

BOND ACCELERATED PROGRAM

LEGISLATIVE REPORT ON TRUNK HIGHWAY BONDING

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**Minnesota Session Laws of 2003
1st Special Session
Chapter 19
Article 3**



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BOND ACCELERATED PROGRAM LEGISLATIVE REPORT

INTRODUCTION

This report is submitted by the Commissioner of the Minnesota Department of Transportation (Mn/DOT) in response to the requirements specified in Chapter 19, Article 3, Laws of 2003, 1st Special Session. The specific reporting requirements are highlighted in bold below.

ARTICLE 3 TRUNK HIGHWAY BONDING

Section 1. [HIGHWAY AND TRANSIT APPROPRIATIONS.]

Subdivision 1. [TRUNK HIGHWAY PROJECTS FINANCED BY STATE BONDS.]

(a) \$400,000,000 is appropriated from the bond proceeds account in the trunk highway fund to the commissioner of transportation for trunk highway improvements. This appropriation is for:

(1) trunk highway improvements within the seven-county metropolitan area primarily for improving traffic flow and expanding highway capacity by eliminating traffic bottlenecks and improving segments of at-risk interregional corridors within the seven-county area; and

(2) trunk highway improvements on at-risk interregional corridors located outside the seven-county metropolitan area. These appropriations include the cost of actual payment to landowners for lands acquired for highway right-of-way, payment to lessees, interest subsidies, and relocation expenses. Within each category in clauses (1) and (2), the commissioner shall spend not less than \$25,000,000 on highway safety and capacity improvement projects including but not limited to the addition of lanes on trunk highway corridors with known safety problems.

(b) In spending the appropriation under paragraph (a), the commissioner shall, to the maximum feasible extent, seek to allocate spending equally between the department of transportation metropolitan district and the remainder of the state.

(c) The commissioner of transportation may use up to \$68,500,000 of this appropriation for program delivery.

(d) The commissioner shall use at least \$36,000,000 of this appropriation for accelerating transit capital improvements on trunk highways such as shoulder bus lanes, bus park-and-ride facilities, and ramp meter-bypass facilities.

Subd. 2. [REPORT.] The commissioner shall report to the committees having jurisdiction over transportation finance in the house of representatives and senate, no later than January 15 of each year through 2007, on projects selected to be funded by this appropriation. The report must include the geographic distribution of the selected projects and their adherence to the criteria and spending allocation goals listed in subdivision 1, and the location and cost of each project.

Subd. 3. [BOND SALE EXPENSES.] \$400,000 is appropriated from the bond proceeds account in the trunk highway fund to the commissioner of finance for bond sale expenses under Minnesota Statutes, section 16A.641, subdivision 8.

Subd. 4. [CANCELLATION.] Any part of the appropriation in this section that is not encumbered or otherwise obligated by June 30, 2007, must be canceled to the trunk highway bond account in the state bond fund.

Sec. 2. [BOND SALE.]

To provide the money appropriated in section 1, subdivisions 1 and 4, from the bond proceeds account in the trunk highway fund, the commissioner of finance shall sell and issue bonds of the state in an amount up to \$400,400,000 in the manner, on the terms, and with the effect prescribed by Minnesota Statutes, sections 167.50 to 167.52, and by the Minnesota Constitution, article XIV, section

11, at the times and in the amounts requested by the commissioner of transportation. The proceeds of the bonds, except accrued interest and any premium received from the sale of the bonds, must be deposited in the bond proceeds account in the trunk highway fund.

Sec. 3. [ADVANCE CONSTRUCTION.]

(a) Through June 30, 2009, the commissioner of transportation may spend up to \$400,000,000 on trunk highway improvements from funds approved for expenditure by the Federal Highway Administration and designated as advance construction funds.

(b) Any additional advance construction expenditures by the commissioner approved by the Federal Highway Administration through June 30, 2009, may be added to the amount in paragraph (a).

(c) In spending federal funds under paragraphs (a) and (b), the commissioner shall, to the maximum feasible extent, seek to allocate spending equally between the department of transportation metropolitan district and the remainder of the state.

(d) The commissioner shall report to the chairs of the senate and house of representatives committees with jurisdiction over transportation policy and finance by January 15 each year regarding the use of advance construction funding in the previous and current fiscal year. The report must include:

(1) an analysis of the impact of the use of advance construction funding on the trunk highway fund balance and cash flow;

(2) an estimate of the amount of additional advance construction funding that is available for use in future fiscal years and the impact on the department's total road construction program; and

(3) geographic distribution of spending and compliance with the spending goal in paragraph (c).

Sec. 4. [GREATER MINNESOTA TRANSIT.]

The commissioner of transportation may spend up to \$5,000,000 through June 30, 2008, in federal transit funds for capital assistance to public transit systems under Minnesota Statutes, section 174.24. This amount is in addition to any appropriations made by law for this purpose.

Sec. 5. [REPORT.]

The commissioner shall report by January 15 of each year through 2007 to the chairs of the legislative committees with jurisdiction over transportation policy and finance on (1) how the department is spending the appropriations in this article for trunk highway improvements, and (2) the department's plans to implement trunk highway improvements funded under this article with current department staffing, and an analysis of the need for additional staffing and consultant services.

Sec. 6. [EFFECTIVE DATE.]

Sections 1 to 4 are effective the day following final enactment.

Article 3 above establishes the 2003 Transportation Finance Package which is referred to as the "Bond Accelerated Program."

This report provides the information requested by the legislature on the selection and financing of the transportation projects accelerated under this program, as well as the impact of this program on Mn/DOT's overall construction program, the Trunk Highway Fund, and Mn/DOT staffing and consultant services.

I. Project Selection Process

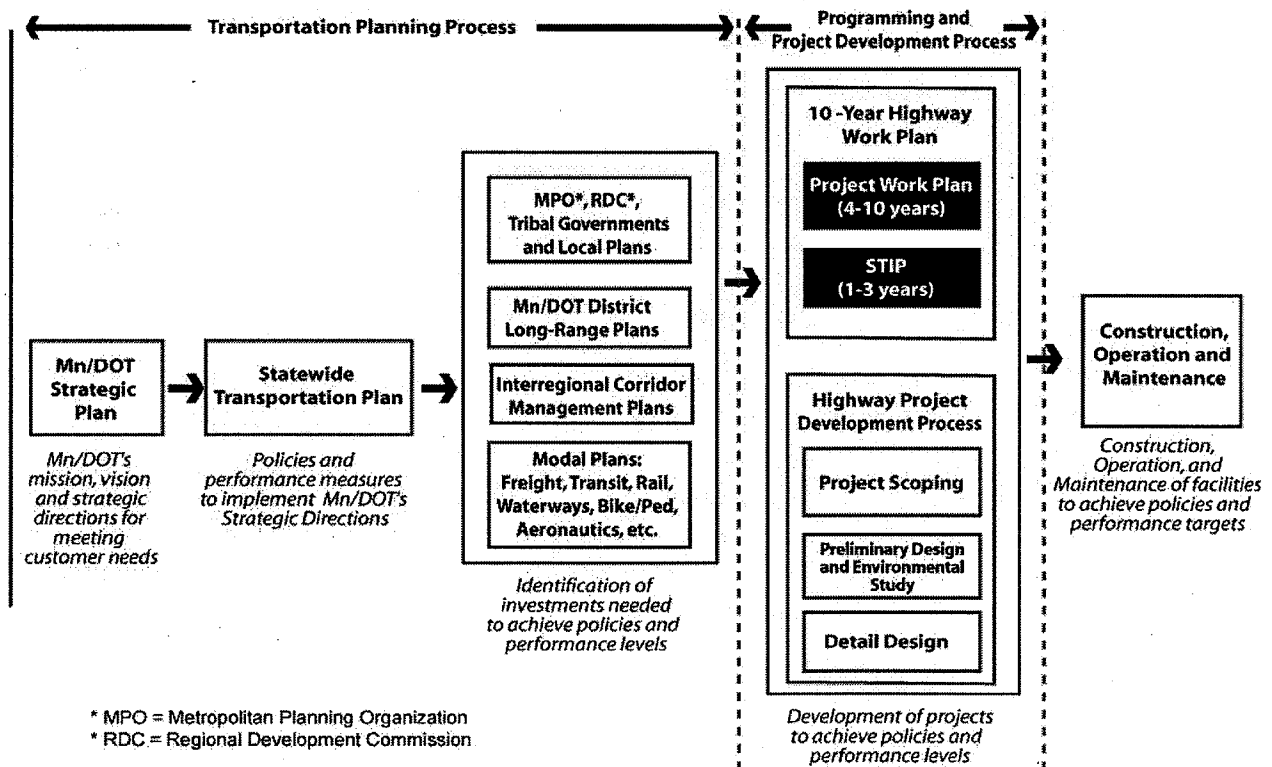
A. Planning and Programming Process

The identification and selection of the highway construction projects for the Bond Accelerated Program began with Mn/DOT's Planning and Programming Process. All of the potential projects identified and selected for this program came from Mn/DOT's 2004-2013 10-Year Highway Work Plan, which is the product of a comprehensive statewide planning process.

Figure 1 illustrates Mn/DOT's Planning, Programming, and Project Development Process.

FIGURE 1

Mn/DOT's Planning, Programming, and Project Development Process



The development of Mn/DOT's 10-Year Highway Work Plan includes a significant amount of public involvement through various forums such as the statewide Area Transportation Partnership (ATP) process.

