

20-Years of the Twin Cities “A” Minor Arterial System: Looking Back and Positioning to Look Ahead

Transportation Committee
September 24, 2012

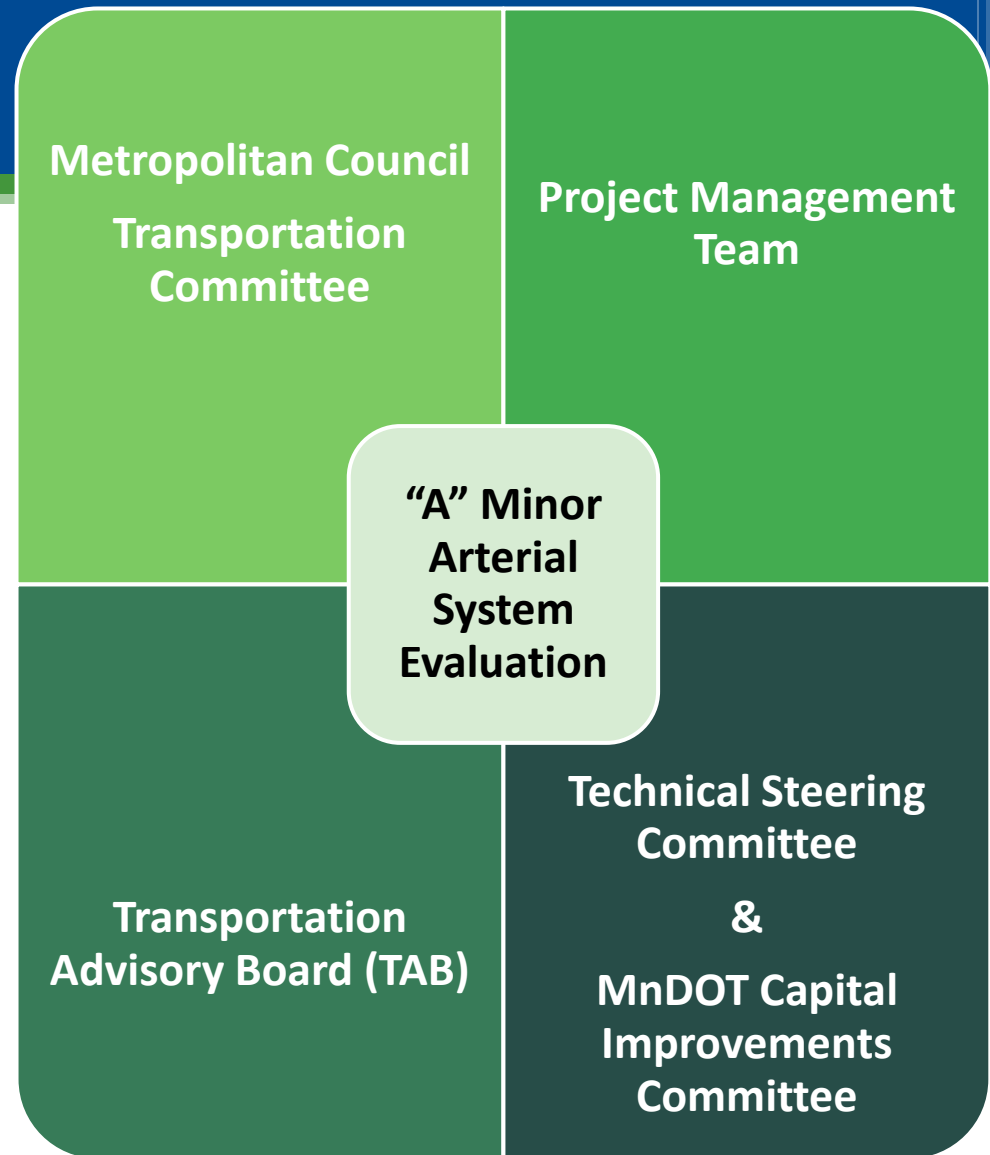
Mary Karlsson, P.E.
Senior Transportation Planner



**Minnesota Trunk Highway 51
(Snelling Avenue in St. Paul)**

Work Program Overview

- Has “A” minor system successfully supplemented the region’s Principal Arterial system?
- Is the defined role of the “A” minor system still valid?
 - Does role fit with existing regional policies (RDF & TPP)?
 - Are changes needed to make the “A” minor system more consistent with TPP?
- Provide recommendations for Thrive MSP 2040, Transportation Policy Plan, and/or Regional Solicitation



Consultant Team: SRF Consulting Group, Inc. and Cambridge Systematics

Study Products

- Tech Memo 1: History
- Tech Memo 2: System Assessment
- Tech Memo 3: Funding Assessment
- Final Report
 - Conclusions
 - Recommendations
 - Key Study Findings



Hennepin Co State Aid Hwy 3
(Lake Street in Minneapolis)



Dakota Co
State Aid
Hwy 23
(Cedar
Avenue in
Lakeville)

