# Highway 5 Board Set:

- Hwy 5 Improvement Needs
- What We've Heard
- Design Considerations
- Evaluation of Concepts
- Concepts for these intersections:



- » Hwy 5 and Rolling Acres Road
- » Hwy 5 and Minnewashta Parkway/Relocated Arboretum Access
- » Hwy 5 and Crimson Bay Road/Arboretum Drive
- » Hwy 5 and Hwy 41
- What is a Displaced Left Turn Intersection?















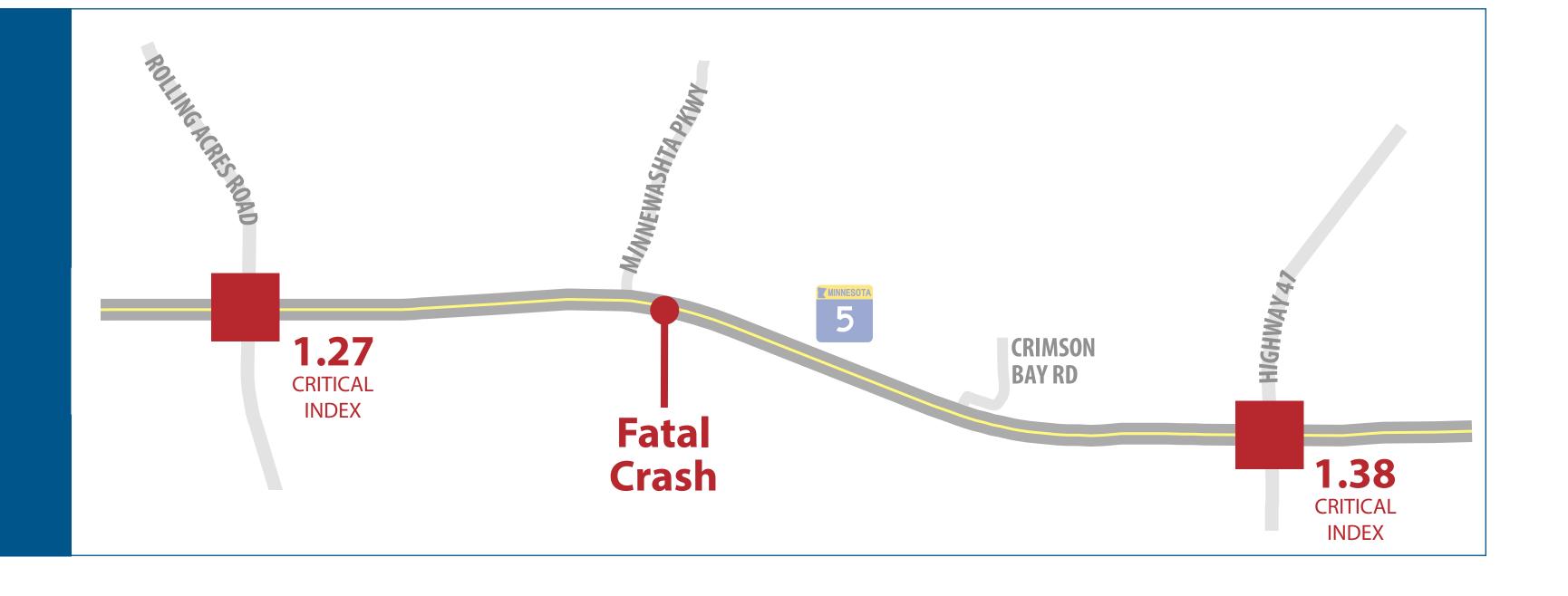
# Highway 5 Improvement Needs

Highway 5 is an A Minor Arterial roadway that connects neighborhoods, cities, job centers, and regional destinations. Its primary purpose is to move traffic safely and efficiently.

# Existing Delay and Backups (PM Peak) Intersection Level of Service (LOS) Overall DS Symulated intersection Minimal delays. B Low level of delay and backups. Some extensive delays. Moderate backups. Some extensive delays. Moderate backups. Taffic at capacity. Long delays and backups. Taffic exceeds capacity. Very long delays and backups. Taffic exceeds capacity. Very long delays and backups.

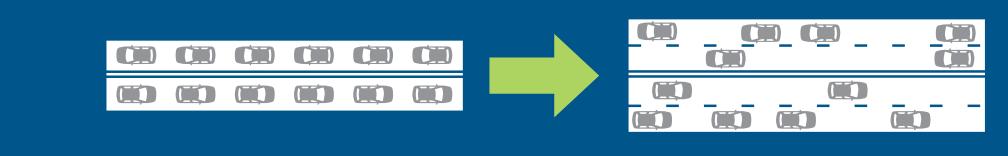
#### **Crash Issues**

Intersections with a critical index above 1.0 indicate a strong likelihood of a geometric design, access, or traffic control issue.



#### **POPULATION** TRAFFIC **GROWTH INCREASE BY 2040 BY 2040** Chaska **Victoria** 10,700 more **54%** 35% east/west trips Chanhassen Carver Co. through study area 39% 49% LANDSCAPE ARBORETUM VISITORS 460,000 annual visitors 5-10% growth over next 10 years Minnesota Landscape **ARBORETUM**

#### **PROPOSED 4-LANE EXPANSION**



Expanding to 4-lanes would reduce delay by 70-80% for 2040 predicted traffic volumes.









