

# *Metro District Highway Investment Plan 2009 – 2028*



*Your Destination: Our Priority*

**Minnesota Department of Transportation  
Metropolitan District**



# Agenda

- Setting the Context
  - MnDOT Strategic Vision and Mission
  - Statewide Planning Purpose
- Metro District Profile
- Developing the Plan
  - Identify Needs
  - Project Future Revenue
  - Set Goals
  - Identify Investment Priorities
  - Anticipated Projects (2009-2018)
  - Unfunded Needs

# MnDOT Strategic Vision



Global Leader in Transportation,  
Committed to Upholding Public  
Needs and Collaboration with  
Internal and External Partners to  
Create a Safe, Efficient and  
Sustainable Transportation  
System for the Future

# MnDOT Mission

- Provide the Highest Quality, Dependable Multi-Modal Transportation System Through Ingenuity, Integrity, Alliance and Accountability

## Strategic Directions

**Safety   Mobility   Innovation   Leadership   Transparency**



# Minnesota Statewide Transportation Plan Purpose

- To Establish a Multimodal Transportation Vision, Supporting Policies and Strategies to Assist MnDOT and its Partners in Focusing Investments and Services Over the Next 20 Years



# Statewide Plan Policies



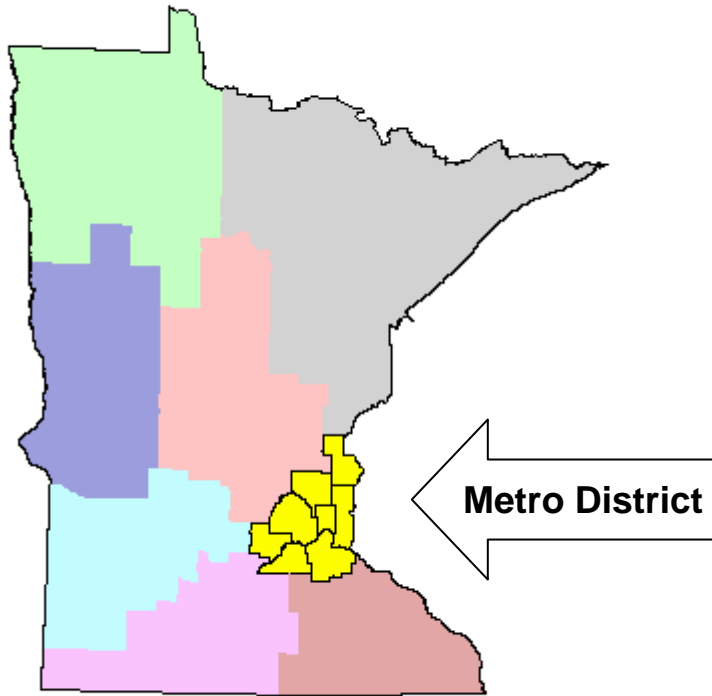
- Policy 1: Traveler Safety
- Policy 2: Infrastructure Preservation
- Policy 3: Maintenance, Operations and Security
- Policy 4: National and Global Communications
- Policy 5: Statewide Connections
- Policy 6: Twin Cities Mobility
- Policy 7: Greater Minnesota Metropolitan and Regional Mobility
- Policy 8: Community Development and Transportation
- Policy 9: Energy and the Environment
- Policy 10: Accountability and Transparency



# *Metro District Profile*



# Metro District Profile



- 8 Counties
- 156 Cities
- 2.8 Million Population
- 1.5 Million Jobs
- Level 1 Trade Center (Twin Cities)
- 1169 Lane Miles of IRC
- 4014 Total Lane Miles

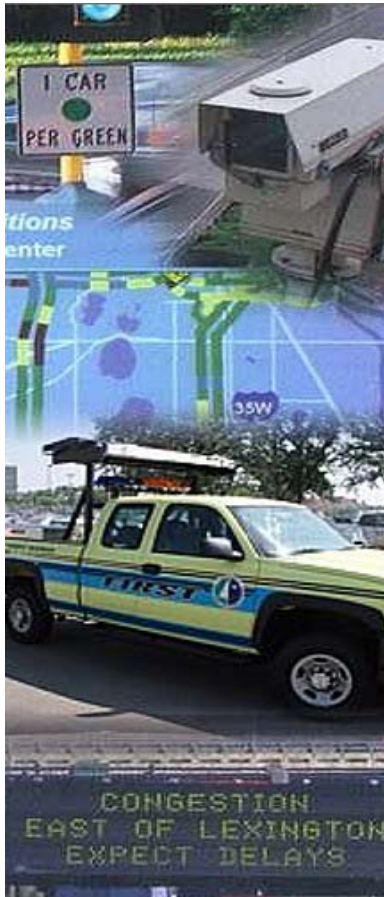


# Metro District Profile

- About 10% of the state's miles of trunk highway
- About 50% of statewide vehicle miles traveled
- 30 Tier I and Tier II Bridges
  - 1230 total bridges
- 370 Trunk Highway Interchanges



