



County Highway 42 Visioning Study

County Planning Commission Meeting

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Physical Development Division
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Presentation Outline




- Study Overview & Review; Updates
- Need for an Updated Hwy 42 Plan
- Overall Vision and Intersection Planning
- Stakeholders and Outreach
- Planning highlights for each City
- Next Steps & Discussion

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Study Overview & Review


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DAKOTA/SCOTT COUNTY LINE
BURNSVILLE CENTER
RED LINE BRT
DCTC
US 52

6 LANE DIVIDED HIGHWAY	LAKE MARION GREENWAY TRAIL CROSSING	EXISTING TRAFFIC SIGNAL (29 TOTAL)
4 LANE DIVIDED HIGHWAY	NORTH CREEK GREENWAY TRAIL	FULL ACCESS - NO SIGNAL (13 TOTAL)
CITY BOUNDARY	VERMILION HIGHLANDS GREENWAY CONCEPT PLAN	74 ACCESS (9 TO AL)


- 15.5 mile study corridor – principal arterial (PA) highway
- 29 signalized intersections (+1 in 2021 – CH 73/Akron Ave)
- Previously studied with Scott County in 1999

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Study Process and Goals/Objectives



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Key Study Questions & Process





What does the community want?







How does/will the corridor operate?





What are the possible problems & solutions?





How will we implement and fund future actions?

We are here


Goals & Objectives

- Update the current long-term plan for Highway 42 (adopted in 1999)
- Leverage the County's 2040 Transportation Plan/forecast
- Anticipate diverse needs
 - Safety
 - Congestion & delay
 - Access & related tradeoffs
 - Pedestrians, bicyclists, and transit riders
 - Plan for actual future traffic and needs (anticipate growth/development)

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Recent and Upcoming Projects



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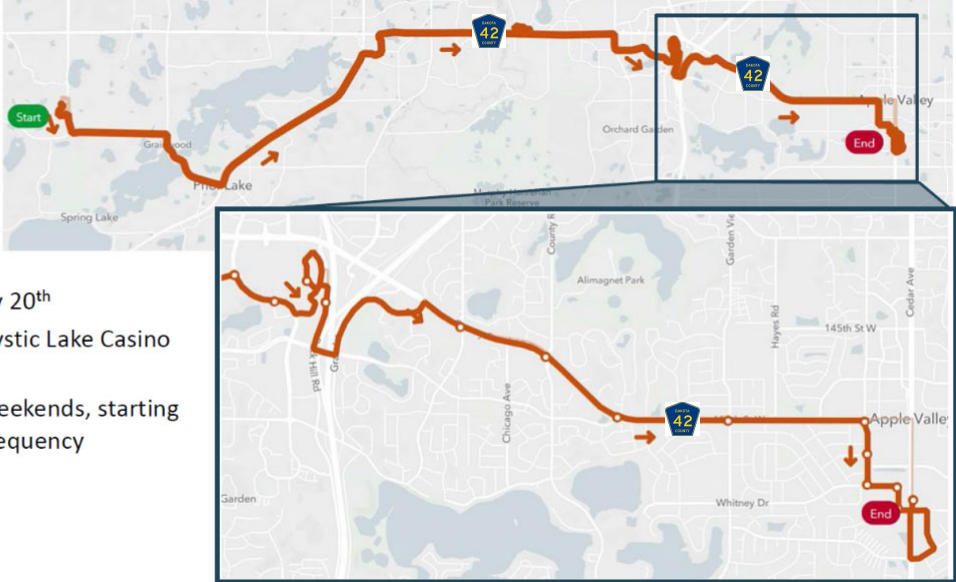


<ol style="list-style-type: none"> 1 Lake Marion Greenway Crossing Constructed summer of 2020 2 Pavement Reconstruction Planned for 2021 construction 3 Eastbound Left-turn Lane Extension & Bridge Preservation - Completed in 2017 4 Trail Improvements North Side of CH 42, Completed in 2015 5 Lac Lavon Striped Bicycle Lanes in Roadway - Completed summer of 2020 	<ol style="list-style-type: none"> 6 Traffic Signal Improvements at CH 42 & CH 23 Completed in 2017 7 North Creek Greenway Crossing New tunnel underpass and new trail along south side of CH 42, Flagstaff Ave to Pilot Knob Rd, planned for 2022 construction 8 Signal Upgrades at Johnny Cake Ridge Rd A new signal and roadway improvements were completed in 2020 9 New 3/4 Intersection CH 42 and Embury Path, Completed in 2018 	<ol style="list-style-type: none"> 10 Paving of Biscayne Ave South of CH 42 Completed in 2020 11 Akron Ave Intersection and Median Modification To be constructed in 2021: The project includes installation of a new traffic signal, widening of Akron south of CH 42, and changes to the CH 42 median east of CR 73/Akron to prohibit left turns from driveways onto CH 42 12 Pavement Reconstructed on CH 42 E of 145th/S-curve to MN Hwy 55, Completed in 2018 13 New Diamond Interchange CH 42 and US 52, Completed in 2017
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Transit Service Update – New MVTA Route