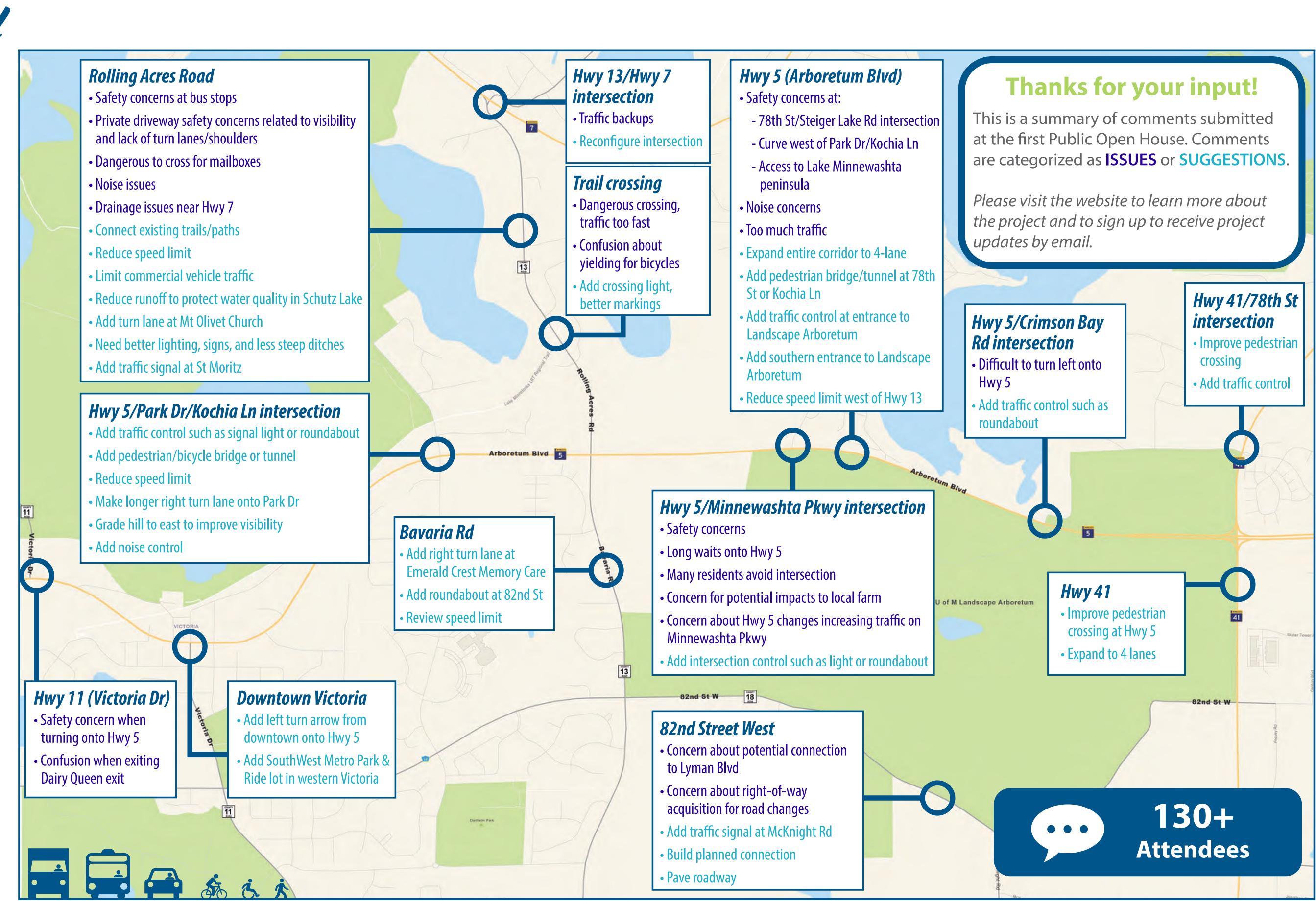






## What We've Heard

Public Open House July 16, 2019





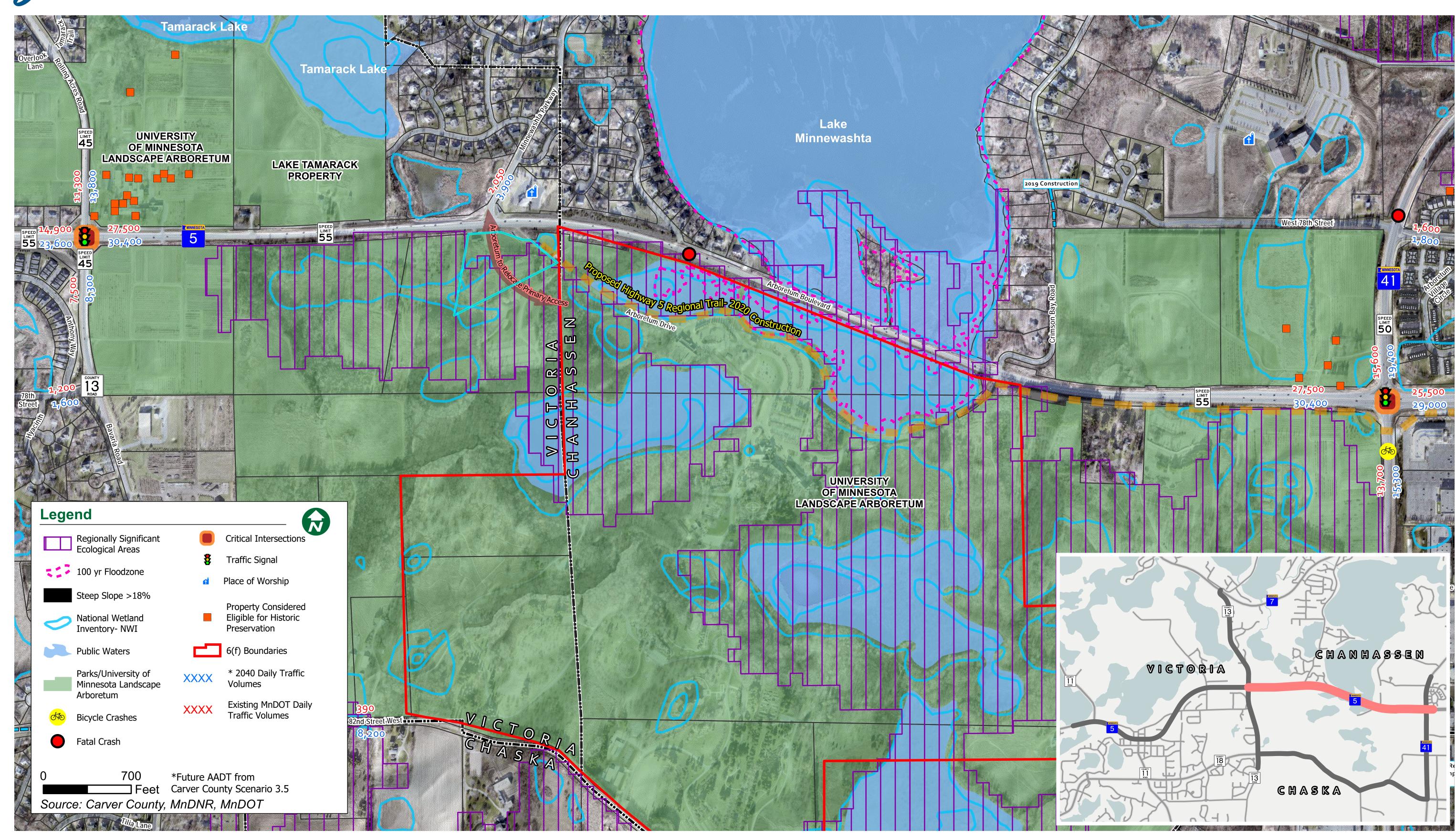








# Design Considerations: Highway 5 East

















# Evaluation of Concepts

Improvement concepts were rated based on how