

## Background

Carver County, in collaboration with MnDOT, Chaska, Victoria, Waconia, and Laketown Township, is working to identify transportation system improvements on Highway 10 from Highway 43 in western Laketown Township to Highway 61 in the City of Chaska. Highway 10 is an important roadway in Carver County providing connections to multiple communities and accommodating vehicle, pedestrian, bicycle, transit, and freight traffic alike.

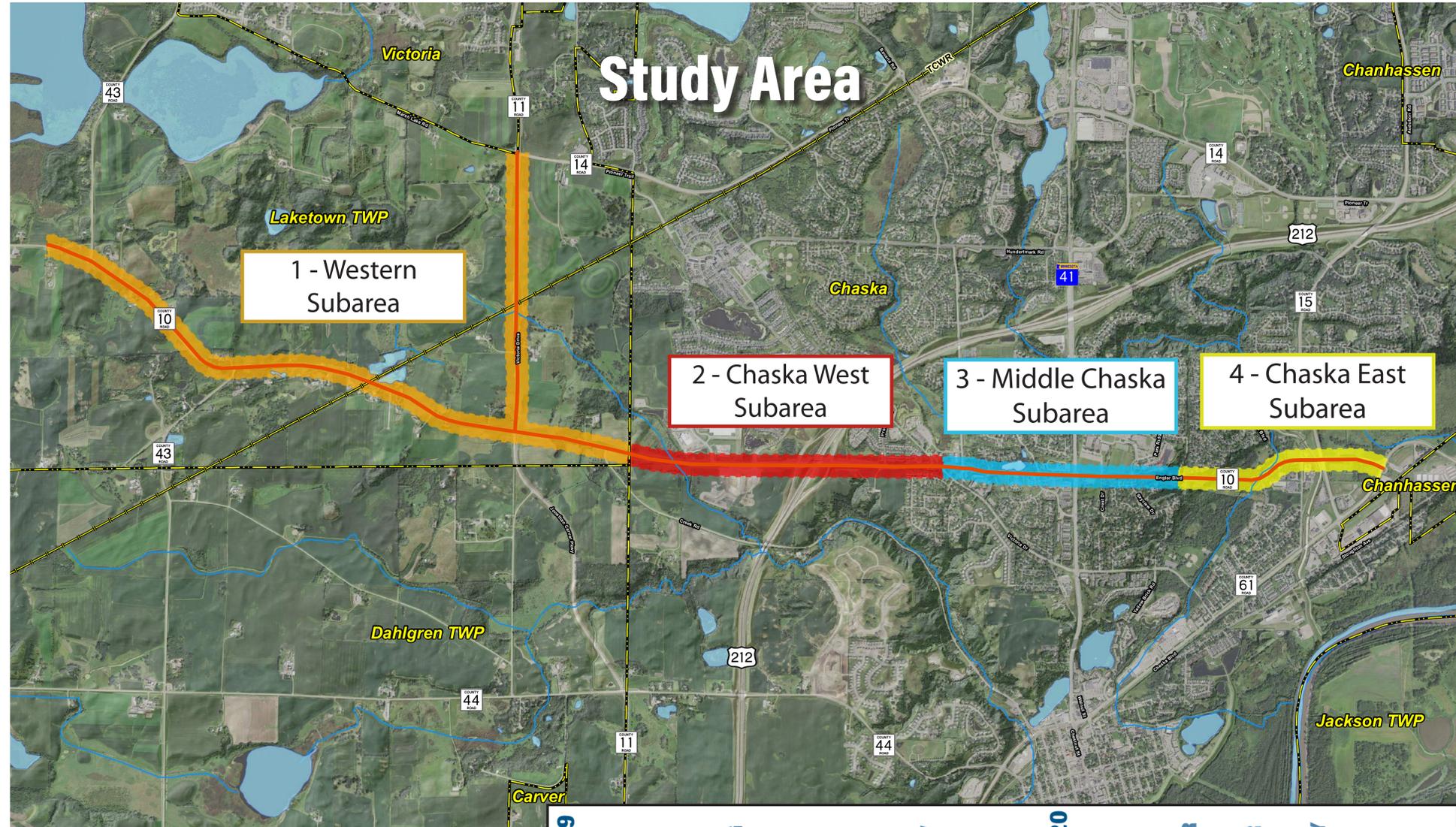
## Project Purpose

- Define transportation system issues and potential opportunities both today and into the future
- Develop and evaluate potential infrastructure improvement alternatives
- Establish infrastructure improvement recommendations
- Develop a long-term implementation plan that can be phased in over time