B. Bond Accelerated Project Identification Criteria

Each of Mn/DOT's eight Districts were asked to identify potential highway construction projects that met the following criteria:

- Projects within the 2004-2013 10-Year Highway Work Plan
- Projects that would provide congestion relief, add capacity, improve safety, and increase mobility through bottleneck removal or interregional corridor improvements
- Multi-year, large scale capital intensive projects
- Projects that were capable of being developed so that they could be advanced within the SFY 2004-2007 timeframe

The list of proposed highway construction projects submitted by the Mn/DOT Districts in response to this request totaled over \$2.6 billion. This list of proposed projects (dated March 25, 2003) was submitted to legislative leaders, the House Transportation Finance Committee, and the Senate Transportation Finance Committee during the 2003 Legislative Session. This list was also provided and discussed at the November 5, 2003 Senate Transportation Policy & Budget Division hearing on the Bond Accelerated Program.

C. Project Analysis Considerations

Mn/DOT's Office of Investment Management (OIM) then analyzed the list of proposed highway construction projects submitted by the Districts against the following technical considerations:

1. Project Development Considerations

OIM reviewed the development status of the proposed projects with Mn/DOT's Districts and expert offices to verify that the projects' proposed accelerated schedules could be met. OIM focused on the status of critical project development areas such as environmental studies and clearance, right-of-way acquisition, permits and agreements, utility relocation, and plan development. Each District was also requested to rank the list of projects being requested by their District.

2. Performance Based Considerations

OIM examined the proposed projects against the following key performance based data:

- **Safety** - Data on Trunk Highway High Crash Intersections and Segments was considered (See Appendix: Map 1 - Statewide; and Map 2 - Metro Area).

- **Inter-Regional Corridor (IRC) Travel Time** – Speed performance data on IRC segments was considered (See Appendix: Map 3 – Updated 2014 Forecast; and Map 4 – Updated 2023 Forecast).
- **Inter-Regional Corridors At-Risk for Signal Proliferation** – Data on IRC’s that are at-risk for signal proliferation was considered (See Appendix: Map 5 – 2013 Forecast; and Map 6 – 2023 Forecast)
- **Metropolitan Area Bottleneck Elimination and Three-Lane Continuity on Metro Freeway Ring (I494/I694)**– Data on metropolitan area bottlenecks and I494/I694 freeway ring three-lane continuity in each direction was considered (See Appendix: Map 7 – Major Metro Bottlenecks – Twin Cities; 12/2000)

3. Financial Considerations

OIM also analyzed the proposed projects against the following financing considerations:

- **Project Suitability for Trunk Highway Bonding** – Projects had to have a useful life equal to or greater than a 20-year bond term. Most right-of-way expenses were excluded from this program pursuant to advice from the Minnesota Department of Finance because of concerns that right-of-way payments to owners are often delayed due to legal proceedings, which could put the state at risk for violating federal arbitrage rules.
- **Project Cost** - The total cost of the package of projects could not significantly exceed an \$800 million appropriation level. This appropriation was lower than the \$1-1.2 billion level originally proposed by the Pawlenty-Molnau Administration.
- **Ability to Leverage Federal Funds** – OIM analyzed estimated project start dates, completion dates, and expenditures. As will be explained later in this report, larger projects with longer construction periods increase the benefits that are derived from leveraging federal funds through the use of Federal Advance Construction techniques.

4. Legislative Requirements

Finally, OIM analyzed the proposed projects against the legislation’s geographic distribution criteria and spending allocation goals. The primary legislative requirement that affected the analysis of candidate projects was that spending on the selected projects be, “to the maximum feasible extent,” allocated equally between Mn/DOT’s Metro District and the remainder of the state. Art. 3, § 1, subd. 1(b) and § 3(c).

D. Highway Construction Project Selection

Given the above identification criteria and analysis considerations, Mn/DOT’s OIM developed recommendations while continuing to consult with the District Offices for review and verification of data. Final recommendations were

reviewed with the District Engineers prior to asking for the Commissioner's approval. The final recommended list of projects shown in Figure 2 was then presented to the Commissioner's top management staff. The Commissioner and the Governor subsequently approved, without change, the recommended list of projects.

FIGURE 2

**Bond Accelerated Projects
(\$ Millions)**

DIST	TH	LOCATION	SCHED. YEAR	ADVAN. YEAR	FED ADVANCE CONST.	BONDS	TOTAL CONST.
GREATER MINNESOTA							
1	53	Piedmont Ave to TH 194 in Duluth – Reconst.	2012	2007	\$ 11.8	\$ 2.8	\$ 14.6
2	34	In Park Rapids – Reconst.	2008	2006	6.7	2.7	9.4
3	371	TH 10 to CSAH 48 N of Little Falls – Const 4 Lane Expressway	2006	2005	10.0	20.1	30.1
3	101	Crow River to Mississippi River – Interchanges & Bridges	2013+	2006	20.5	33.1	53.6
3	94	At Monticello – Bridges and Roadway Realignment	2007	2006	8.7	11.3	20.0
4	10	In Detroit Lakes – Reconst.	2007-10	2007	30.7	10.0	40.7
6	52	At Oronoco – Reconstruction	2005-09	2005	8.0	18.0	26.0
7	14	Janesville to Waseca – Const. 4 Lane Expressway	2005-10	2004	31.6	33.3	64.9
8	212	Hennepin CSAH 4 to Carver CR 147 – Const 4 Lane Expressway	2013+	2005	46.7	68.7	115.4
SUBTOTAL					\$174.7	\$200.0	\$374.7
METRO DISTRICT							
M	NA	Metro District State Highways – Transit Advantages	NA	2004-07		36.0	36.0
M	212	Hennepin CSAH 4 to Carver CR 147 – Construct 4 Lane Expressway	2013+	2005	93.1	16.9	110.0
M	694	W to E Jct I35E in Vadnais Hgts – Reconstruct	2008	2005	47.1	71.5	118.6
M	169	Anderson Lk to Highwood Drive in Bloomington – Interchanges & Bridges	2009-13+	2006	73.4	31.9	105.3
M	494	I 394 to TH 212/5 in Eden Prairie/Minnetonka	2011-12	2004	36.6	43.7	80.3
SUBTOTAL					\$250.2	\$200.0	\$450.2
GRAND TOTAL					\$424.9	\$400.0	\$824.9
Key:							
CR	County Road		DIST	District			
CSAH	County State Aid Highway		I	Interstate			
D/B	Design Build		TH	Trunk Highways (state highways)			

Mn/DOT is diligently working to deliver the projects shown in Figure 2. The preliminary project cost estimates shown in Figure 2 were made prior to the original list (dated March 25, 2003) and will likely change as the project development process proceeds. If a project's cost increases over the amount shown in Figure 2, the applicable Mn/DOT District will be responsible for covering the cost increase out of their state road construction budget. If project cost increases create a need to delay a project, Mn/DOT will analyze and determine which project to delay.

It should be noted that cost increases on Bond Accelerated projects are not the only reason projects might be delayed. Projects often have to be delayed because of numerous factors such as unanticipated design changes requiring additional right-of-way acquisition, delays in environmental approvals and permits, unanticipated soil and water conditions, discovery of hazardous material and contamination, discovery of unanticipated archeological or cultural resources, unanticipated utility relocations, delays in obtaining municipal consent, failure of municipalities to tender their share of project funding, delays in legal agreement negotiation and execution, and lawsuits. In addition, cost increases on other projects in the state road construction program may cause project delays. Mn/DOT will continue to manage all of the projects in the program to avoid delays. However, project delays occur every year and will likely continue to occur in the future.

Currently, all of the Bond Accelerated projects are on schedule to be let in or before the calendar years shown in Figure 2.

Additional information about the projects listed in Figure 2 is available online at www.dot.state.mn.us/financing.

In addition to the Bond Accelerated projects listed in Figure 2, the 2003 Transportation Finance Package also provided \$100 million (\$25 million/yr. 2004-2007) from a spend-down of the growth in the Trunk Highway Fund to advance projects that will improve safety and help preserve existing roadways. Seventeen percent of the \$100 million (approximately \$4 million/yr. 2004-2007) will be used for program delivery. The Safety & Preservation projects that are planned to date under this initiative are as follows:

Safety & Preservation Projects

<u>TH</u>	<u>Location</u>	<u>Type of Work</u>	<u>Year Scheduled</u>	<u>Year Advanced</u>	<u>Total Constr. (\$ Millions)</u>
94	TH 120 to McKnight in Maplewood	Add Third Lane	2011	2005	11.0
65	TH 242 in Blaine	New Interchange	2013	2007	12.0
94	Rogers to Weaver Lake Rd.	Install Median Cable Safety Barrier	NA	2004	1.0
10	TH 32 Interchange in Clay County	New Interchange	2008	2006	6.5
35	1 Mi. So. Of TH 19 to Scott County Rd. 2	Overlay and Bridge Replacement	2005	2004	8.0
35	Iowa Border to I-90 in Freeborn County	Overlay	2006	2005	16.0
212	Glencoe To W. Jct. TH 5 in McLeod County	Overlay	2007	2006	<u>9.2</u>
	TOTAL				\$63.7

Additional Safety & Preservation projects will be programmed over the next four years under this initiative. Additional projects will be selected based on the amount of the \$25 million/yr. that remains available. As will be explained later in this report, project selection will also be based on the potential for minimizing the impact the Bond Accelerated Program may have on Mn/DOT's TH Fund Cash.

The 2003 Transportation Finance Package also authorized \$20 million in General Obligation Bonds to provide loans to local governments to help them pay their cost participation shares on the projects listed in Figure 2. Estimates of the demand for these loans are not yet available.

E. Metro Transit Advantage Project Selection

The Bond Accelerated Program legislation requires the commissioner of transportation to "use at least \$36,000,000 of this appropriation for accelerating transit capital improvements on trunk highways such as shoulder bus lanes, bus park-and-ride facilities, and ramp meter-bypass facilities." Art. 3, § 1, Subd. 1(d).