well they met project goals. Overall scores help determine which concept best supports the project's vision.

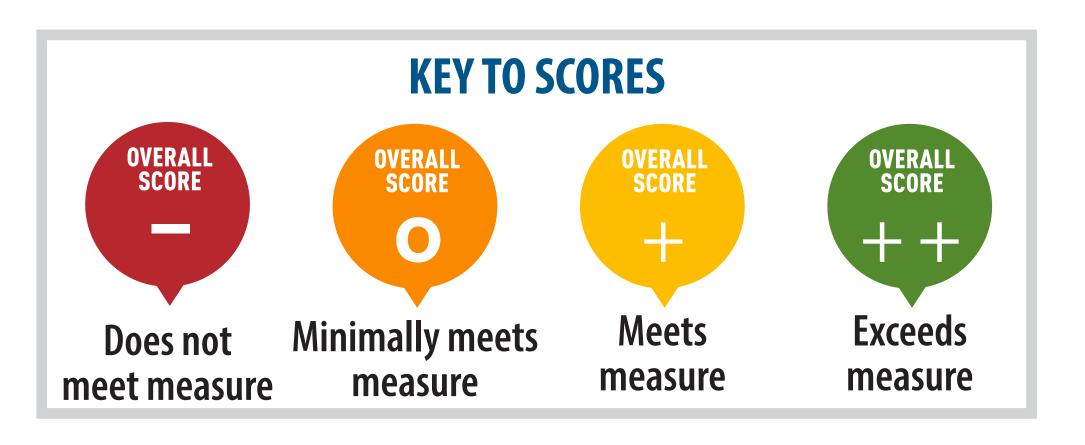
#### We want to hear from you!

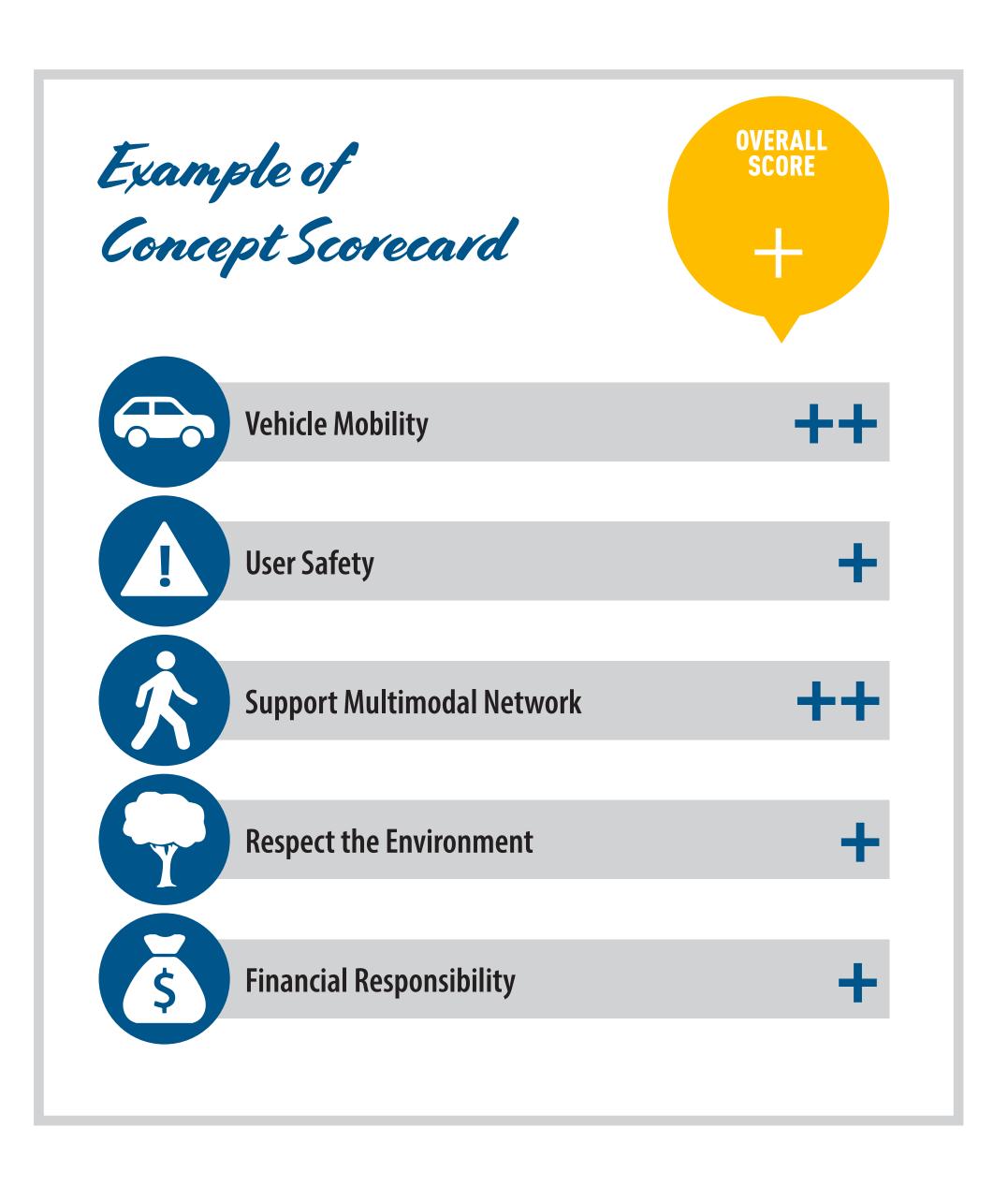
Review the concepts and let us know which you can support.