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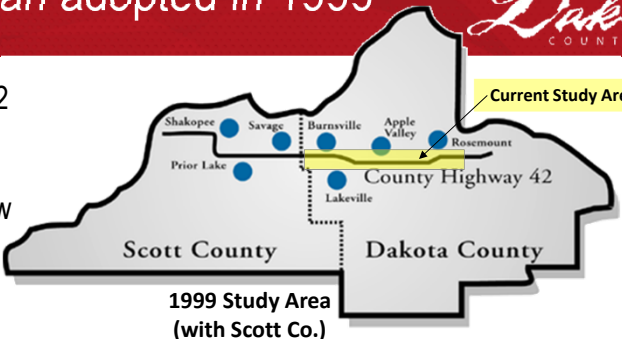
- Starting February 20th
- Running from Mystic Lake Casino to Apple Valley
- Weekdays and weekends, starting with half-hour frequency

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Our work will update the plan adopted in 1999



- Need an updated plan to manage Hwy 42 for the next 20 years
- Today's Hwy 42 traffic = 20% - 50% below levels forecast in 1999, yet still growing

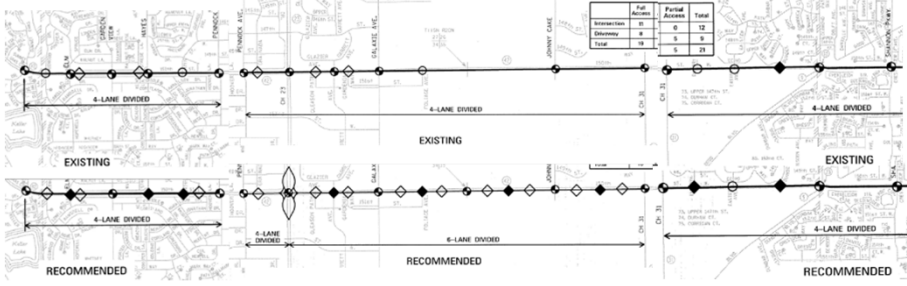


1999 Study Area (with Scott Co.)

LEGEND

Full Access		Partial Access	
⊙	Traffic Signal	◆	3/4 Access
○	Unsignalized	◇	Right-In/Right-Out

1999 Adopted Plan for Apple Valley



Intersection	Full Access	Partial Access	Total
11	0	12	12
8	5	5	10
Total	5	17	22

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Need for Corridor Plan Update



Locations with pedestrian and bike needs





Pedestrian/Bicycle Needs



Safety Considerations



Vehicle Capacity Needs



Transit Considerations

Focus-area issues: trail gaps, ped/bike demands, safety, & opportunities

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Need for Corridor Plan Update



Segment with the top transit considerations & opportunities



- Pedestrian/Bicycle Needs
- Safety Considerations
- Vehicle Capacity Needs
- Transit Considerations

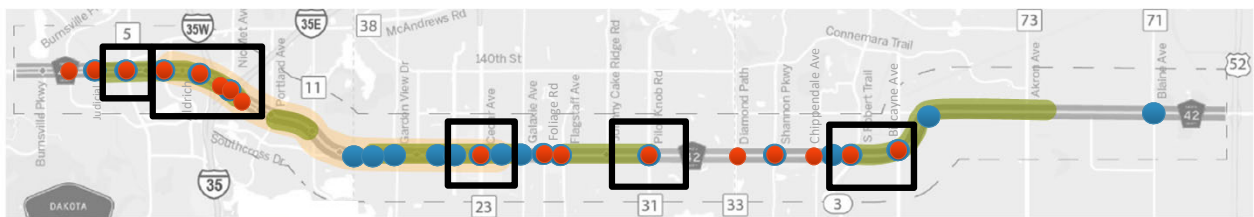
Focus-area issues: development densities, MVTA input, opportunities

