Corridor Investment Management Strategy

Saint Cloud
May 21, 2012

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A Collaborative Vision for Transportation

Minnesota Department of Transportation

Background/Context

- *Challenging and uncertain times for the transportation community …*
  - Aging system
  - Flat (declining?) revenue projections
  - Regional & local priorities
  - Stakeholders want more information/opportunities to be involved in MnDOT's decision-making

How do we move forward?

Maximize impact of available revenues

Seize opportunities

Seek new approaches

Be Nimble

Partner, Collaborate, Innovate

What is CIMS?

A corridor-based initiative that brings MnDOT together with its partners to exchange information and discuss opportunities for collaborative and sustainable investment.

CIMS Approach

- A new forum for information exchanges and coordination
- An opportunity to collaborate around lower cost, high benefit strategies

CIMS Objectives

- Given the funding reality, advance cost effective strategies to regional & local priorities
- Greater transparency and collaboration in MnDOT's investment planning & programming
- Partnerships that leverage public resources to achieve multiple purposes

Quality of Life

- Market research: 11 factors affect QOL including Transportation

Factor 1	Factor 2	Factor 3	Factor 4
Education	Health	Local services/ amenities	Spirituality, faith & serenity
Environment	Family/friends	Recreation	
Employment	Safety/security		
Housing			
Transportation			

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Minnesota's multimodal transportation system maximizes the health of people, the environment and our economy.

Minnesota GO: Guiding Principles

- Leverage public investments
- Ensure accessibility
- Build to a maintainable scale
- Ensure regional connections
- Integrate safety
- Emphasize reliable and predictable options
- Strategically fix the system
- Use partnerships

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Statewide Multimodal Transportation Plan

Draft Policy Objectives:

- Accountability, Transparency and Communication
- Transportation in Context
- Critical Connections
- Asset Management
- Traveler Safety

System Funding & Condition

10-year Statewide Total ($ Millions)		
Preservation	$4,969	69%
Safety	$605	8%
Mobility	$594	8%
Community/Econ Dev.	$232	3%
Prog. Del.	$820	11%
	$7,220	100%

Investment totals and performance projections based on the 2011 – 2014 STIP and MnDOT's planned investments in '15-'20

Policy Area	Measure	Target	2006 Actual	2010 Actual	2014 Projected	2020 Projected
Pavement Preservation	% of PAs in Good Condition	> 70%	68.9%	70.2%	62%	58%
	% of PAs in Poor Condition	< 2%	2.3%	3.7%	8%	12%
	% of NPAs in Good Condition	>65%	61.1%	59.8%	49%	46%
	% of NPAs in Poor Condition	< 3%	5.2%	6.8%	16%	24%

Poor Pavement

How It Looks	How It Feels	How It Sounds
– *"Potholes, cracks."*	– *"A very bumpy ride, uneven."*	– *"Excessive road noise."*
– *"Asphalt patches that aren't even with the rest of the roadway."*	– *"If my soda is spilling all over, the road is in poor condition."*	– *"Tire noise is louder and grating on the nerves."*
– *"Cracked, lumpy, dingy, dirty, uneven, visibly over-repaired."*	– *"Like driving through a mine field to avoid the holes."*	– *"So noisy that you can't hear the person sitting next to you."*
– *"Many fixes on the seams … looks like a spider web from multiple repairs."*	– *"Feels like you are driving over a washer board. Just constant shaking or vibrating of the wheel."*	– *"Sounds like you should cringe while driving because the car will need servicing after getting off the road."*
– *"Paint lines are difficult to see/worn."*	– *"Like you're riding atop an unbalanced clothes dryer as opposed to in a luxury automobile."*	– *"It sounds like you are riding a horse."*

Poor Pavement

Impact on driver behavior

- 94% of drivers say they drive differently when seeing/confronting a poor road condition
- Driving on roads in poor condition causes them to drive defensively, slowing down or swerving to avoid cracks that make for an uncomfortable ride or that could damage their vehicles

Poor Pavement

Impact on MnDOT's Investment Program

- Roads in poor condition are more costly to repair
- Roads in poor condition require more frequent maintenance

Better Roads Program

- Four – year (2012 – 2015), $398 million program to improve more than 700 miles of roads statewide
- Intended to limit, but not stop, future growth in the percentage of the system in “poor” condition

What would it take to mitigate the highest risks in unmet needs in the next 20yrs?

