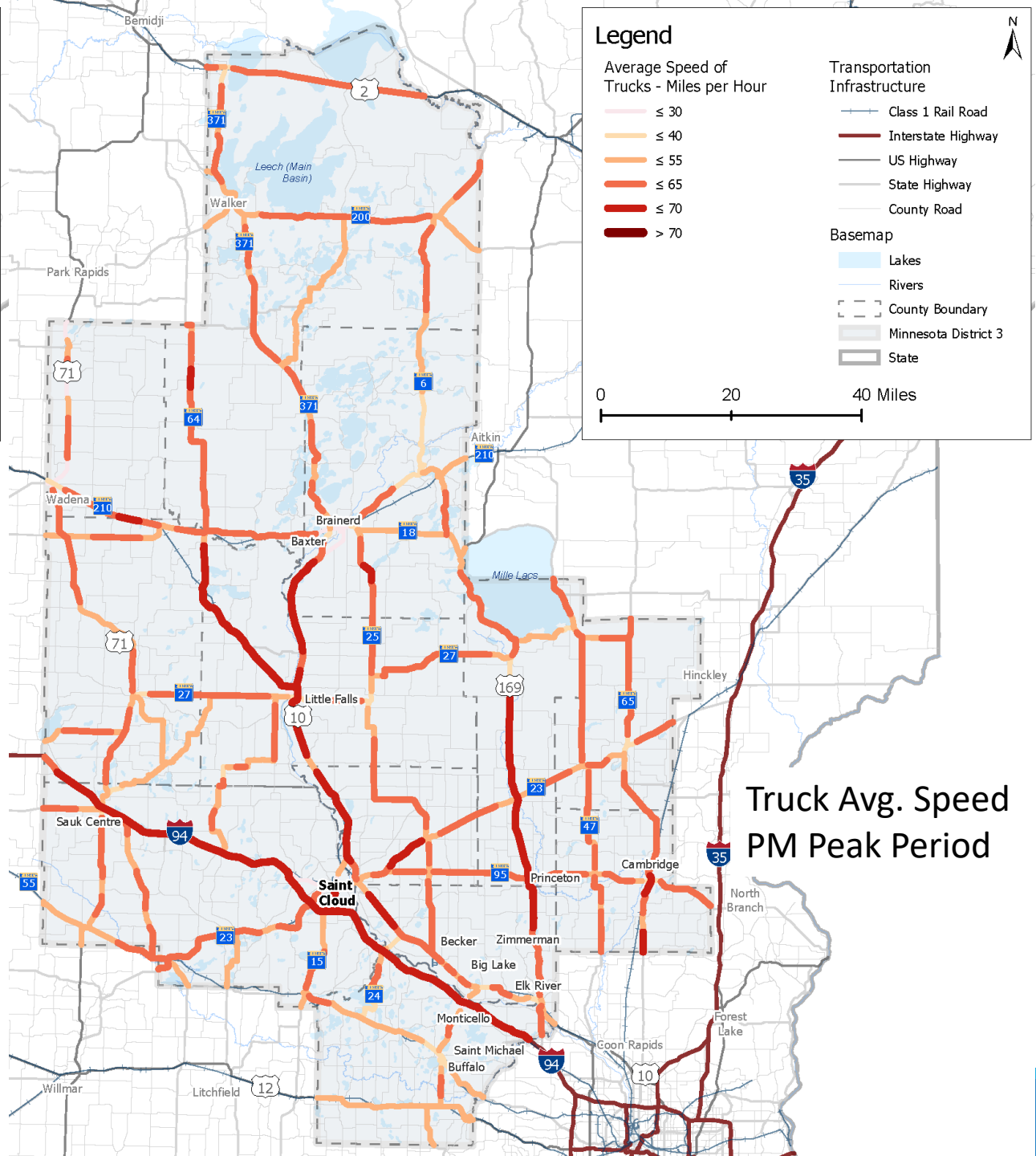
- Truck-specific
  - 1,416 truck crashes reported during the study period
  - Total truck crashes trending upward since 2017
  - District 3 experienced the highest number of total truck crashes including all crash severities compared to all other districts excluding Metro
- Rail crossing-specific
  - District 3 has the highest injury rate per AADT of any district in Minnesota related to rail crossings
  - Sherburne County is ranked ninth in the State for total crashes by county
  - 40 active crossings (19% of total) have a high-risk rating – a majority are located along US 10
  - 12 passive crossings (12% of total) have a high-risk rating – a majority are located along TH 55 and US 12