Look for the "What do you think?" symbol on the informational boards and fill out an input form.



# **Project Goals Vehicle Mobility** Provide efficient and reliable vehicle mobility. **User Safety** Safely accommodate all system users. **Support Multimodal Network** Provide a comprehensive network for pedestrians and bicyclists. **Respect the Environment** Provide infrastructure improvements that respect the environment. **Financial Responsibility** Develop a financially responsible implementation plan.

















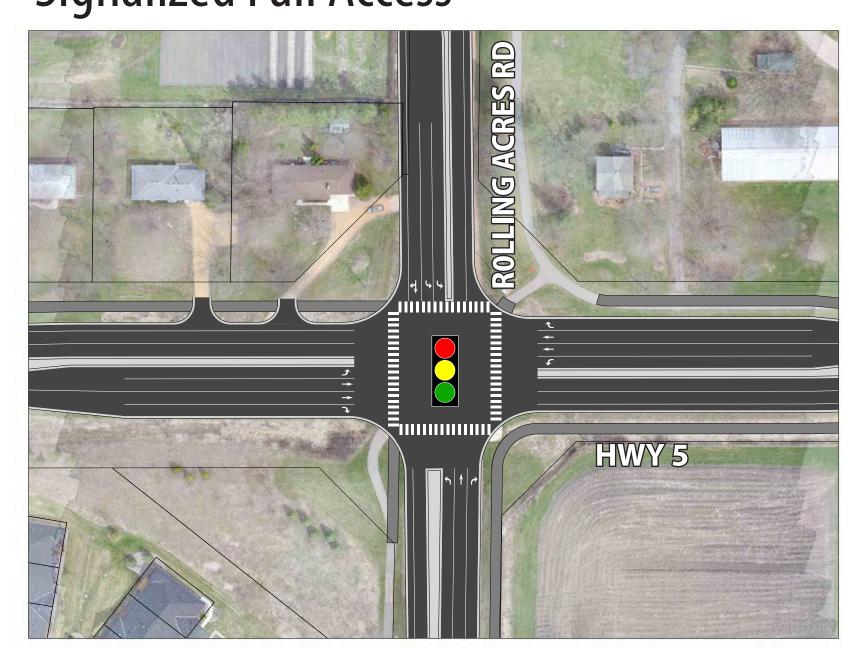


# you think?

# Highway 5 and Rolling Acres Road



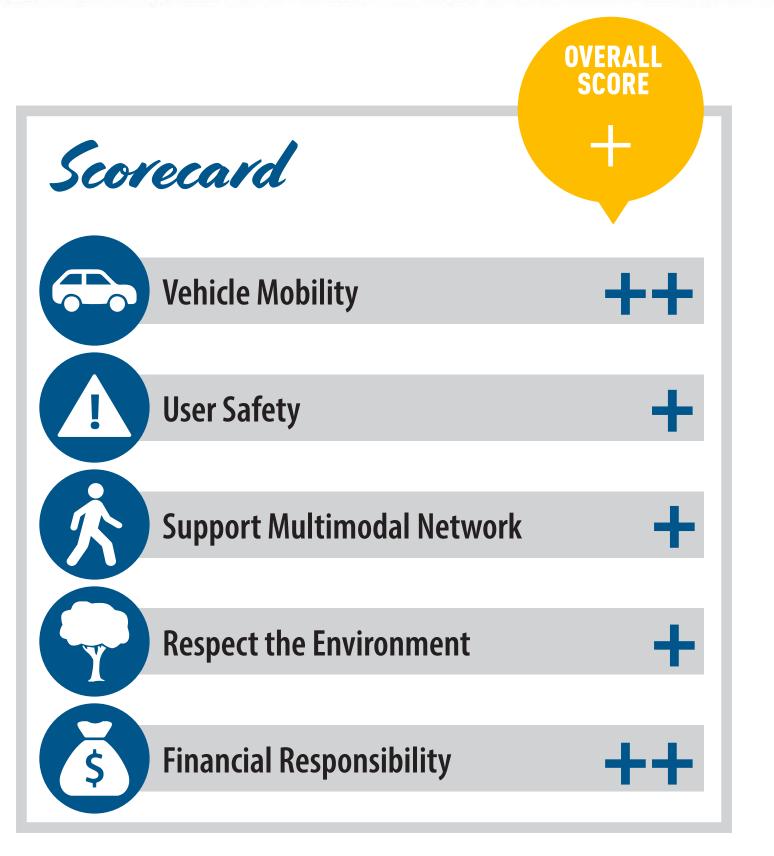
#### Concept 1: Signalized Full Access





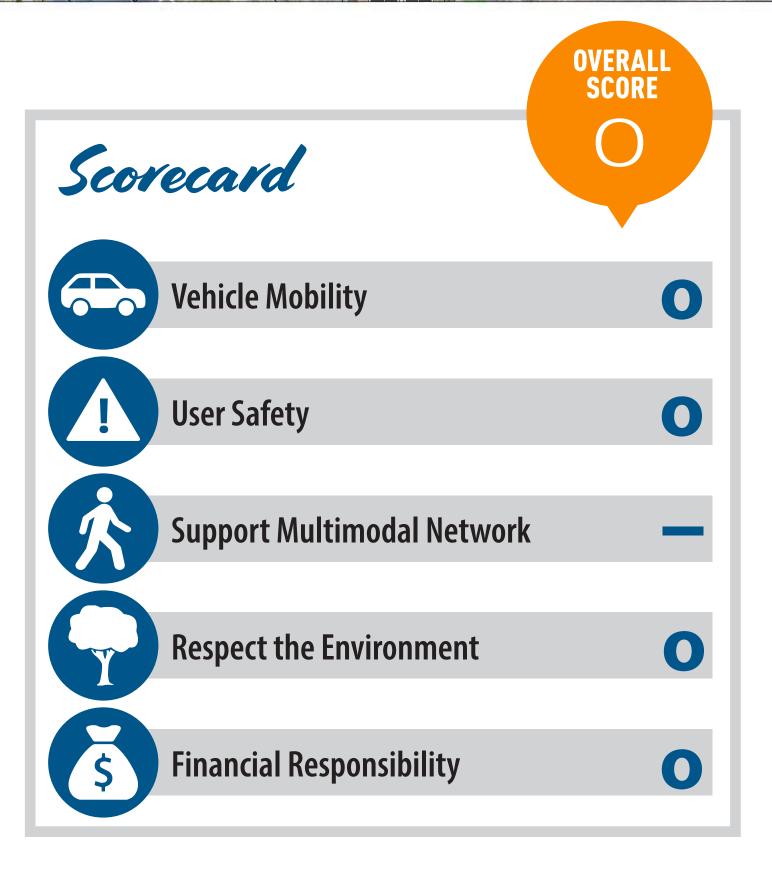
Concept 2: Signalized Full Access -Northbound to Eastbound Acceleration Lane