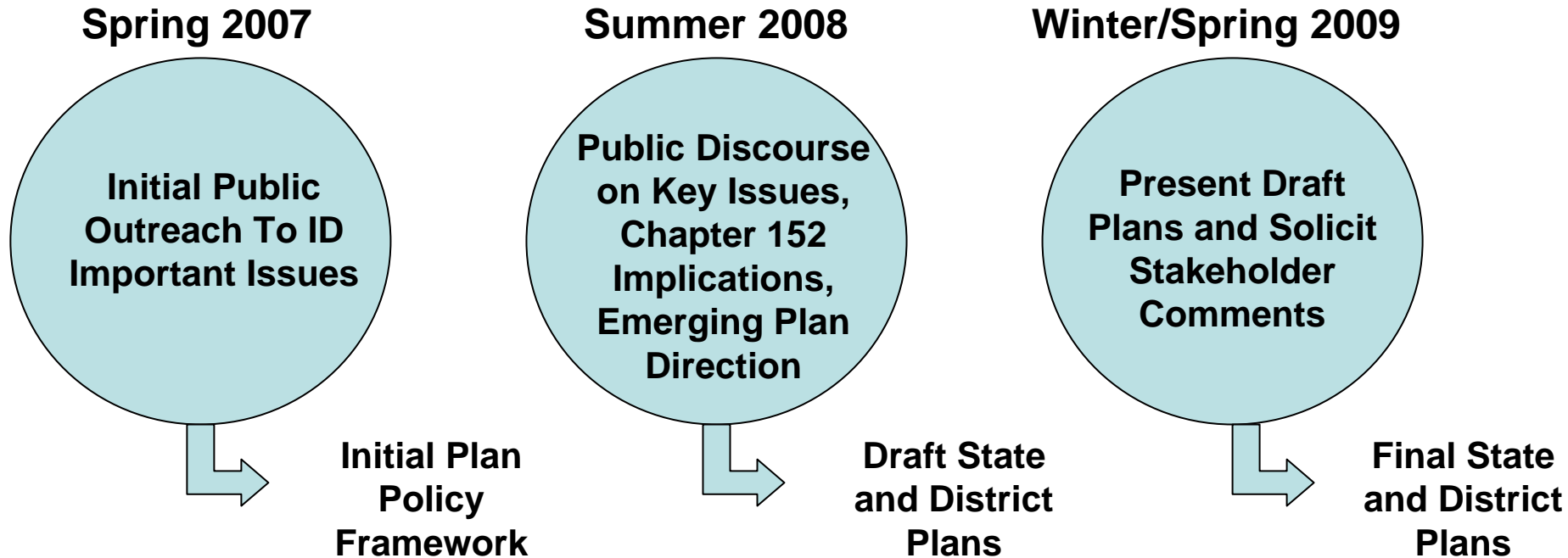
# Uniquely Metro



# *Developing The Plan*



# Process and Timeframe

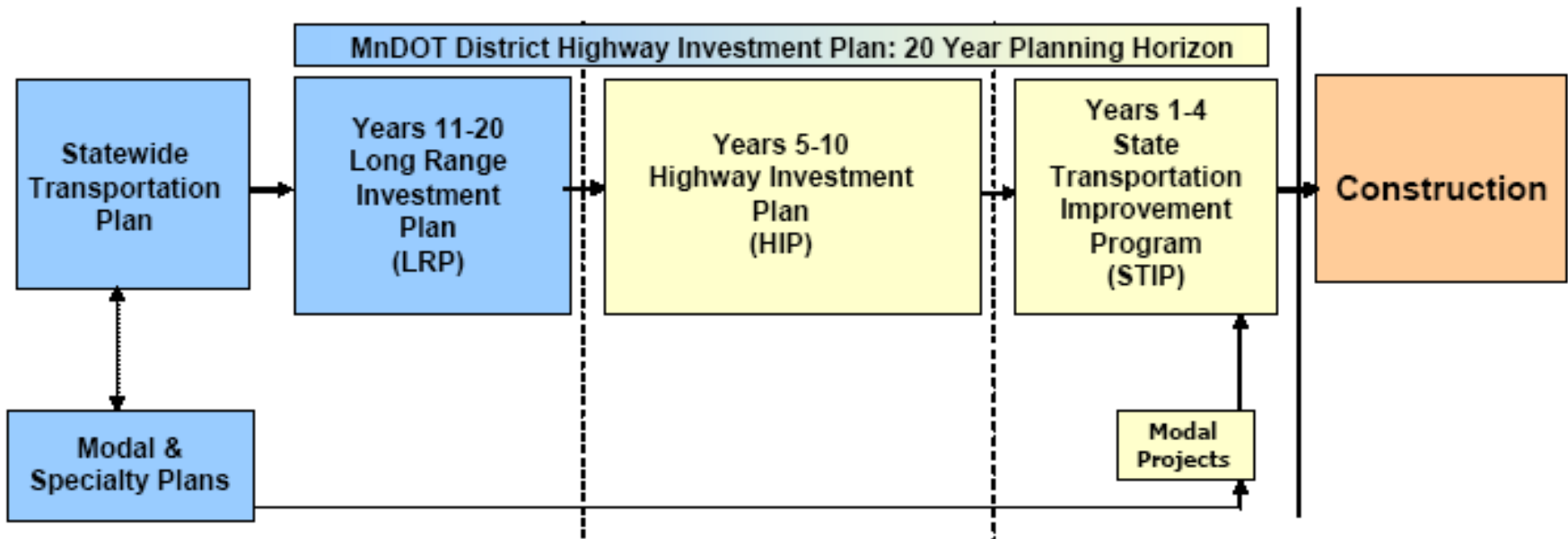


Metro District Open House Held February 12, 2009

MnDOT Public Hearing Scheduled for March 26, 2009

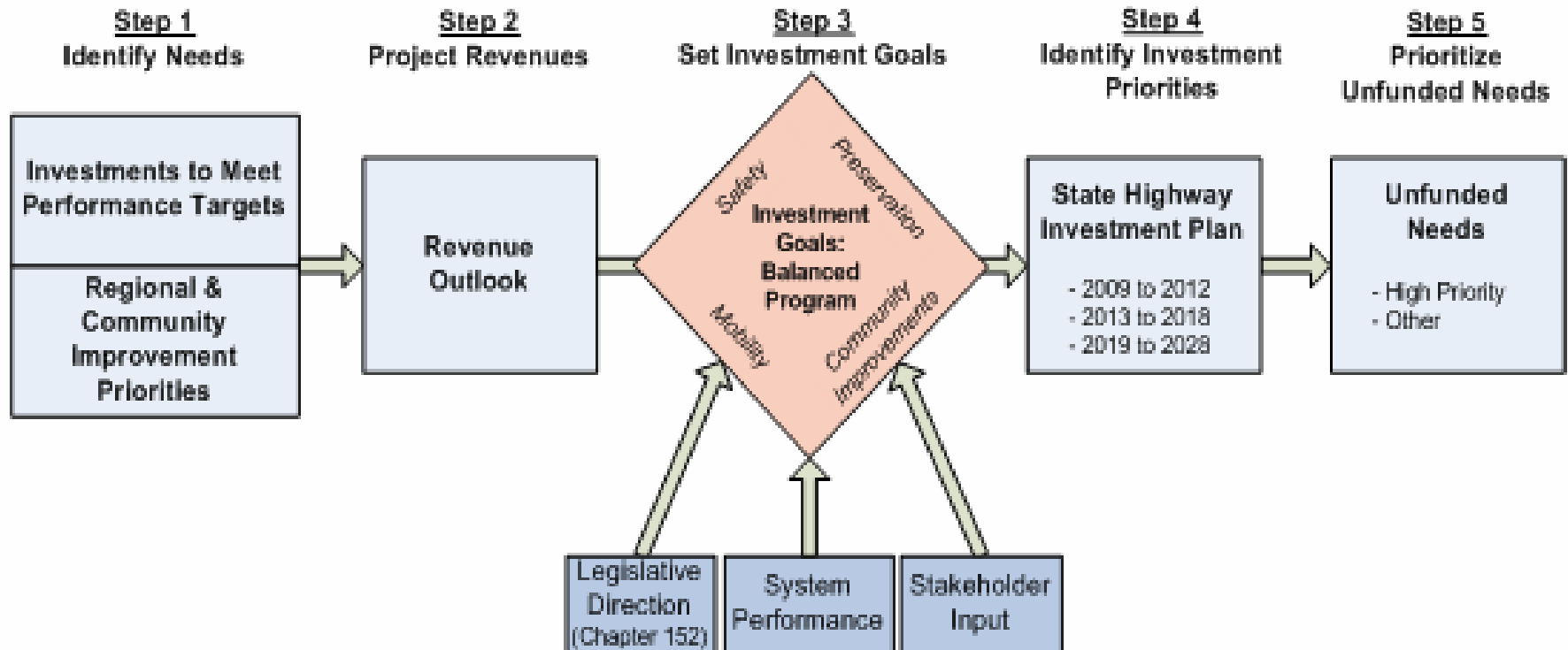


# Plan Relationships



- District Highway Investment Plans link Statewide policies and strategies to local capital improvements

# Developing Metro District's Plan – A Five Step Process



# *Step 1 – Identify Needs*

*Improvements to Address Highway System Performance*

*Improvements to Address Regional or Community Improvement Priorities (RCIPs)*



# Investing to Meet Performance Targets

- Four of 10 Major Policies in the Statewide Transportation Plan Address System Performance That Can be Directly Affected by Capital Investments in Metro District's Highway System



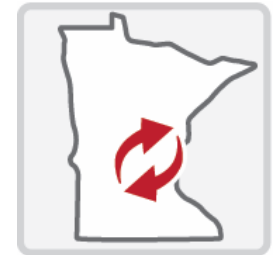
**Safety**



**Preservation**



**Statewide  
Connections**



**Twin Cities  
Mobility**



