

EXECUTIVE SUMMARY

2040 Corridor Management Plan for Dakota County Highway 42

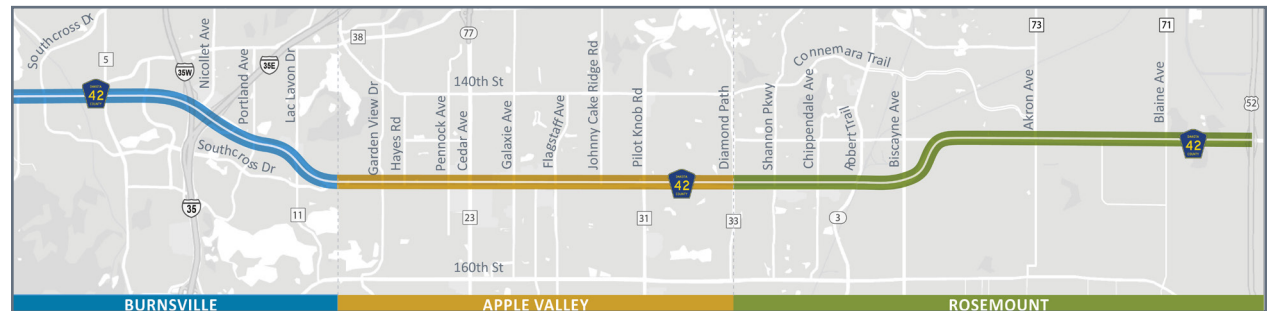
Dakota County's Highway 42 Management Plan for 2040 updates the long-term plan (adopted in 1999 and 2007). The Management Plan provides 20-year guidance for managing County Highway 42 from the County's west border in Burnsville to Highway 52 in Rosemount (15 miles). County Highway 42 (Highway 42) is an east-west principal arterial in Dakota and Scott Counties, and as such, is managed for efficient and safe travel. It serves thousands of users each day, providing connections to other major arterials such as I-35W/I-35E and Hwy 52. It also provides local access to residential and commercial areas.

Why was Highway 42 studied?

Today's vehicle traffic volumes (2019) are 20%-50% below the levels forecast in 1999, yet they are still growing. This study looked at recent data and best practices to understand how the highway can best be managed in the future. It considered the roles of existing and future parallel routes and frontage roads and the increasing need for safe and efficient walking, biking and transit to plan for the future of the transportation system in Dakota County and the surrounding area.

Updates to the plan leveraged 2040 transportation plans and forecasts (Dakota County and Cities), incorporated local comprehensive planning, and created short- and long-term guidance to manage the corridor.

County Highway 42 Study Area



Study Goals

The Management Plan aimed to address the following goals for Highway 42:



Improve Safety



Reduce Traffic congestions and delay



Balance access to adjacent properties and the local roadway network



Design for pedestrians, bicyclists and transit users



Prepare for future transportation needs (ex. land development and growth)

Key Findings

A review of technical analysis and public feedback found that overall, Highway 42 can be effectively managed through the year 2040 by using approaches similar to those of the past. Therefore, the updated plan is mostly consistent with the 1999 corridor plan, with modifications to incorporate innovations and best practices and provide a more concrete vision for multimodal improvements such as walking, biking and transit facilities. The overall management plan revolves around:

- **Maintaining and improving corridor functions to serve all travelers**
- **Controlling access and traffic**
- **Reducing or deferring the need for Highway 42 expansion**

The following pages provide a summary of the recommended improvements by community.

Summary of Hwy 42 Recommendations

City of Burnsville

Context

Highway 42 in Burnsville has major commercial areas west of I-35W and I-35E, with residential and some retail to the east. Highway 42 through Burnsville has six through lanes west of Portland Ave to accommodate high traffic volumes (29,000 to 51,000 vehicles per day). The City is planning for redevelopment of the Burnsville Center/Mall area, including a more mixed-use pattern around Burnsville Center (retail, office, and residential).



The highest traffic volumes/ complexity

Segments of Highway 42 in Burnsville carry more than 50,000 vehicles per day, which include the freeway interchanges and other connections serving complex traffic movements and several safety and congestion issues.



Plans for redevelopment and “rethinking” highway connections

The City’s redevelopment vision will help create opportunities to rework access points and connections along Highway 42, the freeways, and other roadways.



