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Highway Investment Plan Annual Update

2011-2020

Prepared by the Minnesota Department of Transportation Office of Capital Programs and Performance Measures

February 2011

Your Destination...Our Priority



















February 2011

Dear Citizens of Minnesota,

I am pleased to share with you the annual update to the Minnesota Department of Transportation's 10-year Highway Investment Plan. The update is a recognition and response to projected revenues, construction costs and investment priorities. It draws from the framework established in and updates years 2011-2020 of the Statewide 20-year Highway Investment Plan 2009-2028. The update is available on the department's Web site at <a href="http://www.dot.state.mn.us/reports">http://www.dot.state.mn.us/reports</a>.

Mn/DOT projects that many key performance targets will be met between 2011 and 2020, including repair or replacement of all 120 fracture critical or structurally deficient bridges, continuing declines in total annual road fatalities and optimal speeds on statewide interregional corridors. However, with transportation needs exceeding projected revenue, it may not be possible to meet performance targets for statewide pavement conditions and traffic congestion levels in the Twin Cities Metro area.

As the state's transportation leader, Mn/DOT embraces its responsibility to uphold the vision and policies presented in the 20-year plan. The department is working on innovative approaches to stretch available revenues to address system performance concerns. They include utilizing public-private partnerships, accelerating low-cost/high benefit congestion projects, pursuing context sensitive and flexible design solutions and considering all transportation modes for improving mobility and accessibility in the Metro and in Greater Minnesota.

In addition, Mn/DOT is conducting an intensive visioning process to establish a 50-year vision for transportation in Minnesota, which will form the basis for the next Statewide Multimodal Plan and subsequent modal system and investment plans, including highways. We anticipate that a long-range multimodal vision will help Mn/DOT balance the many purposes and benefits of transportation investments and programs within the context of the broad variety of issues and priorities currently facing the agency.

Mn/DOT will continue to look for opportunities to involve citizens, stakeholders and partners in the implementation of the 10-year Highway Investment plan and future investment and policy decisions. Together, we can realize the shared vision of a safe, efficient and sustainable transportation system.

Sincerely,

Thomas K. Sorel Commissioner

An Equal Opportunity Employer

















### **Executive Summary**

### Highway Investment Plan: Annual Update 2011-2020 February 2011

Each year Mn/DOT updates its 10-year Highway Investment Plan to respond to changes in projected revenues, construction costs, performance trends and any Federal or State Legislative directives. This plan is based on the general investment framework established in the long range Statewide Highway Investment Plan 2009-28 and provides an updated spending outlook in light of these changes.



This report lays out the 10-year capital investment plan update for 2011-2020. It is a summary of the eight individual Mn/DOT District capital investment plans. Years 2011-14 of the plan include highway improvements in the State Transportation Improvement Program (STIP). Projects identified in the STIP are generally considered commitments with well-developed scopes and cost estimates. The programmed year of construction, however, may be adjusted if actual revenues increase or decrease. Investments planned for years 2015-20 are part of the Mid-Range Highway Investment Plan (HIP) and are still in the scoping phase of development. They should be considered preliminary and should not be considered commitments. Cost estimates for improvements planned for years 5-10 are still very preliminary and revenue forecasts are quite uncertain. Investment priorities for those latter years could also change as a result of system performance conditions, Legislative initiatives, or other new Federal transportation programs.

Some of the key changes reflected in this spending plan update include:

- In 2009, the Minnesota State Legislature reduced Mn/DOT's fiscal year 2010/2011 biennial budget by \$150 million due to lagging dedicated state revenues (gas, motor vehicle sales and motor vehicle registration taxes). Beyond 2011 state revenues are expected to begin increasing, but at a slower rate than the previous decade.
- A one-time increase in federal revenue. Congress passed a continuing resolution to appropriate Federal Surface Transportation funds, resulting in a \$71 Million increase in federal formula funds for FY 2011, and was used for increased pavement preservation.
- Overall construction costs in 2010 remained stable for the second consecutive year as lower steel and concrete prices offset somewhat higher costs for bituminous. As the broader economy and fuel prices recover over the next couple of years, construction cost inflation is expected to return to its long-run average (4-5%) by the middle of the decade. Cost estimate for major projects have been updated.

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	2011-20	14 STIP	2015-20	020 HIP	10 Yea	r Total
Strategic Priority Area	\$, millions	Share of Total %	\$, millions	Share of Total %	\$, millions	Share of Total %
Total Preservation	2,134	65%	2,835	72%	4,969	69%
Ch 152 Bridges	790	24%	730	19%	1,520	21%
Preservation - Other Bridge	242	7%	565	14%	806	11%
Preservation - Pavement	954	29%	1,229	31%	2,183	30%
Preservation - Other Infrastructure	148	5%	311	8%	460	6%
Total Safety	267	8%	338	9%	605	8%
Preventive Safety	98	3%	132	3%	230	3%
Safety Capacity	169	5%	207	5%	376	5%
Total Mobility	310	9%	284	7%	594	8%
Mobility - IRC & Gtr MN	25	1%	33	1%	58	1%
Mobility - Metro	285	9%	251	6%	536	7%
Regional Community Improvement Priorities	185	6%	46	1%	232	3%
Right-of-way, Set-asides & Other	382	12%	438	11%	820	11%
Total	3,278	100%	3,942	100%	7,220	100%

Table 1. Highway Investment Plan 2011-2020 - Planned investments for projected revenue (\$ year of construction)

As summarized above, planned investments for 2011- 2020 total \$7.2 Billion. About a third of the expenditures are planned for bridge repair and replacement, including 40 major bridges as part of the Chapter 152 program. Another one-third of the total funding is planned to improve pavements and related roadway infrastructure such as signs, signals, lighting, drainage and improve compliance with the American with Disabilities Act (ADA). The remaining third of the funding is planned for improvements for roadway safety, congestion mitigation, and regional/community priorities. Not yet included in this plan is the additional \$74.5 Million recently awarded for locally requested interchanges and other improvements through the Safety and Mobility (SAM) and Transportation Economic Development (TED) programs.

### **Expected System Performance**

As a result of planned investments in 2011-2020, system performance will be maintained or improved in several key areas:

- All 120 fracture critical or structurally deficient bridges, identified in Minnesota Laws 2008, Chapter 152, will be repaired or replaced by 2018;
- Statewide structural condition performance targets for all bridges will continue to be met;
- Total annual road fatalities, which fell to a 60 year low of 421 in 2009 ,will continue to decline; and
- Interregional Corridors in Greater Minnesota will continue to meet corridor travel targets.

However, with investment needs exceeding projected revenue from established state and federal sources, pavement conditions throughout much of the state will continue to decline, with the miles of roadways in poor condition expected to increase from 990 miles in 2009 to 2,528 miles by 2019. During 2011, the Department will be carefully evaluating innovative construction and financing options to address this concerning trend.

Freeway congestion in the Twin Cities Metropolitan Area is also expected to increase over the next 10 years. To address this trend, Mn/DOT's Metro District, together with the Twin Cities Metropolitan Council, will be implementing their new investment strategy focusing on low-cost/high benefit solutions to mitigate congestion and providing advantages for transit throughout the freeway system. This also includes implementation of the MnPASS System Study recommendations as opportunities are presented.

### **For Additional Information**

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### I. Introduction

### **Purpose**

Each year Mn/DOT updates its 10-year Highway Investment Plan to respond to changes in projected revenues, construction costs and investment priorities. This report draws from the framework established in and updates years 2011-2020 of the Statewide 20-year Highway Investment Plan 2009-2028<sup>1</sup>. Its primary objectives are to:

- Detail the investment of \$7.2 billion in projected revenue in the four strategic priority areas of Traveler Safety, Infrastructure Preservation, Mobility and Regional and Community Improvement Priorities; and
- Update projected performance based on planned investments.

### **Background**

In 2009 Mn/DOT adopted a long-range Statewide Highway Investment Plan for 2009-2028. This plan identified a comprehensive set of system improvement needs and established 20-year investment priorities for projected revenue. The long-range plan is now required by statute to be adopted every four years. Within the framework of this long-range plan, Mn/DOT annually updates its 10-year capital investment plan and program for the state trunk highway system (Figure 1). The update rolls the plan forward one year, and adjusts planned improvements to reflect changes in projected revenue and construction costs, as well as any changes in investment priorities.



Figure 1: Role of Highway Investment Plan Annual Update in Mn/DOT's Planning and Programming Process

This report summarizes the 10-year capital investment plan update for 2011-2020. It is a summary of the eight individual Mn/DOT District capital investment plans. Years 2011-14 of the plan include highway improvements in the State Transportation Improvement Program (STIP). Projects identified in the STIP are generally considered commitments with well-developed scopes and cost estimates. The programmed year of construction, however, may be adjusted if actual revenues increase or decrease. Improvements included in years 2015-20 are part of the six-year Highway Investment Plan (HIP) and are still in the scoping phase of development and

<sup>&</sup>lt;sup>1</sup> Refer to the Minnesota Department of Transportation Statewide 20-year Highway Investment Plan 2009-2028 for more information. Available at www.dot.state.mn.us/planning/program

should not be considered commitments. Cost estimates for improvements planned for years 5-10 are still very preliminary and revenue forecasts are quite uncertain.

This Highway Investment Plan 2011-20 reflects several key changes since last year's plan:

- In 2009, the Minnesota State Legislature reduced Mn/DOT's fiscal year 2010/2011 biennial budget by \$150 million due to lagging dedicated state revenues (gas, motor vehicle sales and motor vehicle registration taxes). Beyond 2011 state revenues are expected to begin increasing, but at a slower rate than the previous decade.
- A one-time increase in federal revenue. Congress passed a continuing resolution to appropriate Federal Surface Transportation funds, resulting in a \$71 Million increase in federal formula funds for FY 2011, and was used for increased pavement preservation.
- Overall construction costs in 2010 remained stable for the second consecutive year as lower steel and concrete prices offset somewhat higher costs for bituminous. As the broader economy and fuel prices recover over the next couple of years, construction cost inflation is expected to return to its long-run average (4-5%) by the middle of the decade. Cost estimates for major projects have been updated.