# Investing to Meet Performance Targets



**Safety**

- Reduce Traffic Related Deaths and Serious Injuries
  - Roadway Enhancements
  - Capacity Improvements

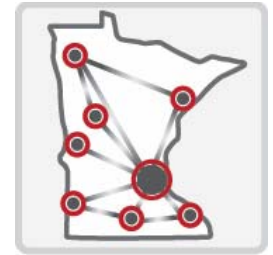


**Preservation**

- Ensure the Structural Integrity of the Transportation System
  - Chapter 152 and Other Bridge
  - Pavement
  - Other Infrastructure

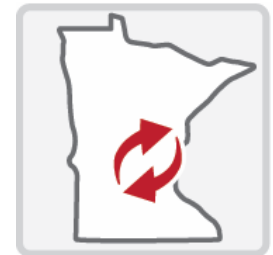
# Investing to Meet Performance Targets

- Enhance Mobility on Interregional Corridors linking Greater Minnesota Trade Centers That Are Performing Below Travel Speed Targets



**Statewide  
Connections**

- Mitigate Congestion Through Strategic Safety Capacity Improvements in Highway and Transit as well as Innovations Like Peak-Hour Demand Management



**Twin Cities  
Mobility**

# Investments Needed to Meet Performance Targets

- District Investments to Meet Performance Targets Over the 20-year Period Approach an Estimated \$50 Billion
  - \$40 Billion for Mobility Needs\*
  - \$5 Billion for Preservation
  - Just Over \$1 Billion for Safety