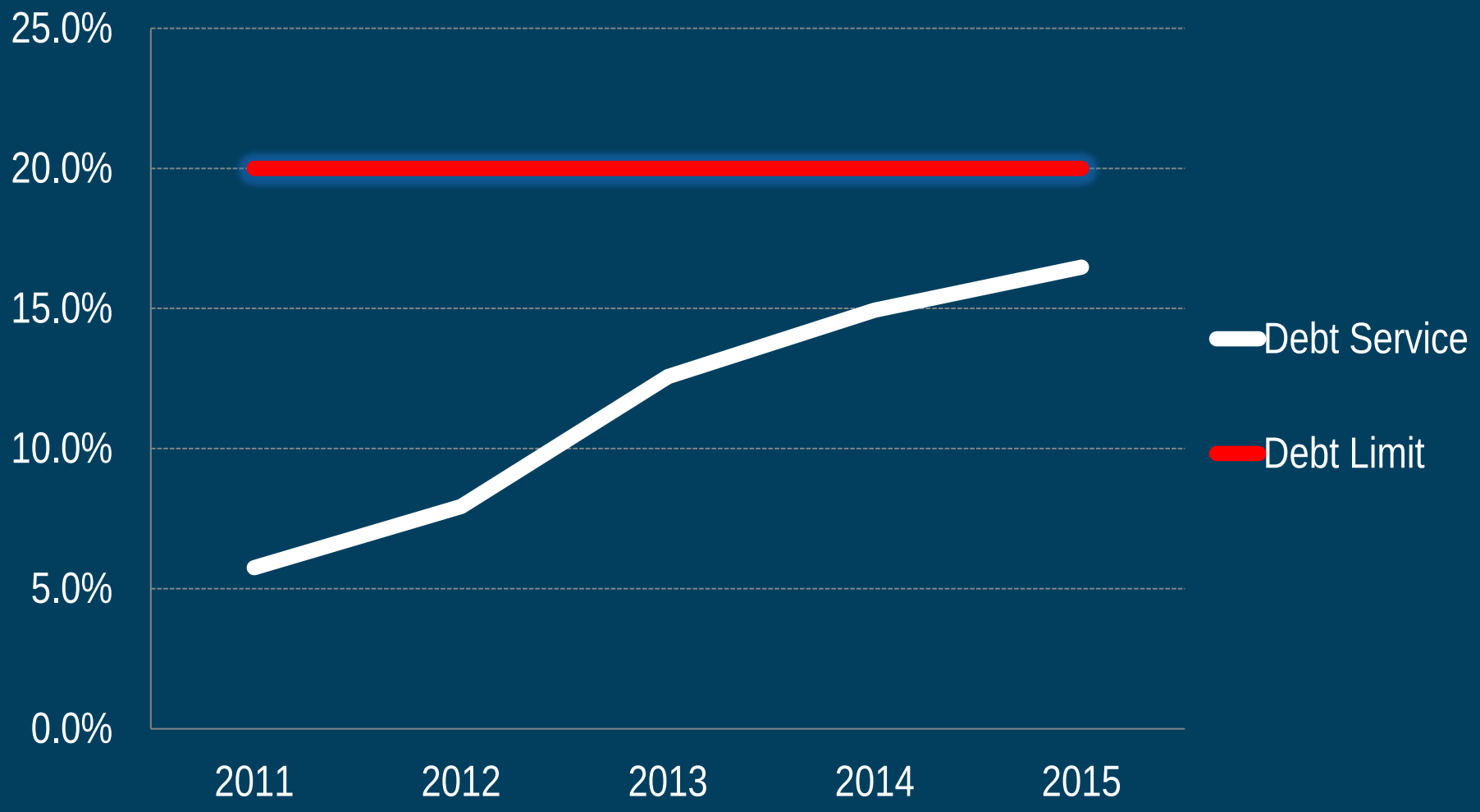
$4.5 B	Reduce miles of poor pavement from 17% to 5-9%
$3.1 B	Implement Metro's Lower Cost Congestion Mgmt. Strategy
$1.2 B	Bridge, safety, IRCs, regional and community priorities

$8.8 billion

= 50% Funding increase

(24.5 cent gas tax increase equivalent)