## Goals

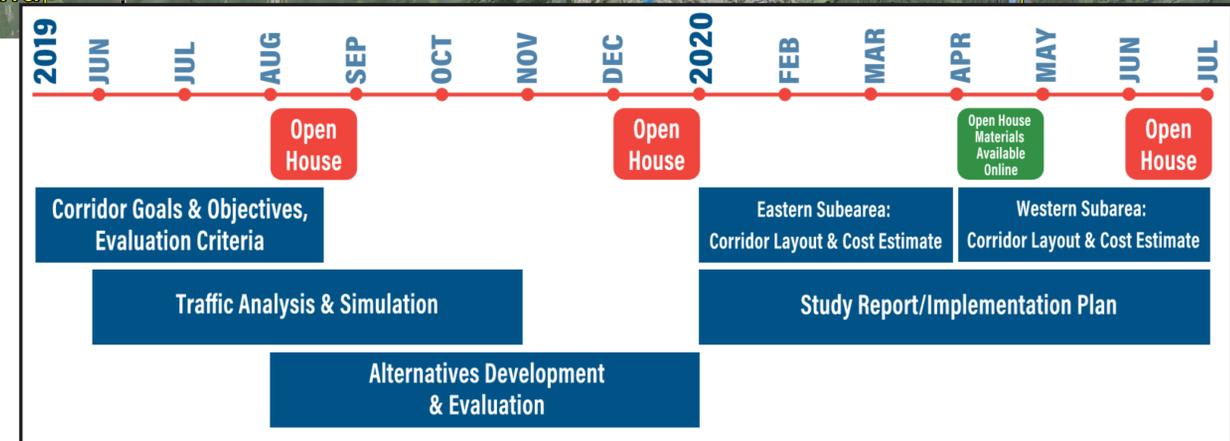
- Provide efficient and reliable vehicle mobility
- Safely accommodate all system users
- Provide a comprehensive transportation network that supports existing and future land development
- Provide infrastructure improvements compatible with the environment
- Develop a financially responsible implementation plan

<https://www.co.carver.mn.us/Hwy10StudyVictoriaChaska>



## Project Manager

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Sr. Transportation Planner  
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# HIGHWAY 10 CORRIDOR STUDY

## VICTORIA-CHASKA AREA



## Community Involvement

### Stay Informed, Get Involved

*Engaging stakeholders is a key component of the Hwy 10 Corridor Study in Victoria and Chaska. There are multiple ways you can get involved!*

#### Subscribe to e-Bulletins

Subscribe to receive project updates and announcements by email.

#### Follow @CarverCountyPW on Social Media

Carver County Public Works (@CarverCountyPW) will share project news and announcements on Facebook and Twitter. You can also search for project-related posts using #Plan10.

#### Attend an Open House

Multiple open houses will be held to share updates and collect public input. For notification of schedule information, subscribe to e-Bulletins or follow Carver County Public Works (@carvercountypw) on social media.

#### Visit the Project Website

Check back frequently for schedule updates and announcements about upcoming events such as open houses and online surveys.

#### Participate in a Subarea Group Meeting

Meetings will be held over the next few months to involve participants located in specific areas of concern.

#### Reach out to the Project Manager

Questions, comments, or concerns? Reach out to Angie Stenson, AICP, Carver County Senior Transportation Planner at 952-466-5273 or astenson@co.carver.mn.us.

### Project Website

<https://www.co.carver.mn.us/Hwy10StudyVictoriaChaska>

### What you can do today:

- Review informational materials and displays
- Make comments on the comment forms
- "Vote" for issues you feel are most important
- Ask questions - we are here to listen and help!

## What We Heard Existing Conditions & Issues Identification

### November 15, 2018 Focus Group Meetings

**Attendees:** Representatives from Carver County, the City of Chaska, and Bolton & Menk, Inc. met with focus groups of stakeholders who frequently use CSAH 10 (Engler Boulevard) in their daily activities.