**Concept 3:** Two-Lane Roundabout with Right-Turn Bypass













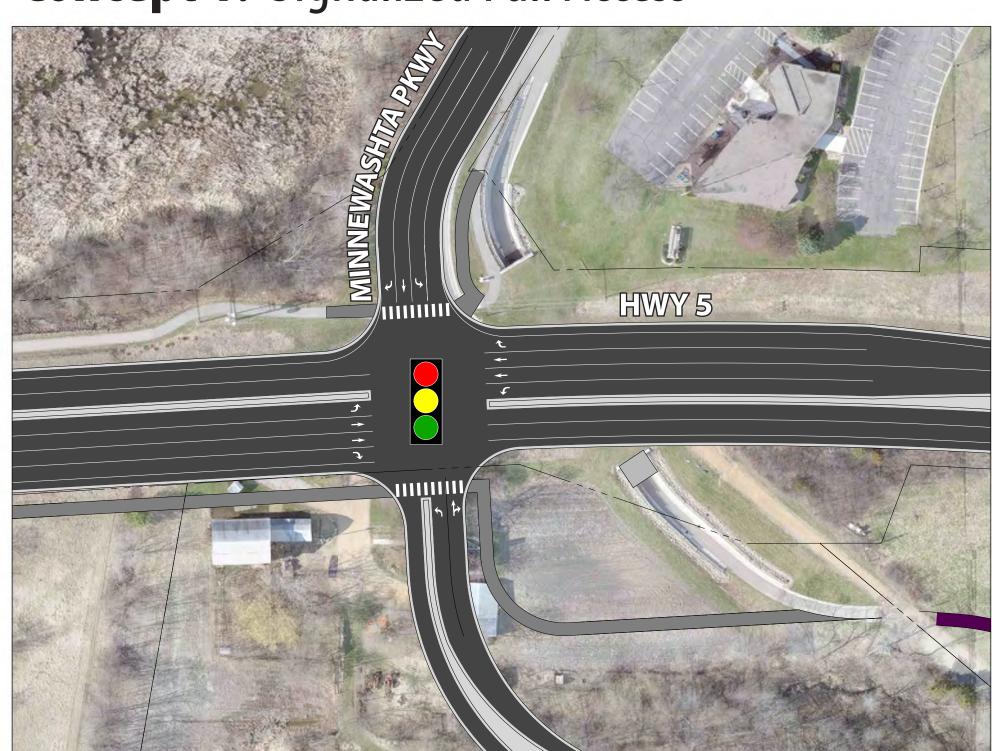


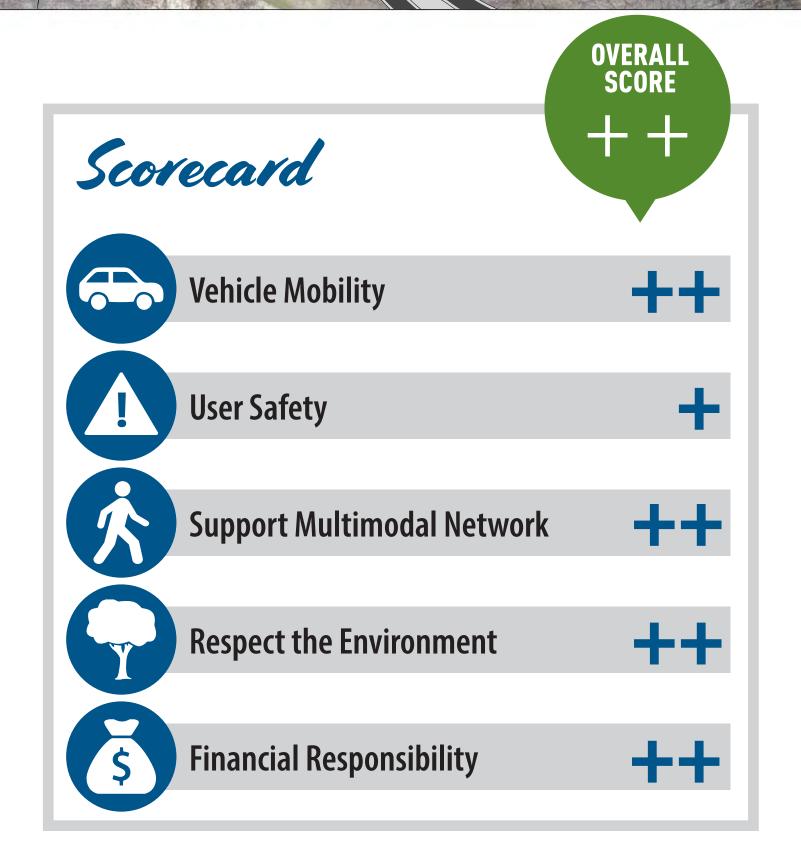




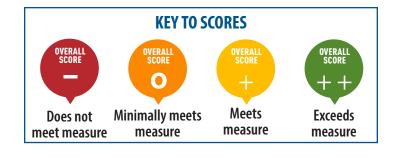
## Highway 5 and Minnewashta Parkway/ Relocated Arboretum Access