Approach to Transportation Committee Review & Discussion

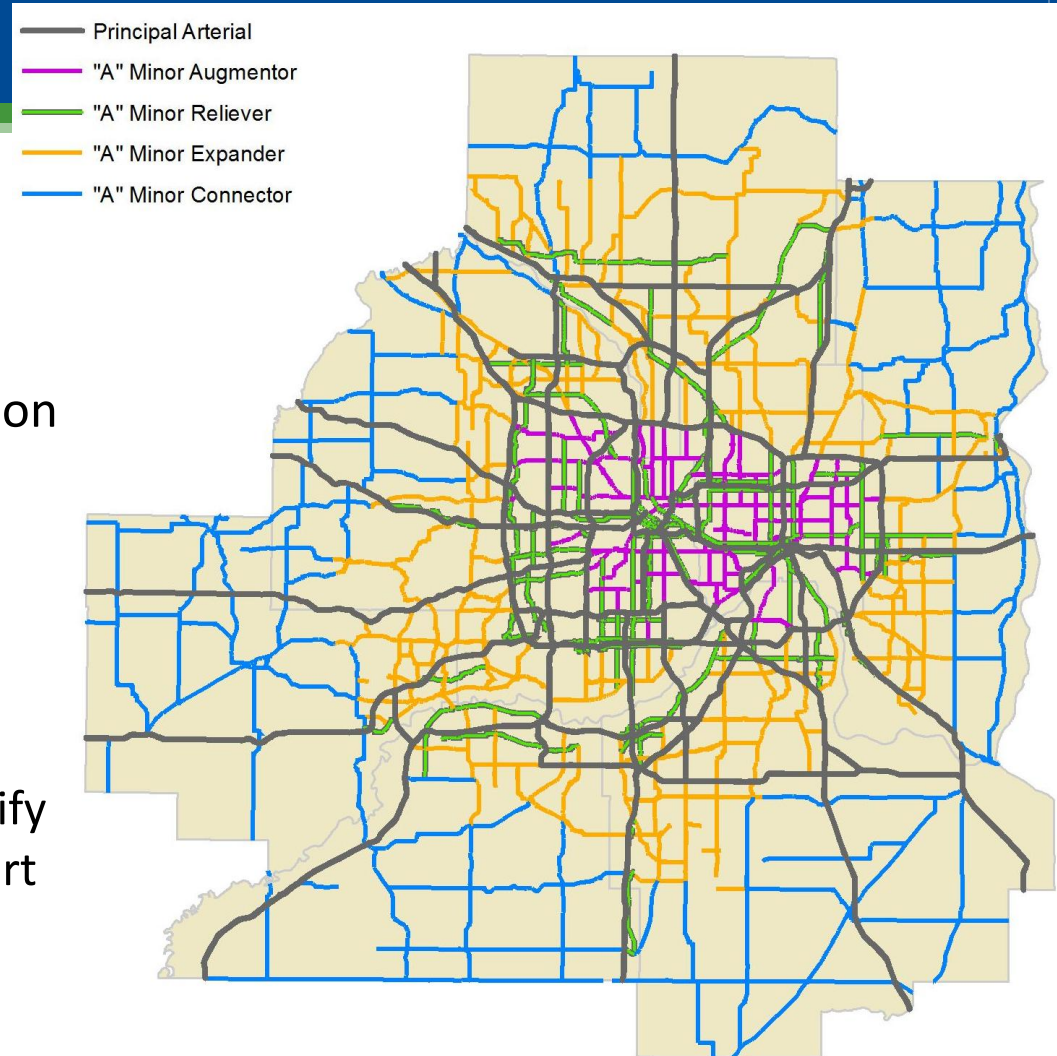
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What is an “A” Minor Arterial?

- Created to Supplement Principal Arterial/Metropolitan Highway System
- Unique administrative classification supplementing FHWA-required functional classification system
- Transportation Advisory Board (TAB) developed system in 1990, adopted soon after & maintains
 - MnDOT, counties, & cities identify roads for system – incl. from start
- System planning & investment prioritization tool, not design guidelines
 - Eligible for STP Urban Guarantee funds



Relievers

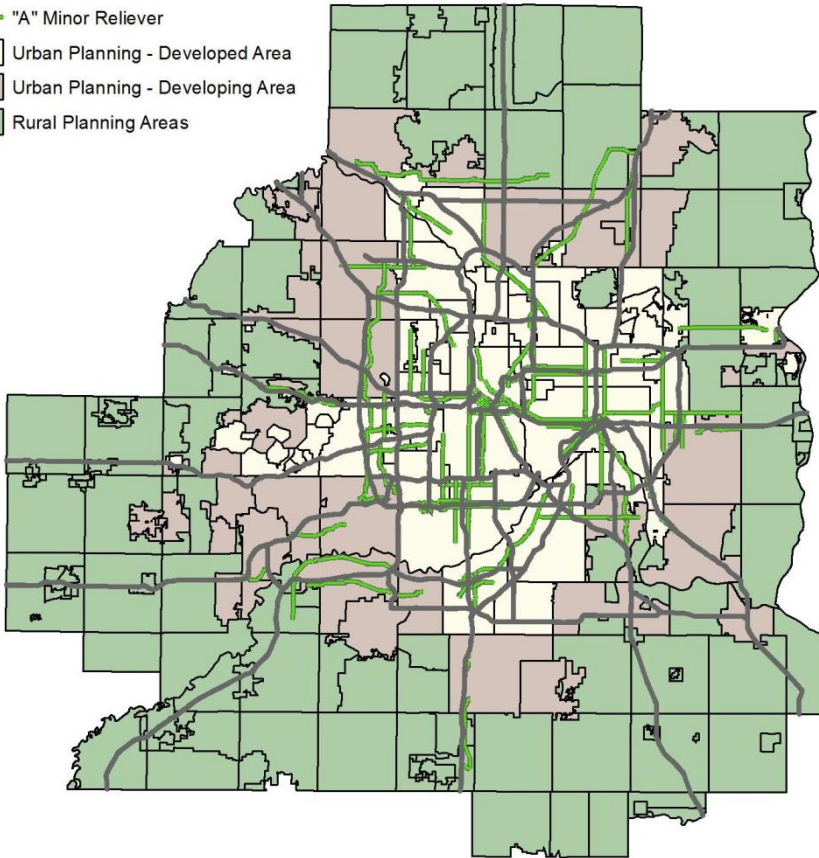
- Relief for congested principals in developed and developing areas
- Add people moving capacity, improve safety
- Provide for alternative modes
- 420 miles estimated (2010)

— Principal Arterial
— "A" Minor Reliever



Relievers

- Principal Arterial
- "A" Minor Reliever
- Urban Planning - Developed Area
- Urban Planning - Developing Area
- Rural Planning Areas



Anoka Co State Aid Hwy 54
(20th Avenue in Centerville)