Proven bus transit services opportunities

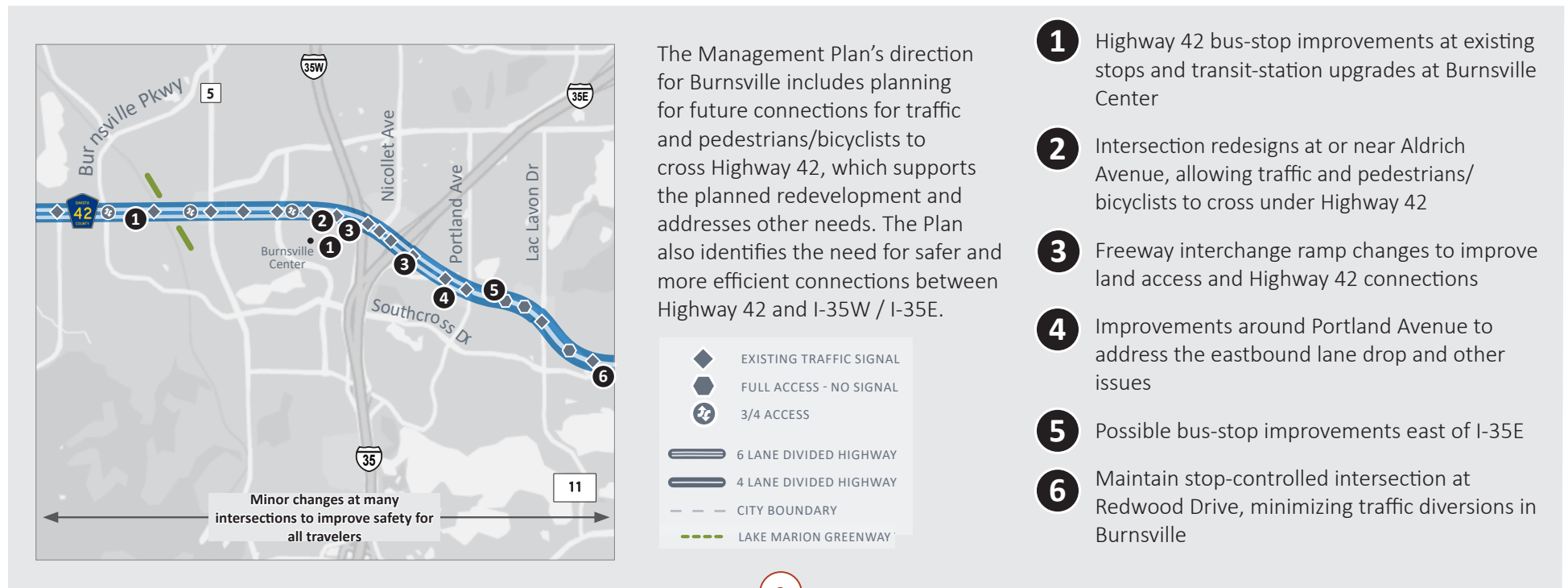
Highway 42 in Burnsville includes several bus stops and has a strong history and positive future for serving riders. Routes include connections traveling west to Scott County and several routes traveling to Burnsville Center.



Need to better serve pedestrians and bicyclists

There are several challenges identified in Burnsville for pedestrians and bicyclists, which include crossing Highway 42 and cross-streets.

Recommended Improvements



Summary of Hwy 42 Recommendations

City of Apple Valley

Context

Highway 42 in Apple Valley has residential and parkland on the western end of the corridor, major commercial development around Cedar Avenue (Highway 77/23), and a mix of commercial and residential properties adjacent to the corridor to the east. Highway 42 in Apple Valley has four through lanes serving 20,300 to 36,000 vehicles per day. Plan recommendations do not include the addition of through lanes.



High volume intersection at Cedar Avenue

With almost 80,000 vehicles per day using the intersection of Cedar Avenue and Highway 42, this location has impacts on operations from Pennock Avenue to Flagstaff Avenue. Safety is also a concern based on the amount of crashes, including some with injuries and fatalities.



Aging Infrastructure

The segment of Highway 42 from Redwood Drive to Pennock Avenue has some of the oldest pavement and signals. Replacement of this aging infrastructure may put priority on improvements within this segment.



Plans for development

Potential redevelopment of commercial areas around the Cedar Avenue intersection, and new development between Flagstaff Avenue and Pilot Knob Road, will create opportunities to streamline access and traffic.



Need to better serve pedestrians and bicyclists

There are several challenges identified in Apple Valley for pedestrians and bicyclists, which include crossing Highway 42 and cross-streets.

Recommended Improvements



The Management Plan's guidance for Apple Valley includes future connections for pedestrians/bicyclists to cross Highway 42 and improvements at the highest volume intersections. The County and City also have an opportunity to rethink how the segment between Elm Drive and Hayes Road functions with the existing frontage road system.