  - Plus Over \$1 Billion in Regional or Community Improvement Priorities

**\*Previous Plan Estimated Adjusted for Inflation. Forthcoming Metro Highway System Investment Strategy Will Revisit the Mobility Needs Number**



# Total Metro Needs

(in millions, year of construction)

Strategic Investment Priority	2009 to 2018		2019 to 2028		2009 to 2028	
	\$ Need	% of Need	\$ Need	% of Need	TOTAL \$	% of Total
<b>Traveler Safety</b>	<b>\$920</b>	<b>4%</b>	<b>220</b>	<b>1%</b>	<b>1,140</b>	<b>3%</b>
Roadway	180		90		270	
Capacity	740		130		870	
<b>Infrastructure Preservation</b>	<b>2,260</b>	<b>10%</b>	<b>2,390</b>	<b>11%</b>	<b>4,650</b>	<b>10%</b>
Chapter 152 Bridge	1,230		-		1,230	
Other Bridge	350		1,090		1,440	
Pavement	560		1,070		1,630	
Other Infrastructure	120		230		350	
<b>Mobility</b>	<b>19,890</b>	<b>86%</b>	<b>18,880</b>	<b>88%</b>	<b>38,770</b>	<b>87%</b>
Interregional Corridors	-		-		-	
Twin Cities Metro Area	19,890		18,880		38,770	
<b>Total Investment</b>	<b>\$23,070M</b>		<b>\$21,490M</b>		<b>\$44,560M</b>	