St. Paul's
Kellogg
Boulevard

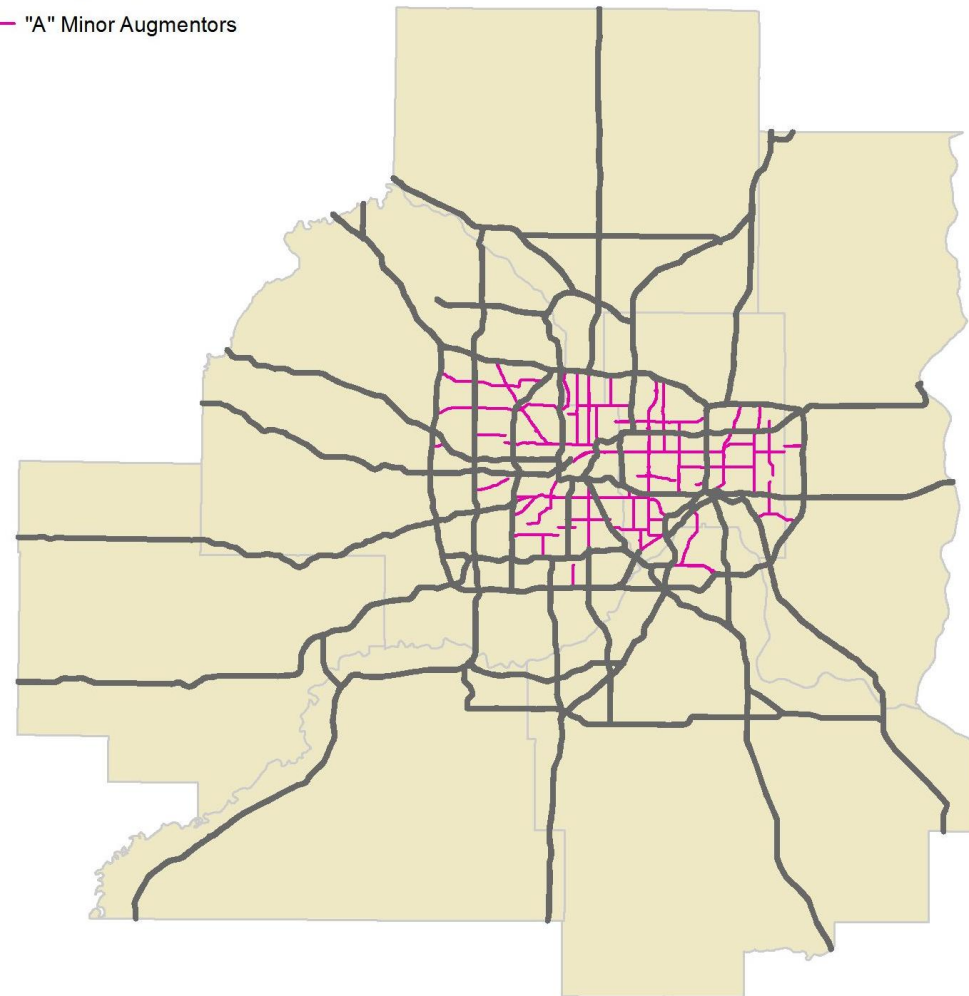


Bloomington's American Boulevard

Augmentors (Added After 1990 Study Concluded)

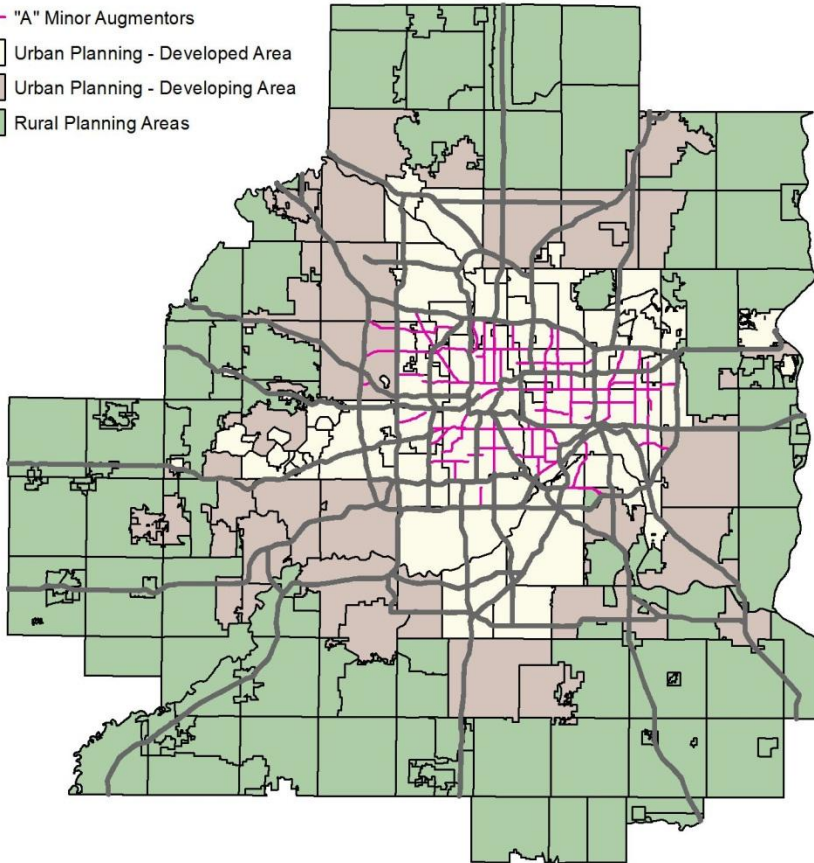
- Substitute for principals that were not built
- Within I-494/694 ring
- Add, enhance or preserve people-moving capacity, safety
- Provide for alternative modes
- 180 miles estimated (2010)

— Principal Arterial
— "A" Minor Augmentors



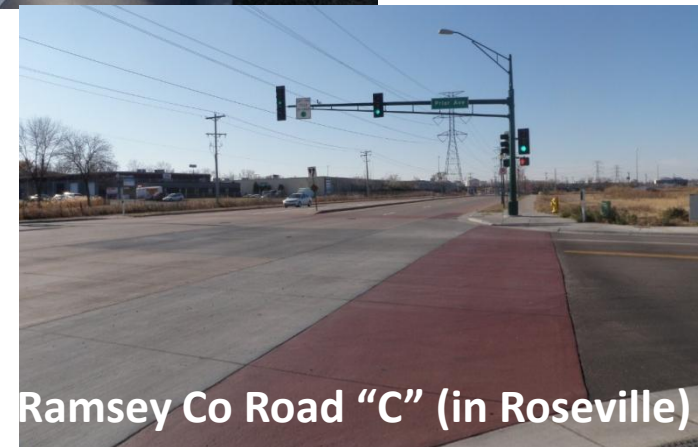
Augmentors

- Principal Arterial
- "A" Minor Augmentors
- Urban Planning - Developed Area
- Urban Planning - Developing Area
- Rural Planning Areas



Minneapolis Richfield Rd
(South of Lake Calhoun)

Hennepin Co
State Aid Hwy
81 (Bottineau
Blvd/W
Broadway Ave in
Robbinsdale)

