

# CSAH 46 Corridor Study

## Summary and Recommendations

### Study Purpose

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Dakota County and the City of Hastings have completed a study of County State Aid Highway (CSAH 46) between the Vermillion River crossing west of General Sieben Drive and Minnesota Trunk Highway 61 (TH 61). The study evaluated safety, traffic, and access issues on the highway. Community members provided input at several in-person and online events. Together, this information was used to create a future vision for the highway.

### Study Goals

- Improve traffic safety and mobility
- Evaluate and improve pedestrian and bicycle facilities
- Implement roadway and intersection improvements
- Improve natural resources
- Engage with the community along the corridor

### Issues and Concerns

The following issues and concerns were identified, based on technical study and community input:

- Obstructed sight lines for drivers
- Speeding was noted as a concern. Also, the different speeds on the corridor make it hard for drivers to know when it is safe to pull out into traffic.
- The road is nearing its capacity for traffic
- Pedestrian and bicycle facilities are not continuous
- The Vermillion River bridge is nearing the end of its service life and does not have pedestrian and bicycle facilities
- Closely spaced intersections lead to congestion and safety issues
- Vehicles passing on the shoulders was noted as a concern in some locations

### Improvement Needs

The study identified the following needs:

- Improve mobility and intersection safety
- Upgrade roadway capacity to accommodate future traffic growth
- Facilitate safe and efficient local access to and from CSAH 46
- Minimize impacts to natural resources
- Accommodate pedestrian and bicycle use
- Replace the aging bridge

## Study Recommendations

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### **Initial Corridor Project**

The project partners have defined an initial corridor improvement project between Pleasant Drive and Highway 61. Long term improvements along the western segment of the corridor between General Sieben Drive and Pleasant Drive will be addressed as future development and redevelopment occurs. The details of the initial project are described below and shown in the figure, with numbers in **black boxes** matching up the improvements described in the text and shown on the figure on page 6 of this document.

### **Roadway Section**

Between Pleasant Drive and Highway 61, CSAH 46 is recommended to be reconstructed as a two-lane divided roadway with right and left turn lanes at select intersections. A raised center median in conjunction with the access management strategy described below is also proposed. Between Pine Street and Highway 61, the road would be narrower to minimize impacts to the Vermillion River and to private property (**map note #1**).

### **Intersection Changes**

#### **PLEASANT DRIVE**

A single-lane roundabout is recommended at the Pleasant Drive and CSAH 46 intersection. A roundabout in this location provides the greatest safety benefit compared to other options while also maintaining traffic flow. A roundabout will encourage slower speeds, facilitate crossings for pedestrians and bicyclists, and accommodate future growth if Pleasant Drive is expanded to the south (**map note #2**).

#### **PINE STREET**

A single-lane roundabout is recommended at the Pine Street and CSAH 46 intersection. The roundabout is anticipated to reduce delay and backups, facilitate efficient access to and from the highway, address left-turn crashes, encourage slower speeds, and facilitate crossings for pedestrians and bicyclists. The roundabout also can be used for u-turns by traffic from nearby intersections or driveways that do not have left turn access onto CSAH 46 (**map note #3**).

### **Access Management**

When driveways and/or intersections are closely spaced, congestion and collision problems result from conflicts between traffic entering and exiting the road and through traffic. The more access points on a road, the more opportunities for such conflicts. Dakota County access spacing guidelines were developed to minimize the potential for safety issues while maximizing the efficiency of the road. For CSAH 46, the guidelines recommend one-quarter mile spacing between full movement intersections and one-eighth mile spacing between partial movement intersections. The locations below do not meet the County's spacing guidelines.

## PLEASANT DRIVE TO VERMILLION RIVER BRIDGE

The intersections between Village Trail and 31<sup>st</sup> Street do not meet the spacing requirements. Recommendations include limiting Riverwood Drive to a right-in/right out intersection. A new senior living facility is planned along the north side of CSAH 46 at Riverwood Drive. The proposed corridor access changes include a right-in/right out intersection at the senior living facility. During final design of the highway, the County and City will consider additional access options for the facility **(map note #4)**.