Streetlight Analysis

- Data illustrates commercial vehicles only using GPS or location-specific mobile data
- Commercial vehicles are defined by Streetlight as medium and heavy-duty freight vehicles
- Sample size is approximately 12% of truck activity on average
- Data was collected on every Tuesday, Wednesday, and Thursday for all of 2018
- Two study periods:
  - Morning – 6-10 am
  - Evening – 3-7 pm
- Analysis included:
  - Identifying average truck speed
  - Organizing truck travel time reliability (TTTR)



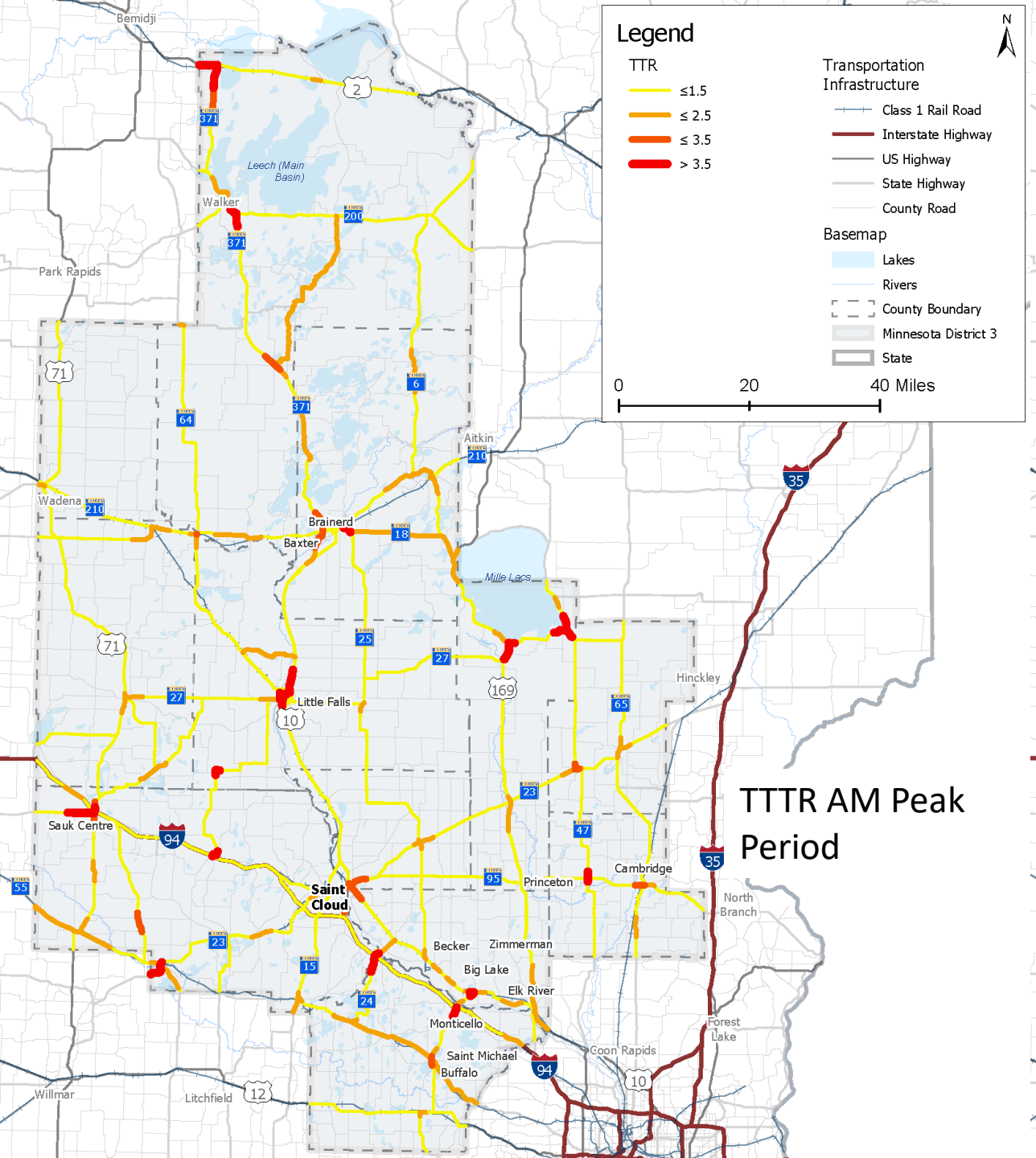
Truck Avg. Speed
AM Peak Period



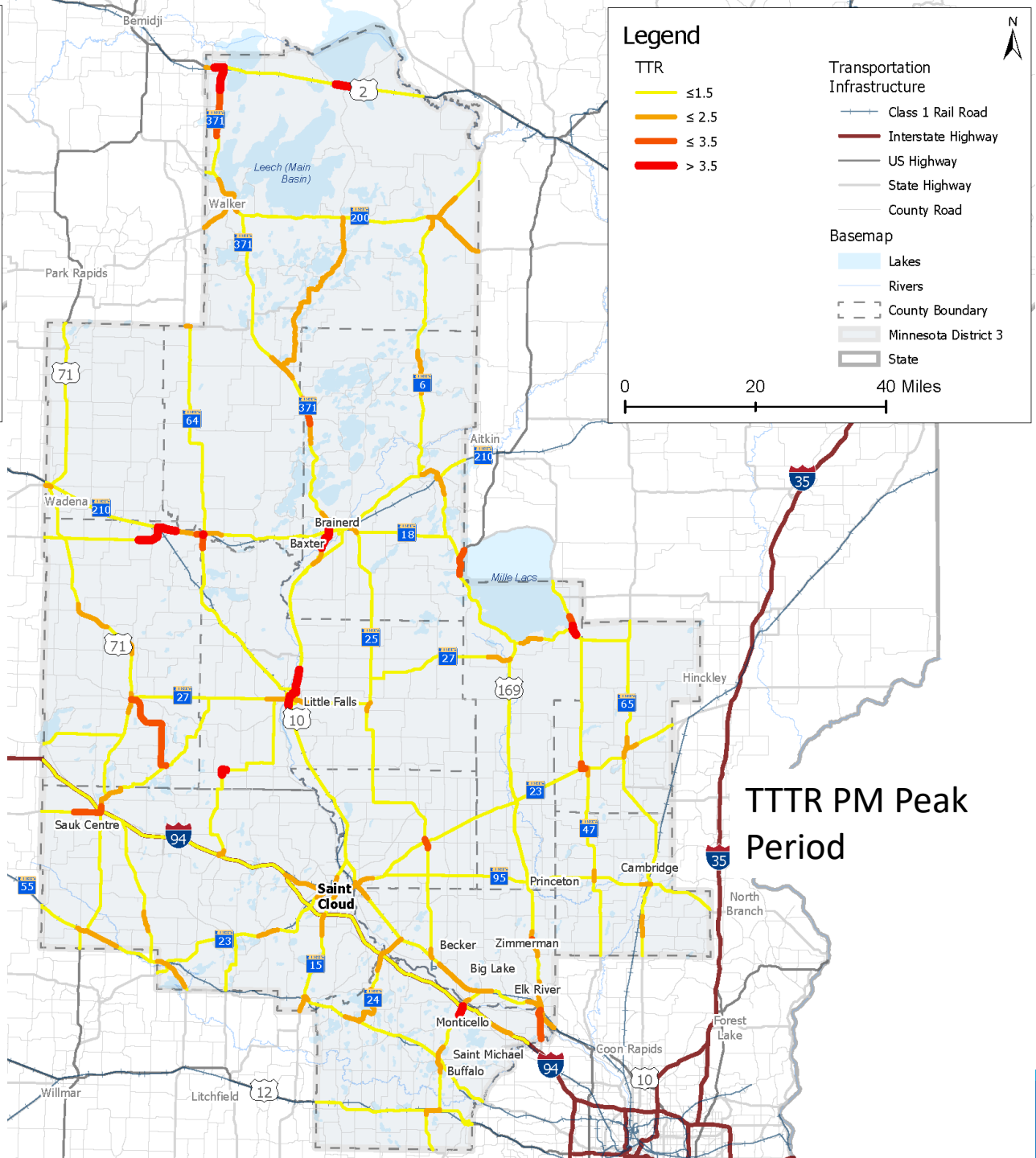
Truck Avg. Speed
PM Peak Period

Truck Travel Time Reliability Methodology

- Truck Travel Time Reliability (TTTR) Index is the measure of congestion associated with the consistency of travel times along a segment of roadway.
- Assists to identify areas where congestion or bottlenecks occur within the network
- Peak period TTTR was analyzed for all State highways and above
- The roadways were divided into three-mile segments
- The index is formulaically devised to account for the peaks and divided by the average to better account for travel time as compared to the pure average
  - TTTR = 95th percentile travel speed / 50th percentile travel speed
- An index of 1.0 indicates that the roadway segment operates at the free flow speed, while a higher rate indicates greater congestion