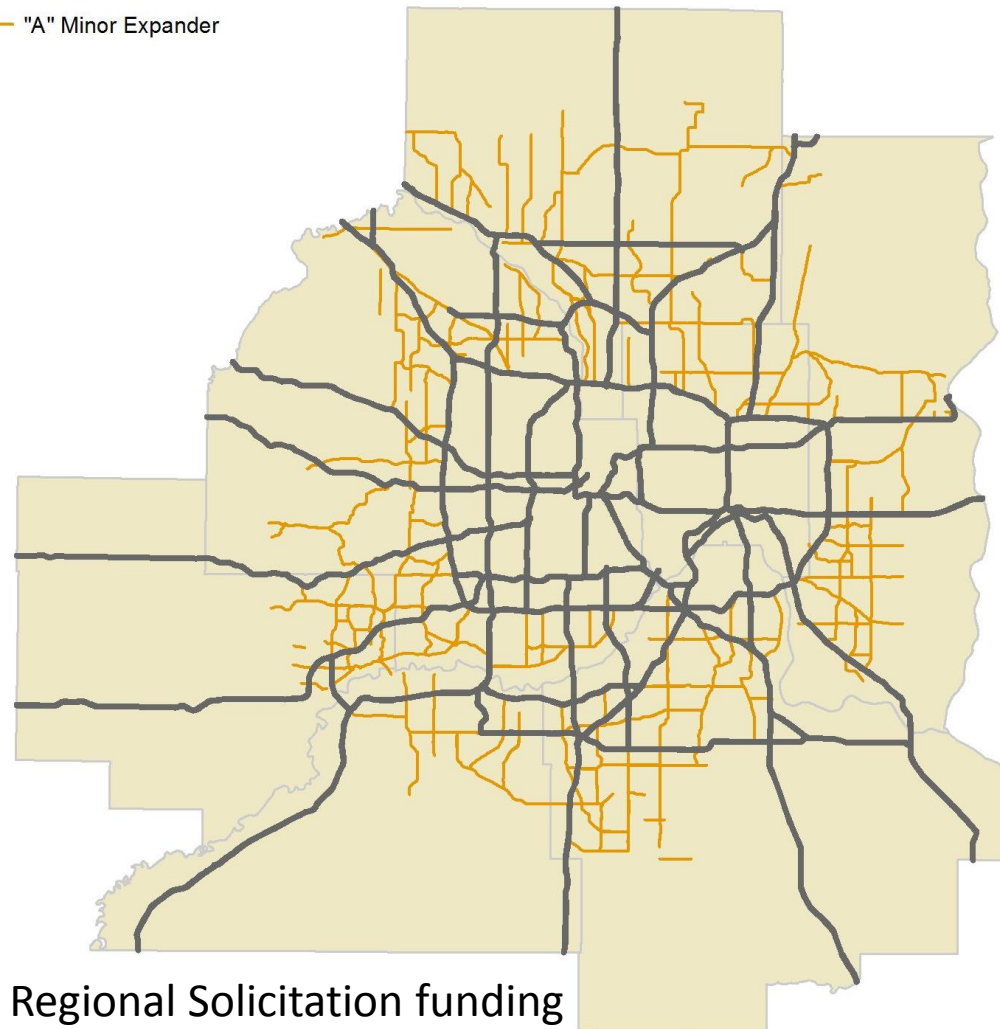


Ramsey Co Road "C" (in Roseville)

Expanders

- Prepare/provide for safe travel in expanding urban (i.e., developing) areas
- Outside I-494/694 ring
- Reserve right-of-way*, build new, expand capacity, improve safety
- 660 miles estimated (2010)

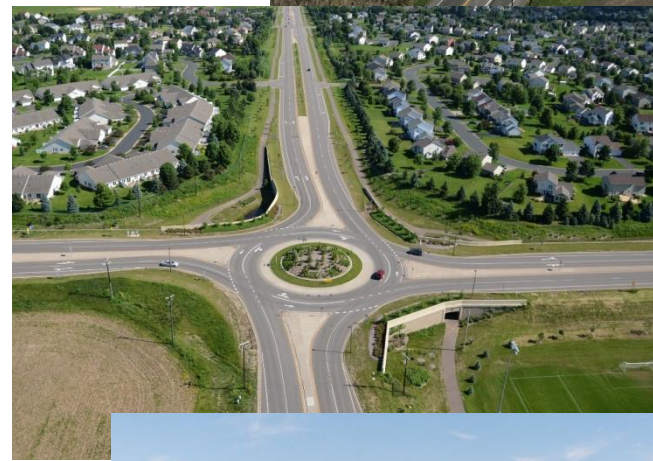
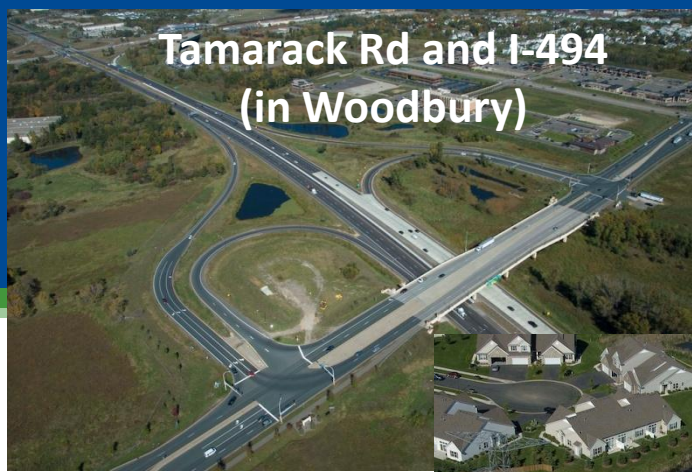
— Principal Arterial
— "A" Minor Expander



*Originally proposed, no longer eligible for Regional Solicitation funding

Expanders

Hennepin Co
State Aid Hwys 30
and 101
(in Maple Grove)