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Need for Corridor Plan Update



Locations with the highest future traffic volumes (2040) in addition to safety considerations & the other needs



- Pedestrian/Bicycle Needs
- Safety Considerations
- Vehicle Ops/Capacity Needs
- Transit Considerations

Other issues/needs: aging infrastructure, future development/redevelopment

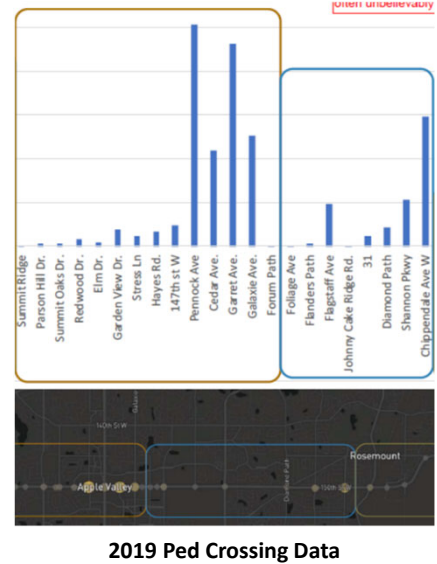
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What's new in this Hwy 42 plan update?



- **More diverse mobility and access needs**
 - Established development areas; redevelopment too
 - Increased diversity of travelers – age, ethnicity, income, travel modes/needs
 - Travel behavior shifts – seen pre-COVID & trending

- **Technology, tools, & arterial management options**
 - Traveler data, signals, & other tech – more tools to measure & manage performance
 - More “right-sized” options for future vision



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Overall Highway 42 Corridor Vision



- ✓ *Manage access and traffic controls*
- ✓ *Reduce or defer need for Highway 42 expansion*
- ✓ *Maintain & improve corridor functions, serving all travelers*
 - 2040 travel demand forecasts
 - All modes – ped, bike, bus transit, & motorists



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Common and New Intersection Types

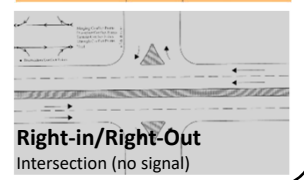
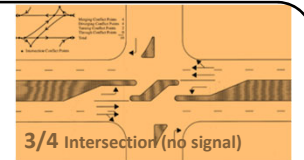


Vehicle Ops/Capacity
Safety

Goal: Manage conflict points

Conflict Types	
Diverge:	8
Merge:	8
Crossing:	16
Total:	32

Will propose **proven & conventional intersections** for most locations, like existing Hwy 42



Considering new ideas for **higher-volume intersections**

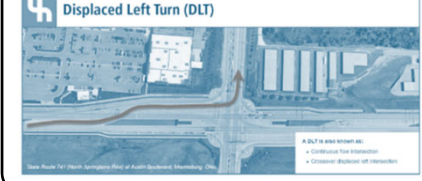
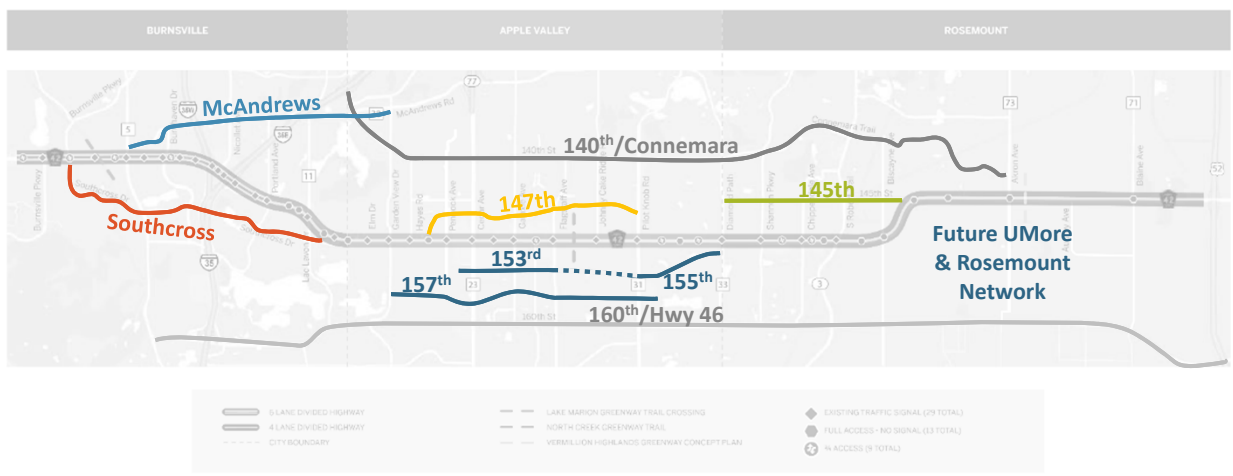