TTTR AM Peak Period



TTTR PM Peak Period

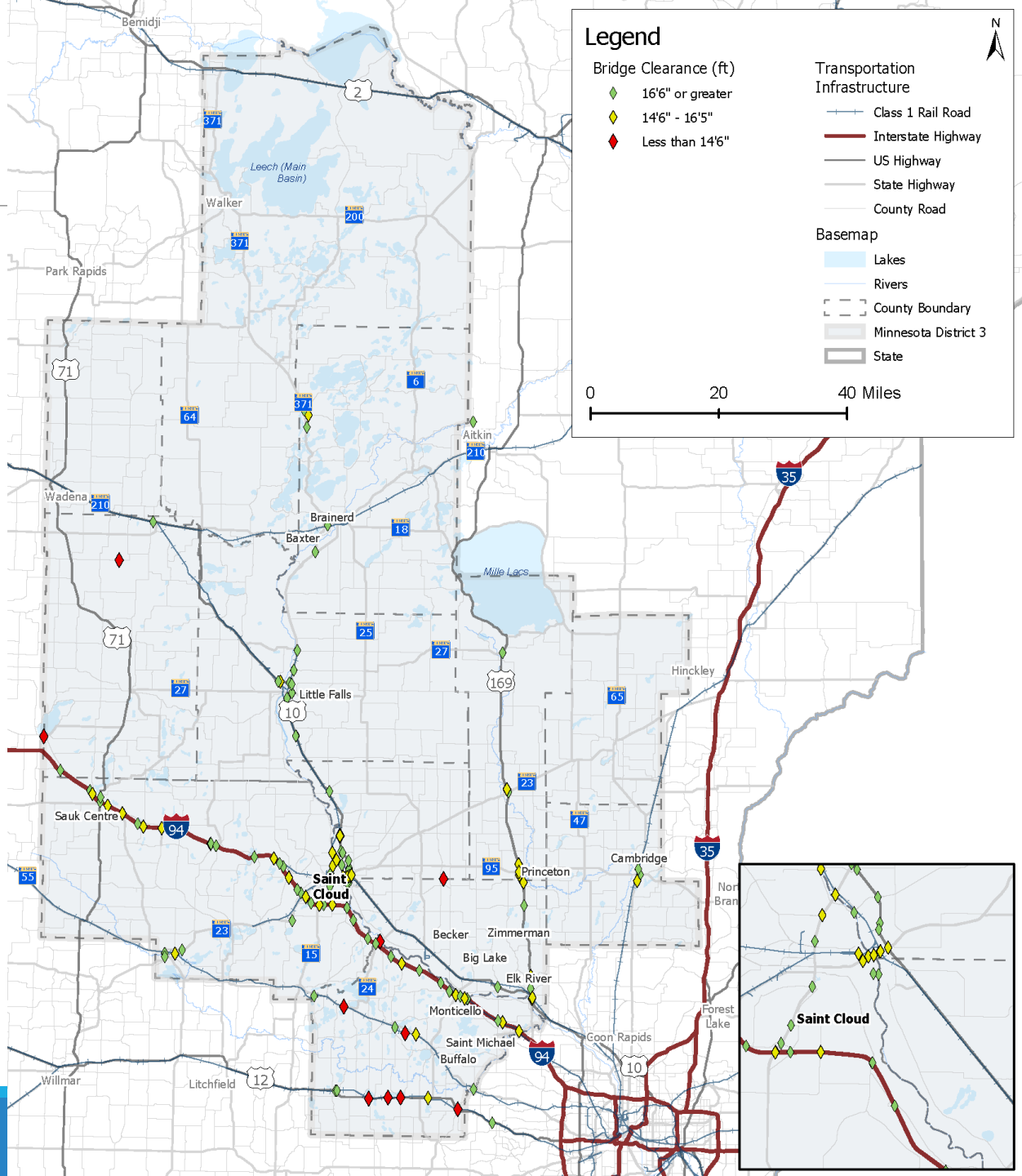
Key Streetlight Takeaways

- **Truck Average Speeds**
  - Truck speeds in District 3 are at or near the posted speed limit overall, including many of the key truck corridors
  - As expected, some reduced speeds exist in urban areas and other areas of congestion, as well as near signalized intersections or major junctions
- **Truck Travel Time Reliability**
  - Most areas that experience a lack of reliability are focused at intersections and selected other locations
  - I-94 and US 10, both of which carry a high-volume of truck traffic, experience minimal issues with reliability