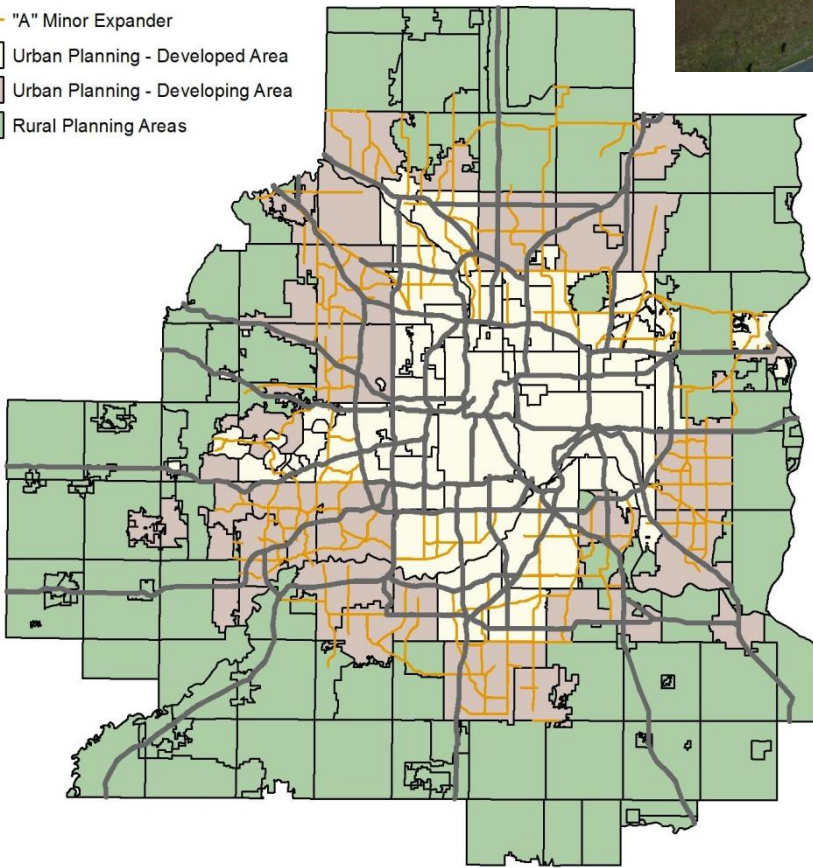


Washington
Co State Aid
Hwys 13
and 18 (in
Woodbury)



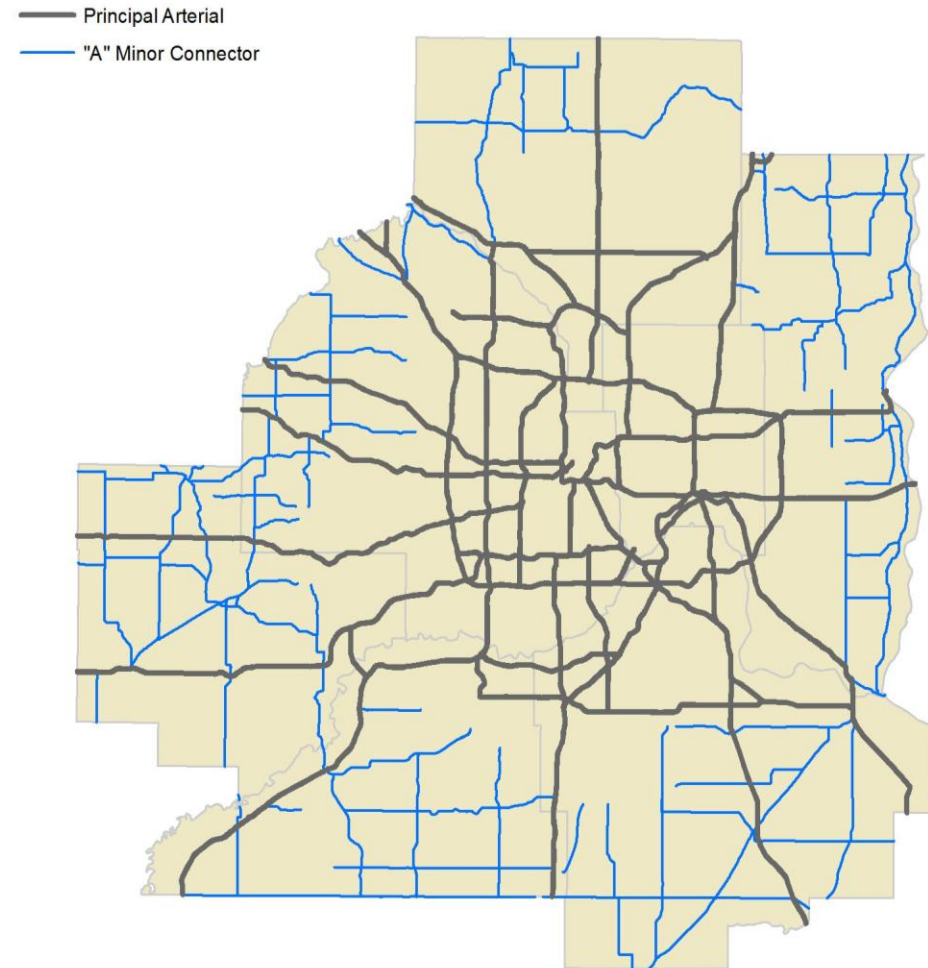
Dakota Co State Aid Hwy 28
(Yankee Doodle Road in Eagan)

- Principal Arterial
- "A" Minor Expander
- Urban Planning - Developed Area
- Urban Planning - Developing Area
- Rural Planning Areas