### **Investment Priorities**

Investment priorities for this annual update of the 10-year highway investment plan are consistent with those established in the Statewide 20-year Highway Investment Plan 2009-2028. At that time, as with this update, investment needs exceeded projected revenue from established state and federal sources. Priorities thus reflect a balanced approach to investments across the four strategic priority areas of Traveler Safety, Infrastructure Preservation, Mobility and Regional and Community Improvement Priorities. Investments aim to achieve a number of highway-related goals and performance targets across several categories within each strategic priority area.

**Traveler Safety**: investments are intended to reduce the number of traffic-related deaths and serious injuries:

- Preventive Safety Projects are proactive, lower-cost strategies applied system-wide to
  highways generally in conjunction with other types of highway projects. These strategies
  represent safety improvements such as edge treatments, cable median barriers, centerline
  rumble strips, intersection enhancements, turn lanes and full standard shoulders that can
  be included in preservation projects or constructed as standalone projects. Also included
  within the Preventive Safety category are federally funded Highway Safety Improvement
  Program projects, intended to reduce fatal and life-changing injuries throughout the state.
- Safety Capacity Improvements are higher-cost strategies most often initiated as standalone projects on high volume corridors (e.g., adding turn, passing or travel lanes) or intersections (e.g., changing geometrics or control, constructing grade separation or constructing an interchange). In addition, the legislatively mandated TH 60 expansion project in District 7 was categorized in the spending plan to be a safety capacity project.

**Infrastructure Preservation**: investments are intended to ensure the structural integrity of the highway transportation system:

- The Chapter 152 Bridge Program includes rehabilitation or replacement of 120 structurally deficient and fracture critical bridges statewide as outlined in Minnesota Laws 2008, Chapter 152. Structurally deficient bridges meet a specific condition rating for the bridge deck, superstructure and substructure or culvert. Fracture critical bridges are those with a steel superstructure whose members are arranged in a manner in which if one fails, the bridge would collapse. Note that the classification of structurally deficient or fracture critical does not mean the bridge is inherently unsafe. Cost estimates for rehabilitation or replacement reflect careful review of all 120 bridges.
- Other Bridge projects include rehabilitation or replacement of bridges not included in the Chapter 152 Bridge Program. Investments include bridge and large culvert replacement, redecking, deck overlay and preventive maintenance (e.g., painting).
- *Pavement* work includes preventive maintenance, rehabilitation and replacement. Investments include crack sealing, pavement mill and overlay and full reconstruction.
- Other Infrastructure investments include cost-effective replacement of signs, lighting, traffic signals, intelligent transportation systems, safety rest areas and drainage infrastructure. Investment needs for signs, lighting and traffic signals are based on the life-cycle replacement data. It should be noted that the TH 53 alignment relocation in District 1 has been categorized as an Other Infrastructure investment in the spending plan.

**Mobility**: investments are intended to aide travelers in reaching destinations in a timely manner:

- Interregional Corridor investments enhance mobility on key highways that link Greater Minnesota regional trade centers and that are performing below travel speed targets. Projects include roadway expansion, signal retiming, signal elimination, alignment modifications and access management changes.
- Greater Minnesota Trade Center investments preserve mobility within these centers linked by Interregional Corridors. Projects include signal retiming, intersection modification, lane extensions, access management changes and interchange conversion or expansion.
- Twin Cities Mobility investments help manage congestion through strategic safety capacity improvements in highway and transit as well as broad reaching innovative solutions such as peak-hour demand traffic management and implementation of MnPASS voluntary toll lanes.

**Regional and Community Improvement Priorities (RCIPs)**: represent system improvements identified by Mn/DOT Districts and regional or local communities and business groups as desirable and supportive of business or community development.

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### II. Statewide Summary of Planned Investments

### 2011-2020 Total: \$7.2 billion

Approximately \$7.2 billion is available for investment from 2011-2020 (Figure 2).

- **Infrastructure Preservation** investments in pavement, bridge and other infrastructure total \$4,969 million (69% of total investment);
- **Traveler Safety** investments related to roadway enhancements and capacity improvements total \$605 million (8%);
- **Mobility** investments in the Twin Cities, in Greater Minnesota Trade Centers and on IRCs total \$594 million (8%);
- RCIPs total \$232 million (3%); and
- **Right-of-way (ROW), set-asides and other expenditures** total \$820 million (11%).

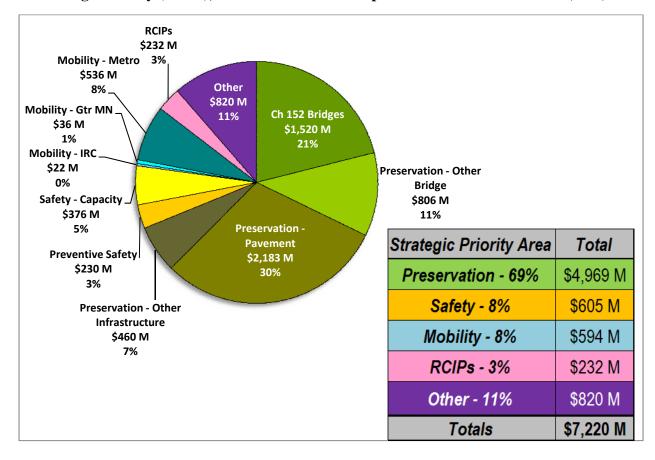


Figure 2: 2011-2020 Total planned investments for projected revenue (\$ year of construction)

### 2011-2014 STIP: \$3.3 billion

Approximately \$3.3 billion is available for investment in the 2011-2014 State Transportation Improvement Program (STIP) (Figure 3). Balance among the four strategic investment priority areas is similar in most investment categories compared to the 2010-2013 STIP, with investment in RCIPs and Traveler Safety declining, and Bridge Preservation investment increasing. Mn/DOT also invests several million annually on statewide projects not generally assigned to individual districts. An additional \$10 million is available in the 2010-2013 STIP to make transportation systems compliant with the Americans with Disabilities Act (ADA). A breakdown is as follows:

- **Infrastructure Preservation** investments in pavement, bridge and other infrastructure total \$2,134 million (65% of total investment);
- **Traveler Safety** investments related to roadway enhancements and capacity improvements total \$267 million (8%);
- **Mobility** investments in the Twin Cities, in Greater Minnesota Trade Centers and on IRCs total \$310 million (9%);
- RCIPs total \$185 million (6%); and
- **Right-of-way (ROW), set-asides and other expenditures** total \$382 million (12%).

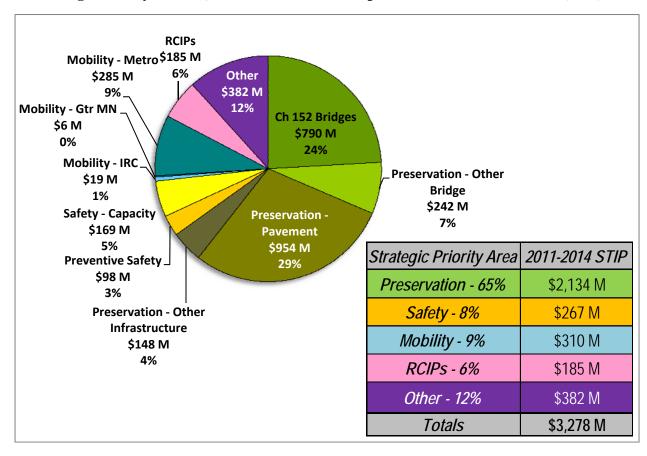


Figure 3: 2011-2014 STIP planned investments for projected revenue (\$ year of construction)

Annual 2011-2014 STIP investments are in Figure 4. Year 2011 & 2012 investments approach \$1 billion; these larger totals relative to later STIP years can be attributed to increased Twin Cities Metro Mobility investment and higher available Chapter 152 bonds. Annual differences in years 2013-2014 are due mainly to fluctuations in bonds available for Chapter 152 bridges.

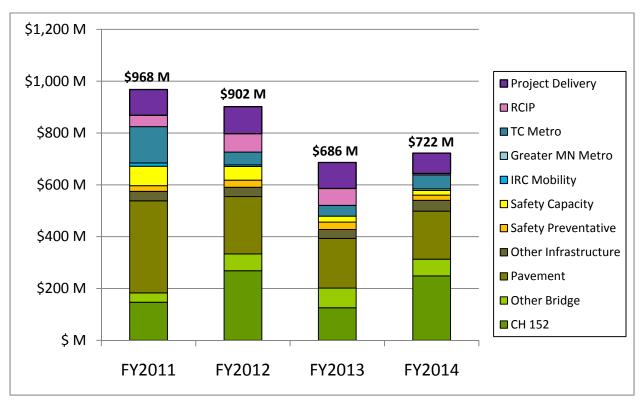


Figure 4: Annual 2011-2014 STIP planned investments for projected revenue (\$ year of construction)

### Additional Investments not yet included in STIP

The 2010 Minnesota Legislature authorized \$70 million in trunk highway bonds specifically for interchanges (Chapter 388) that promote economic development, increase employment, relieve traffic congestion, and promote safety. Mn/DOT chose to distribute these funds through two programs.

• The Safety and Mobility (SaM) Interchange Program (\$44.5 million) supports interchange projects that reduce fatal and critical injury-related crashes and assists in relieving growing traffic congestion. The grants awarded under this program are for the following interchanges:

Route	Intersecting	County	Community	Ch. 388 Interchange	Total Cost
Noute	Rt.	County	Community	Bonds	Estimate
Highway 10	Highway 2	Benton	Rice	\$14.5 million	\$32.16 million
Highway 169	Highway 69	Scott	Shakopee	\$12.2 million	\$20.33 million
Highway 101	Highway 144	Hennepin	Rogers	\$9.2 million	\$22 million
Highway 52	Highway 24	Goodhue	Cannon Falls	\$8.6 million	\$28.16 million

Table 2. Safety and Mobility (SaM) Interchange Program Grant Awards

• The Transportation Economic Development (TED) Pilot Program (\$25.5 million in Chapter 388 interchange bonds, \$5 million in uncommitted trunk highway bonds) is funding projects that improve the statewide transportation network while promoting economic growth through the expansion of a new business or development of an existing business. The grants awarded under this program with Mn/DOT funds are listed in the table below. The first five projects listed are non-interchange projects, the last four listed are interchange-related projects.