- 1 Coordinated changes with the removal of the signal at Elm Drive concurrent with a new underpass at Redwood Park to accommodate pedestrians and bicyclists
- 2 Improvements at Garden View to address capacity issues with possible one-way frontage road system to provide more space for pedestrians and bicyclists, filling a gap in the trail system
- 3 Potential grade-separated crossings for pedestrians and bicyclists
- 4 Grade-separated crossing of the high-volume intersection of Cedar Ave/Hwy 77
- 5 Updated plan recommends keeping a signal at Garrett
- 6 New intersection configuration options to provide additional capacity at Pilot Knob Road

Summary of Hwy 42 Recommendations

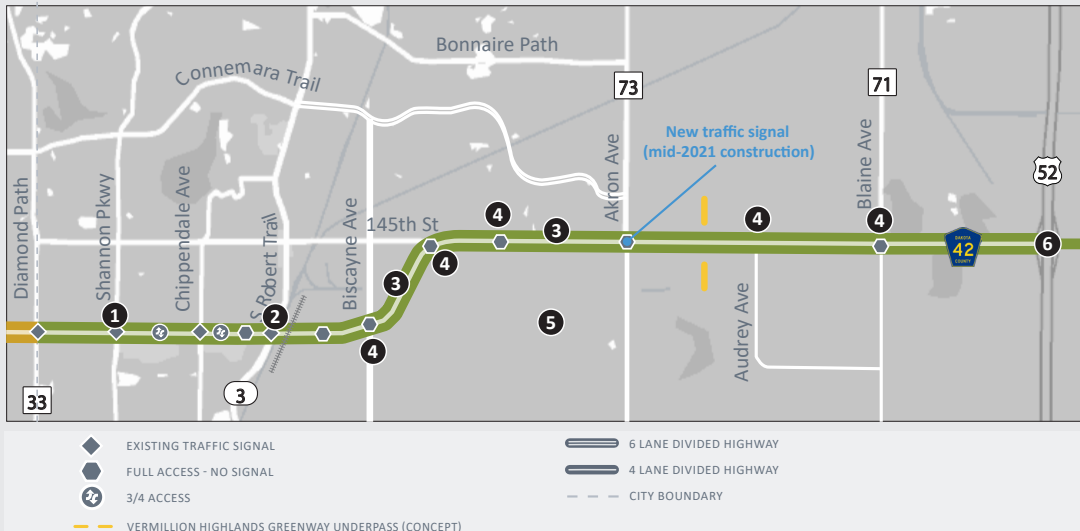
City of Rosemount

Context

Highway 42 in Rosemount has a mix of commercial and residential areas west of S. Robert Trail/Highway 3 with plans for future mixed-use development south of the corridor to the east. The City has referenced the intersection recommendations adopted by Dakota County in 2007 to implement access for existing and future developments. Highway 42 in Rosemount has four through lanes serving 13,800 to 19,500 vehicles per day.

Recommended Improvements

The Management Plan's guidance for Rosemount will allow for full-access locations for future development, improvements for adjacent trails and future trail crossings of Highway 42 and other improvements.



High volume intersection adjacent to at-grade railroad crossing

The S. Robert Trail/Highway 3 intersection is one of the few remaining major arterials in the metro area with an at-grade railroad crossing. With high traffic volumes also present, a bridge over the intersection and railroad should be considered.



Plans for development and planned highway connections

The City will use the recommendations from this plan to understand the needs for supporting roadway networks and plan access for future developments.



Need to better serve pedestrians and bicyclists

There are several challenges identified in Rosemount for pedestrians and bicyclists, which include crossing Highway 42 and cross-streets. There is also a safety concern at Shannon Parkway due to high number of crashes with pedestrians and bicyclists.



Important connection to Highway 52

The interchange at Highway 52 provides an important connection for the region. Previous studies identified potential improvements that will be driven by development and traffic.

- 1 Pedestrian and bicycle crossing treatments to address current safety concerns
- 2 Grade-separated crossing of both the S. Robert Trail intersection and the adjacent railroad crossing of Highway 42
- 3 Trails to fill existing gaps in the system between S. Robert Trail and Akron Avenue
- 4 Manage series of full- and partial-access intersections, including new signals when needed for traffic, from Biscayne Ave to the east
- 5 Planned access along Highway 42 to support future roadway network as area is developed
- 6 Possible loop ramps to provide for the heaviest traffic movements at Highway 52 and supporting road systems east of Blaine Avenue to manage direct access