# Illustrative Regional and Community Improvement Priority Project Categories

Project Categories	Annual (in millions)
Intersections	\$15 – 30
Interchange Needs or Geometric Conversion (assumes 50/50 Cost Sharing Policy)	\$25 – 50
Cooperative Agreements	\$7 – 14
Noise Walls	\$3 – 6
Total	\$50 – 100



# Looking Ahead – Metro’s Approach

- Conduct a “Metro Highway System Investment Strategy” with the Metropolitan Council – Inputs Include:
  - Principal Arterial Study
  - Congestion and Safety Management Planning Study, Phases 1 and 2
  - Reassessment of Major Capacity Projects

# *Step 2 – Project Future Revenue*



# Future Revenue Projections

- Forecasts prepared in Spring of 2007
- Bond Funding Authorized by the 2008 Legislative Session Chapter 152 Laws Included
- Assumed No New Sources of Revenue or Rate Increases in Existing State or Federal Revenue Sources
- Metro District's Projected Revenue Over the 20 Year Planning Period Totals About \$5.5 Billion





# *Step 3 – Set Goals*

*A Balanced Program of Investments*



# Program Objectives

- Reflect Chapter 152 Legislative Direction, System Performance Trends, and Stakeholder Input
  - Support Continued Development of Statewide Economy and Community Livability
  - Optimize Allocation of Projected Revenues Among Safety, Mobility, Infrastructure Preservation, and Regional Community Improvement Projects
  - Invest in Efforts That Contribute to Meet Statewide System Performance Targets



# *Step 4 – Identify Investment Priorities*



# Metro District Investment Priorities



Maintain Existing  
Infrastructure



Improve Safety



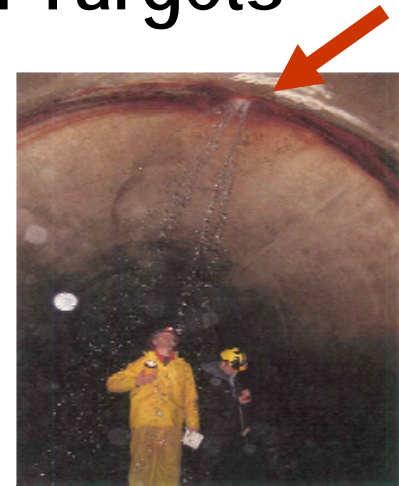
Improve Mobility



Support  
Community  
Development

# Metro District Investment Strategies – *Infrastructure Preservation*

- Meet All Tier 1 and 2 Bridge and Approximately 85% of Other Bridge Preservation Needs
- Meet Most Pavement Preservation Targets
- Invest in 'Other' Infrastructure
  - Signals
  - Lighting
  - Striping
  - Hydraulic Infrastructure



*I-35W Storm Sewer  
Typical Infiltration Gusher*

# Metro District Investment Strategies - *Safety*

- Focus on proactive and Reactive Strategies to Help Achieve Mn/DOT's "Toward Zero Deaths" Policy
  - Cable Medium Barrier
  - Geometric Intersection Changes
  - Turn Lanes Constructed as part of Pavement Preservation Projects
  - Rumble Strips or Stripes at the Pavement Edge
  - Access Management



# Metro District Investment Strategies - *Mobility*

## Highway Investment Plan with Project Revenues

- Maximize System Mobility with Available Projected Funding
- Optimize Use of Existing System
- Make Strategic Capacity Investments in Highways and Transit
- Use Lower-cost/High-benefit Congestion and Safety Mitigation Projects

## Highway Investment Plan with Additional Funding

- Additional Lower-cost/High-benefit mobility projects
- Strategic Capacity Improvements (based on a reassessment of major expansion projects contained in past STIP and fiscally constrained TSP)

# Past STIP/TSP Fiscally Constrained Projects

	STIP/TSP Investments	2007 Preliminary Cost Estimate (rounded)
TH 169/1-494 Interchange	STIP	\$100
I-35E from I-94 to I-694 (add lanes)	TSP	\$350
I-35E from TH 110 to TH 13 (add lanes)	TSP	\$ 50
I-35W from 46 <sup>th</sup> St to I-94 (add lanes)	TSP	\$400
TH 100 from 36 <sup>th</sup> St. to Cedar Lake Rd (add lanes)	TSP	\$150
I-494 from I094 to TH 55 (add lanes)	TSP	\$250
I-494 from E Bush Lake Rd to 34 <sup>th</sup> Ave (add lanes)	TSP	\$1000
I694 from I-35W to W Jct of I-35E (unweave)	TSP	\$300
TH 36 from I-35W to I-35E (add lanes)	TSP	\$150
TH 610 from I-94 to TH 169 (complete freeway)	STIP/TSP	\$200
I-694 from E Jct of I-35E to TH 36 (add lanes)	TSP	\$100
TH 252 from I-94 to TH 610 (convert to freeway)	TSP	\$150
<b>TOTAL Preliminary Planning Cost Estimate</b>		<b>\$3+ Billion</b>