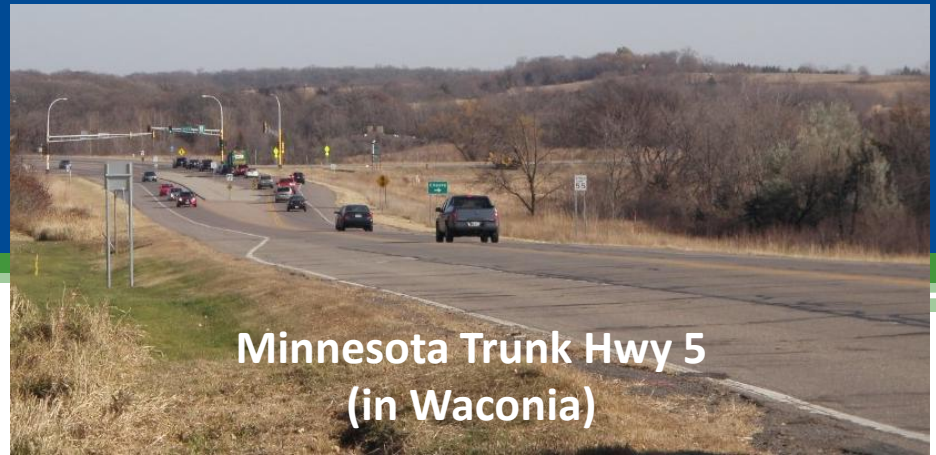
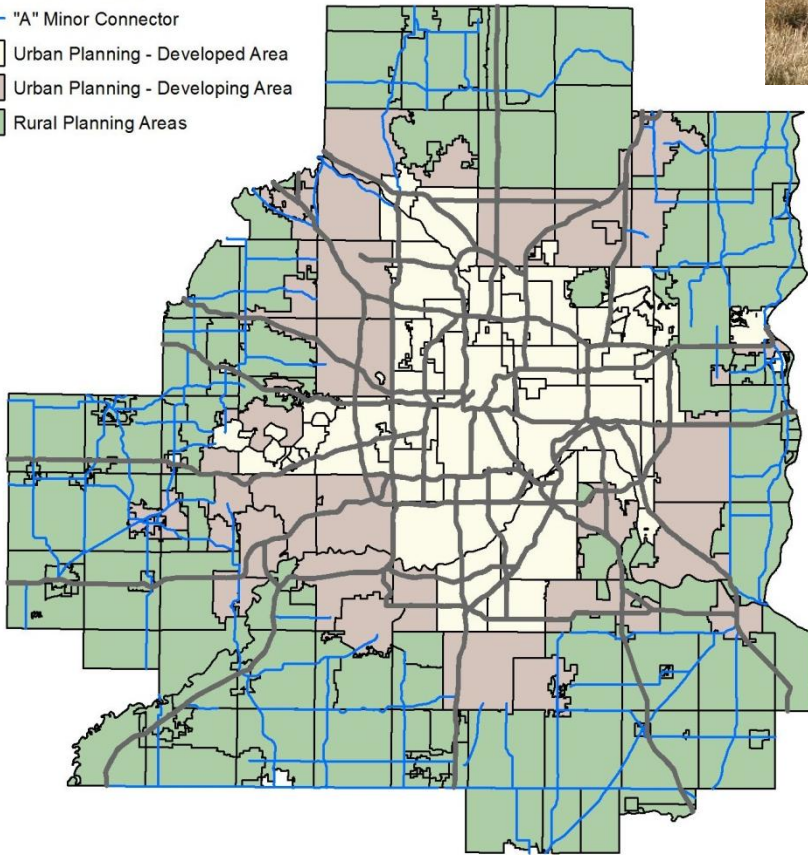
Connectors

- Connect rural centers to each other & to large urban areas
- In rural areas and urban transition areas outside beltway
- Improve horizontal and vertical alignments, eliminate weight restriction, improve safety (no capacity increases)
- 670 miles estimated (2010)



Connectors

- Principal Arterial
- "A" Minor Connector
- Urban Planning - Developed Area
- Urban Planning - Developing Area
- Rural Planning Areas



**Minnesota Trunk Hwy 5
(in Waconia)**



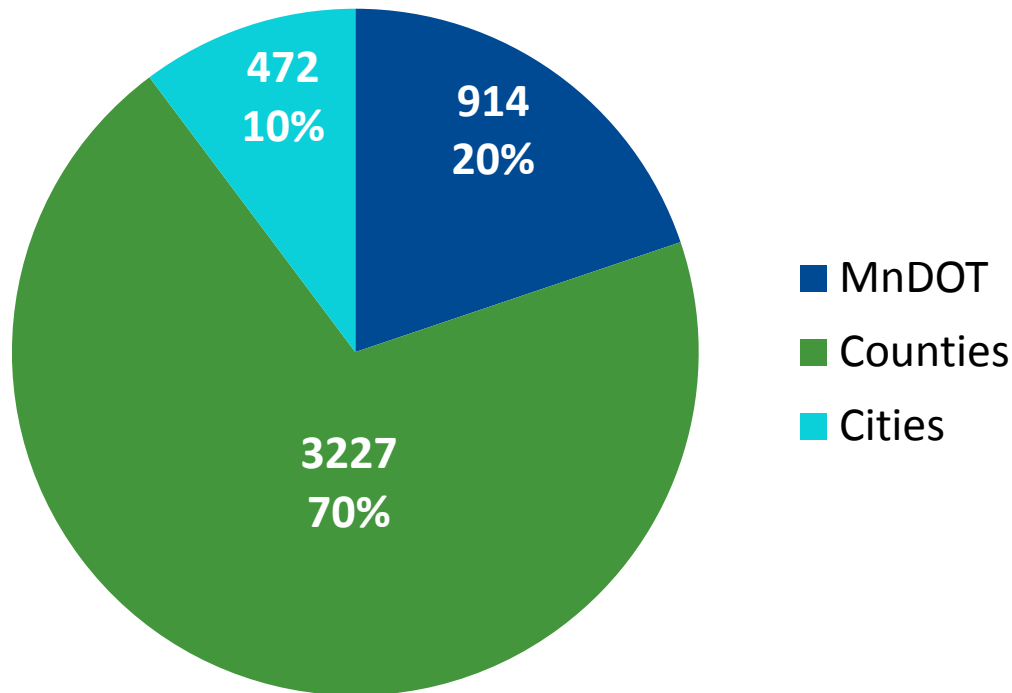
**Scott Co State Aid Hwy 86
(in New Market Township)**



Carver Co State Aid Hwy 11 (in Victoria)

Who is Responsible for the “A” Minor Arterial System?