Photo Source: Virginia Department of Transportation

Supporting Roadways & System Perspective



Study considers the roles of existing/future parallel routes and frontage to support Hwy 42



Study Stakeholder Groups



Hwy 42 Stakeholder Groups	Cities	Dakota County	MVTA	MnDOT & Fed Hwy Admin	Business Interests	Met Council & Other
Project Management Team (PMT)	✓	✓	✓			
Study Advisory Committee (SAC)	✓	✓	✓	✓	✓	✓
County Planning Commission		✓				
City Councils	✓					
County Board		✓				

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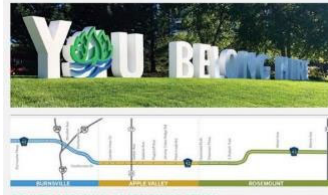
Engagement Activities – Overview



Website



Emails, Newsletter and Mailings



Online Meetings (Small Groups)



Social Media

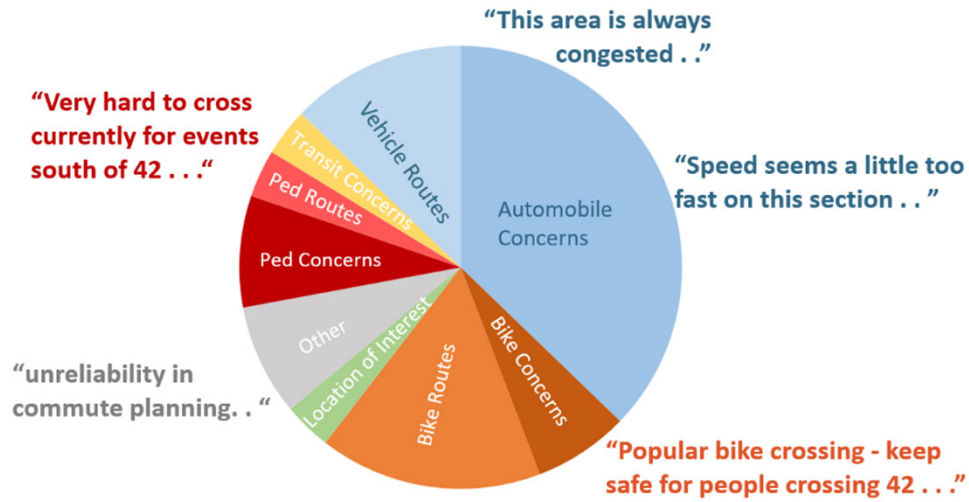


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Public Feedback Received (Phase 1)