# Metro District Investment Plan Summary\*

Strategic Investment Priority	2009 to 2012		2013 to 2018		2019 to 2028		2009 to 2028	
	STIP \$	% of STIP	HIP \$	% of HIP	STIP \$	% of STIP	TOTAL \$	% of Total
Traveler Safety	\$150	10%	\$170	10%	\$180	7%	\$500	8%
Infrastructure Preservation	\$840	54%	\$1,480	77%	\$1,970	79%	\$4,290	72%
Mobility	\$310	20%	\$270	14%	\$320	13%	\$900	15%
RCIPs	\$ 40	3%	\$20	1%	\$30	1%	\$90	2%
Right of Way, Consultants, and Supplemental Agreements	\$220	14%	**		**		\$220	4%
<b>Total Investments</b>	<b>\$1,560M</b>		<b>\$1,940M</b>		<b>\$2,500M</b>		<b>\$6,000M</b>	

\*For More Detail, See Metro District Highway Investment Plan 2009-2028; Figure 6

\*\*Included under Strategic Investment Priority



# *Anticipated Projects for 2009 to 2018*



# Examples of Anticipated Metro District Projects

	Anticipated Year of Construction
Traveler Safety	
TH169 – Devils Triangle Interchange	2009
TH 8 in Lindstrom	2012
TH 36 at Hilton Trail in Mahtomedi	2012

# Examples of Anticipated Metro District Projects

	Anticipated Year of Construction
<b>Mobility</b>	
I-35W Corridor – UPA Projects	2009
I-35W Crosstown Reconstruction	2009
I-94 – TH 61 to White Bear Ave. (add EB auxiliary lane)	2013 – 2018
I-94 – at TH 101 (add WB auxiliary lane and improve interchange)	2013 – 2018
TH 10, Hanson Blvd. to Egret Blvd.	2009



# Examples of Anticipated Metro District Projects

	Anticipated Year of Construction
<b>Infrastructure Preservation – Pavement</b>	
TH 47, 40 <sup>th</sup> to CSAH 10	2009
I-35E, Jct 35E/35W to TH 8	2009
TH 61, Roselawn Ave to White Bear Ave	2010
I-494 – 10 <sup>th</sup> St. in Oakdale to Lake Road in Woodbury (replace concrete pavement)	2010
I-94 – Hennepin Cnty Line to I-494 (concrete pavement repair)	2010
I-94 – Nicollet Ave to TH 280 in Minneapolis (bituminous mill and overlay)	2010
I-35W, New Brighton to Ramsey County Line	2011
TH 96, TH 61 to TH 95	2011



# Examples of Anticipated Metro District Projects

	Anticipated Year of Construction
<b>Infrastructure Preservation – Pavement (continued)</b>	
I-694 – 40 <sup>th</sup> St N to 4 <sup>th</sup> St N in Oakdale (unbonded concrete overlay)	2011
I-35 – TH 95 to CSAH 7 (concrete overlay)	2013-2018
I-35E – Lone Oak Rd to Ramsey Co. Line (overlay and CPR)	2013 – 2018
TH 3 – Anne Marie Trail to TH 110 (mill and overlay)	2013 – 2018
TH 47 – Central Ave to 27 <sup>th</sup> Ave (resurfacing and rehabilitation)	2013 – 2018
TH 65 – Washington Ave to 53 <sup>rd</sup> Ave N (mill and overlay)	2013 – 2018
TH 61 – 12 <sup>th</sup> St to TH 96 (mill and overlay and infrastructure repair)	2013 – 2018
TH 61 – TH 10 to CSAH 39 (unbonded overlay)	2013 – 2018



# Examples of Anticipated Metro District Projects

	Anticipated Year of Construction
<b>Infrastructure Preservation – Bridge</b>	
TH 280 – Larpenteur Ave Bridges in Lauderdale	2009
TH 12 – Maple Plain Bridge	2010
TH 61 – Bridge in White Bear Lake	2010
I-694 – Replace Bridges in Oakdale	2010
TH 61 – Bridge over Mississippi River in Hastings	2010
TH 52 – Plato Blvd to I-94 (Lafayette Bridge) in St. Paul	2011
TH5 – Recreational trail Bridge in Victoria	2013
I-35W – West 94 <sup>th</sup> Street Bridge	2013