Debt Service



Lower cost, high benefit strategies

… getting the most out of the investments we are able to make

Example: Risk Based Safety Strategies

COUNTY ROADWAY

Safety PLAN

Moving Toward ZERO Deaths

Example: Super Two

- Highway where a periodic passing lane is added to a two-lane highway - *may take different forms*
  - Four-foot wide buffer area with rumble strips
  - 12-foot wide buffer area provides recovery space and turn lanes

Four foot buffer

Twelve foot buffer

Example 2+1

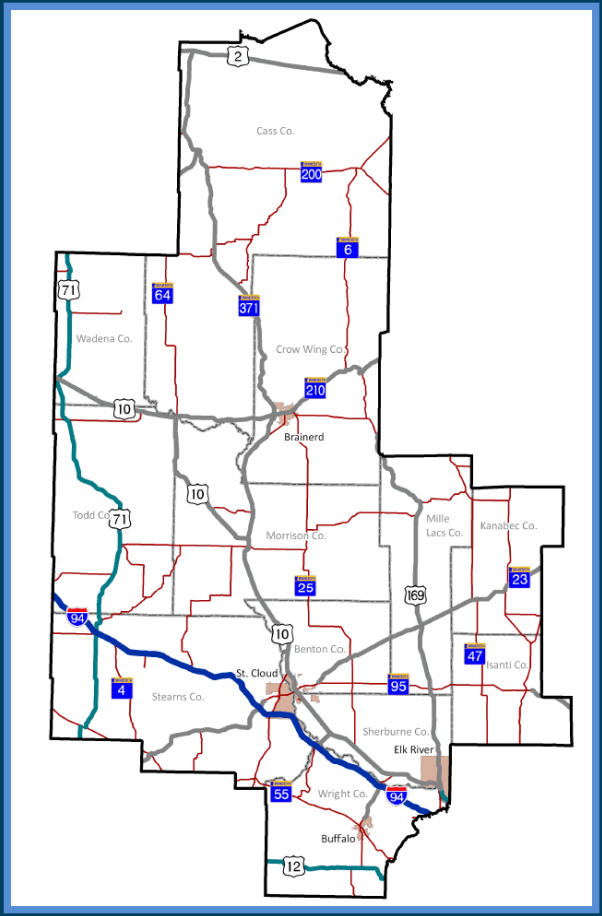
- Continuous three-lane cross section with alternating passing lanes

Example Reduced Conflict Intersections

- **Reducing risk:** example prevents direct crossing and left turns from a side road