Figure 3 lists the Metro Transit Advantage Projects that were selected to be accelerated under this program.

FIGURE 3

Transit Advantage Projects for Metro District Bonding

TH	LOCATION	TYPE OF FACILITY	BOND COST
36	Rice St. Roseville	Park/Ride Lot	\$ 875,000
55	CR 73 in Plymouth	Park/Ride Lot	2,000,000
61	Lower Afton Road in St. Paul	Park/Ride Lot	150,000
65	In East Bethel	Park/Ride Lot	200,000
494	84 th St/Chalet Rd in W. Bloomington	Park/Ride Lot	1,200,000
494	Penn Ave in Richfield	Park/Ride Lot	300,000
100	Hanson Rd/Vernon Ave in Edina	Park/Ride Lot	300,000
394	CR 73 Ridgedale	Park/Ride Lot	6,000,000
169	NW Corridor at CR 81 & Brooklyn Blvd.	Park/Ride Lot	5,500,000
62	TH 77 to 35W	Bus Shoulders	1,500,000
62	TH 169 to 35W	Bus Shoulders	1,100,000
10	35W to 694	Bus Shoulders	300,000
51	TH 36 to Hewitt Ave	Bus Shoulders	500,000
94	TH 252 to Broadway	Bus Shoulders	450,000
77	TH 62 to I-494	Bus Shoulders	200,000
	SUBTOTAL		\$20,575,000
TIED TO HIGHWAY BOND ACCELERATED PROJECTS			
212	Hennepin Co CSAH 4 to Carver Co CR 147	Bus Only Shoulders, Park/Ride Lots	\$ 5,400,000
494	I 394 to TH 212/5 in Eden Prairie/Minnetonka	Bus Only Shoulders, HOV Ramp Bypasses	\$ 3,500,000
169	Anderson Lake Rd to Highwood Dr in Bloomington	HOV Ramp Meter Bypasses, Bus Only Shoulders	1,000,000
694	West to East Junctions I 35E in Vadnais Heights	HOV Ramp Meter Bypass	400,000
	SUBTOTAL		\$10,300,000
	PROGRAM DELIVERY	All Projects	2,823,700
	ADDITIONAL PROJECTS TO BE DETERMINED		2,301,300
	GRAND TOTAL		\$36,000,000
KEY:			
CR	County Road	CSAH	County State Aid Highway
DIST	District	HOV	High Occupancy Vehicle
I	Interstate	TH	Trunk Highways (state highways)

The park-and-ride lots listed in Figure 3 were selected by the Metropolitan Council's Metro Transit and reviewed by Mn/DOT's Metro District. These park-

and-ride lots were chosen based on anticipated ridership drawn from census data, the availability of land, and the wishes of host cities. Many of the park-and-ride projects were chosen because they would provide capacity to 400 or more vehicles, following Metro Transit's strategy of providing frequent service at bigger lots.

The bus-only shoulder projects were selected by Mn/DOT's Team Transit (a multi-agency review team) from projects that were suggested by local transit providers. Mn/DOT's Team Transit prioritized the potential bus shoulder projects based on need and then compared them to the Mn/DOT construction program to determine if they could be incorporated into a scheduled project. Projects on corridors that might be reconstructed within the bond term were eliminated because their useful life might not be equal to or greater than the bond term.

The location and cost of the projects shown in Figure 3 are subject to change. Project cost changes will determine how much, if any, will be available for additional Metro Transit Advantage Projects. A minimum of \$36 million of the TH Bonds will be used for accelerating transit capital improvements on trunk highways.

F. Greater Minnesota Transit Project Selection

The legislation also states that the "commissioner of transportation may spend up to \$5,000,000 through June 30, 2008, in federal transit funds for capital assistance to public transit systems under Minnesota Statutes, section 174.24. This amount is in addition to any appropriations made by law for this purpose." Art. 3, § 4.

Figure 4 lists the Greater Minnesota Transit Projects that were selected to be accelerated under this program. The funding for these projects will come from approximately one million per year (2004-2008) of Federal Highway Administration (FHWA) funds that will be transferred to the Federal Transit Administration (FTA) for bus purchases.

FIGURE 4

**Federal Capital Assistance for Greater Minnesota
Public Transit Systems FY 2004-2006*
(\$ Millions)**

DIST.	PUBLIC TRANSIT SYSTEM	TYPE OF WORK	YEAR SCHED.	FED. \$	TOTAL COST**
3	Annandale Public Transit	Purchase Bus	2006	\$0.05	\$0.06
3	Isanti/Chisago County Public Transit	Purchase Bus	2005	\$0.05	\$0.06
3	St. Cloud MTC Public Transit	Purchase Bus	2004	\$0.18	\$0.23
3	St. Cloud MTC Public Transit	Purchase Bus	2005	\$0.38	\$0.48
3	St. Cloud MTC Public Transit	Purchase Bus	2006	\$0.18	\$0.23
3	Tri-CAP, Inc. Public Transit (Benton and Stearns Counties)	Purchase Bus	2006	\$0.05	\$0.06
3	Wadena County Public Transit (status pending)	Purchase Bus	2004	\$0.05	\$0.06
4	Clay County Public Transit	Purchase Bus	2006	\$0.05	\$0.06
4	City of Moorhead Public Transit	Purchase Bus	2004	\$0.20	\$0.25
6	City of Rochester Public Transit	Purchase Bus	2004	\$0.20	\$0.25
6	City of Rochester Public Transit	Purchase Bus	2005	\$0.30	\$0.38
6	City of Rochester Public Transit	Purchase Bus	2006	\$0.28	\$0.35
6	SEMCAC Public Transit (Dodge, Fillmore, Houston, Steele and Winona Counties)	Purchase Bus	2006	\$0.28	\$0.35
6	Senior Resources of Freeborn County Public Transit (City of Albert Lea) (status pending)	Purchase Bus	2004	\$0.05	\$0.06
6	Senior Resources of Freeborn County	Purchase Bus	2006	\$0.05	\$0.06
6	Steele County Public Transit	Purchase Bus	2006	\$0.05	\$0.06
6	Three Rivers Community Action, Inc. Public Transit (Goodhue and Wabasha Counties)	Purchase Bus	2004	\$0.05	\$0.06
7	Brown County Public Transit	Purchase Bus	2006	\$0.05	\$0.06
7	City of Mankato Public Transit	Purchase Bus	2004	\$0.20	\$0.25
7	City of Mankato Public Transit	Purchase Bus	2005	\$0.20	\$0.25
7	Rock County Public Transit	Purchase Bus	2006	\$0.05	\$0.06
7	SMOC/Nobles County Public Transit	Purchase Bus	2005	\$0.05	\$0.06
7	Watonwan County Public Transit	Purchase Bus	2006	\$0.05	\$0.06
8	Western Community Action, Inc. Public Transit (Jackson, Lyon and Redwood Counties)	Purchase Bus	2006	\$0.18	\$0.23
			TOTAL	\$3.00	\$3.75

* Project Selection for 2007 & 2008 will be based on future identification of transit needs.

** Difference between the total project cost and the federal funds provided under this program will be the responsibility of the local public transit provider.

The bus purchases shown in Figure 4 were selected by Mn/DOT's Office of Transit from Greater Minnesota Public Transit System Management Plans and 10-Year Capital Plans. The bus purchases listed in Figure 4 met or exceeded the following criteria:

- Demonstrate economic benefit to the system's overall service and/or operational performance
- Have local support to provide funding for at least 20% of the total project cost
- Have direct effect on the system's ability to meet or exceed the state transit performance service guidelines
- Meet Mn/DOT's minimum vehicle replacement guidelines on age, mileage and condition rating

An additional \$1 million of projects in 2007 and \$1 million of projects in 2008 will be selected based on future identification of transit needs. The location and cost of the projects listed in Figure 4 will be subject to minor changes.

II. Compliance with Trunk Highway Bonding Reporting Requirements - Art. 3, § 1, Subd. 2 and § 5 (1 and 2)

A. Geographic Distribution Requirements

The legislation states that in spending the TH Bond and Federal Fund Advance Construction, "the commissioner shall, to the maximum feasible extent, seek to allocate spending equally between the department of transportation metropolitan district and the remainder of the state." Art. 3, § 1, Subd. 1(b) and § 3(c). Spending on the projects shown in Figure 2 is, to the maximum feasible extent, allocated equally, based on benefits, between Mn/DOT's Metro District and Greater Minnesota. The TH Bonds are split equally between the two groups and the Federal Fund Advance Construction is split according to where the most benefit was derived from using TH Bonds to leverage federal funds.

Although the TH 212 project is located within the Mn/DOT Metro District, Mn/DOT's Highway 212 Interregional Corridor Management Plan (2002), Statewide Freight Flows Study (2000), Statewide Interregional Corridor Study (1999), District 8 20-Year Plan, Market Artery Study (1989), and market research all support the conclusion that Mn/DOT District 8 will benefit equally from this project due its importance as a critical farm-to-market corridor. All of the local governments along the TH 212 corridor, as well as District 8's planning documents, have stressed the significance of this project to their communities.

All of the projects listed in Figure 2 are trunk highway improvements that meet the requirements of Art. 3, § 1, Subd. 1(a)(1 and 2).

B. Safety and Capacity Requirements

The legislation also requires that not less than \$25 million of the TH Bonds in the seven-county metropolitan area and not less than \$25 million of the TH Bonds outside the metropolitan area be spent on “highway safety and capacity improvement projects including but not limited to the addition of lanes on trunk highway corridors with known safety problems.” Art. 3, § 1, Subd. 1(a)(2). Virtually all of the TH Bonds, both inside and outside the seven-county metropolitan area, are being spent on highway safety and capacity improvement projects including, but not limited to the addition of lanes on trunk highway corridors with known safety problems.