**Concept 1:** Signalized Full Access

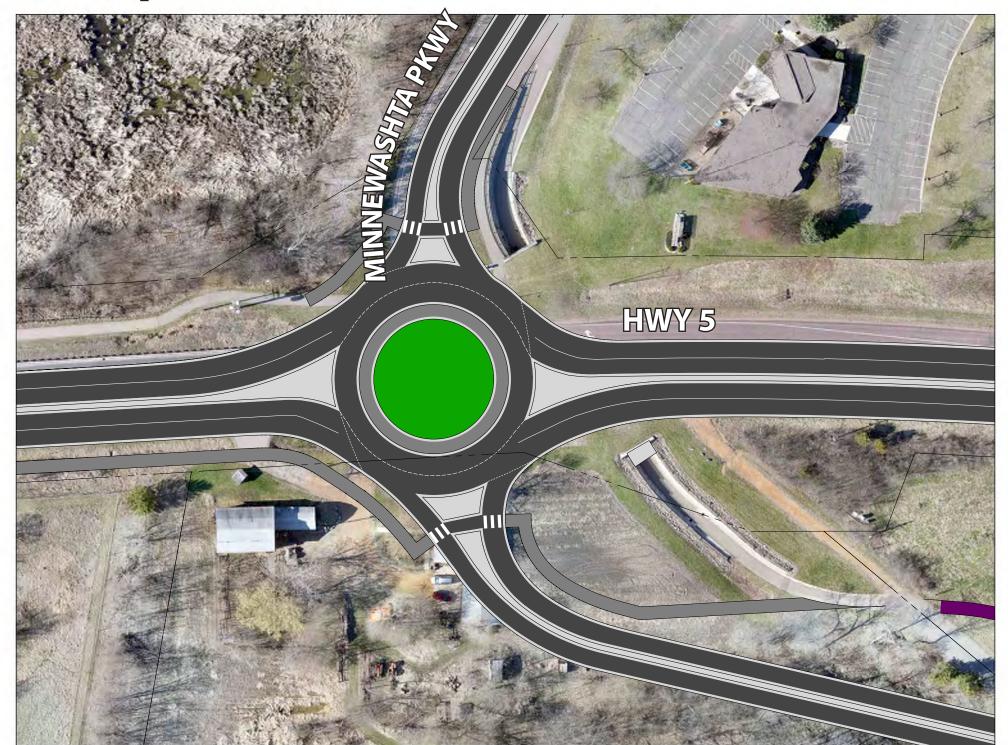


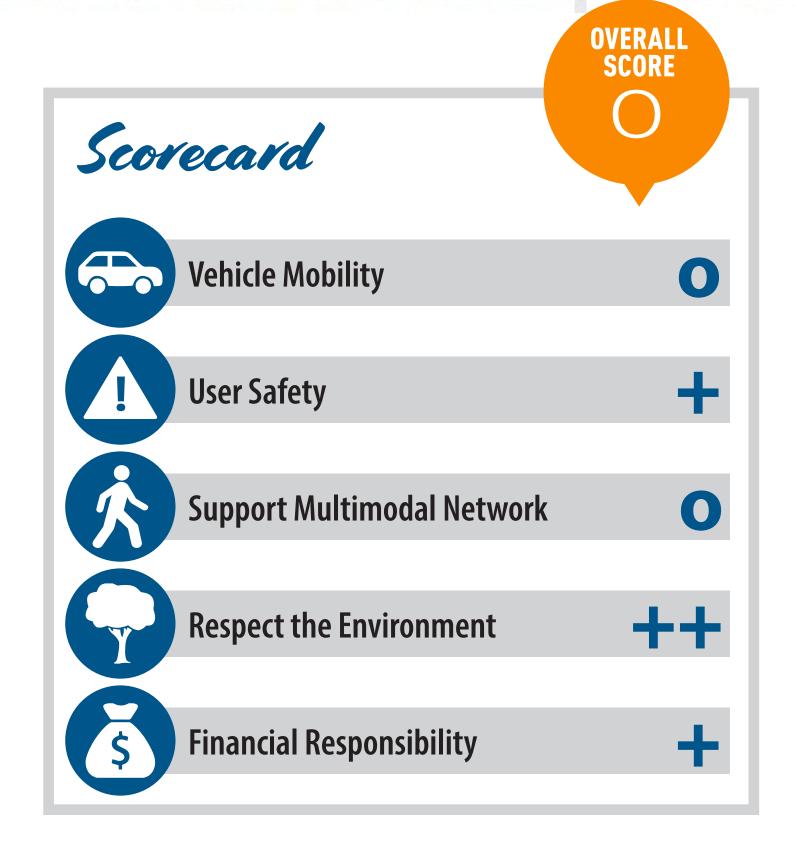






**Concept 2:** Two-Lane Roundabout



















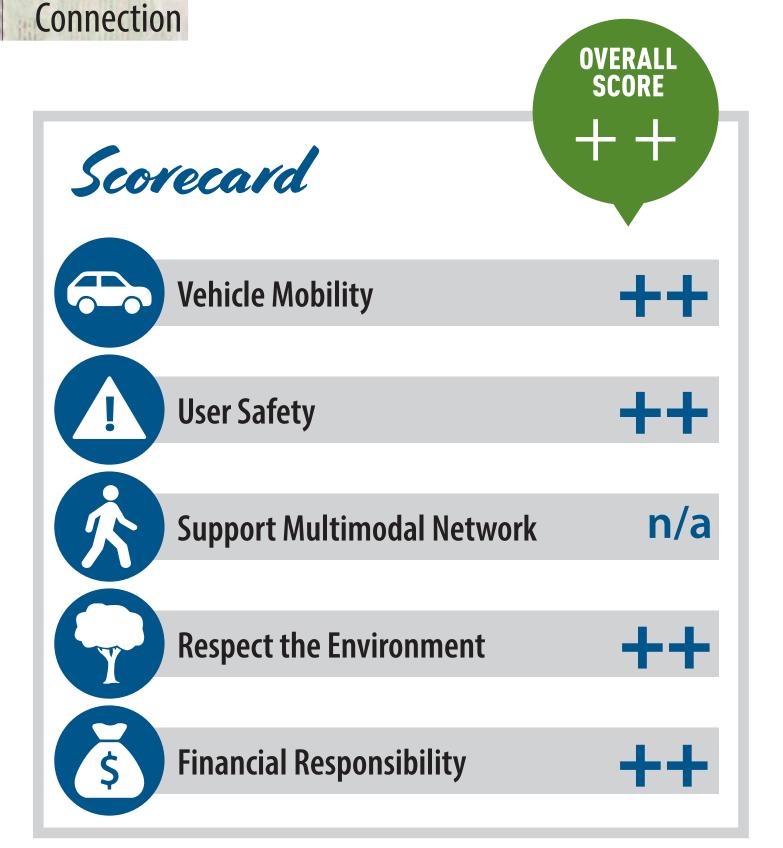
# Highway 5 and Crimson Bay Road/Arboretum Drive