Community	Project Description	Other TH Bonds	Ch 388 Interchange TH Bonds	Co	DEED entribution		Total Cost Estimate
St. Charles	I-90 & CSAH 74 Industrial Park	\$ 70,000		\$	500,000	\$	2,600,000
Zumbrota	VersaCold/Hwy. 52 & CSAH 68 Reconstruction	\$ 398,225		\$	750,000	\$	2,296,450
Two Harbors	North Shore Manufacturing Hwy 61 Access	\$ 840,000		\$	162,000	\$	1,690,000
Worthington	I-90 & Hwy. 59 expansion for Bus./Ind. Park	\$ 2,800,000		\$	500,000	\$	4,720,000
Marshall	Hwy 68 & Lake Road Industrial Park	\$ 575,000				\$	822,500
Perham	Hwy. 10 & CSAH 34 Interchange		\$ 3,497,480	\$	500,000	\$	6,711,762
St. Cloud	Hwy. 15 & 33rd St. Interchange		\$ 8,400,000			\$ :	12,000,000
Bloomington	I-494 & 34th Avenue Interchange		\$ 4,200,000			\$	6,000,000
Minneapolis	I-35W & 4th St. Interchange	\$ 316,775	\$ 9,041,600			\$ :	13,488,000
TOTAL		\$ 5,000,000	\$25,139,080	\$	2,412,000	\$ !	50,328,712

Table 3. Transportation Economic Development (TED) selected project funding

No projects selected by either program previously had committed funding within the STIP (2011-2014) years; however, through the funding of the interchange programs, all projects will now be let for construction prior to 2014. Each of these projects from both the TED and SaM programs has funds from other sources committed to them as well. Differences in Mn/DOT awards and Total Project Costs reflect leveraged funds from local, private and other partners.

### 2015-2020 HIP: \$3.9 billion

Approximately \$3.9 billion is available for investment in the 2015-2020 Highway Investment Plan (HIP) (Figure 5). Balance among the four strategic investment priority areas is similar compared to the 2014-2019 HIP, with the exception of reduced Chapter 152 Bridge funds and RCIP investment, and an increase in Other Infrastructure and Metro Mobility investment. A breakdown is as follows:

- **Infrastructure Preservation** investments in pavement, bridge and other infrastructure total \$2,835 million (72% of total investment);
- **Traveler Safety** investments related to roadway enhancements and capacity improvements total \$338 million (9%);
- **Mobility** investments in the Twin Cities, in Greater Minnesota Trade Centers and on IRCs total \$284 million (7%); and
- **RCIPs** total \$46 million (1%).

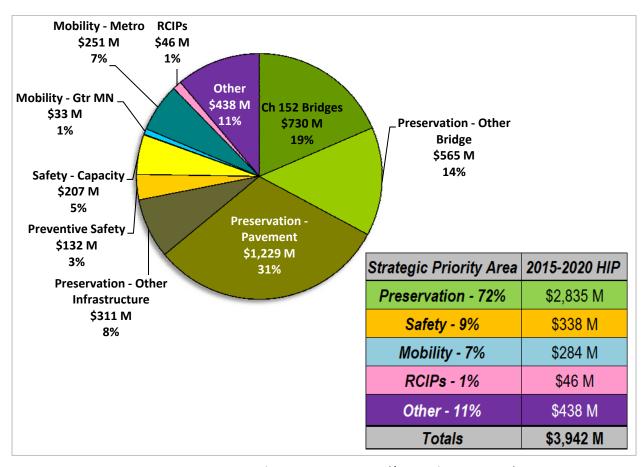


Figure 5: 2015-2020 HIP planned investments for projected revenue (\$ year of construction)

Annual 2015-2020 HIP investments are in Figure 6. Annual differences are due mainly to fluctuations in bonds available for Chapter 152 bridges.

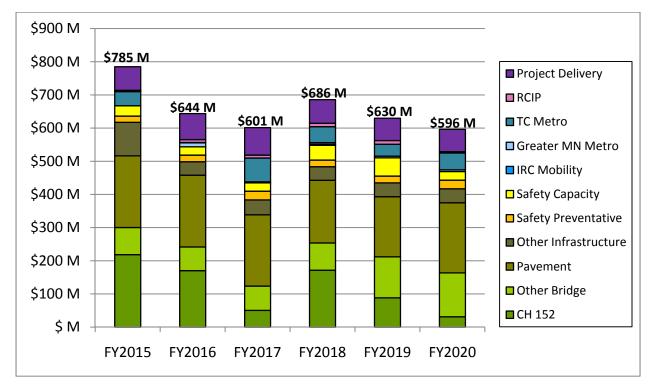


Figure 6: Annual 2015-2020 HIP planned investments for projected revenue (\$ year of construction)

### III. Major Highway Projects

The following pages list anticipated major highway projects in the 2011-2014 STIP and 2015-2020 HIP. The projects are a subset of planned investments in each of these periods.

The list provides projected year of construction, location, a brief description and a cost estimate, and identifies the strategic investment priority area. For this report, a major highway project:

- Has a total project cost estimate (TPCE) of greater than \$25 million in Metro District and \$10 million in Greater Minnesota Districts;
- Has a TPCE inclusive of construction cost, pre-letting and construction engineering, contingency and right-of-way costs, whereas listed cost for statewide and district summaries in the STIP and HIP list only construction costs; and
- May include project costs that will be covered by local partners as well as Mn/DOT.

Projects identified in the STIP (years 2011-14) are generally considered commitments with well-developed scopes and cost estimates. The programmed year of construction, however, may be adjusted if actual revenues increase or decrease. Projects listed in years 2015-20 are part of the six-year Highway Investment Plan (HIP) and are still in the scoping phase of development and should not be considered commitments. Cost estimates for major projects planned for years 5-10 are still preliminary and revenue forecasts are less certain.

Projects under consideration for construction beyond 2020 are not included in the list. Also not included are additional interchange projects selected through solicitation programs in 2010 (See STIP investment, p7). For additional information, please reference the Mn/DOT Annual Report on Major Highway Projects<sup>2</sup>.

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<sup>&</sup>lt;sup>2</sup> Available at www.dot.state.mn.us/planning/program

Projected Year	o					HIP TPCE (Total	
of	State Project No.	TH	Project Location	Investment Category	Project Description	Project Cost	HIP Construction Cost
DISTRICT 1						Estimate)	
2011-2014 ST	TP						
2010	6982-290	I-35	Boundary Avenue to 26th Avenue East	BRIDGE/ PAVEMENT PRESERVATION	Replace 3 bridges, Replace Pavement, remove 2 bridges Near 25th & 37th Ave W, multiple bridge repairs	\$85.2 M	\$66.1 M
2010	3806-60	61	From Split Rock River to Chapins Curve	PREVENTATIVE SAFETY	Reconstruct 3.5 miles of Hwy 61, construct bicycle/pedestrian underpass, construct bridge to replace existing box culvert	\$15.7 M	\$10.8 M
2010	3112-34	65	From N of Nashwauk To Jct TH 1	PAVEMENT PRESERVATION	Pavement Reclamation	\$13.6 M	\$10.5 M
2011	0980-138	I-35	North of Sturgeon Lake to south of Mahtowa	PAVEMENT PRESERVATION	Unbonded Concrete Overlay, Repair 7 Bridges	\$22.3 M	\$17.2 M
2011	5880-177	I-35	North of Hinckley to South of Sandstone (North &South Bound)	PAVEMENT PRESERVATION	Unbonded Concrete Overlay	\$14.1 M	\$11.3 M
2012	5880-173	I-35	Sandstone to Rutledge (North and South Bound)	PAVEMENT PRESERVATION	Unbonded Concrete Overlay, Repair BR 91099	\$29.9 M	\$24.1 M
2012	6904-46	1	0.3 Miles west of Six Mile Rd to Deer Haven Rd	RCIP	Reconstruction of 4 bridges, Repair BR #9405	\$19.0 M	\$14.4 M
2012	6920-48	53	4.5 miles south of Junction Hwy. 1 to south limits of Cook	RCIP	4-Lane Expansion	\$53.6 M	\$42.9 M
2013	0980-139 6982-287	I-35, TH 2	St. Louis River to Boundary Avenue	PAVEMENT PRESERVATION	I-35 - High-performance thin bituminous overlay, drainage repairs, repair multiple bridges TH 2 - mill & overlay (Assoc. 6982-287, 6939-19)	\$16.6 M	\$13.4 M
2014	6937- 69100D	2	Bong Bridge over St.Louis River	BRIDGE PRESERVATION	Bridge Repair	\$14.9 M	\$12.0 M
2015-2020 HI	Р						
2015	6918-80	53	Between Vermilion Drive and 12 <sup>th</sup> Avenue West in Virginia	Other Infrastructure	Relocate Existing 4 lane Highway (Grade, Surface, Bridge)	\$60.0 M	\$50M-\$55M
<b>DISTRICT 2</b>							
2011-2014 ST	IP .		0 11 5 15:		T	T	
2013	4509-05	1	Over the Red River in Oslo	Bridge Replacement	Bridge Replacement	\$18.7M	\$15.7 M
2015-2020 HI	Р			-			
2016	6018-02	2	Over the Red River in East Grand Forks (Kennedy Br.)	Bridge Improvement	Bridge deck and painting	\$11.4M-\$17.4M	\$9.0M - \$15.0M
2018	6015-07	2B	Over the Red River in East Grand Forks (Sorlie Br.)	Bridge Replacement	Bridge Replacement	\$45.9M-\$61.5M	\$29.0M - \$50.6M
2018	3905-09	72	Over the Rainy River in Baudette	Bridge Replacement	Bridge Replacement	\$52.4M-\$70.8M	\$42.0 M