C. Program Delivery Requirements

The legislation allows the commissioner of transportation to “use up to \$68.5 million of the TH Bond appropriation for program delivery.” Art. 3, § 1, Subd. 1(c).

The legislation also requires that Mn/DOT report on “the department’s plans to implement trunk highway improvements funded under this article with current department staffing, and an analysis of the need for additional staffing and consultant services.” Art. 3, § 5(2).

Figure 5 shows the estimated program delivery expenditures by Mn/DOT’s Districts and expert offices.

Figure 5 also shows the estimated amounts that will be expended on internal department staff and on consultants to deliver this program. Mn/DOT does not plan to hire any additional permanent staff to deliver this program. However, some temporary unclassified employees will likely be hired to assist in delivering this program. In all other instances, Mn/DOT will use consultants for program delivery where it lacks sufficient staff or expertise.

FIGURE 5

**Mn/DOT District and Expert Office
Program Delivery for Bond Accelerated Program
(\$ Millions)**

	Program Delivery			
	Preliminary Engineering/Design		Construction Engineering/Management	
	Internal	Consultant	Internal	Consultant
Districts	\$23.2	\$12.6	\$23.2	\$36.7
Expert Offices	\$10.2	\$ 3.2	\$ 2.9	\$ 0.7
Total	\$33.4	\$15.8	\$26.1	\$37.4
Total Program Delivery Need			\$112.7	
Less: Federally Funded Consultant Work			<u>-45.2</u>	
Trunk Highway (TH) Bond Program Delivery			\$ 67.5	
TH Bonds Available for Program Delivery			<u>\$ 68.5</u>	
Difference			+\$ 1.0	

D. Transit Requirements

As previously indicated, the legislation requires that at least \$36 million of the TH Bond appropriation be used “for accelerating transit capital improvements on trunk highways such as shoulder bus lanes, bus park-and-ride facilities, and ramp meter-bypass facilities.” Art. 3, § 1, Subd. 1(d). Figure 3 shows that \$36 million of the TH Bond proceeds will be spent on park-and-ride lots and bus shoulders in the metropolitan area.

Also as previously indicated, the legislation allows the commissioner to spend up to \$5 million through June 30, 2008, in federal funds for capital assistance to Greater Minnesota public transit systems. Art. 3, § 4. Figure 4 shows the Greater Minnesota transit capital projects that will be commenced under this program.

III. Compliance with Federal Advance Construction Reporting Requirements - Art. 3, § 3(d) and § 5(1)

A. Federal Funding and Advance Construction (AC) Background

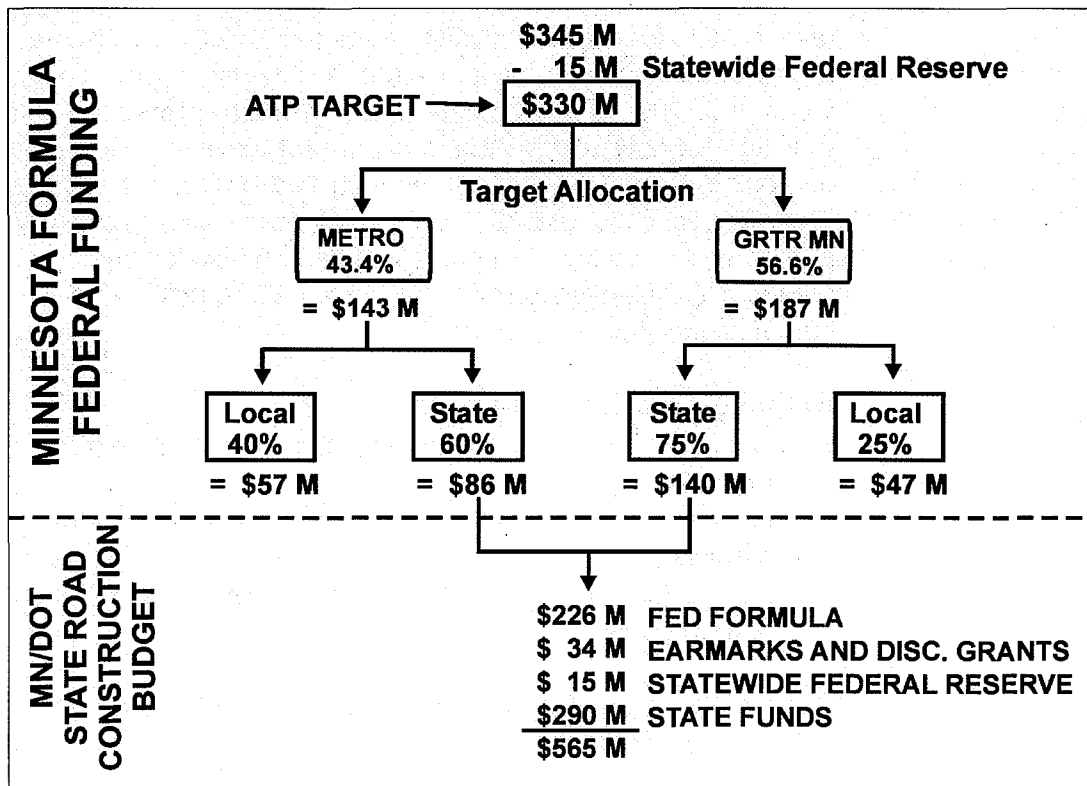
1. Federal Funding

The amount of federal funds Minnesota is appropriated each year for highways is determined by federal formulas, Congressional earmarking, and discretionary grants from the Federal Highway Administration (FHWA).

Figure 6 shows an example of how Federal Formula Highway Funds are distributed within the State and specifically to Mn/DOT's State Road Construction Budget within a state fiscal year. Typical local and state shares are shown as a result of Area Transportation Partnerships (ATP) project selection process. Congressional earmarks and FHWA discretionary grants are also shown in the State Road Construction Budget section of Figure 6.

FIGURE 6

Example of Typical Fiscal Year Federal Formula Fund Distribution and State Road Construction (SRC) Budget



Not shown in Figure 6 are the federal formula funds that Mn/DOT allocates to its Operating Budget, which amount to approximately \$35 million in a state fiscal year. Also not shown in Figure 6 are the Congressional earmarks and discretionary grants that local governments receive each year.

Before a federal aid highway project is let, FHWA must authorize the amount of federal funds that can be used for that project. Generally, a federal aid highway construction project requires a 20% state funds match.

Another important point is that FHWA provides federal funds for a project on a “reimbursable basis.” This means that the State or local government must first pay a federal aid eligible bill with state or local funds and then request reimbursement from FHWA for that expenditure. FHWA generally reimburses the State or local government within seven days after a request for reimbursement.

On a traditional federal aid highway project, the full amount of federal funds on a project must be committed (i.e. obligated) prior to the time the project is let and awarded. Consequently, those federal funds are no longer available for other projects in that year.

2. Federal Advance Construction (AC)

Federal Advance Construction (AC) is an innovative federal fund management tool authorized and promoted by FHWA. Federal AC allows a state or local government to award a federal aid highway project without committing (i.e. obligating) any of that year’s federal funds. The federal funds do not have to be committed until future years. This allows a state or local government to commit only the federal funds it needs to pay actual project expenditures in each year of the project’s construction. The process of committing only the federal funds that are needed in a year is called “AC Conversion” (or converting AC to federal fund reimbursements).

Federal AC enables Mn/DOT to:

- Better manage its federal funds by not tying up federal funds until they are needed
- Accelerate, expand, and package federal aid projects into larger contracts
- Keep projects on schedule during short-term delays in federal appropriations

Figure 7 shows an example of how AC enables Mn/DOT to better manage its federal funds by not tying up federal funds until they are needed.

FIGURE 7

**AC Example:
Improving Federal Funds Management**

<p>Assume: 1) \$50M of federal funds remaining in current year 2) \$50M project ready to be let in current year (will be built over 2 years \$25M current year and \$25M subsequent year)</p>	
Traditional Project Approach	Federal AC Project Approach
<ul style="list-style-type: none"> - Mn/DOT would have to use the full \$50M federal funds to let the project even though only \$25M is needed in the current year. - No federal funds would be left to let any additional projects in the current year. 	<ul style="list-style-type: none"> - Mn/DOT only has to use \$25M of the current year's federal funds to let the project (\$25M Federal Funds and \$25M AC) - Mn/DOT can use the remaining \$25M of federal funds for other projects that are ready to be let in the current year. - The following year, Mn/DOT must use \$25M of federal funds to convert the AC to federal fund reimbursements.

Figure 8 shows an example of how federal AC can enable Mn/DOT to better package a federal aid project to save money on inflation, economies of scale, and administrative costs.

FIGURE 8

AC Example: Project Packaging

<ul style="list-style-type: none"> • Assume a 3 year project with a total estimated federal cost of approximately \$60M ready to be let in SFY 2003 • Assume only \$20M of federal funds are available in each SFY 2003, and 2004, and 2005 • Traditional Project Approach: Project would have to be let in 3 separate contracts and built as 3 separate projects over 3 years at the increased cost of \$63M because of inflation, smaller economies of scale, and higher administrative costs • AC Project Approach: Project can be let in one contract and built as one project at the lower estimated cost of \$60M 				
Project Approach	SFY 2003	SFY 2004	SFY 2005	Total Project Cost
Traditional Approach (3 separate project contracts built over 3 years)	Encumber \$20M	Encumber \$21M	Encumber \$22M	\$63M
Federal AC Approach (1 project contract built over 3 years)	Encumber \$60M (\$20M Available Federal Funds and \$40M AC)	\$20M of AC Converted to Federal Fund Reimbursements	\$20M of AC Converted to Federal Fund Reimbursements	\$60M

Mn/DOT, along with almost every other state, has been using AC for nearly 25 years. During the past three years, Mn/DOT has been using AC more aggressively to better manage its federal funds and to accelerate, expand, and package projects. Figure 9 shows Mn/DOT's past and projected Federal AC totals for 2001-2009.