Four private residences along the north side of CSAH 46 near the 31<sup>st</sup> Street intersection have driveway access directly onto CSAH 46. During final design, consolidating the four private driveways to one common access point opposite 31<sup>st</sup> Street is recommended. The driveway consolidation will improve mobility and safety for both driveway users and highway traffic **(map note #5)**.

## VERMILLION RIVER BRIDGE TO HIGHWAY 61

Immediately east of Pine Street, the intersections of Oak, Maple, and Walnut Street are too closely spaced, as are the intersections of Ashland, Spring, Eddy, and 21<sup>st</sup> Street. Challenging sightlines and trouble finding gaps to make turns have been identified by the public as issues in this location. It is recommended to convert Maple Street, Oak Street, Walnut Street, Ashland Street and Spring Street to right-in/right-out intersections. A full access intersection is currently proposed at Eddy Street. The intersection of 21<sup>st</sup> Street and CSAH 46 is recommended to be closed. The County and City plan to use recommendations from the upcoming MnDOT Highway 61 study to inform final the design of CSAH 46 in the area west of Highway 61 **(map note #6)**.

## *Bicycle and Pedestrian Accommodations*

### GENERAL SIEBEN DRIVE TO PLEASANT DRIVE

The Dakota County Parks Department recently purchased property in the northeast corner of the General Sieben Drive and CSAH 46 intersection for a future Vermillion Greenway Trailhead facility. The project partners are recommending constructing a new off-road trail through the County property and connecting to a new roadside trail along the north side of CSAH 46 extending to Pleasant Drive. The trail segment will complete a connection between the trailhead facility, neighborhoods and parkland to the east **(map note #7)**.

### PLEASANT DRIVE TO HIGHWAY 61

A trail is recommended on both sides of CSAH 46 between Pleasant Drive and Pine Street **(map note #8)**. A single trail is recommended along the north side of CSAH 46 between Pine Street and Highway 61 due to the close proximity to existing homes and the Vermillion River **(map note #9)**. The trails will connect the neighborhood to the adjacent Vermillion River Greenway, other natural resources in the area, and will provide connectivity along the corridor.

## *Vermillion River Bridge*

The Vermillion River Bridge between 31<sup>st</sup> and Pine Streets was built in 1968 and is nearing the end of its service life. Because of its age, it is restricted in how much weight it can carry. The estimated remaining bridge life is 20 years. The shoulders on the bridge are too narrow to comfortably accommodate pedestrians and bicyclists. The bridge is recommended for replacement, with a new structure with a travel lane in each direction, eight-foot wide shoulders, and trails on both sides **(map note #10)**.