Projected Year of Construction	State Project No.	тн	Project Location	Investment Category	Project Description	HIP TPCE (Total Project Cost Estimate)	HIP Construction Cost
DISTRICT 3						Estimate	
2011-2014 ST							
2011	1810-95	371	From Design Drive in Baxter to Nisswa	Pavement Preservation, Safety Capacity	Mill and overlay, pave shoulders, construct left turn lanes	\$13.3 M	\$10.8 M
Stage 1- 2012 Stage 2- 2018 Stage 3 - After 2020	1810-98 1810-92 1116-23	371	Nisswa to Pine River	SAFETY CAPACITY	Expansion of 16 miles of existing 2-lane to divided 4-lane	\$156.9 M	\$92.0 M
2013	7321-47	15	Stearns County Road 120 in St. Cloud/Sartell	RCIP	Construct new interchange	\$20.3 M	\$14.0 M
2015-2020 HI	P						
2017	7108-23	24	over Mississippi River near Clearwater (Bridge #6557)	Bridge Replacement	Bridge Replacement	\$29.4 M	\$20.0 M
<b>DISTRICT 4</b>							
2011-2014 ST	TP						
2014	0305-31	59	N. Jct of T.H.34 in Detroit Lakes to Callaway	Preservation	2" Permeable Asphalt Stabilized Base & 4" Bituminous Overlay	\$10.4 M	\$8.2 M
2015-2020 HI	P		, ,				
2015	2102-58	29	I-94 /T.H. 29 Interchange in Alexandria	Chapter 152, Safety Capacity	Replacing Bridge#21813 & 21814 over I-94 & 2 to 4 lane expansion 1 mile south of I- 94/TH 29 Interchange	\$19M-\$26M	\$16M-\$20M
2016	1406-66	I-94	I-94/T.H. 75 Interchange in Moorhead	Greater MN Metro Mobility	Interchange Modifications including ramps & auxiliary lanes	\$16M-\$23M	\$13M-\$17M
<b>DISTRICT 6</b>							
2011-2014 ST	TP .						
2011	2505-48	52	S. OF PINE ISLAND	RCIP	Elk Run interchange	\$43.3 M	\$34.3 M
2011	8580-152	90	T.H. 43 TO T.H. 76	PAVEMENT PRESERVATION	Unbonded concrete overlay	\$11.3 M	\$10.3 M
2012	8580-149	90	DRESBACH	CHAPTER 152 BRIDGE PROGRAM	Replace Bridge #9320 over Mississippi River	\$198.1 M	\$166.0 M
2014	7480-113	35	OWATONNA VICINITY	OTHER BRIDGE REPLACEMENT	Auxillary lane on NB & SB I-35, replace 4 bridges, reconstruct 2 mi of NB & SB I-35 Pavement and 6.6 mi of bituminous mill and overlay NB & SB	\$39.8 M	\$34.1 M
2014	8503-46	43	WINONA	CHAPTER 152 BRIDGE PROGRAM	Replace Bridge 5900	\$181.4 M	\$140.0 M
2015-2020 HI	P						
2017	5507-60	52	CHATFIELD TO I-90	PAVEMENT PRESERVATION	12 mi of reconstruction	\$46.0 M	\$30.0 M
2018	2515-21	63	RED WING	CHAPTER 152 BRIDGE PROGRAM	Replace Bridge 9040 along with the roadway approaches	\$182.5 M	\$141.0 M
2018		250	Lanesboro Vicinity	Bridge replacement	Replace Bridge 6975 and 6977	\$11.0 M	\$9.0 M
2019	2506-52	52	CANNON FALLS	SAFETY CAPACITY	Hwy 52/Cannon Falls Interchange Construction	\$52.0 M	\$38.1 M

Projected Year of Construction	State Project No.	тн	Project Location	Investment Category	Project Description	HIP TPCE (Total Project Cost Estimate)	HIP Construction Cost
<b>DISTRICT 7</b>							
2011-2014 ST	IP		T	T	I.	T	1
2010 - 2013	5305-56 5305-58 5305-59	60	Bigelow to Worthington	Safety Capacity	Construct 4-lane expressway, reduce access locations, remove skew, replace union pacific railroad bridge	\$116.9 M	\$52.5 M
2012	0708-35	60/169	FROM CO RD 115 (CRAY CORNER) TO NORTH STAR BRIDGE IN MANKATO	Preservation - Pavement	MILL AND OVERLAY	\$10.2 M	\$7.2 M
2012	0711-26	83	Jct. TH 30 to St. Clair	Preservation - Pavement	RECLAIM & MILL AND OVERLAY (REMOVE GUARDRAIL)	\$12.8 M	\$9.9 M
2013	2207-32	169	Blue Earth from the S. Limits at 14th St. North to JCT CSAH 6	Preservation - Pavement	RECONSTRUCTION, ROUNDABOUT	\$11.4 M	\$7.2 M
Summer 2013 - Fall 2018	1703-69 1703-70 8308-44	60	Windom to St. James	Safety Capacity	Construct 4 lane divided roadway in two-lane gap areas, re-align 3 county roads to lessen skew	\$110.8 M	\$66.9 M
2014	4008-25	99	Bridge over Minnesota River in St. Peter (St. Peter Bridge)	Preservation - Bridge	REPLACE BR #4930	\$44.2M - \$50.8M	\$27.3M - \$32.7M
2015-2020 HI	P						
2012 & 2015	2212-28	109	Winnebago to Wells	Preservation - Pavement	Pavement Reclamation	\$19.7 M	\$14.3 M
2018	0804-81	14	Bridge over the Minnesota River in New Ulm (Minnesota River Bridge)	Preservation - Bridge	REPLACE BR #9200	\$44.1 M - \$51.4M	\$31.3M - \$36.5M
<b>DISTRICT 8</b>			,=:::,=:				
2011-2014 ST	IP						
Spring 2010 to Summer 2012	3408-15	23	Paynesville bypass	IRC Mobility	Construction of 4-lane bypass on new alignment	\$68.9 M	\$44.9 M
2015-2020 HI	P		ı	1	1	1	1
2017	4203-50	23	Cottonwood to Granite Falls	Pavement Preservation	WHITETOPPING (BFD)	\$30.0M-\$40.6M	\$23.1M-\$31.3M

Projected Year of Construction	State Project No.	тн	Project Location	Investment Category	Project Description	HIP TPCE (Total Project Cost Estimate)	HIP Construction Cost
METRO DIS	TRICT						
2011-2014 ST	IP .				,		
2011	2781-415 2781-433 6282-187	194	Lowry Hill Tunnel to John Ireland Boulevard	· ·	Mill and overlay and develop a managed corridor using advanced traffic technology	\$55.0 M	\$50.0 M
2011	2776-03	US 169	Hwy 169/I494 Interchange in Bloomington (Hennepin County)	TC Metro Mobility	INTERCHANGE RECONSTRUCTION	\$170.0 M	\$125.2 M
2011/2012	0282-34 6281-23	I-35E	From south of Ramsey Co CSAH 96 to north junction I-35W	Pavement preservation	Unbonded concrete overlay, drainage corrections, cable median barrier, etc.	\$25.4 M	\$21.2 M
2012	6285-135	I 694	From Lexington Avenue to west of Old Highway 10	Bridge Reconstrcution, TC Metro Mobility	RECONSTRUCT INTERCHANGE INCLUDING GRADING, SURFACING & REPLACING 7 BRIDGES AND REPLACING 2 BRIDGES OVER ISLAND LAKE CHANNEI	\$70.6 M	\$58.8 M
2012	2760	US 169	Interchange at 93rd Avenue North	RCIP	Conversion of intersection to Interchange	\$23.0 M	\$12.0 M
2012-2013	6280-308	135E	194 To Maryland Avenue	CHAPTER 152 BRIDGE PROGRAM	Reconstruct I35E including Cayuga and Maryland Ave bridges. Add MnPASS lane.	\$189.6 M	\$131.5 M
2013	2785-367 2785-364 2785-378	I 494	34th Ave to France Ave	Pavement Preservation, TC Metro Mobility, Safety	MILL & OVERLAY, CONSTRUCT WB AUX LANE FROM PORTLAND AVE TO NICOLLET AVE, MEDIAN BARRIER, AND DRAINAGE. CONSTRUCT WB AUX. LANE 135W TO TH100. REPLACE XERXES AVE. BRIDGE	\$35M-\$45M	\$31.5M-\$40.5M
2014	8214-114	36	St. Croix River Crossing	Bridge Replacement	New Bridge over the St. Croix River, Reconstruct TH 36, new interchange at TH 95	\$355.0 M	\$281.0 M

Projected Year of Construction	State Project No.	ТН	Project Location	Investment Category	Project Description	HIP TPCE (Total Project Cost Estimate)	HIP Construction Cost
METRO DIS	TRICT						
2015-2020 HI	P						
2014-2015	6212-148	36	Hamline Avenue to Victoria Avenue	Bridge Replacement	Replace bridge and reconstruct interchange	\$15M-\$35M	\$20.1M-\$27.1M
2016-2018	2734-33	100	36th Street to 25 1/2 Street	CHAPTER 152 BRIDGE PROGRAM	Freeway and interchange reconstruction, replace 4 bridges, grading surfacing, drainage, utilities, noise and retaining walls. TMC	\$50M-\$100M	
2018		I 35W	At Ramsey County Road E2	Chapter 152 Bridge Program	Replace Bridge and affected interchange components	\$5M - \$20M*	
2018	2782-278	I 35W	I 35 South Bound over Highway 65 North Bound	Chapter 152 Bridge Program	Replace Bridge 27871 and 27868, adjust horizontal and vertical alignment of I 35W and adjust horizontal alignment of Highway 65 southbound	\$61.0 M	\$52.9 M
2018		I 94	I 94 on ramp over I 94 and Highway 65	Chapter 152 Bridge Program	Replace Bridge 27842 and 27843, adjust horizontal and vertical alignment of westbound I 94, vertical alignment of I-94 eastbound and vertical alignment of Highway 65	\$90M - \$110M	
2020	1981-124	I-35W	Minnesota River Bridge	Other Bridge Preservation	Replacement bridge and approach work, drainage,	\$80M-\$130M	\$43M-\$85M

 $<sup>{\</sup>color{red}^{*}} \ Estimate \ reflects \ updated \ scope \ under \ consideration, \ differs \ from \ Major \ Highway \ Projects \ report \ estimate \ of \ same \ project$ 

traffic signals and lighting

### IV. Statewide Projected Performance Outlook

The Highway Investment Plan 2011-2020 is a snapshot in time. Anticipated project timing and projected highway system performance will change as revenues are realized and construction costs are updated. Mn/DOT annually projects the impact of planned investments against system performance targets and adjusts investment priorities as appropriate in the following year's tenyear plan update.