FIGURE 9

**MnDOT's Federal AC Totals
(\$ Millions)**

SFY	2001	2002	2003	2004	2005	2006	2007	2008	2009
AC Beginning Balance	120	160	199	523	500	593	685	559	410
New AC Encumbered	200*	231	474**	160	309	316	138	108	64
Subtotal	320	391	673	683	809	909	823	667	474
Less: AC Conversions	-160	-192	-150	-183	-216	-224	-264	-257	-152
Ending Balance	160	199	523	500	593	685	559	410	322
* Includes new AC from SFY 2001 \$90 million Legislative Advisory Committee (LAC) request. ** Includes new AC from SFY 2003 \$296 million LAC request.									

As will be explained later in this report, recent changes in government accounting standards and efforts to make better use of TH Fund Cash have prompted Mn/DOT to consider steps to increase its AC use. Mn/DOT is developing tools that will enable it to effectively analyze and manage increased AC that ensures a maximum amount of federal funds are committed as actual project expenditures occur. The AC projections shown in Figure 9 will be modified if Mn/DOT takes steps to increase its AC use.

B. AC and the Bond Accelerated Program

The Bond Accelerated Program will use approximately \$425 million of AC. Figure 10 shows an example of how Mn/DOT will use AC and TH Bonding to finance a Bond Accelerated project.

FIGURE 10

**Example of Bond Accelerated Project Financing
(\$ Millions)**

SFY	2004	2005	2006	2007	2008
Project Originally Scheduled Cost: \$99M (w/inflation)			\$33	\$33	\$33
Project Accelerated Cost: \$90M	\$30	\$30	\$30		
Project Encumbrance	\$90 (\$45 TH Bonds) (\$45 Federal AC)				
Project Expenditures (Contractor Payments)	\$30 (TH Bonds)	\$30 (\$15 TH Bonds) (\$15 Fed AC Converted to Federal Reimbursements)	\$30 (Fed AC Converted to Federal Reimbursements)		

Figure 10 demonstrates how the TH Bonds are used to leverage federal funds. TH Bonds are used up front to cover project expenditures and federal funds are used later in the project, closer to the years they were originally scheduled.

An important point to remember when using AC to accelerate projects, is that it will create peaks and valleys in the state road construction program. The years in which projects have been accelerated will have higher amounts of project lettings. The years from which the projects were accelerated will have lower amounts of lettings because federal funds will be needed for AC Conversions on the projects that were accelerated.

Figure 11 shows the Bond Accelerated Program's estimated use of AC and TH Bonds for project encumbrances and actual project expenditures over the life of the program.

FIGURE 11

**Estimated Bond Project Encumbrances & Expenditures
(\$ Millions)**

SFY	2004	2005	2006	2007	2008	2009	2010	Total
Project Estimated ENCUMBRANCES:								
TH Bond	106	187	78	29	0	0	0	400
Fed AC	74	210	93	46	2	0	0	425
Total	180	397	171	75	2	0	0	825
Project Estimated EXPENDITURES:								
TH Bond	26	96	153	118	7	0	0	400
Fed AC	4	55	115	131	100	17	3	425
Total	30	151	268	249	107	17	3	825

Figure 11 provides information in compliance with Art. 3, § 5(1). The amounts shown in Figure 11 will be subject to change as the program proceeds.

The \$425 million of Federal AC will be managed to minimize any adverse impact on Mn/DOT's TH Fund Cash. To achieve this, AC must be converted to federal reimbursements as AC project expenditures occur.

In order to have the necessary federal funds available for these conversions, Mn/DOT's first strategy will be to use any increase in federal funding it receives through the Reauthorization of the Transportation Equity Act for the 21st Century (TEA-21).

Because the increase in federal funding through the Reauthorization of TEA-21 may not be sufficient to fully meet the federal fund AC Conversion needs for this program, Mn/DOT's second strategy will be to use the funds originally scheduled for the Bond Accelerated Projects and the Safety & Preservation Projects. The funds that would have been available in the years the accelerated projects were originally scheduled to begin will be used to meet the federal fund AC Conversion needs for this program. For example, District X has a \$75 million project accelerated under this program. The project was originally scheduled to be constructed over three years (i.e. 2007, 2008, and 2009). District X identified \$25 million in each of those years in its 10-Year Highway Plan for this project. Under this program, Mn/DOT will withhold \$25 million in each of those three years from District X and use it to convert AC to federal reimbursements as project expenditures occur.

Using the above two strategies will significantly reduce the likelihood of any adverse impact on TH Fund Cash. However, Sections III C and D will further explain potential impacts and how they will be managed.

Once all of the AC is converted to federal reimbursements for the Bond Accelerated Program, there will be funds left over. These funds will be redistributed to the Districts for additional projects. Although it is still too early to know exactly when federal funds will be available for redistribution, Mn/DOT has increased District targets for planning purposes beginning in 2011.

IV. Impact of AC on the Trunk Highway (TH) Fund Balance and Cash Flow

The legislation requires Mn/DOT to report on the impact of AC on the TH Fund Balance and cash flow. Art. 3, § 3(d)(1).

Projecting the impact of AC on the TH Fund Balance and on TH Fund Cash is very difficult at this time because Congress has not yet passed a 2004 Transportation Appropriation Bill or a TEA-21 Reauthorization Act, both of which were due on October 1, 2003. The 2004 Appropriations bill should be passed within the next two months and the TEA-21 Reauthorization Act should be passed within the next 6-9 months. The passage of these pieces of federal legislation will put Mn/DOT in a much better position to accurately estimate the impact of AC on the TH Fund Balance and Cash.

1. TH Fund Balance

Given new accounting requirements issued by the Governmental Accounting Standards Board in their Statement 33 (GASB 33), Mn/DOT is currently evaluating how it accounts for the impact of AC on the TH Fund Balance. Specifically, GASB 33 provides that on annual financial statements, states can only recognize federal revenue from current federal appropriations. In other words, AC can only be recognized as federal revenue in a fiscal year if it will be converted to federal fund reimbursement in that same fiscal year. As a result, the accounting impact of AC on the TH Fund Balance is very similar to impact of AC on TH Fund Cash.

Under these new accounting requirements, Mn/DOT cannot estimate AC as a revenue in a state fiscal year unless it will be converted to federal funds in the same year. Therefore, the primary impact of AC on the TH Fund Balance occurs when AC is not going to be converted in the same year that it is considered a revenue.

Mn/DOT is currently managing the Bond Accelerated Program and its regular program with the goal of preventing this situation on any current or future AC project. One exception to this goal is the Rochester TH 52 Design/Build (ROC 52) project. The financial plan for ROC 52 was designed knowing that the AC would not be converted in the same year

that it was considered a revenue. The impact of ROC 52 on the TH Fund Balance reduced the balance by \$41million in SFY 2003 and is projected to reduce the balance by \$44 million in 2004 and \$44 million in 2005. However, these reductions are not anticipated to cause negative TH Fund Balances in the future.

There is a possibility that TH Fund Cash could be used to manage a portion of the projected shortfalls shown in Figure 12. If TH Fund Cash is used to manage a portion of the projected federal fund shortfalls shown in Figure 12, the situation occurs where AC is not converted in the same year that it is considered a revenue. However, Mn/DOT will manage its use of TH Fund Cash to balance the shortfalls shown in Figure 12 to avoid future negative TH Fund Balances.

2. TH Fund Cash

Similar to the impact on the TH Fund Balance, the primary impact of AC on TH Fund Cash occurs when AC is not converted to federal fund reimbursements as project expenditures occur. In this situation, TH Fund cash has been used to make project payments, but the TH Fund has not been reimbursed with federal funds within the normal seven-day period.

Mn/DOT is currently managing its program with the goal of preventing this situation on any current or future AC project. However, similar to the TH Fund Balance above, an exception to this goal is the ROC 52 project. The financial plan for ROC 52 was designed knowing that this situation would occur and that the result would decrease the TH Fund Cash over a period of several years. The negative impact of ROC 52 on TH Fund Cash will be the same as it was on the TH Fund Balance (\$41 million in SFY 2003; \$44 million in 2004 and \$44 million in 2005). AC Conversions are projected to reimburse these TH Fund Cash reductions in SFY 2006-2014. These reductions in TH Fund Cash are not projected to affect Mn/DOT's ability to make necessary TH Fund expenditures.

As previously indicated, there is a possibility that TH Fund Cash could be used to manage a portion of the projected shortfalls shown in Figure 12. If TH Fund Cash is used to manage a portion of the projected federal fund shortfalls shown in Figure 12, the resulting cash flow reductions will be monitored to ensure that they will not affect Mn/DOT's ability to make necessary TH Fund expenditures.

D. Estimate of Additional AC Available in Future Years

The legislation also requires Mn/DOT to estimate the amount of additional AC "available for use in future fiscal years and the impact on the department's total road construction program." Art. 3, § 3(d)(2).

Federal policy limits the amount of AC states can use. The total outstanding AC amount that a state can have in any given year cannot exceed the sum of the state's current unobligated balance of federal fund apportionments, plus the amount of federal funds anticipated in the subsequent two years of its approved State Transportation Improvement Program (STIP). *Guidance on Advance Construction of Federal-Aid Projects*, FHWA (May 10, 1996).