  - TH 101, TH 55, TH 371, and TH 210 experience some minor reliability issues

Bridge Clearance Restrictions

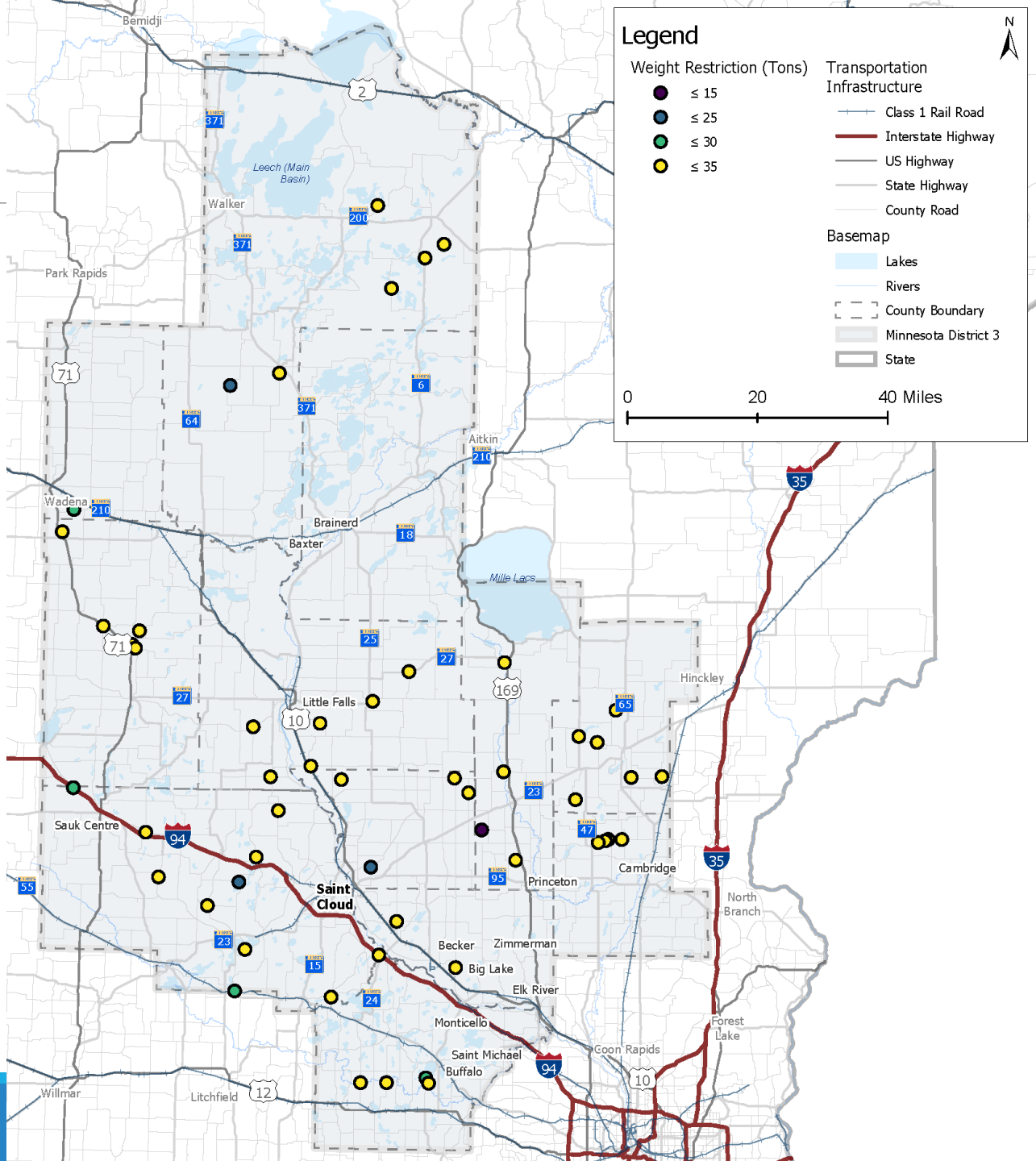
- MnDOT uses the following guidance for bridge clearance:
  - 16’6” for all OSOW/Superload corridors
  - 16’4” for all other trunk highways
  - Less than 14’6” is an issue due to trucks of that height are no longer required to submit an OSOW permit
- Two bridges along OSOW/Superload corridors are less than 16’6”
  - US 12
  - TH 15
- 20 bridges along freight corridors less than 16’4”:
  - Multiple locations: I-94, US 10, and US 169
  - Single location: TH 23 and TH 15
- Ten bridges are less than 14’6” which could affect freight movement, all of which are county roads or below