“A” Minor Jurisdiction (Lane-Miles)



- 1,923-mile system (centerline miles), 4,613 (lane-miles, May 2011)
- Counties have the largest portion of the “A” Minor system with 70%
- The State has 20% of the “A” Minors and thus plays an important role in this system
- Cities have 10% of the “A” Minors; though this is a small percentage, they are active players

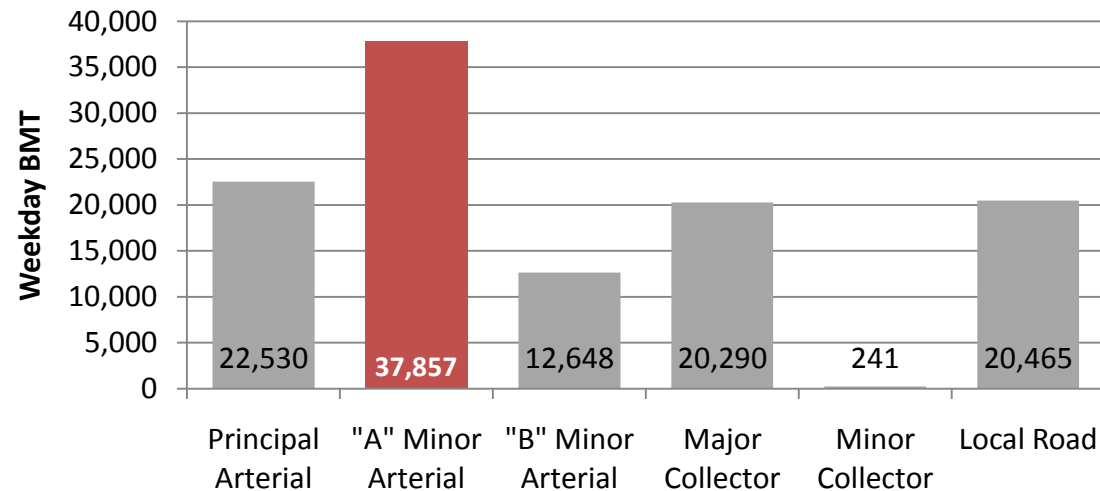
How is the “A” Minor System Used?

Collectively, Principal Arterials and “A” Minor Arterials make up less than 25% of the region’s lane miles, but carry nearly 75% of the vehicle miles traveled (VMT); they also have over 50% of the region’s Bus Miles Traveled (BMT).

Share of System Lane-Miles and VMT

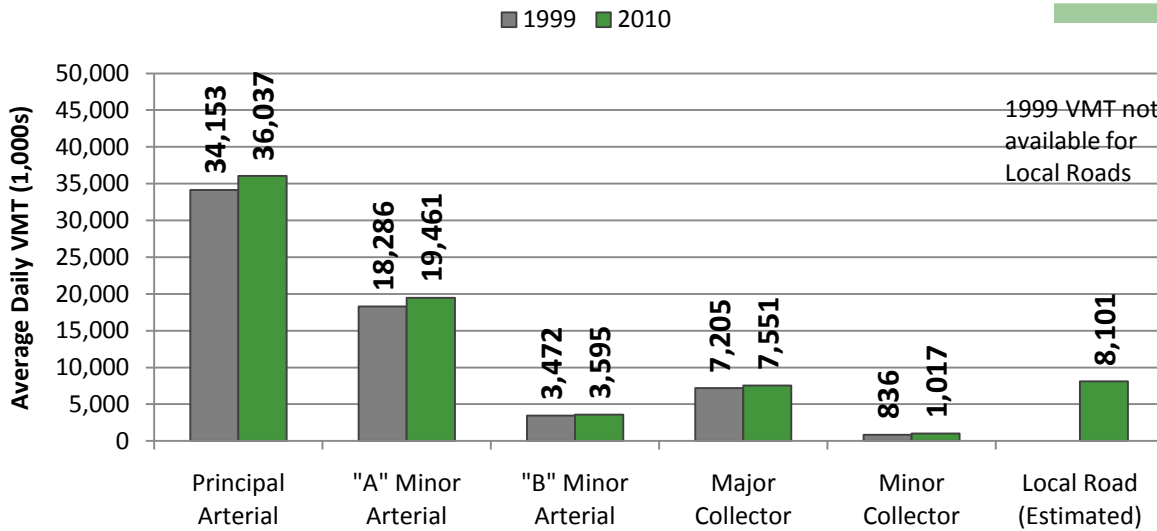
Functional Classification	% of 2011 Lane-Miles	% of 2010 Daily VMT
Principal Arterial	9	48
“A” Minor Arterial	13	26
“B” Minor Arterial	3	5
Major Collector	8	10
Minor Collector	2	1
Local Road	65	10
TOTAL	100	100

Average Weekday BMT by Functional Classification (2010)

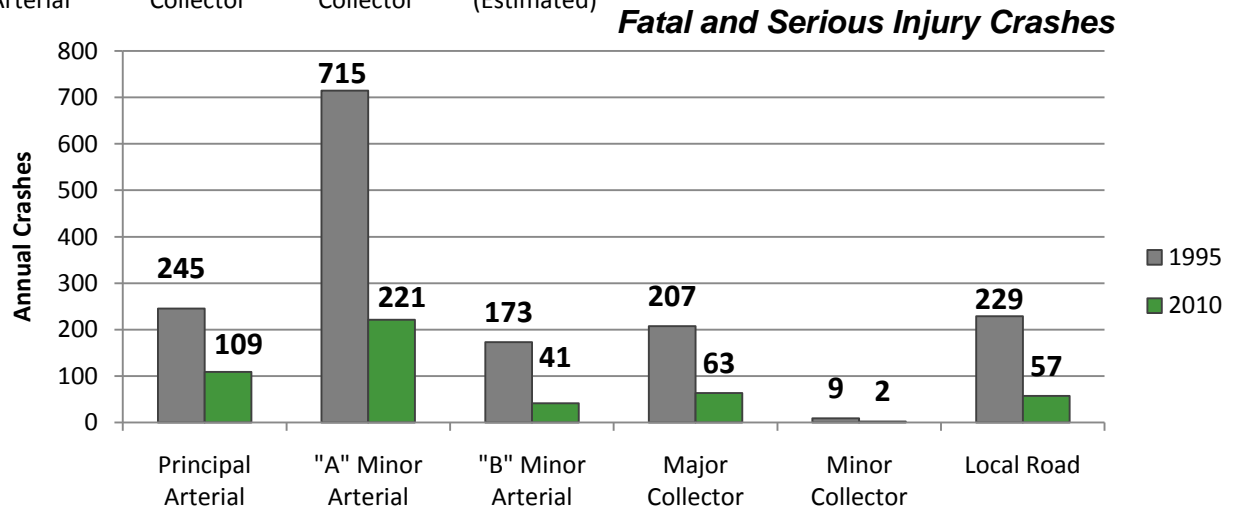


Data is not readily available for freight, bicycle, and pedestrian use on “A” Minor Arterials.

How has the "A" Minor System Performed?