Given this policy, the maximum amount of AC that Minnesota could use in a year exceeds \$1 billion. However, it is very unlikely that Minnesota could ever reach this level because of the limited amount of federal funds available for AC Conversion in a year. Mn/DOT's strategy is that estimated annual AC Conversions will not exceed the amount of federal funds that are estimated to be available in that year.

Figure 12 shows the estimated federal funds that will be needed for projects through state fiscal year 2009 and compares those needs to the amount of federal funds estimated to be available. These estimates of federal funds needed for projects and for AC Conversions are from the current STIP and 10-Year Highway Work Plan. When Congress passes the 2004 Appropriations Bill and the TEA-21 Reauthorization Act and as Mn/DOT considers steps to increase its use of AC, these estimates will change.

FIGURE 12

**Comparison of Mn/DOT Federal Fund Needs
to Mn/DOT Federal Funds Available
(\$ Millions)**

	SFY	2004	2005	2006	2007	2008	2009
Projected Federal Fund Needs	Federal Funds for Projects	160	123	152	67	36	72
	Federal Funds for AC Conversions	183	216	224	264	257	152
Total		343	339	376	331	293	224
Projected Federal Funds Available*		332	305	319	295	295	285
Difference between Federal Funds Needed and Available**		(11)	(34)	(57)	(36)	2	61
Projected Additional Federal Funds Available if Repeat Offender and .08 Sanctions are Eliminated*		17	24	32	39	39	38
Adjusted Difference		6	(10)	(25)	3	41	99
* Federal funds forecast is based on proposed U.S. Senate TEA-21 Reauthorization Legislation							

dated October 24, 2003.

** Parenthesis indicate negative numbers (i.e. shortfalls).

The shortfalls shown in Figure 12 will be managed on an annual basis using the following sources and techniques:

- 1) Any funds above the estimated federal revenues from the Reauthorization of TEA 21, Congressional earmarking, and/or FHWA discretionary grants
- 2) Lower than estimated project letting costs
- 3) Higher than estimated local jurisdiction cost participation
- 4) Project slippage
- 5) More Early Let/Late Award (ELLA) projects (ELLA projects are projects let in the spring of a state fiscal year, but not awarded and encumbered until July, which is the start of the next state fiscal year.)
- 6) Federal AC (This is AC that improves the management of federal funds and lowers the projected amount of federal funds that is needed in a state fiscal year, thus lowering projected shortfalls. This is not AC that accelerates additional projects.)
- 7) Establish a Maximum Payment Curve in Design/Build project contracts (A Maximum Payment Curve prescribes the maximum monthly amounts that a contractor can be paid on a Design/Build project.)
- 8) TH Fund Cash
- 9) Delay projects

Regardless of the strategy used to balance the projected SFY 2004-2007 shortfalls, no additional AC is projected to be available for project acceleration until 2008, at the earliest. According to Figure 12 and based on federal funds available for AC Conversions, only a nominal amount of additional AC could be used for project acceleration in SFY 2008. In SFY 2009, approximately \$180 million of additional AC could be used for project acceleration. If the repeat offender and .08 blood alcohol sanctions are eliminated, approximately \$120 million in SFY 2008 and \$140 million in SFY 2009 of additional AC could be used for project acceleration.

The requirement that the Commissioner report on the geographic distribution of the Federal AC (Art. 3, § 3(c) and (d)(3)) was met previously in this report in Figure 2 and Section IIA.

For more information on this Legislative Report, please contact:

Al Schenkelberg, Director
Office of Investment Management
Minnesota Department of Transportation
395 John Ireland Boulevard, MS 440
St. Paul, MN 55155
Phone: (651)296-8478
Email: al.schenkelberg@dot.state.mn.us
Website: www.oim.dot.state.mn.us

APPENDIX

- Map 1: Trunk Highway High Crash Intersections & Segments – Statewide**
- Map 2: Trunk Highway High Crash Intersections & Segments - Metro**
- Map 3: IRC Speed Performance – 2014 Forecast**
- Map 4: IRC Speed Performance – 2023 Forecast**
- Map 5: IRC Signal Proliferation Risk – 2013 Forecast**
- Map 6: IRC Signal Proliferation Risk – 2023 Forecast**
- Map 7: Major Metro Bottlenecks – Twin Cities**