As a result of planned investments in 2011-2020, Mn/DOT projects that many key performance targets will be met:

- All 120 fracture critical or structurally deficient bridges, identified in Minnesota Laws 2008, Chapter 152, will be repaired or replaced by 2018;
- Statewide structural condition performance targets for all bridges will be met;
- Total annual road fatalities, which fell to a 60 year low of 421 in 2009, will continue to
  decline as Towards Zero Death initiatives are implemented, including greater spending
  on proactive roadway design enhancements and new safety legislation enforcement;
- Greater Minnesota Interregional Corridor speed performance targets will be met; and
- Several Regional and Community Improvement Priority projects, including highway shoulder widening, reconstruction and 2-to-4 lane expansion will be completed.

However, with investment needs exceeding projected revenue from established state and federal sources, it will not be possible to meet all statewide performance targets. Mn/DOT projects over the 2011-2020 timeframe, pavement conditions will continue to decline. The number of state highway miles with good pavement condition will decrease and the number of state highway miles with poor pavement condition will increase from 990 miles in 2009 to 2,528 miles by 2019. In addition, freeway congestion in the Twin Cities Metropolitan Area is also expected to increase over the next 10 years. To address this trend, Mn/DOT's Metro District, together with the Twin Cities Metropolitan Council, will be implementing their new investment strategy focusing on low-cost/high benefit solutions to mitigate congestion and providing advantages for transit throughout the freeway system.

The chart on the following page details the statewide projected performance outlook based on planned investments from 2011-2020. It has several components.

- Identification of highway-related performance measures and accompanying targets;
- Actual system performance in years 2009 and 2010, if data is available;
- Projected performance in 2014 based on the investments planned through 2014 and projected performance in 2020 based on investments planned through 2020;

Data Trend: Improved, same, or worsened

**→** ↑ ←

Red: Seriously below target

✓ Yellow: Moderately below target

KEY: Green: At or above target

### Statewide



OF TRANS							
Statewide	:		2009	60	2014	2020	
Plan Policy	Measure	Target	Actual	Score	Projected	Projected Projected	Performance Analysis and Issues
Traveler Safety	Minnesota Traffic Fatalities - All State and Local Roads	<400 (2010)	421	4	<b>+</b>	<b>+</b>	Road fatalities have decreased steadily the last 6 years as Toward Zero Death initiatives have been implemented, including greater spending on proactive roadway enhancements and new safety legislation and enforcement. Expanding countermeasures such as safety edges, rumble stripes and J-turns within larger safety capacity projects will further reduce fatal and A-injury crashes.
Bridge	Bridge Condition – Principal Arterials – % Good and Satisfactory	84%	87%	•	<b>%</b> 68	•	Through 2018, conditions should continue to improve due to Chapter 152 Bridge Program, assuming projects are not deferred:
Preservation	Bridge Condition – Principal Arterials – % Poor	2%	4%	<	<b>•</b> 2%	•	Preventive maintenance on good and satisfactory bridges should be continued.
	Pavement – Ride Quality Good - RQI - Principal Arterials, % of miles	%02	64%	<	V ∇ 85%	<b>9</b>	Given planned level of investment: -Overall miles in poor pavement condition predicted to
Pavement	Pavement – Ride Quality Poor - RQI -Principal Arterials, % of miles	2%	%9	•	• %8	12%	Overall miles in poor pavement condition predicted to increase 52% (2015-2020);
Preservation	Pavement – Ride Quality Good- RQI – Non-Principal Arterials, % of miles	%59	22%		<b>•</b> 49%	46%	to be 11.6% by 2014, and 17.6% by 2020;
	Pavement – Ride Quality Poor-RQI – Non-Principal Arterials, % of miles	3%	%6	•	16%	24%	to meet performance targets by 2020.

## Stat

## Actual Performance and Projected Performance Based on the Highway Investment Plan 2011-2020

Red: Seriously below target

✓ Yellow: Moderately below target

Performance Data as of December 8, 2010 **→** ↑ ←

Data Trend: Improved, same, or worsened

	Green: At or above target
	KEY:
itewide	EPARTINE STATE

Statewide	:	ı	2009		2014	2020	
Plan Policy	Measure	Target	Actual S	Score	Projected Projected	Projected	Performance Analysis and Issues
Other Infrastructure Preservation	Under development	Under	Under Development	ent	I	ı	Districts are developing investment programs that work to replace roadside features including signs, signals and drainage issues based on life cycle planning as funding allows. Special attention will be paid to Metro storm tunnel investment.
Statewide Connections	Interregional Corridors - Greater MN - % of Miles Meeting or within 2 mph of Target Speed	%96		- %86	• 86	<b>.</b> 86	IRC performance is expected to continue at similar levels through 2020.
Twin Cities Metro Area Mobility	Twin Cities Urban Freeway System Congestion - % of Miles Below 45 mph in AM or PM Peak	No target			I	1	System congestion miles expected to increase as the economy stabilizes. Crosstown and Wakota project completions and additional traffic management approaches (managed lanes, transit advantages and traveler info) will reduce impact of growth in 2011-2020.
	Clearance Time for Urban Freeway Incidents	35 mins	(2)	(2009)	I	-	Trend continues, expect a slight decrease in clearance times for the next 3 years.
Greater MN Trade Centers Mobility	Congestion in Regional Trade Centers - Number of Principal Arterial Miles with a Volume- to-Capacity Ratio > 0.85	,	No target		I	ı	Miles of significant congestion likely to increase along several corridors in Greater MN Trade Centers due to forecasted growth in traffic volumes
Regional and Community Improvement Priorities	N/A	V	No target		ı	:	Many local priorities will not be addressed by 2020 based on projected available funding and established investment goals.

Note 1: 2014 and 2020 Bridge, Pavement, and Statewide Connection Outlook based on planned STIP+HIP investments modeled by Specialty Office. Remaining Outlook based on forecasts and not fully validated by data.

Highway Investment Plan: Annual Update 2011-2020

### V. Summary of Planned Investments by District

The following three figures summarize the Highway Investment Plan 2011-2020 by Mn/DOT District (Figures 7-9). While Mn/DOT District's follow the same investment priorities, each has a distinct investment plan. Districts face a unique set of investment needs, have different material and labor costs, respond to varying stakeholder needs and must occasionally address legislative priorities. All of these differences influence the priorities in each individual district. Note the statewide total does not precisely match the summation of District investments due to small amounts of revenue in the STIP not yet programmed by District.

### 2011-2020 Total

Strategic Priority Area (\$ M)				Dist	ricts				State
Strategic Friority Area (\$ 10)	1	2	3	4	6	7	8	Metro	State
Traveler Safety	23	9	107	36	71	158	19	183	605
Roadway Enhancements	23	9	32	28	43	21	19	55	230
Capacity Improvements			75	8	28	137		128	376
Infrastructure Preservation	569	361	424	317	792	362	294	1,850	4,969
Bridge - Chapter 152	30	91	15	25	374	77	13	894	1,520
Bridge - Other	91	52	62	31	81	67	16	408	806
Pavement	315	189	306	233	311	180	236	413	2,183
Other Infrastructure	133	29	41	29	26	38	29	135	460
Mobility	3			36			19	536	594
Interregional Corridors							19		19
Greater MN Metro Areas	3			36					39
Twin Cities - Congestion Management								536	536
Regional & Community Improvement Priorities	76	31	31	7	31		4	52	232
Other (ROW, SA, et al.)	61	28	98	35	131	55	31	382	820
Total	732	429	660	431	1,025	574	367	3,003	7,220

Table 4. 2011-2020 Total planned investments for projected revenue by District (\$ year of construction)

### 2011-2014 STIP

Strategic Priority Area (\$ M)				Dist	ricts				State
Strategic Priority Area (\$ W)	1	2	3	4	6	7	8	Metro	State
Traveler Safety	6	3	45	9	20	98	8	78	267
Roadway Enhancements	6	3	12	9	20	7	8	34	98
Capacity Improvements			34			91		44	169
Infrastructure Preservation	214	136	164	148	303	159	121	889	2,134
Bridge - Chapter 152	27	19	15	9	134	49	12	525	790
Bridge - Other	26	22	13	16	22	23		120	242
Pavement	134	85	118	113	137	73	97	197	954
Other Infrastructure	27	10	17	11	9	15	12	47	148
Mobility				6			19	285	310
Interregional Corridors							19		19
Greater MN Metro Areas				6					6
Twin Cities - Congestion Management								285	285
Regional & Community Improvement Priorities	75	12	24	3	31		2	40	185
Other (ROW, SA, et al.)	26	10	44	14	50	25	12	202	382
Total	321	161	276	179	403	282	162	1,493	3,278

Table 5. 2011-2014 STIP planned investments for projected revenue by District (\$ year of construction)