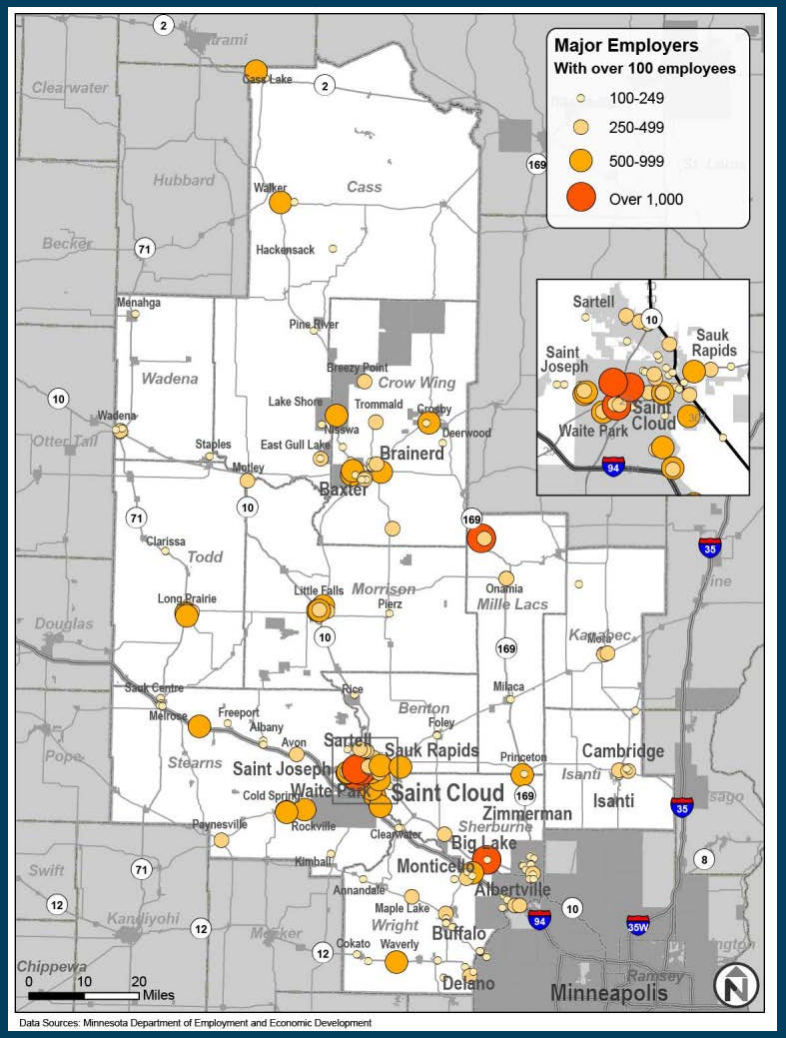
District 3 Overview

District 3: Background



- Benton, Cass, Crow Wing, Isanti, Kanabec, Mille Lacs, Morrison, Sherburne, Stearns, Todd, Wadena and Wright Counties
- Transportation inventory:
  - 1,609 centerline miles of trunk highway representing 4,001 actual lane miles
  - 408 bridges (≥10' length)
  - 147 traffic signals
  - 34,300 signs
  - 20 airports
  - 8 public transit systems
  - 367 miles of rail line
- Avg. annual construction budget $60.5 million

District 3: Background



- Population 645,447 (2010), ↑19%
- 19 cities over 5,000 population
- Brainerd-Baxter, Elk River, and St. Cloud are the largest regional centers
- Diverse economy
- 283 firms with ≥100 employees
- Top 5 employers (≥1,000 employees)
  - Grand Casino Mille Lacs, Onamia
  - Classic Glass & Mirror, Big Lake
  - JFC, Inc., St. Cloud
  - Electrolux Home Products, St. Cloud
  - VA Medical Center, St. Cloud

D3 System Condition

Policy Area	Measure	Target	2006	2007	2008	2009	2010
Safety	Fatalities	TZD	80	85	79	68	77
Bridge Preservation	PAs - % in Good or Satisfactory Condition	> 84%	86.9%	87.4%	86.8%	90.1%	92.1%
	PAs - % in Poor Condition	< 2%	2.9%	2.8%	6.3%	3.2%	2.5%
Pavement Preservation	% of PAs in Good Condition	> 70%	70.5%	65.8%	65.9%	72.1%	70.3%
	% of PAs in Poor Condition	< 2%	1.2%	1.4%	2.1%	1.9%	3.1%
	% of NPAs in Good Condition	>65%	68.9%	75.5%	76.9%	79.8%	81.9%
	% of NPAs in Poor Condition	< 3%	2.0%	1.9%	2.9%	1.4%	1.2%
Mobility	Average corridor travel speed	>55 or >60 mph	The IRCs in District 3 are I-94, US 10, US 169, MN 23, MN 210, MN 371, and US 2. With the exception of MN 210, all are currently performing above or within 2 mph of their corridor speed targets.				

D3 Investment Plan 2011-2020

STIP 2011-14 (in millions)

Total $276.4

Planned Investments 2015-20 (in millions)

Total $383.7

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D3 Anticipated Performance[1]

Policy Area	Measure	Target	2014 Projected	2020 Projected
Safety	Fatalities	TZD[2]	↓	↓
Bridge Preservation	PAs - % in Good or Satisfactory Condition	> 84%	93%	
	PAs - % in Poor Condition	< 2%	3%	
Pavement Preservation	% of PAs in Good Condition	> 70%	70%	74%
	% of PAs in Poor Condition	< 2%	4%	3%
	% of NPAs in Good Condition	>65%	60%	66%
	% of NPAs in Poor Condition	< 3%	6%	8%
Mobility	Average corridor travel speed	>55 or >60 mph	Travel speed on all of D3's IRCs except MN 210 is projected to remain at or above target through 2020. Travel speed on MN 210 is projected to remain below target.	