## Spot Improvements

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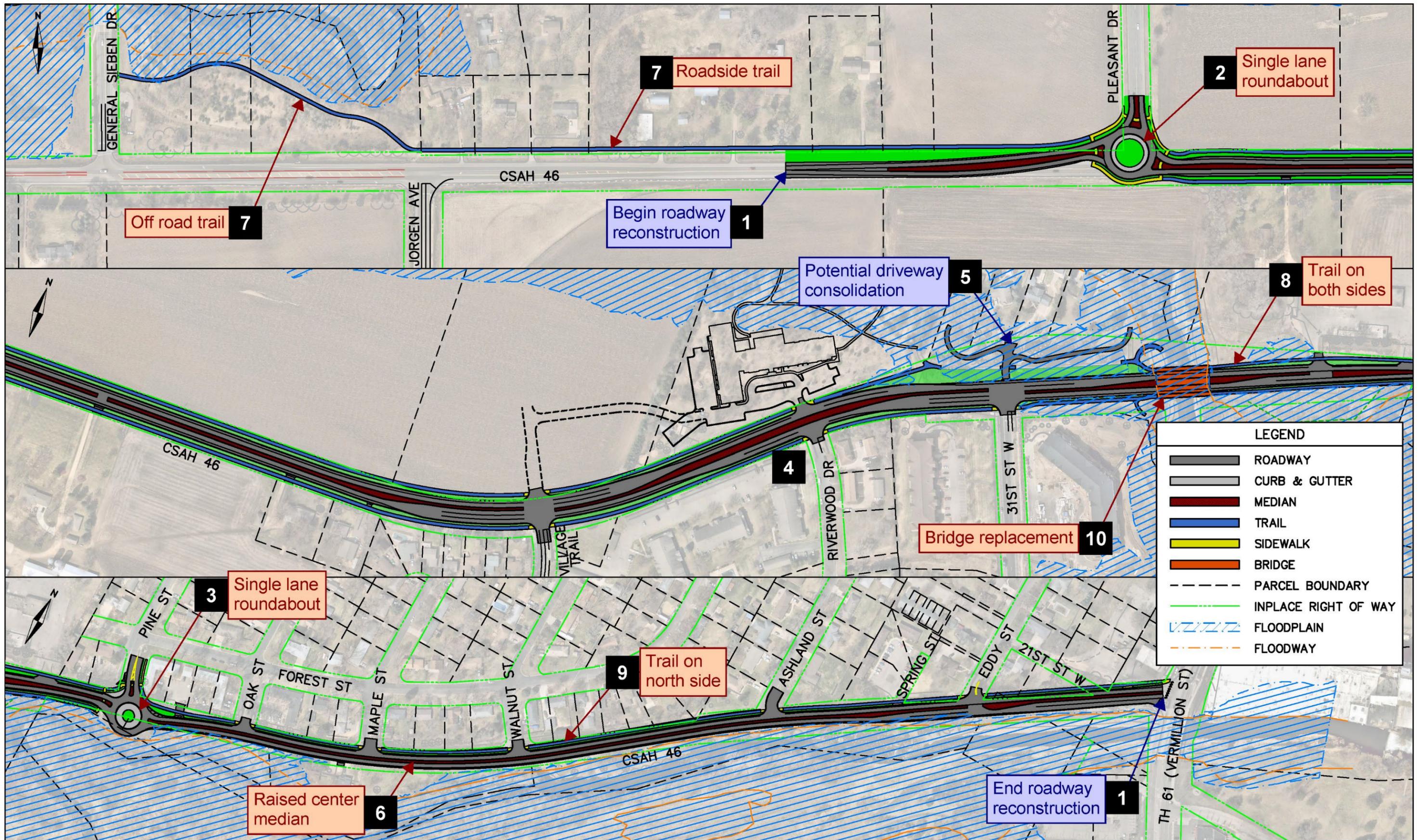
Outside funding opportunities will be pursued to offset project costs. If outside funding is not realized, smaller “spot” improvements could be made at certain locations to improve safety and mobility in more limited ways. These improvements would be intended for a short to mid-term implementation until a larger corridor project occurs. Potential spot improvements include:

- Constructing offset right turn lanes at General Sieben Drive and Jorgen Avenue
- Removing bypass lanes and constructing left turn lanes at Pleasant Drive and Pine Street
- Pavement marking and signing adjustments on side streets at General Sieben Drive, Jorgen Avenue, Pleasant Drive, and Pine Street

## Next Steps

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The estimated cost of the initial corridor project is about \$15.3 million, with Dakota County’s portion being about \$13.0 million and the City of Hastings \$2.3 million. Dakota County is also seeking outside funding such as the Metropolitan Council’s Regional Solicitation and State Bonding requests. If these efforts are successful, the County and City cost shares would be less. The County is currently conducting preliminary engineering for the project, which will provide needed detail to support requests for outside funding.



CSAH 46 - General Sieben Drive to Highway 61  
Recommended Improvements