# Examples of Anticipated Metro District Projects

	Anticipated Year of Construction
<b>Infrastructure Preservation – Bridge (continued)</b>	
TH36 – St. Croix River in Stillwater	2015
TH 36 – Lexington Ave (CSAH 51) Bridge in Roseville	2015
TH 77 – Minnesota River and Black Dog Road Bridge	2015
I-35E – Cayuga Bridges in St. Paul	2016
TH 7 – CSAH 25 over TH 100 in St. Louis Park	2016
TH 100 – Minnetonka Blvd over TH 100 in St. Louis Park	2016
I-35W – SB bridge over TH 65 in Minneapolis	2018
I-94 – on ramp bridge over I-69 and TH 65 in Minneapolis	2018



# Examples of Anticipated Metro District Projects

	Anticipated Year of Construction
<b>Infrastructure Preservation – Bridge (continued)</b>	
TH 149 – Smith Ave Bridge over Mississippi River	2018
I-35W – County Road E2 (CSAH 73) in New Brighton	2018
TH 55 – Bridge over Bassett Creek in Minneapolis	2018
TH 77 – SB collector road over Killebrew Drive in Bloomington	2018
US 10 – St. Croix River Bridge at Prescott	2018
I-94 – SB off-ramp bridge over Lyndale Ave in Minneapolis	2018
I-94 – SB on-ramp bridge over Glenwood Ave in Minneapolis	2018



# Examples of Anticipated Metro District Projects

	Anticipated Year of Construction
Regional and Community Priorities	
Cooperative Agreements and Noise Walls	2009 - 2018

# Expected Outcomes for 2009 to 2018

- Traveler Safety
  - Make Progress on MnDOT's "Toward Zero Deaths" Policy
- Infrastructure Preservation
  - All Tier 1 and 2 Bridges and About 85% of Other Bridge Preservation Needs are Funded – Major Bridge Examples Include:
    - TH 61 – Bridge over Mississippi in Hastings
    - TH 52 – Plato Boulevard to I-94 in St. Paul (Lafayette Bridge)
    - TH 36 – Bridge over St. Croix River in Stillwater
    - I-35E – Cayuga Bridges in St. Paul



# Expected Outcomes for 2009 to 2018

- **Mobility**
  - Maximize System Mobility
    - Use Lower-cost/High-benefit Congestion and Safety Mitigation Projects
    - Make Strategic Investments in Highways and Transit
- ***IF* Additional Revenue Becomes Available**
  - Implement More Lower-cost/High-benefit and Strategic Capacity Improvements
  - Reassess Major Expansion Projects Contained in Past STIP and TSP Fiscally Constrained Plans to Find Lower-cost Alternatives



# Expected Outcomes for 2009 to 2018

- Regional and Community Improvement Priorities
  - Add and Maintain Noise Walls
  - Cooperative Agreements
  - IF Additional Resources Become Available, Work with Local Partners on Potential Investment Strategies for Interchanges
- Jurisdictional Transfers
  - Pursue Opportunities to Align Roadway Jurisdiction with the Appropriate Functional Class



# *Unfunded Needs*



# Estimated Statewide and Metro District Needs

- Statewide Investment Need Exceeds \$65B Over the Next 20 Years While Statewide Projected Investments are Projected at About \$15 Billion
  - Metro District 2009 to 2028 Investment Need = \$45B (69% of statewide total)
  - Metro District 2009 to 2028 Investments = \$6B (40% of statewide total)
  - Metro District 2009 – 2028 Unfunded Investment Needs = \$39B (78% of the statewide total)



# Prioritize Unfunded Needs

- Mn/DOT Has Identified 5% of Unfunded Needs as High Priority Investment Options Should Additional Revenue Become Available in the Next 10 years
  - \$385M (15%) to Improve Traveler Safety
  - \$1B (40%) to Improve Mobility on Interregional Corridors and Congested Freeways
  - \$970M (40%) to Preserve Infrastructure in Safe and Sound Condition
  - \$115M (5%) to Support Regional and Community Improvement Priorities





# MnDOT's Unfunded Priorities – *Safety*

- \$385M (15%) to Improve Traveler Safety
  - \$210M for Roadway Safety Enhancements
  - \$75M for Metro District Safety Capacity
  - \$100M to Fund High Volume 2 to 4 Lane Capacity Expansions