### 2015-2020 HIP

Strategic Priority Area (\$ M)				Dist	ricts				State
Strategic Friority Area (\$ m)	1	2	3	4	6	7	8	Metro	State
Traveler Safety	17	6	61	27	51	60	12	105	338
Roadway Enhancements	17	6	20	20	23	14	12	21	132
Capacity Improvements			41	8	28	46		84	207
Infrastructure Preservation	355	225	260	169	489	202	173	961	2,835
Bridge - Chapter 152	4	72		17	239	29	1	370	730
Bridge - Other	64	30	49	15	58	44	16	288	565
Pavement	181	105	187	120	174	107	139	216	1,229
Other Infrastructure	107	19	24	17	17	23	17	88	311
Mobility	3			30				251	284
Interregional Corridors									
Greater MN Metro Areas	3			30					33
Twin Cities - Congestion Management								251	251
Regional & Community Improvement Priorities	1	19	7	4			2	13	46
Other (ROW, SA, et al.)	35	17	55	21	81	30	18	180	438
Total	411	267	384	252	622	292	205	1,510	3,942

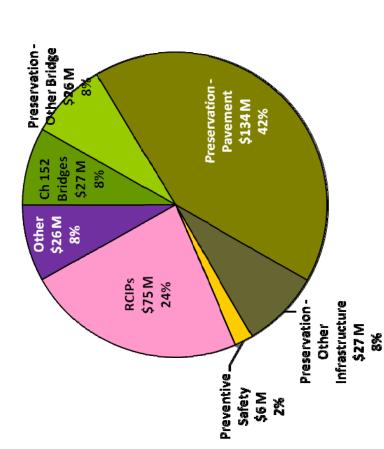
Table 6. 2015-2020 HIP planned investments for projected revenue by District (\$ year of construction)

### VI. <u>Summary of Planned Investments and Projected</u> <u>Performance by District</u>

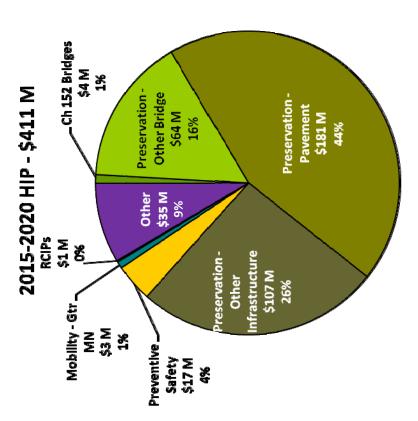
The following charts summarize the Highway Investment Plan 2011-2020 for each of the eight Mn/DOT Districts. The first page details in chart form planned investments in the 2011-2014 STIP and 2015-2020 HIP. Tables following the charts report projected performance based on planned investments.

Mn/DOT reports a number of performance measures at the statewide level only. The second page of each District Summary Chart only identifies actual and projected performance for those measures reported at the district level: bridge and pavement preservation. Metro District charts include Twin Cities Mobility measures in addition to bridge and pavement performance.

2011-2014 STIP - \$321 M



Strategic Priority Area	2011-2014 STIP	%
Infrastructure Preservation	\$214 M	%19
Traveler Safety	M 9\$	2%
Mobility	M \$	%0
RCIPs	W 5/\$	23%
Other	\$26 M	8%



Strategic Priority Area	2015-2020 HIP	%
Infrastructure Preservation	\$355 M	87%
Traveler Safety	\$17 M	4%
Mobility	\$3 M	1%
RCIPs	\$1 M	%0
Other	\$35 M	%6

### District 1

# Actual Performance and Projected Performance Based on the Highway Investment Plan 2011-2020 Performance Data as of December 8, 2010



KEY:

Green: At or above target

✓ Yellow: Moderately below target

Red: Seriously below target

A 🛧 👉 Data Trend: Improved, same, or worsened

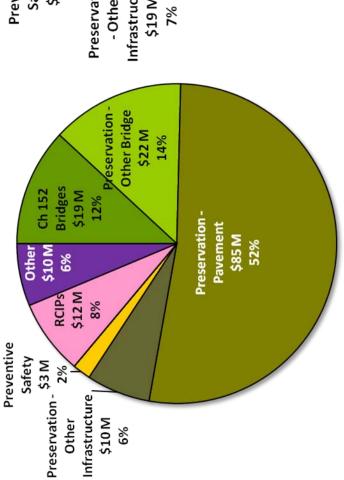
			2009	2014	2020	
Statewide Plan Policy	Measure	Target	Actual	Projected	Projected	Performance Analysis and Issues
	Bridge Condition – Principal			•	1	District 1 is planning to fund their other bridge needs at or above their investment guidance level over the HIP years; Increased investment
Bridge	- % Good and Satisfactory	84%	83.9%	72%		through 2020 will reduce long-range needs;
Preservation	Bridge Condition – Principal		•	•		Low number of brides in Good condition indicates a large number in Satisfactory condition that could drop into the Fair category if not
	Arterials – % Poor	2%	2.6%	2%	<b>!</b>	maintained by 2020
	Pavement - Ride Quality Good		•			
	אסן - אסן - Principal Arterials, % סו miles	%02	26.9%	%09	29%	District focusing almost exclusively on the Principal Arterial system
	Pavement – Ride Quality Poor -					during 2011-2014;
Pavement	אלים -Principal Arterials, % סו miles	2%	9.4%	10%	17%	During 2015-2020, redirecting funds so that a majority is spent on the
Preservation	Pavement – Ride Quality Good-		•	•	•	Non-Principal Arterial system;
	of miles	<b>%</b> 29	52.2%	30%	47%	Decline will be seen, particularly on the Non Principal Arterial system,
	Pavement – Ride Quality Poor-		•	•	•	by 2020.
	of miles	3%	9.4%	32%	36%	

Note 1: 2014 and 2020 Bridge and Pavement Outlook based on planned STIP+HIP investments modeled by Specialty Office

## 2011-2014 STIP - \$161 M

District 2

2015-2020 HIP - \$267 M



Ch 152 Bridges \$72 M 27%	Preservation - Other Bridge \$30 M 11%
S19 M 7% 7%	Preservation - Pavement \$105 M 39%
Safety \$6 M 2% Preservation - Other frastructure \$19 M	

Strategic Priority Area	2011-2014 STIP	%
Infrastructure Preservation	\$136 M	84%
Traveler Safety	\$3 M	2%
Mobility	\$ M	%0
RCIPs	\$12 M	8%
Other	\$10 M	6%

Strategic Priority Area	2015-2020 HIP	%
Infrastructure Preservation	\$225 M	%#8
Traveler Safety	W 9\$	%7
Mobility	W\$	%0
RCIPs	M 61\$	%/
Other	W 21\$	%2

# Performance Data as of December 8, 2010 Actual Performance and Projected Performance Based on the Highway Investment Plan 2011-2020



KEY: O Green: At or above target

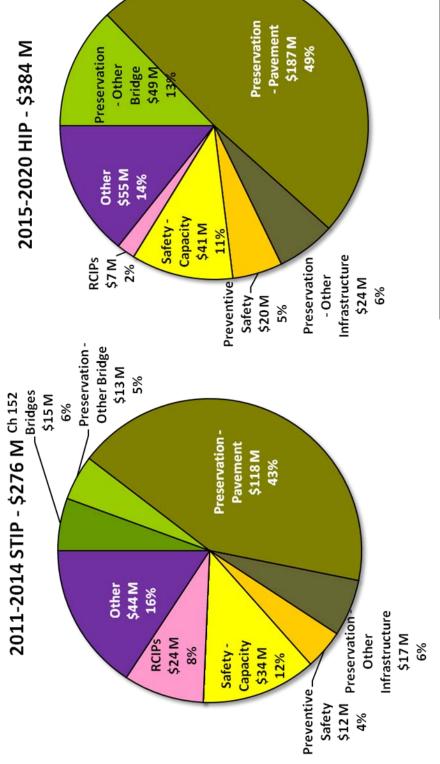
Yellow: Moderately below target

Red: Seriously below target

Data Trend: Improved, same, or worsened

OFTRAM						
			2010	2014	2020	
Statewide Plan Policy	Measure	Target	Actual	Projected	Projected	Performance Analysis and Issues
	Bridge Condition – Principal Arterials	84%	•		!	District 2 is planning to fund over 100% of their other bridge needs throughout the HIP years
Bridge	- % Good and Satisfactory		50.4%	64%		Addressing bridges in Fair condition in the HIP will prevent decline into
Preservation	Bridge Condition			•		Poor condition by 2020;
	Arterials – % Poor	2%	6.3%	%9	1	Three major bridges (Kennedy, Baudette, and Sorlie) planned to be addressed by 2018 as part of Chapter 152.
	Pavement – Ride Quality	700%			•	
	Good - Ral -Principal Arterials, % of miles	° 2	82.8%	%92	49%	
	Pavement – Ride Quality Poor.	700			•	Investments in 2010-2014 is expected to result in better pavement
Pavement	RQI -Principal Arterials, % of miles	0 <b>7</b>	1.3%	%9	12%	on the Principal Arterial system;
Preservation	Pavement – Ride Quality	,0Z	•			During 2015-2020 hoth evetome are avacated to see large increases
	<b>GOOG- RQI</b> – Non-Principal Arterials, % of miles	02 /0	74.1%	73%	57%	in miles in Poor condition.
	Pavement – Ride Quality Poor-	30/		•	•	
	RQI – Non-Principal Arterials, % of miles	°,	4.0%	3%	%6	

Note 1: 2014 and 2020 Bridge and Pavement Outlook based on planned STIP+HIP investments modeled by Specialty Office.