Source: MnDOT Bridge Inventory, 2019.



Bridge Weight Restrictions

- No weight-restricted bridges exist along freight corridors in the District
- One weight restricted bridge along a trunk highway (could not handle 35+ ton trucks):
  - TH 47 at Ann Lake (just north of TH 23)

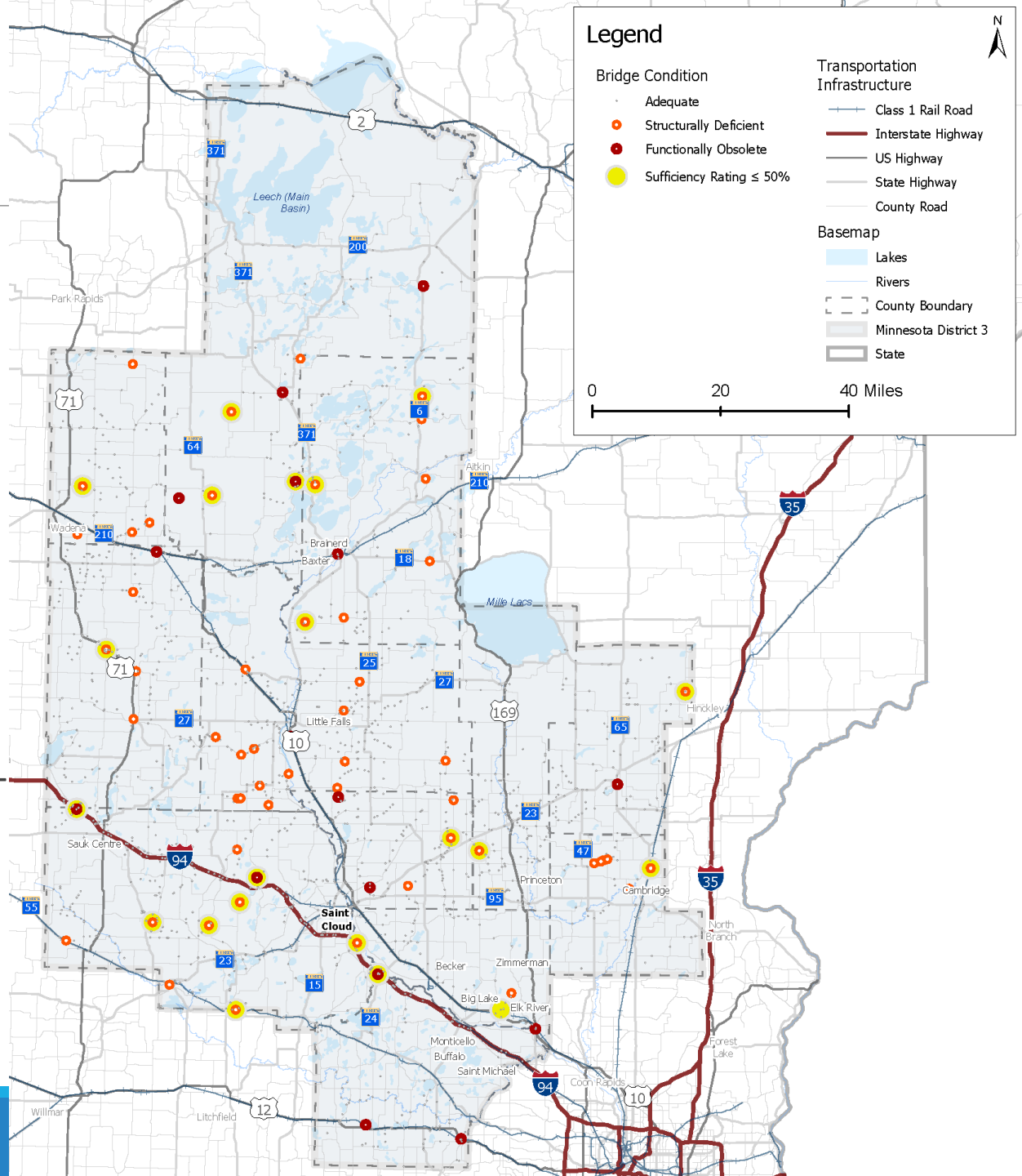


Source: MnDOT Bridge Inventory, 2019.

Bridge Deficiencies

- Bridges in Minnesota are rated using the following general provisions:
  - **Structurally Deficient**: Any bridge that has a condition rating of poor for the superstructure, substructure, or deck.
  - **Functionally Obsolete**: Any bridge that is not structurally deficient has inadequate features.
  - **Sufficiency Rating ≤50%**: The bridge is eligible for federal replacement funding per a number of factors.
- Five deficient bridges along freight corridors:
  - Two structurally deficient
  - Three functionally obsolete
- Two deficient bridges along other trunk highways – one functionally and one structurally
- No bridges with less than 50% sufficiency rating along trunk highways
- Most deficient bridges are located along county roads or below

Source: MnDOT Bridge Inventory, 2019.