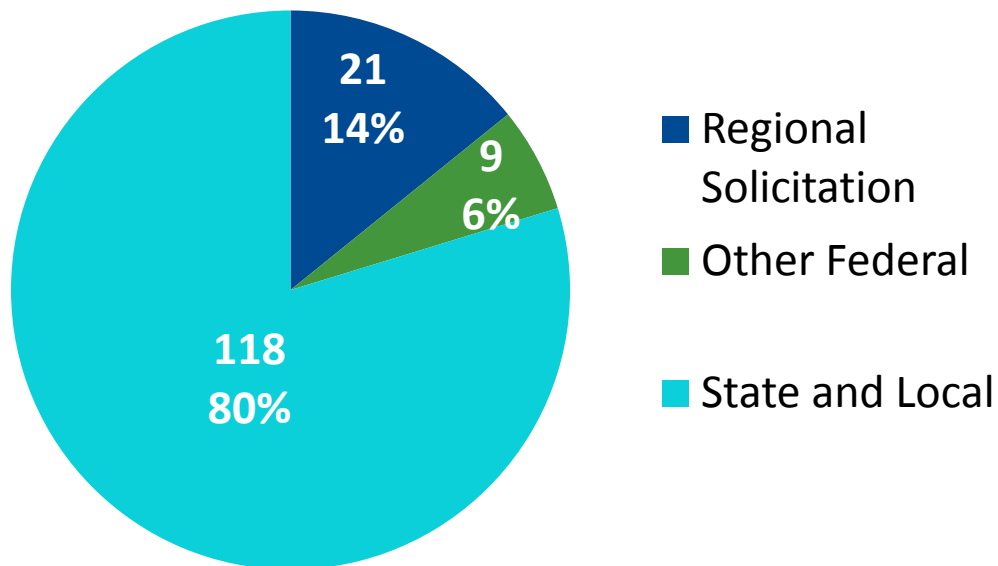


Carrying us more miles more safely.



How has the “A” Minor System been Funded (2000-2010*)?

Average Annual Capital Expenditure (\$ Millions)

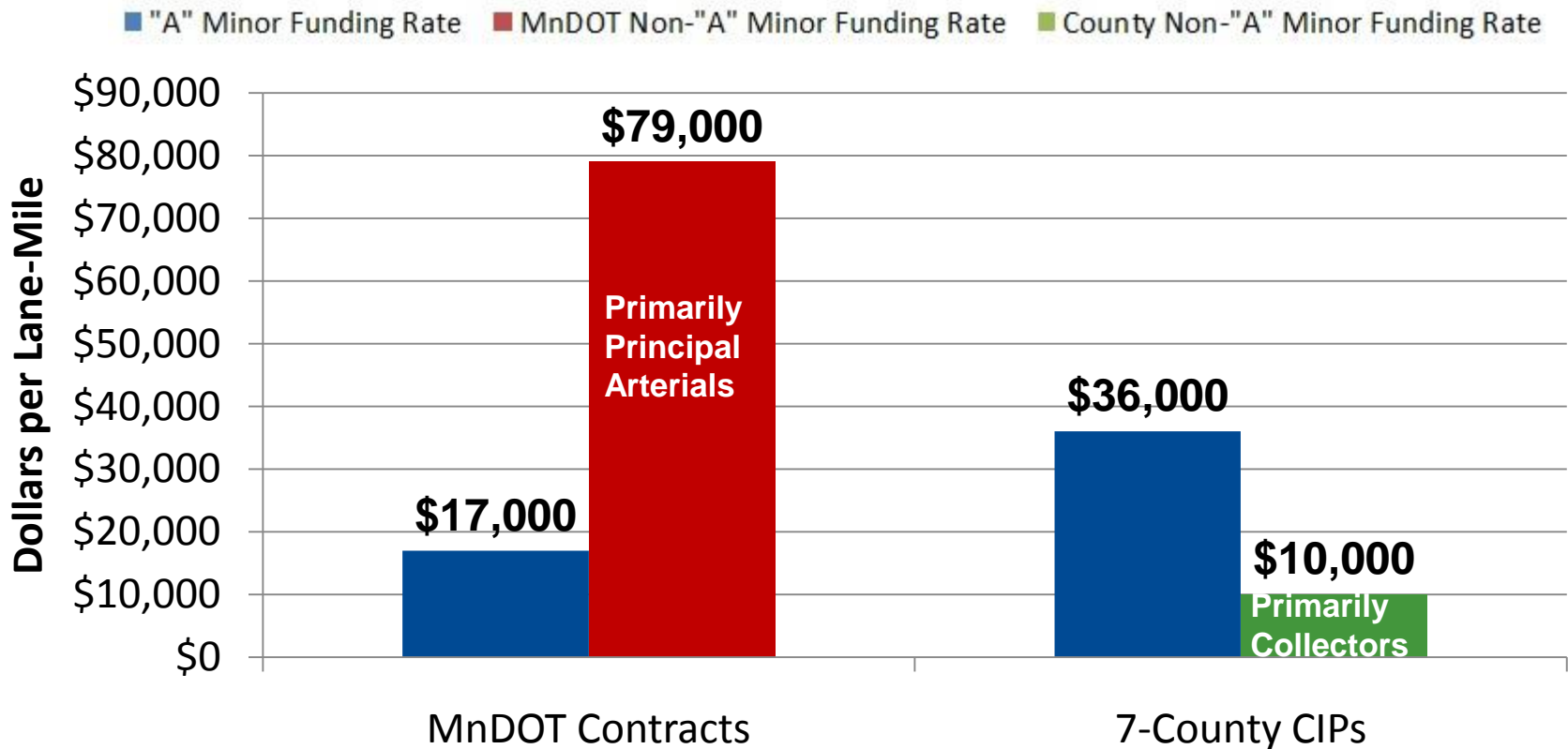


- Dollar amounts are gross estimates of average roadway capital investments
 - Combination of data types
 - No bridges
 - No planning, public participation, design, or right-of-way acquisition
 - Not adjusted for inflation

**Time period analyzed may represent one of higher federal funding amounts that may not continue into the future.*

What was the Rate of Expenditures (2000-2010*)?

Average Annual Capital Expenditure per Lane-Mile



**Dollar amounts are gross estimates, do not include bridges, planning, design, or right-of-way acquisition, and are not adjusted for inflation.*

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Questions

Scott Co State Aid Hwys
21 (Expander) & 27 (Connector)
(Credit River Township)

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