Right-In/Right-Out and Connection to 78th Street

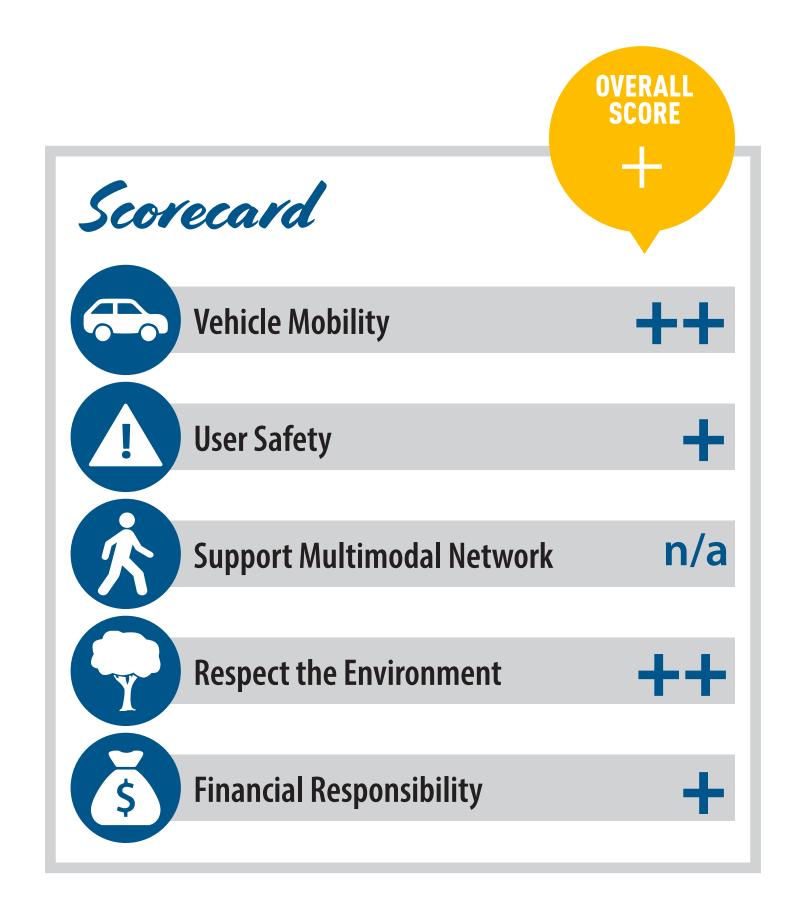




#### Concept 2:

Right-In/Right-Out with Left-Turn In

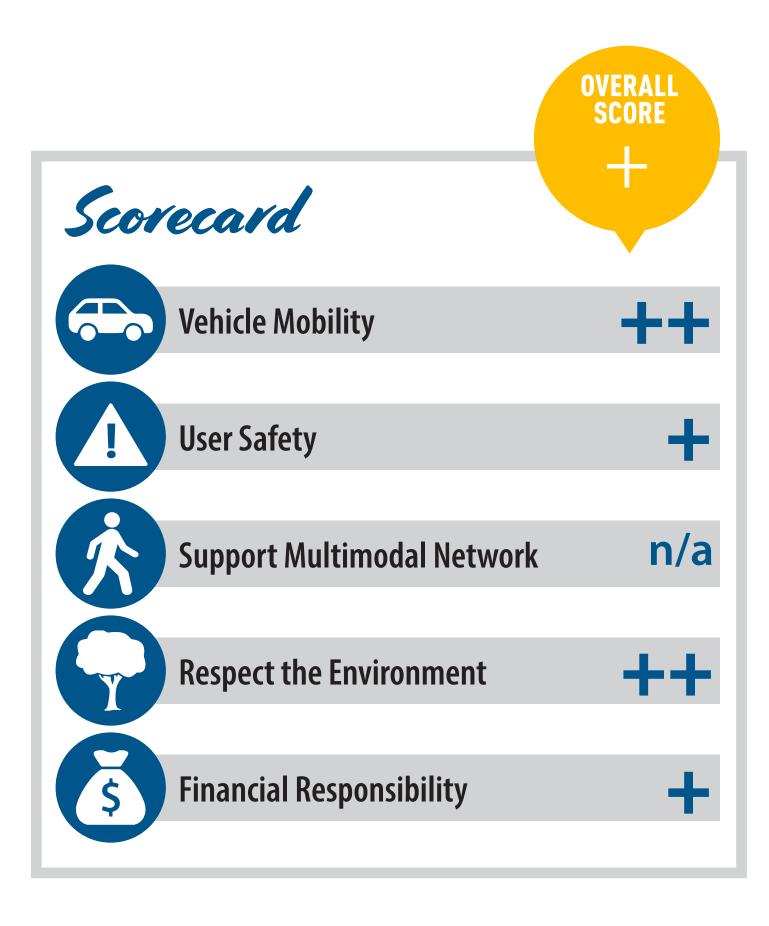




#### Concept 3:

Right-In/Right-Out with Left-Turn In and U-Turn















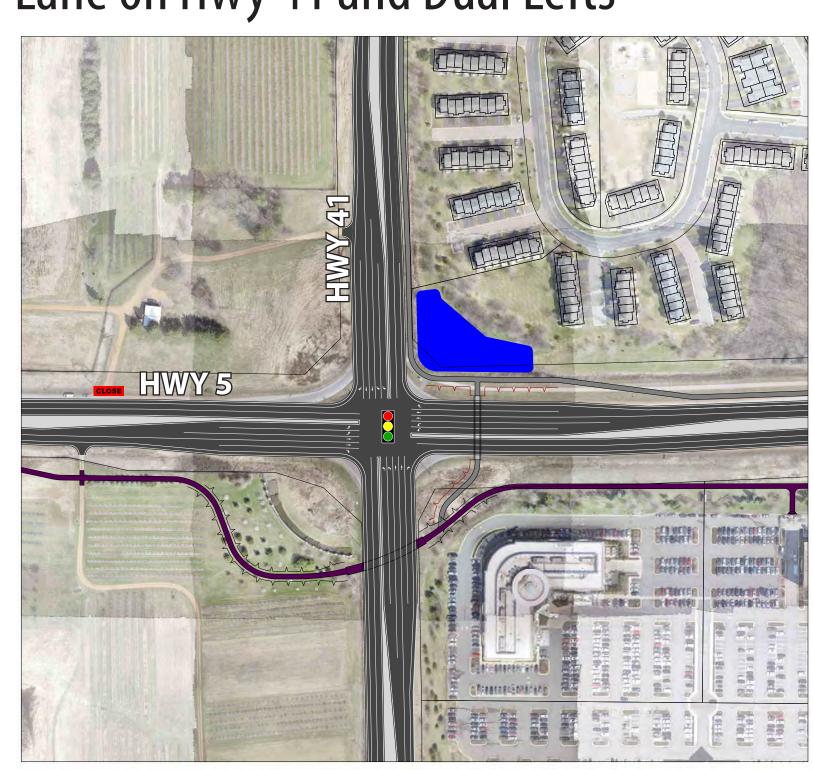


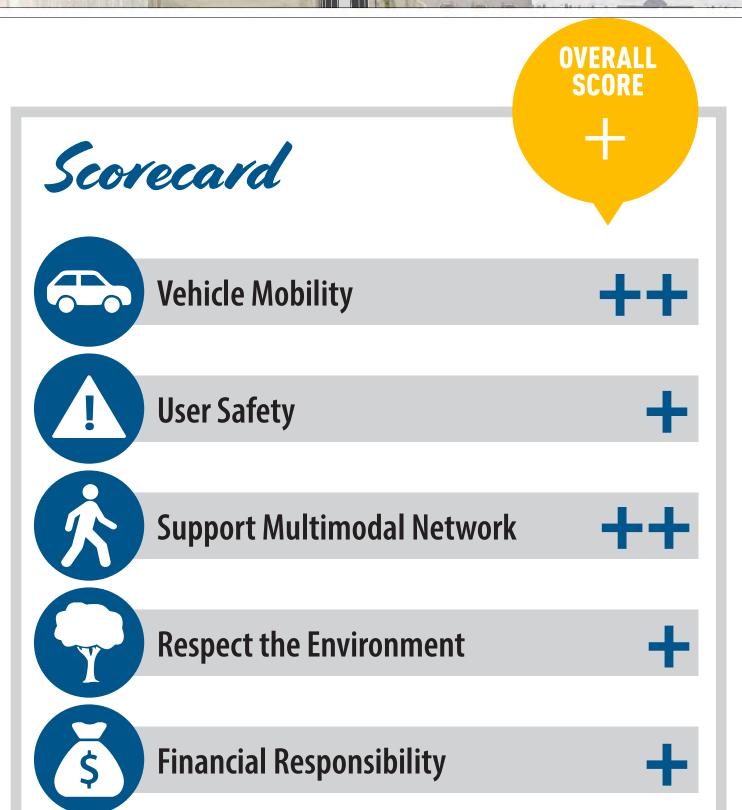


What do you think?