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Bridge Deficiencies by County

County	Structurally Deficient	Functionally Obsolete	Sufficiency ≤50%	Total
Aitkin	-	-	-	0
Benton	3	2	1	6
Cass	3	4	3	10
Crow Wing	7	1	3	11
Isanti	6	-	1	7
Kanabec	1	1	1	3
Mille Lacs	1	-	1	2
Morrison	14	2	-	16
Sherburne	1	2	1	4
Stearns	10	3	8	21
Todd	4	3	1	8
Wadena	5	-	1	6
Wright	-	2	-	2
Total	**55**	**20**	**21**	**96**

Source: MnDOT Bridge Inventory, 2019.

Key Bridge Takeaways

- **Bridge Clearance**
  - 20 bridges along freight corridors less than 16’4”:
  - 2 bridge within an OSOW/Superload corridor along TH 15 is less than 16’6”
- **Bridge Weight Restriction**
  - No weight-restricted bridges exist along freight corridors in the District
  - One weight restricted bridge within a trunk highway along TH 47
- **Bridge Deficiencies**
  - Five deficient bridges along freight corridors:
    - Three functionally obsolete
    - Two structurally deficient
  - Two deficient bridges along other trunk highways – one functionally and one structurally
  - Stearns, Morrison, and Crow Wing Counties lead District 3 in deficient bridges

BREAK (5 min)