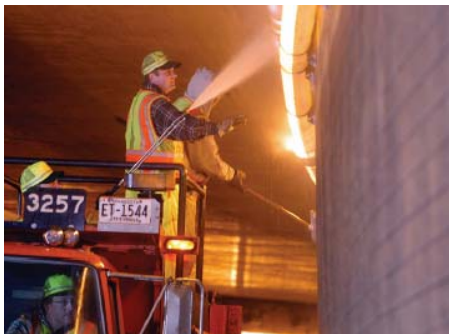
# MnDOT's Unfunded Priorities – *Mobility*

- \$1B (40%) to Improve Mobility on Interregional Corridors and Congested Freeways
  - \$100M for IRC Improvements to I-94 (Twin Cities to St. Cloud)
  - \$430M to Alleviate Metro Congestion – Reconstruct I-494/TH169 Interchange, Extend TH610 and Work Towards Completing a 3-lane I-494/I-694 Beltway
  - \$500M for Metro Congestion Management and Safety (\$50M annually)



# MnDOT's Unfunded Priorities – *Infrastructure Preservation*

- \$970M (40%) to Preserve Infrastructure in Safe and Sound Condition
  - \$860M to Meet Pavement Targets by 2018
  - \$60M to Meet Bridge Targets by 2018
  - \$50M to Address Other Critical Infrastructure



# MnDOT's Unfunded Priorities – *Regional Community Improvement Projects*



- \$115M (5%) to Support Regional and Community Improvement Priorities
  - \$115M for Local Land Access, Interchanges, Noise Walls and/or Cooperative Agreements

# *Economic Recovery Funding*



# MnDOT Economic Recovery Program

- Will Reflect the Federal Economic Stimulus/Recovery Bill and its Final Funding Levels/Criteria
  - 50/50 Allocation Between Metro District and Greater Minnesota
  - Project Identification Based on:
    - Project Readiness
    - Statewide Coverage
    - Work Type Balance
    - Project Advancement - projects already funded in FY 2009 will not be included
    - Job Creation - 27.8 per million based on FHWA formula



# Candidate Metro District Highway Projects for Economic Recovery Funding\*

State Highway	Project Description	Total Project Cost Estimate	Estimated Jobs Created
5	Lake Elmo intersection improvement	\$3,240,000	83
100	Rebuild lighting system – TH 100 south of 394	\$2,700,000	70
94	Rebuild cable median barrier	\$3,240,000	83
610	TH 169 to Fernbrook – construct new 4-lane freeway and interchanges	\$86,000,000	2,224
35E	Interchange modification to EB and WB I-494 ramps to SB I-35E	\$1,296,000	33.4
212	Interchange modification to allow WB 494 to enter WB 212 as an add lane	\$1,080,000	27.8

\*Preliminary/Illustrative DRAFT – Subject to Change

January, 2009



# Candidate Metro District Highway Projects for Economic Recovery Funding\* (continued)

State Highway	Project Description	Total Project Cost Estimate	Estimated Jobs Created
35	Pavement preservation – North junction of 35E/35W to North of TH 8 – bituminous mill and overlay, includes CMSP auxiliary lane	\$8,316,000	214.1
52	Pavement preservation – North of CSAH 42 to North Junction TH 55 (beginning of Lafayette Freeway) – Bituminous overlay and minor CPR	\$7,344,000	189
61	Pavement preservation – North of TH 10 to 12 <sup>th</sup> Street in Newport – 7 inch unbonded concrete overlay	\$21,600,000	556

**\*Preliminary/Illustrative DRAFT – Subject to Change**

**January, 2009**





# Candidate Metro District Highway Projects for Economic Recovery Funding\* (continued)

State Highway	Project Description	Total Project Cost Estimate	Estimated Jobs Created
35	I-35 at TH95 in North Branch – reconstruct interchange (\$9M of additional funding requested)	\$10,200,000	250.2
7	Wooddale Interchange – City of St. Louis Park Sponsored (\$9M of additional funding requested)	\$11,500,000	250.2
169	Reconstruct interchange at I-494	\$134,000,000	3,475
TOTAL METRO DISTRICT		\$290,516,000	7,456

**\*Preliminary/Illustrative DRAFT – Subject to Change**

**January, 2009**



# *Metro District Long Range Highway Investment Plan 2009 – 2028*



*Your Destination: Our Priority*

## ***QUESTIONS?***

<http://www.dot.state.mn.us/planning/stateplan/download.html>

<http://www.dot.state.mn.us/metro/programmanagement/tsp.html>