Strategic Priority Area 2	2015-2020 HIP	%
Infrastructure Preservation	\$260 M	%89
Traveler Safety	\$61 M	16%
Mobility	\$ M	%0
RCIPs	\$7 M	2%
Other	\$55 M	14%

Strategic Priority Area	2015-2020 HIP	%
Infrastructure Preservation	\$260 M	%89
Traveler Safety	\$61 M	16%
Mobility	N \$	%0
RCIPs	87 M	2%
Other	\$55 M	14%

26% 16%

\$164 M \$45 M

Infrastructure Preservation Strategic Priority Area

Traveler Safety

2011-2014 STIP

%6 %

> \$24 M \$44 M

RCIPs Mobility

Other

N S

## Performance Data as of December 8, 2010 Actual Performance and Projected Performance Based on the Highway Investment Plan 2011-2020



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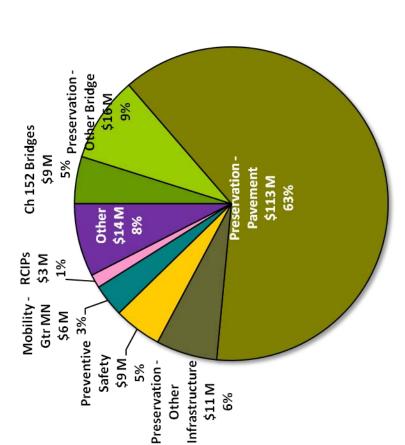
Red: Seriously below target

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OF TRAN						
			2010	2014	2020	
Statewide Plan Policy	Measure	Target	Actual	Projected	Projected	Performance Analysis and Issues
	Bridge Condition – Principal Arterials	84%				All Chapter 152 bridges addressed by 2010;
Bridge	- % Good and Satisfactory		92.1%	%86		District planning to fund up to 3% of their other bridge needs throughout
Preservation						uie nir yeals
	Bridge Condition – Principal Arterials – % Poor	2%				Further deterioration of large area of bridges in Fair condition will continue to make it difficult to permanently lower bridges in Poor Condition.
			2.4%	3%		
	Pavement – Ride Quality Good	%02				
	- RQI -Principal Arterials, % of miles	200	72.1%	%02	74%	Porformance based upon 60/40 Brinsipal/Non Brinsipal Afferial invastment
	Pavement - Ride Quality Poor-	%6			<	split;
Pavement	RQI -Principal Arterials, % of miles	7	1.9%	4%	3%	Good provided for both Drivainal and New Drivainal Attacials mosts
Preservation	Pavement – Ride Quality Good-	7049				targets by 2020;
	RQI – Non-Principal Arterials, % of miles	8	79.8%	%09	%99	DA system nearly meets targets by 2020 NDA system slightly declines
	Pavement - Ride Quality Poor-	30/		•	•	ं र अंग्रेस्टा नव्याम् नव्यत् व्यक्तिय ये २०४०, च २ अंग्रेस्टा अनुमान् वर्तनाचन
	RQI – Non-Principal Arterials, % of miles	0 / 0	1.4%	%9	8%	

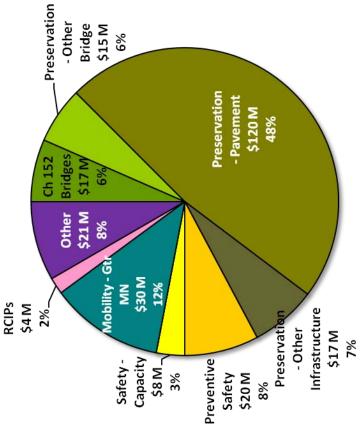
Note 1: 2014 and 2020 Bridge and Pavement Outlook based on planned STIP+HIP investments modeled by Specialty Office.

2011-2014 STIP - \$179 M



Stratonic Priority Area	2011-2014 STIP	%
noite/nosoria Diocephia	C1/18 M	%88
Traveler Safety	WO+10	5%
Mobility	W 93	%6
PCIDS	W C &	10%
Other	\$14 M	%8

### 2015-2020 HIP - \$252 M



1 1	CIT 0000 1700	/0
Strategic Priority Area	2013-2020 HIP	%
Infrastructure Preservation	W 691\$	%/9
Traveler Safety	W 22\$	11%
Mobility	W 0E\$	12%
RCIPs	84 M	2%
Other	\$21 M	%8

## Performance Data as of December 8, 2010 Actual Performance and Projected Performance Based on the Highway Investment Plan 2011-2020



KEY:

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Red: Seriously below target



A Data Trend: Improved, same, or worsened

OF TRANS						,
			2010	2014	2020	
Statewide Plan Policy	Measure	Target	Actual	Projected	Projected Projected	Performance Analysis and Issues
Bridge	Bridge Condition – Principal Arterials – % Good and Satisfactory	84%	84.4%	<b>68</b>		Aside from the Chapter 152 program, no other specific bridge preservation projects are identified in the HIP years at this time
Preservation	Bridge Condition – Principal Arterials – % Poor	2%	2.7%	3%		Lower level of investment will likely increase the percent fair & poor condition bridges
	Pavement – Ride Quality Good - RQI -Principal Arterials, % of miles	70%	73.7%	% <u>\$</u> 9	<b>6</b> 51%	
Pavement	Pavement – Ride Quality Poor- RQI -Principal Arterials, % of miles	2%	4.3%	• %9	11%	Between 2011 & 2014, most of the increase in miles in Poor condition will be on the Non-Principal Arterial system;
Preservation	Pavement – Ride Quality Good-RQI – Non-Principal Arterials, % of miles	65%	46.5%	46%	43%	By 2020, both systems are expected to have large increases in the number of miles in Poor condition.
	Pavement – Ride Quality Poor-RQI – Non-Principal Arterials, % of miles	3%	7.0%	16%	<b>•</b> 26%	

Note 1: 2014 and 2020 Bridge and Pavement Outlook based on planned STIP+HIP investments modeled by Specialty Office.

2011-2014 STIP - \$403 M

Bridges \$134 M Ch 152

RCIPs \$31 M

Preventive

\$20 M Safety

2%

Other \$50 M 12% 33%

Preservation -

Preservation -

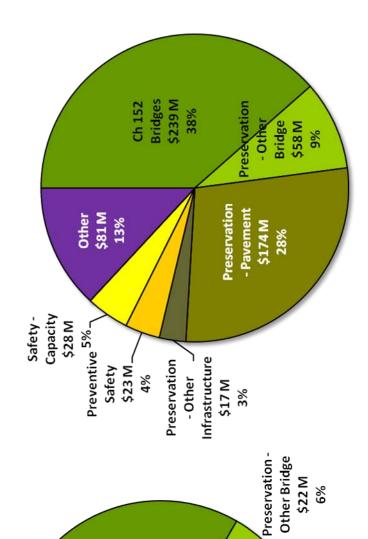
Infrastructure

\$9 M **5**%

Other

Pavement \$137 M 34%





Infrastructure Preservation \$30		
	\$303 M	75%
Traveler Safety \$20	\$20 M	2%
Mobility \$ M	M	%0
RCIPs \$31	\$31 M	%8
Other \$50	\$50 M	12%

Strategic Priority Area	2015-2020 HIP	%
Infrastructure Preservation	\$489 M	%62
Traveler Safety	\$51 M	8%
Mobility	W\$	%0
RCIPs	N\$	%0
Other	\$81 M	13%

## Performance Data as of December 8, 2010 Actual Performance and Projected Performance Based on the Highway Investment Plan 2011-2020



KEY: Green: At or above target

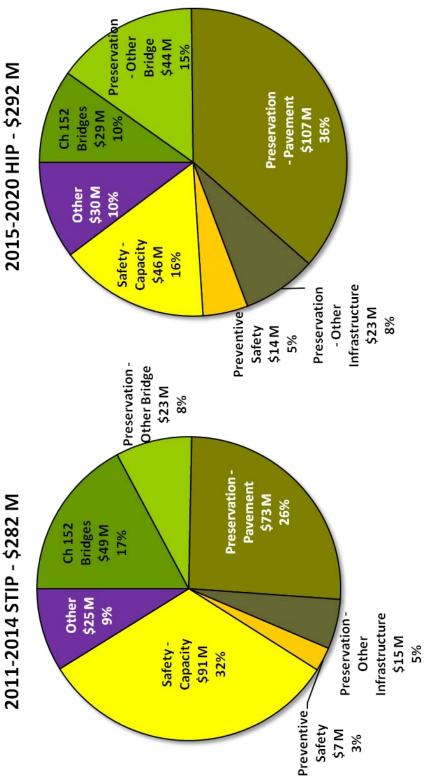
✓ Yellow: Moderately below target

Red: Seriously below target

🛧 👆 Uata Trend: Improved, same, or worsened

OF TRANS			2010	2014	2020	
Statewide Plan Policy	Measure	Target	Actual	Projected	<u>P</u>	Performance Analysis and Issues
	Bridge Condition – Principal	040/	•			Significant improvement by 2020 due to spending in 2011-14, including replacement of the Dresbach bridge in 2012;
Bridge	Arterials – % Good and Satisfactory	64%	79.8%	%98		High number of bridges in Satisfactory condition is projected to fall into Fair or Poor condition by 2020 if not addressed in 2015-2020;
Preservation	Bridge Condition – Principal	į				The large investment in the Winona and Red Wing bridges will help to improve Fair & Poor Condition measures;
	Arterials – % Poor	2%	1.3%	%0		Funding of planned investment for Other Bridges needs (approximately 48%) may impact performance levels in later years.
	Pavement – Ride Quality Good - RQI - Principal Arterials, % of miles	%02	49.6%	<u>^</u> 61%	\$65	
	Pavement – Ride Quality Poor-RQI -Principal Arterials, % of miles	2%	12 5%	10%	170%	Pavement conditions in D-6 projected to improve throughout 2011-2014, although still below targets;
Preservation	Pavement – Ride Quality Good-RQI – Non-Principal Arterials, % of miles	%59	36.1%	51%	46%	During 2015-2020, conditions will decline on both the Principal and Non-Principal systems, returning to near-2010 conditions by 2020.
	Pavement – Ride Quality Poor-RQI – Non-Principal Arterials, % of miles	3%	23.2%	21%	23%	

Note 1: 2014 and 2020 Bridge and Pavement Outlook based on planned STIP+HIP investments modeled by Specialty Office.