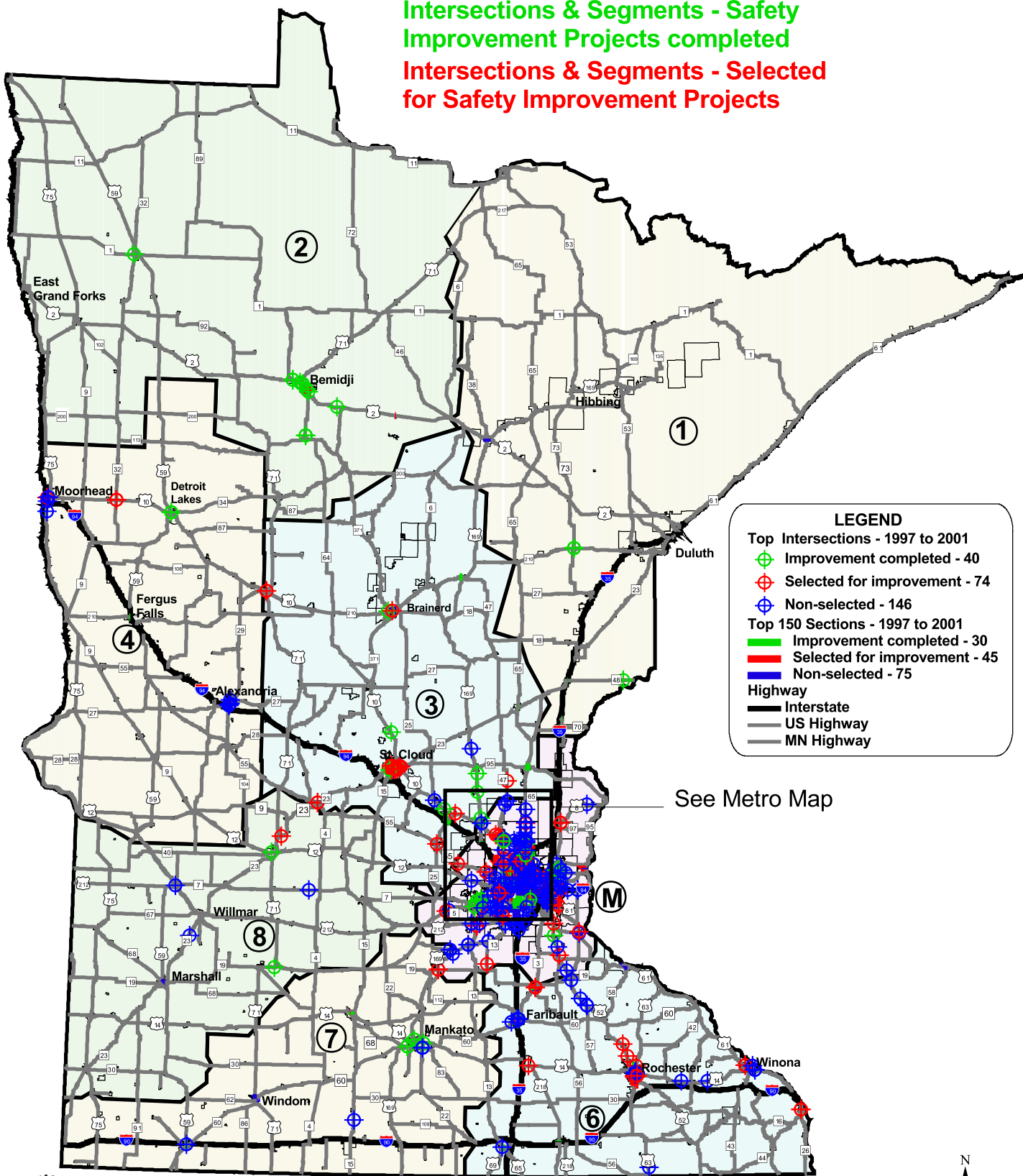
APPENDIX - MAP 1

Trunk Highway High Crash Intersections & Segments

Top Intersections & Top Segments **
1997 - 2001

Intersections & Segments - Safety
Improvement Projects completed

Intersections & Segments - Selected
for Safety Improvement Projects



20 0 20 40 60 80 Miles

** Based on Crash Costs - Source: Mn/DOT Traffic Engineering/ITS



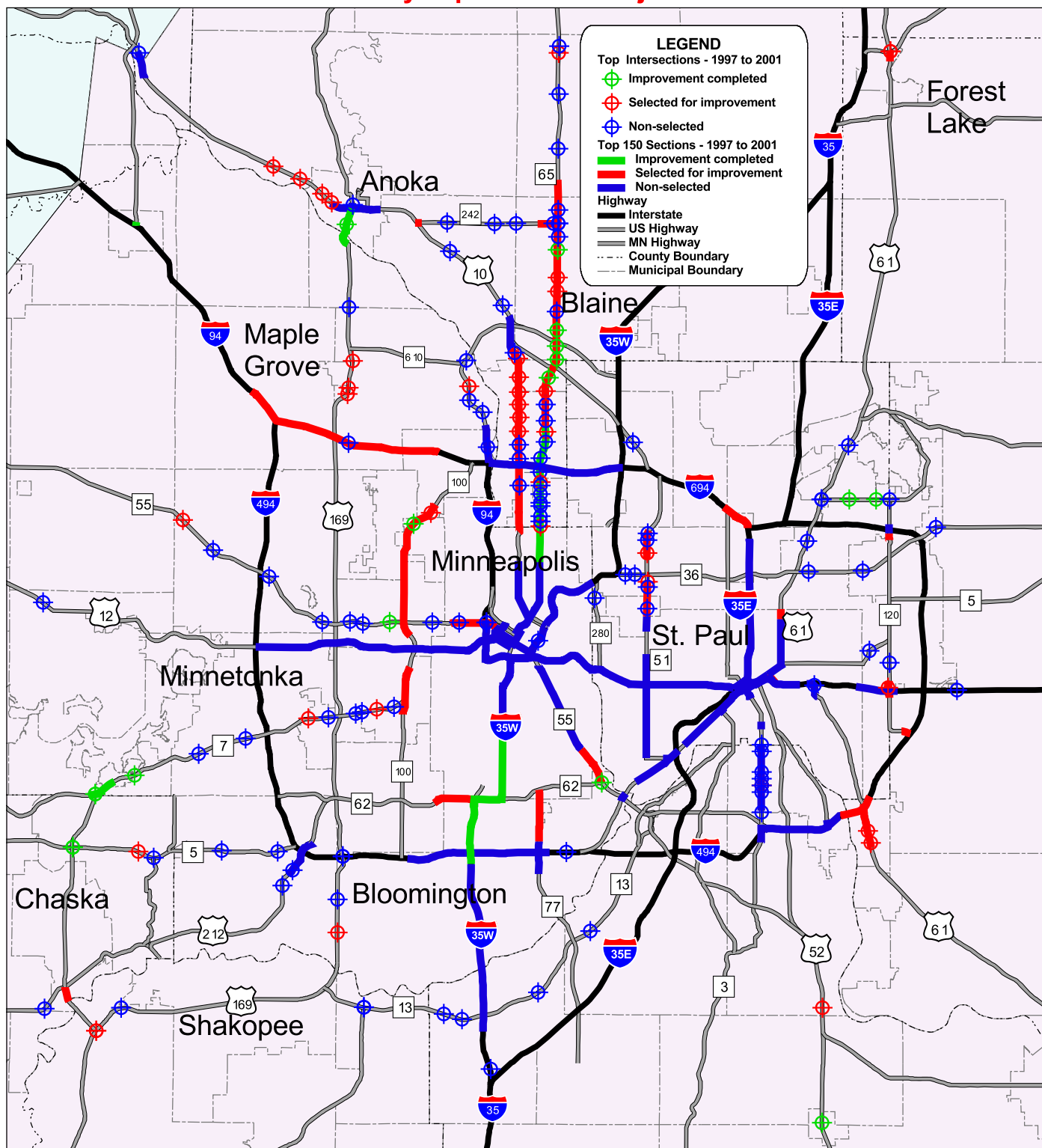
MAP 2

Trunk Highway High Crash Intersections & Segments

Top Intersections & Top Segments - Metro Area **
1997 - 2001

Intersections & Segments - Safety
Improvement Projects completed

Intersections & Segments - Selected
for Safety Improvement Projects



5 0 5 10 Miles

** Based on Crash Costs - Source: Mn/DOT Traffic Engineering/ITS

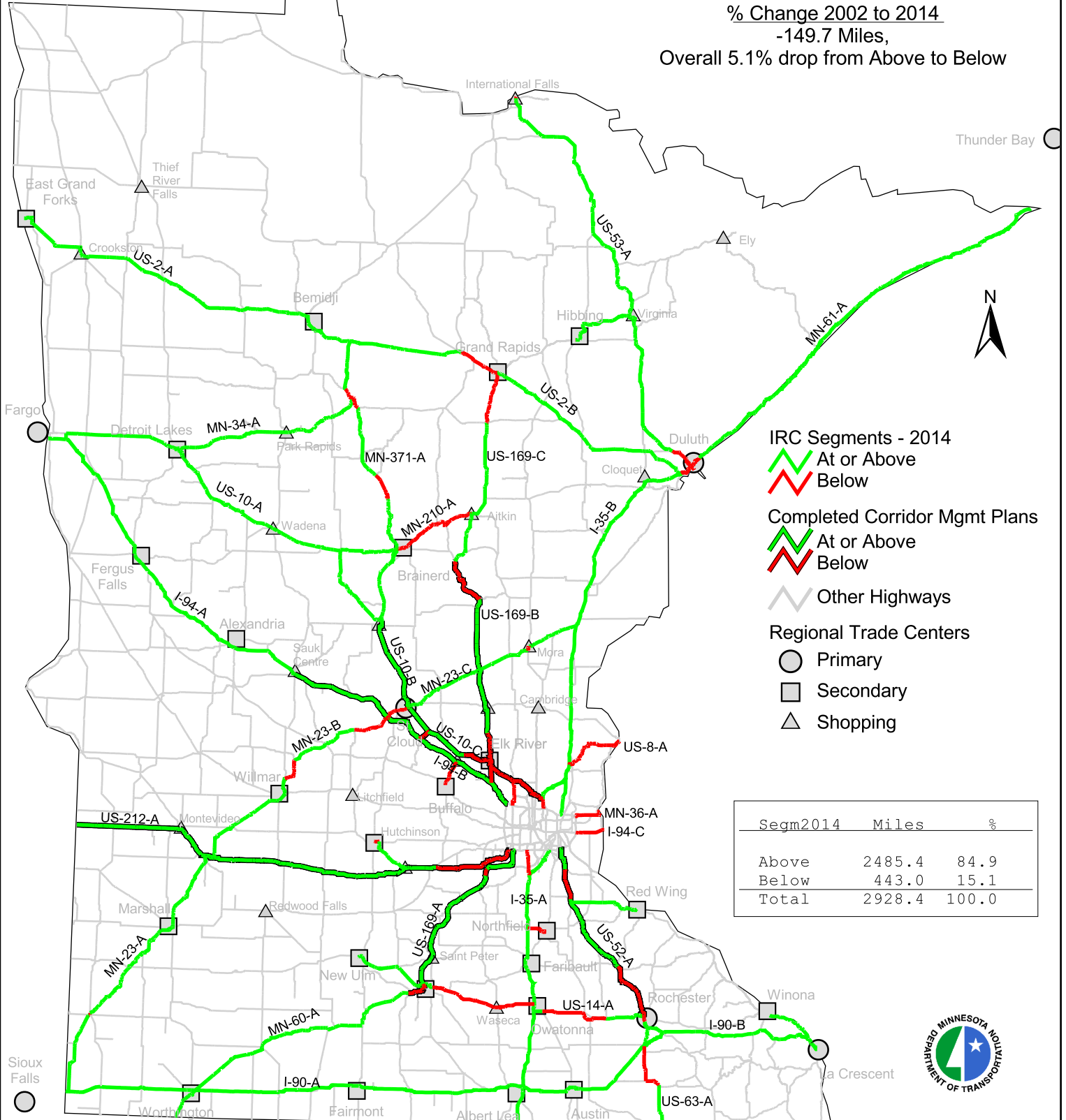


MAP 3

Year 2014 Forecast IRC System Speed Performance by IRC Segment

No Improvements Reflected After 2002

% Change 2002 to 2014
-149.7 Miles,
Overall 5.1% drop from Above to Below



- IRC Segments - 2014**
—▲ At or Above
—▲ Below
- Completed Corridor Mgmt Plans**
—▲ At or Above
—▲ Below
 — Other Highways
- Regional Trade Centers**
 ○ Primary
 □ Secondary
 ▲ Shopping