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1. *Based on 2010 Baseline*
2. *TZD 2014 statewide goal , <350*

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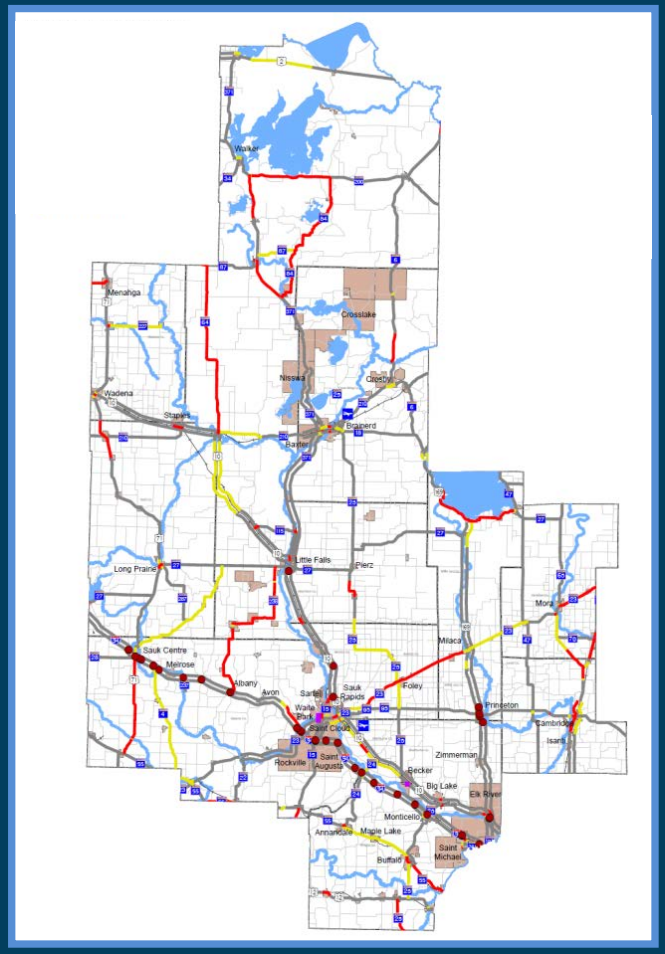
D3 Investment Strategies

Preservation Needs 2015-2021



Preservation

- Invest over 72% of our construction funding to preserve our roads and bridges.
- Emphasize investments on principal arterials and IRCs since they carry over 82% of the traffic
- Maintaining system in a good state of repair will limit opportunities for full reconstruction in urban areas
- Grant priority to partnership projects that yield positive return on investment and leverage supportive funding

D3 Investment Strategies

Safety

- Toward Zero Death:
  - Create a culture where traffic fatalities and serious injuries are no longer acceptable through the integrated application of education, engineering, enforcement, and emergency services
- District 3 Highway Safety Plan:
  - Recommend lower-cost, preventative, high payoff safety improvements, such as edge & center rumble strips, lighting, cable barrier, chevrons, etc.
- Safety Project Add-Ons:
  - Right turn lanes at public roads and major traffic sources
  - Lengthening left & right turn lanes and crossover closures on major 4-lane expressways

D3 Investment Strategies

Mobility & Regional/Local Priorities

- 2009-2028 Highway Investment Plan:
  - Identified numerous miles of rural 2-lane segments and IRCs requiring improvement to meet safety and mobility performance targets
  - Mobility & safety needs significantly exceeded available revenue over 20 year period
- In response:
  - Suspended environmental review/planning activities on 9 of 10 corridors identified for expansion improvements
  - Exploring lower-cost, high benefit strategies that can be effective in managing the safety and mobility needs of the corridor
  - Constructing projects today so that adding capacity later can be done at a minimal cost (e.g., I-94 reconstruction plans)

CIMS:
Going Forward

Cross Agency Collaboration

- Invited other state agencies to participate:
  - DEED, DNR, PCA, MHFA, Ag, Tourism, Health, etc.
- Exploring ways to coordinate investment
- Help MnDOT develop quality of life, economic and environmental criteria for a CIMS solicitation

CIMS Solicitation

- Early 2013 for first round
  - Criteria, amount of funding and application process to be developed later this summer
- Focus for first round
  - Trunk highway projects that address non-performance-based needs related to Quality of Life, Economic Competitiveness and Environmental Health

Next Steps

- 20-Year State Highway Investment Plan Update
- Competitive Solicitation in early 2013
- Future Meetings
- 10-Year Corridor Outlooks

Breakout Discussions

- Share information about current condition, planned investment and anticipated performance needs for each corridor
- Identify local priorities, issues, and opportunities for the near to medium term.

Corridor Maps

- Map A: Existing Conditions
- Map S: Existing Conditions – Safety
- Map B: 2012-2015 STIP Projects
- Map C: Anticipated Performance-based Needs 2016-2021
- Map D: Recent Investments 2002-2011