# Highway 5 and Highway 41

**Concept 1:** Full Access - Additional Lane on Hwy 41 and Dual Lefts





#### Concept 2:

Partial Displaced Left-Turn





# **Concept 3:** Partial Displaced Left-Turn with Additional Lane on Hwy 41

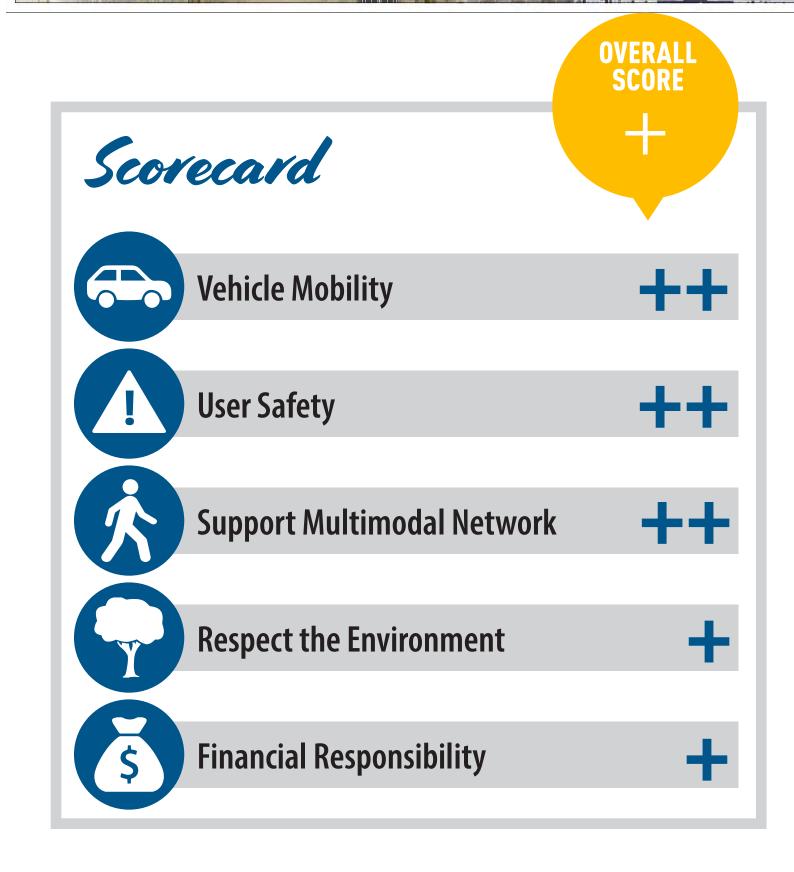




#### Concept 4:

Displaced Left-Turn

















## What is a Displaced Left Turn Intersection?