Segm2014	Miles	%
Above	2485.4	84.9
Below	443.0	15.1
Total	2928.4	100.0

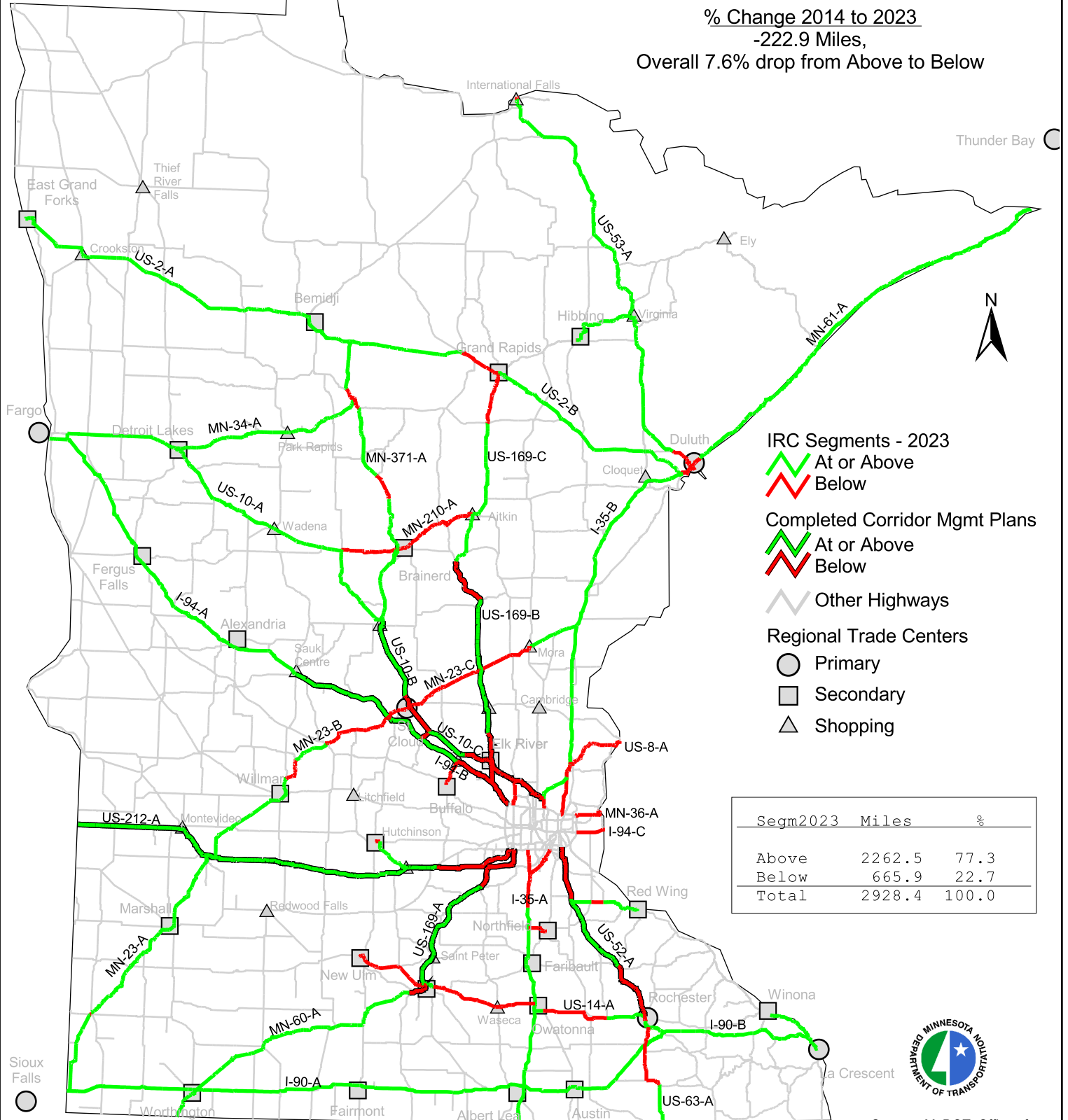


MAP 4

Year 2023 Forecast IRC System Speed Performance by IRC Segment

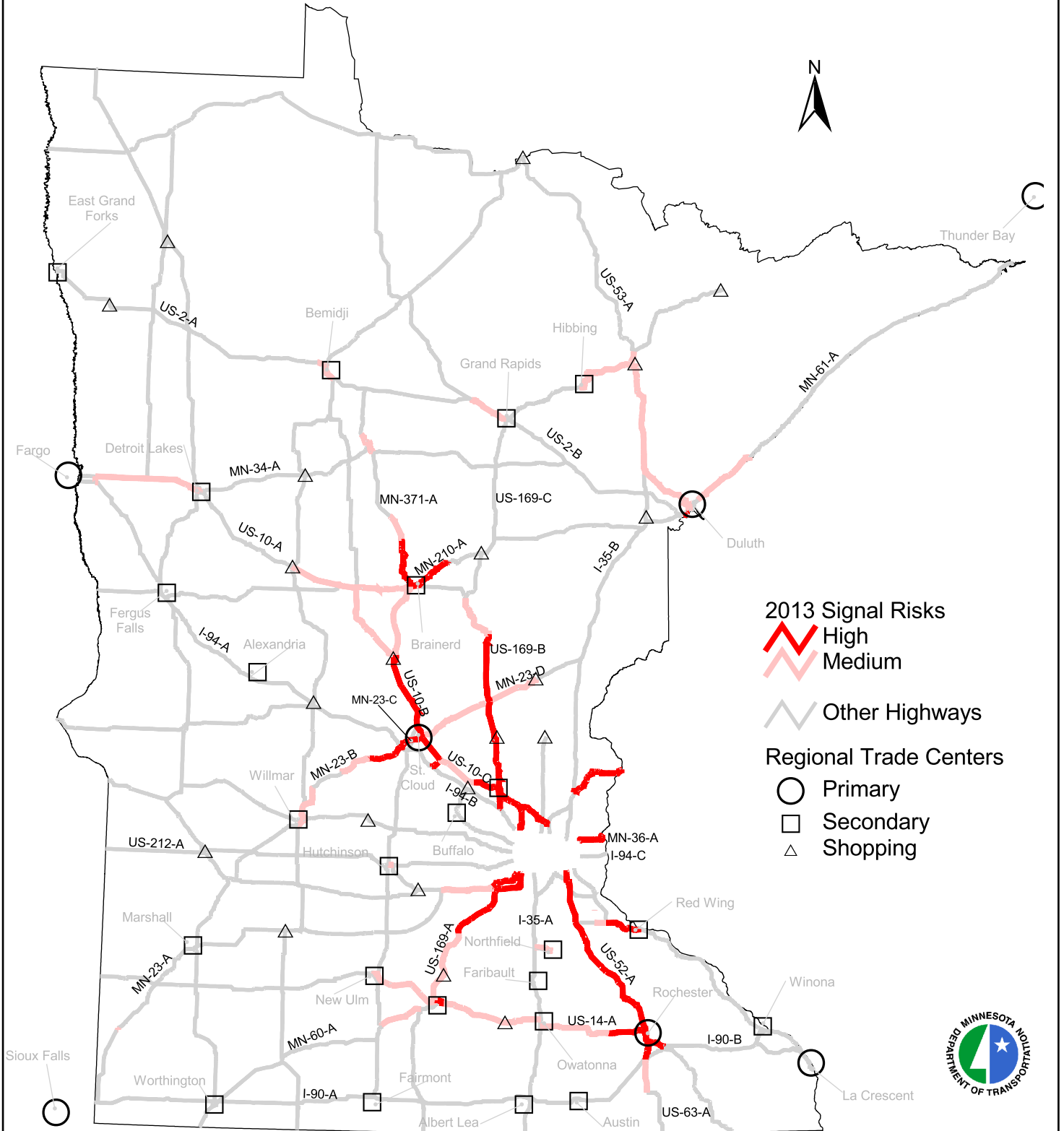
No Improvements Reflected After 2002

% Change 2014 to 2023
-222.9 Miles,
Overall 7.6% drop from Above to Below



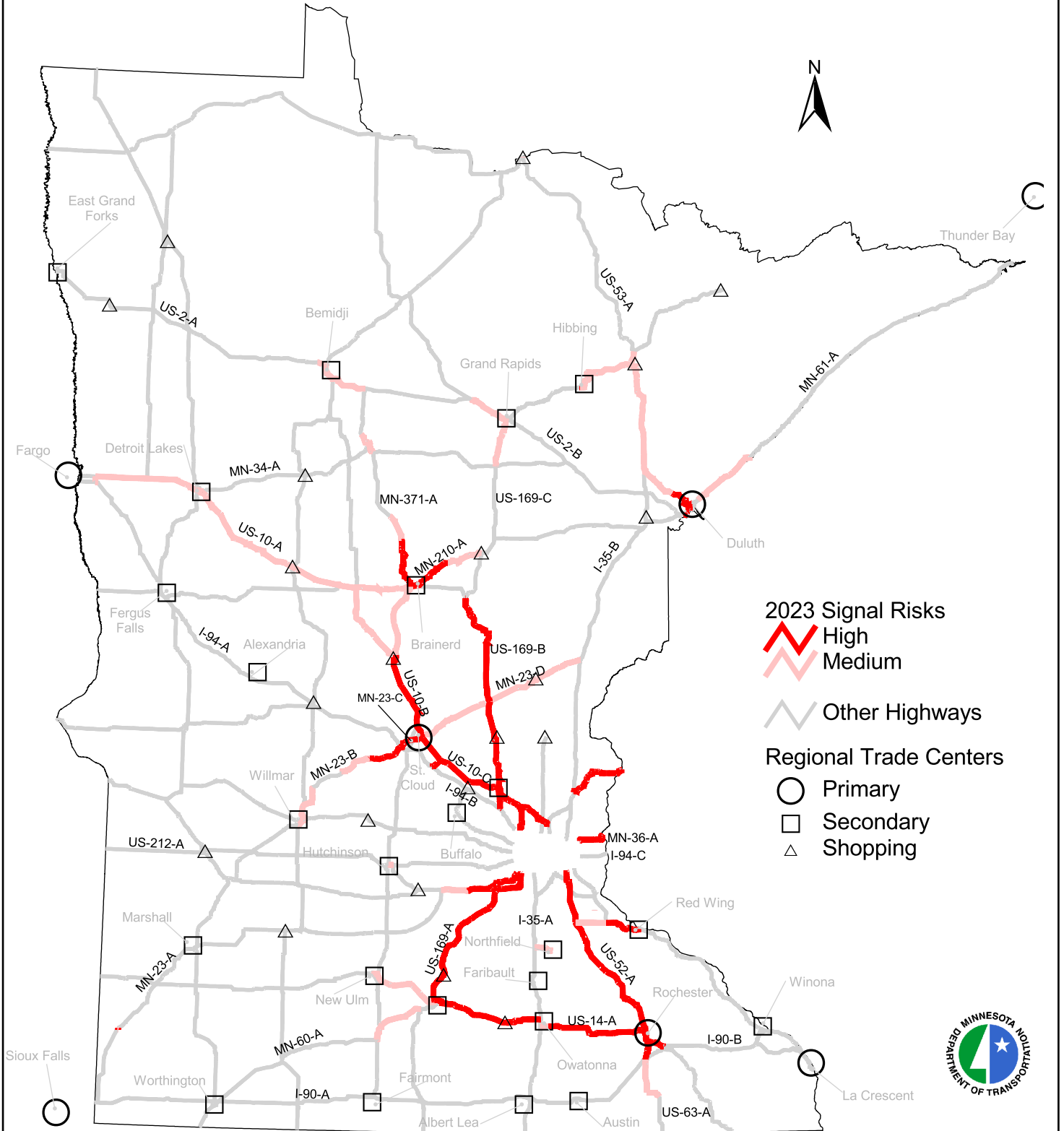
MAP 5

Signal Proliferation Risk Year 2013



MAP 6

Signal Proliferation Risk Year 2023



MAP 7

MAJOR METRO BOTTLENECKS