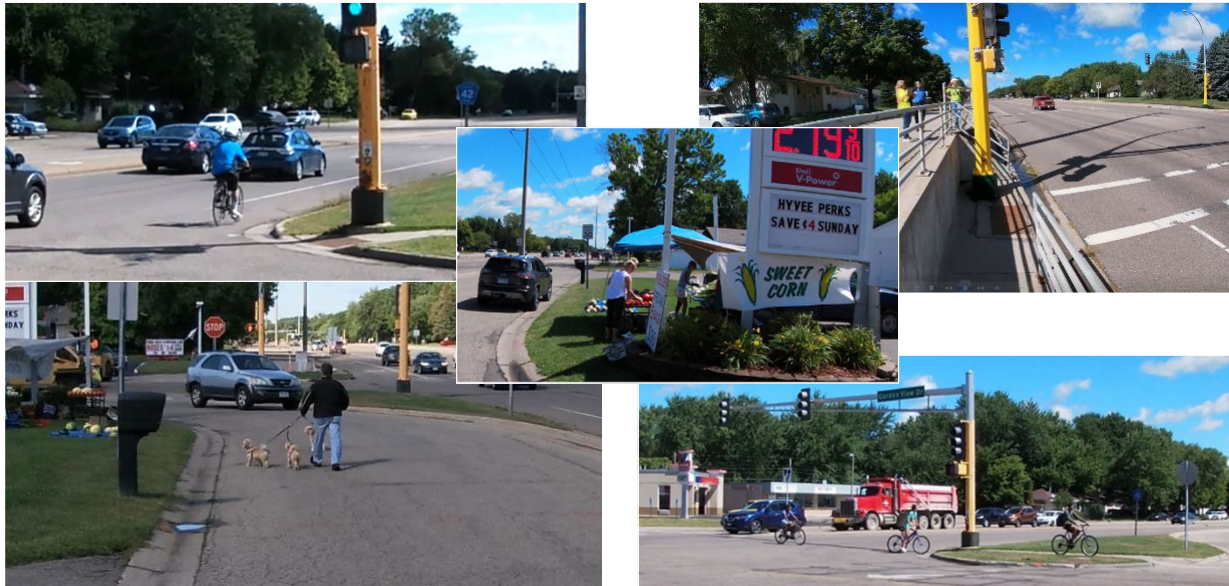


Summary of community concerns and Hwy 42 needs:



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Phase 2 Outreach: Burnsville-Apple Valley Neighborhoods Focus (Just Starting Now)



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City Highlights & Ideas – Apple Valley

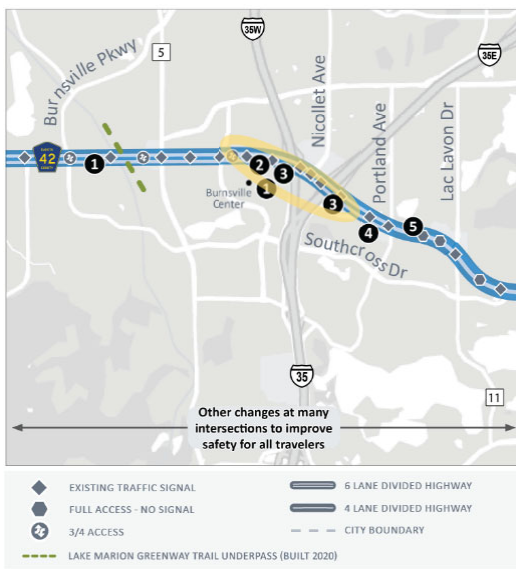


Aging infrastructure needs and context-sensitive opportunities

- 1 Coordinated improvements with the intersections of Southcross Drive, Redwood Drive, and Elm Drive to better accommodate vehicle traffic, pedestrians and bicyclists
- 2 One-way frontage road system to provide more space for pedestrian and bike accommodations
- 3 Potential grade-separated crossings for pedestrians and bicyclists
- 4 Grade-separated crossing of the high volume of Cedar Avenue/Highway 77
- 5 New intersection configurations options to provide additional capacity at Pilot Knob Road

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City Highlights & Ideas – Burnsville



Transit service opportunities, high traffic volumes, and future redevelopment

- 1 Highway 42 bus-stop improvements and transit-station upgrades at Burnsville Center
- 2 Intersection redesign at Aldrich Avenue, allowing traffic and pedestrians/bicyclists to cross under Highway 42
- 3 Freeway interchange ramp changes to improve land access and Highway 42 connections
- 4 Improvements around Portland Avenue to address the eastbound lane drop and other issues
- 5 Possible bus-stop improvements in Burnsville in segments east of I-35E

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Dakota
COUNTY 21

City Highlights & Ideas – Rosemount

Trail and roadway safety needs; opportunities with development

- 2** Grade-separated crossing of both the S. Robert Trail intersection and the adjacent railroad crossing
- 3** Trails to fill current gaps in the system between S. Robert Trail and Akron Avenue
- 4** Realignment of Highway 42 to remove tight curves and provide better visibility for a new signal at 145th Street
- 5** Loop ramps to provide for the heaviest traffic movements at Highway 52 and a frontage road system between Blaine Avenue and Highway 52 to reduce direct access to Highway 42
- 6** Planned access along Highway 42 to accommodate future roadway network as area is developed

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Current Work and Next Steps

Dakota
COUNTY 22

- Outreach Phase 2 Continues
- Pedestrian, Bicycle, & Transit – Needs & opportunities
- Traffic Modeling – Test 2040 traffic with intersection plans
- Intersection Plans & Draft Recommendations (spring 2021)
 - Feasibility of ideas/alternatives
 - Updated plan, recommendations
 - Implementation

Questions?

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