SWOT Discussion Next…

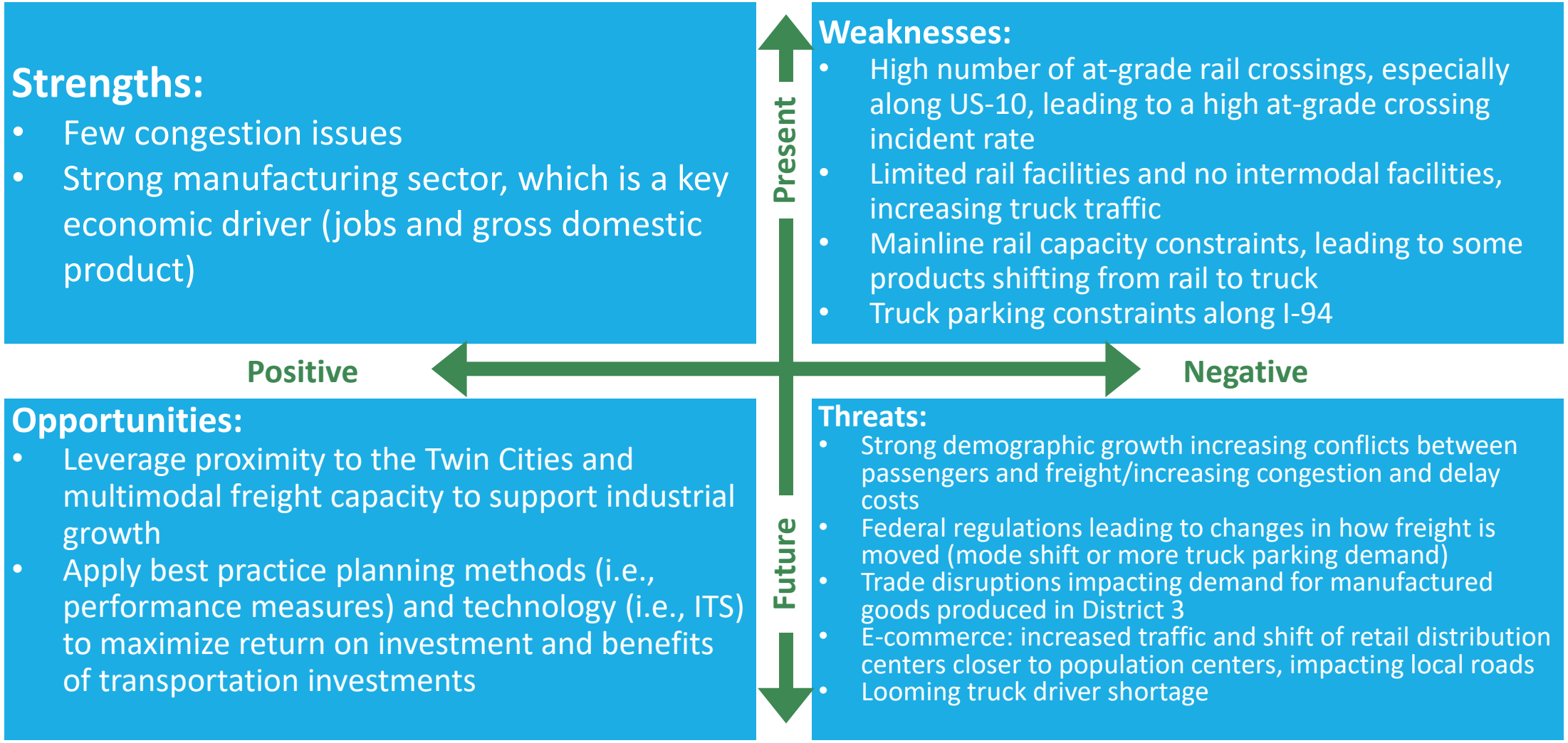
SWOT Analysis

STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS IN DISTRICT 3

SWOT Analysis Instructions

- Step 1: Break into groups. Each group will have a map of the District and a facilitator.
- Step 2: Brainstorming within groups. Consider the following freight-related topics; use the map to identify areas pertaining to strengths, weaknesses, opportunities, and threats for each topic within the District:
  - Infrastructure (road, rail, air, pipeline)
  - Industries and economy
  - Connections beyond the District
  - Technology
  - Regulations and policy
- Step 3: Report back to the whole group. Each small group shares their ideas with everyone.
- Step 4: Short break while the consultant team organizes ideas
- Step 5: Discussion/prioritization, using stickers to identify the most important topics

Initial SWOT Ideas



SWOT Analysis Questions to Consider

- Strengths:
  - What are District 3's freight-related assets?
  - What makes District 3 a strong place for freight transportation?
- Weaknesses:
  - What are the freight-related areas where other Districts have stronger freight transportation?
  - What freight-related elements does District 3 currently lack?
- Opportunities:
  - What are current trends that District 3 could take advantage of to strengthen its freight transportation?
  - What are "easy wins" to make the freight transportation system more effective in District 3?
- Threats:
  - What are freight-related trends that could negatively impact District 3?
  - What possible disruptions to District 3's freight transportation system do you see?

Prioritization

- Which topics do you feel are most important for District 3?
- What strengths/opportunities will the District be able to leverage to support/enhance future economic growth?
- Which weaknesses/threats are most critical to address?
- How should the region prioritize its attention/resources?

Discussion

- Which topics are most important to the group?
  - Are there any topics that need specific attention or additional study as part of this freight plan?
  - Are there actions that can be taken in the short term to leverage strengths/opportunities or mitigate weaknesses/threats?
- Are there any topics that are missing or miscategorized?
- Who else should be engaged in this conversation?

Next Steps

- Technical memorandum of the data analysis to-date
- Begin the gap analysis
- Discuss and identify a Technical Advisory Committee
- Advisory Committee Meeting #3 – Spring 2020

Questions

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