Strategic Priority Area	2015-2020 HIP	%
Infrastructure Preservation	\$202 M	%69
Traveler Safety	₩ 09\$	%07
Mobility	W\$	%0
RCIPs	\$ M	%0
Other	\$30 M	<i>%01</i>

35%

2011-2014 STIP

\$159 M

Infrastructure Preservation

Traveler Safety

Mobility RCIPs

Strategic Priority Area

X98 M

S M

%0

\$25 M

## Performance Data as of December 8, 2010 Actual Performance and Projected Performance Based on the Highway Investment Plan 2011-2020



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Data Trend: Improved, same, or worsened

OF TRAP						
Statewide Plan Policy	Measure	Target	2010 Actual	2014 Projected	2020 Projected	Performance Analysis and Issues
	Bridge Condition – Principal Arterials	84%		•		Maintaining current program funding strategy will stabilize the percent of Good and Satisfactory bridges;
Bridge	- % Good and Satisfactory		88.9%	%68		All Chapter 152 bridges will be addressed in 2011-2020;
Preservation			•			U.S. 14 New Ulm bridge will be addressed in approximately year 2018.
	Bridge Condition – Principal Arterials – % Poor	2%		ļ		Planned investment of other bridge needs between 2015-2020 - strategy will result in meeting future performance targets.
			0.3%	%0		
	Pavement – Ride Quality Good	%U2				
	- RQI -Principal Arterials, % of miles		58.5%	45%	43%	
	Pavement – Ride Quality Poor-	7%	•	•	•	District projects large declines in pavement condition by the end of 2014,
Pavement	RQI -Principal Arterials, % of miles	<b>7</b> /0	2.9%	12%	20%	and between 2015 & 2020;
Preservation	Pavement – Ride Quality Good-	,0Y	<	•	•	Both the Principal and Non-Principal systems will see major declines,
	RQI – Non-Principal Arterials, % of miles	° CO	55.2%	32%	29%	although Non Principal system will experience a greater deterioration.
	Pavement – Ride Quality Poor-	708	•	•		
	<b>RQI</b> – Non-Principal Arterials, % of miles	% ?	%6.9	17%	38%	

Note 1: 2014 and 2020 Bridge and Pavement Outlook based on planned STIP+HIP investments modeled by Specialty Office.

2015-2020 HIP - \$205 M

Preservation -

Other Bridge \$16 M **%** 

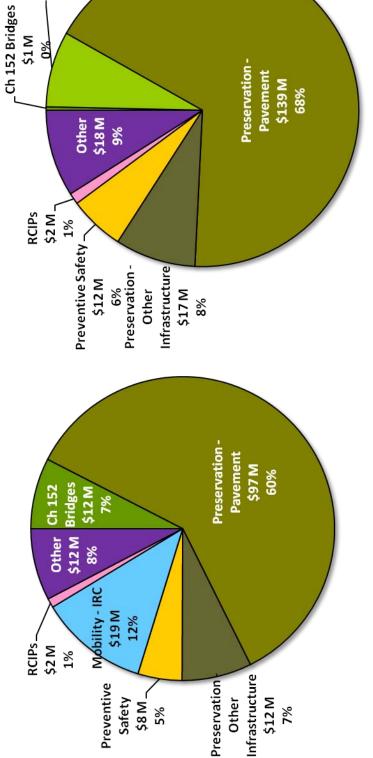


Preventive

Safety

\$8 M\_ 2%

District 8



Preservation

Other

\$12 M

%/

2015-2020 HIP	\$173 M	\$12 M	\$ M	\$2 M	\$18 M
Strategic Priority Area	Infrastructure Preservation	Traveler Safety	Mobility	RCIPs	Other
%	75%	2%	12%	1%	8%
11-2014 STIP	\$121 M	\$8 M	\$19 M	\$2 M	\$12 M

Strategic Priority Area	2011-2014 STIP	%
Infrastructure Preservation	\$121 M	75%
Traveler Safety	W 8\$	2%
Mobility	\$19 M	12%
RCIPs	\$2 M	1%
Other	\$12 M	8%

Strategic Priority Area	2015-2020 HIP	%
Infrastructure Preservation	W E21\$	84%
Traveler Safety	\$12 M	<b>%9</b>
Mobility	W\$	%0
RCIPs	\$2 M	1%
Other	\$18 M	%6

## Performance Data as of December 8, 2010 Actual Performance and Projected Performance Based on the Highway Investment Plan 2011-2020



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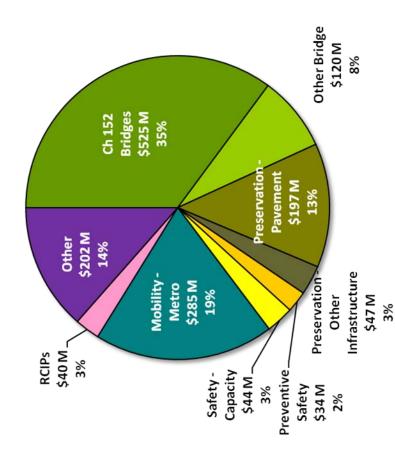
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CHIAN						
			2010	2014	2020	
Statewide Plan Policy	Measure	Target	Actual	Projected	Projected	Performance Analysis and Issues
	Bridge Condition – Principal	84%		•		Bridge investments adequate to meet targets;
Bridge	- % Good and Satisfactory		97.5%	%66		Lac Qui Parle Bridges to be addressed in 2014;
Preservation	Bridge Condition - Principal	2%				Funding 126% of Other Bridge needs in the HIP years a good investment
	Arterials – % Poor	7 70	0.3%	%0		strategy for maintaining performance measures.
	Pavement – Ride Quality Good	%U2	•		$\overline{\lor}$	
	- RQI -Principal Arterials, % of miles	2	%2.99	%09	%89	
	Pavement - Ride Quality Poor-	700				District expected to have significant increase from 2010-2014 in the
Pavement	RQI -Principal Arterials, % of miles	9 7	2.7%	%6	13%	
Preservation	Pavement – Ride Quality Good-	CE0/	•		•	In HIP years (2015-2020) very large increase in the number of miles in Pont condition on the NIPA exetent and a lesser increase on the DA
	RQI – Non-Principal Arterials, % of miles	9/20	51.3%	42%	27%	system.
	Pavement – Ride Quality Poor-	70%	•	•	•	
	<b>RQI</b> – Non-Principal Arterials, % of miles	e S	2.8%	13%	32%	

Note 1: 2014 and 2020 Bridge and Pavement Outlook based on planned STIP+HIP investments modeled by Specialty Office.

### 2011-2014 STIP - \$1,493 M

**Metro District** 



Strategic Priority Area	2011-2014 STIP	%
Infrastructure Preservation	\$889 M	%09
Traveler Safety	\$78 M	2%
Mobility	\$285 M	19%
RCIPs	\$40 M	3%
Other	\$202 M	13%

Preservation -Other Bridge \$288 M 2015-2020 HIP - \$1,510 M 19% Bridges \$370 M 24% ch 152 - Pavement reservation \$216 M \$180 M Other 12% Mobility -\$251 M Metro 17% Safety preservation \$13 M\_ RCIPs 1% Preventive\_ Capacity\_ Safety -\$84 M %9

Strategic Priority Area	2015-2020 HIP	%
Infrastructure Preservation	\$961 M	%49
Traveler Safety	\$105 M	%2
Mobility	\$251 M	47%
RCIPs	\$13 M	%1
Other	\$180 M	12%

14%

1% Infrastructure

\$88 M %9

\$21M - Other

#### **Metro District**

## Performance Data as of December 8, 2010 Actual Performance and Projected Performance Based on the Highway Investment Plan 2011-2020



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🛧 👉 Data Trend: Improved, same, or worsened

CHAR							
			2010	2014	2020		
Statewide Plan Policy	Measure	Target	Actual	Projected	Projected	Performance Analysis and Issues	
	Bridge Condition – Principal Arterials	84%				Decrease in structurally deficient bridges can be attributed to projects in the STIP, including 2 major bridge replacements (Hastings and Lafayette);	
Bridge	- % Good and Satisfactory		90.3%	%56		Donlacements mode in the DID vector by 2040 including Of Praise and	
Preservation	Bridge Condition – Principal	<b>%</b> C	$\triangleleft$			Cayuga Bridges, along with a re-deck of the High Bridge will continue to improve conditions:	
	Arterials – % Poor	<b>4</b> /0	3.8%	1%		Improve conditions,	
	Pavement – Ride Quality Good	<b>%02</b>	$\triangleleft$		•		
	- RQI -Principal Arterials, % of miles	° 2	63.8%	%09	28%		
	Pavement – Ride Quality Poor -	700	<	•	•	During the STIP years (2011-2014), Metro's Principal Arterial system declines clinktly while the Non-Bringing Arterial system improves clinktly:	
Pavement	RQI -Principal Arterials, % of miles	<b>6</b> / 0	4.2%	%/	%6	decinios signiay withe are notificipal Arterial system improves signiay,	
Preservation	Pavement - Ride Quality Good-	, es	•		•	During the HIP years (2015-2020), Principal Arterial system continues slight decline while the Non-Principal Arterial exetem remains fairly.	
	RQI – Non-Principal Arterials, % of miles	% 69	45.3%	22%	46%	constant.	
	Pavement – Ride Quality Poor-	700	•	•	•		
	<b>RQI</b> – Non-Principal Arterials, % of miles	0 <u>/</u> 0	13.9%	14%	15%		
Twin Cities	Twin Cities Urban Freeway System Congestion - % of Miles Below 45 mph in AM or PM Peak	No target	17.3%	<b>→</b>	<b>→</b>	System congestion miles expected to increase as the economy stabilizes. Crosstown and Wakota project completions and additional traffic management approaches (managed lanes, transit advantages and traveler info) will reduce impact of growth in 2011-2020.	
Mobility	Clearance Time for Urban Freeway Incidents	35 minutes	37.1 minutes	ı	<	Trend shows a slight reduction in clearance times for the next 3 years, based on expansion of incident detection system	

Note 1: 2014 and 2020 Bridge and Pavement Outlook based on planned STIP+HIP investments modeled by Specialty Office.