-  **Consider alternative intersection controls**
-  **Address traffic congestion**
-  **Difficulty making left turns onto Highway 10**
-  **Signal timing imbalance, especially at Hwy 10/Hwy 41 intersection**
-  **Sight lines are an issue**
-  **Enhance non-motorized connections and safety with more off-road trails and better linking trails**

### August - September 2019

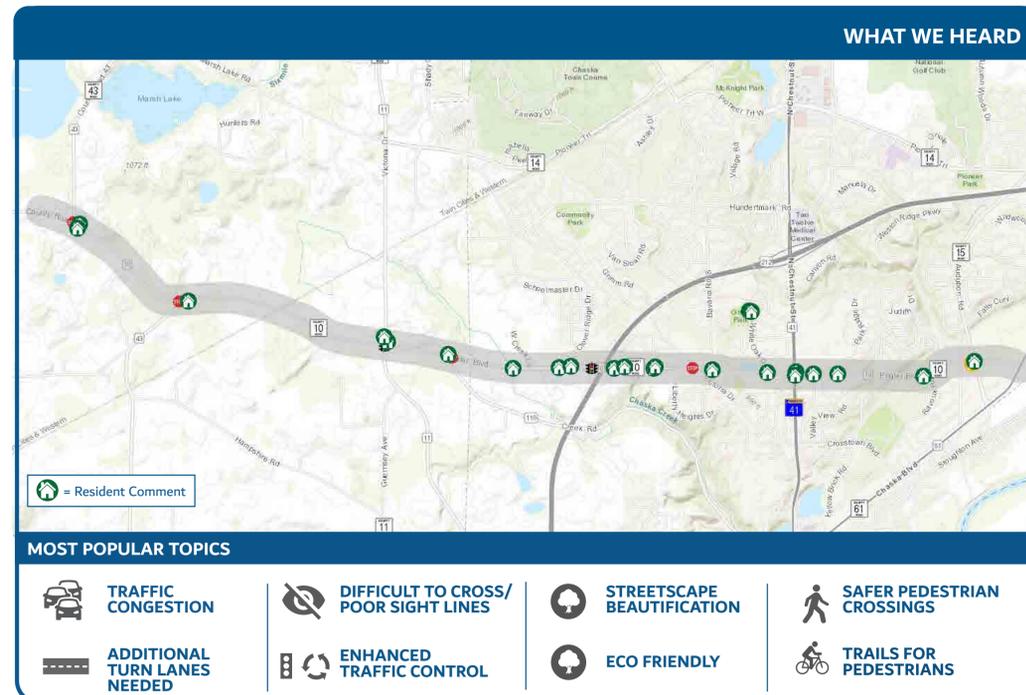
## INPUTiD

**Purpose:** As part of the ongoing Highway 10 study, INPUTiD, an online comment map, was used to collect community input on the issues.

- How did people hear about INPUTiD?**
- Mailing
  - Website
  - Social Media
  - Open House

# 63

COMMENTS



## August 21, 2019 Open House

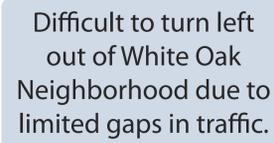
**Attendance**

**50** People signed in

**How did attendees hear about the open house?**

-  Email
-  Social Media
-  Mailing
-  Word of Mouth
-  Web

### What We Heard

-  At many intersections, **left turns are difficult.** Consider making turn lanes longer, adjusting the traffic signal timing, or adding a roundabout.
-  **Extend turn lanes** for entering the school - buses get backed up
-  **Difficult to enter Highway 10** from multiple intersections due to traffic congestion and backups
-  **Add a trail** on north side of the highway.
-  Vehicles observed **using shoulders to pass and running stop signs**
-  Add wildlife crossing signage.
-  Difficult to turn left out of White Oak Neighborhood due to limited gaps in traffic.
-  **Signal timing** is an issue when entering Highway 212 and for vehicles entering Highway 10 from Highway 41
-  **Traffic controls along Highway 10** - desire for roundabouts or signals with designated turn lanes. Any improvements need to create better pedestrian crossing facilities, especially near the school
-  **Accessing Chaska Middle School West** is difficult during peak hour traffic and Community Center Events
-  **Poor sight lines** - trim trees/adjust signs to help with visibility
-  **Brandondale Mobile Home Park** only has **one access point** to Highway 10.



## What We Heard Concept Development & Evaluation

### 2020 Stakeholder Meetings

Stakeholders we've heard from:

-  Chaska Vet
-  ISD 112 (School District)
-  Laketown Township
-  The Lodge Senior Center at the Chaska Community Center
-  Brandondale Neighborhood
-  Valley Evangelical Free Church

December 2019 -  
January 2020

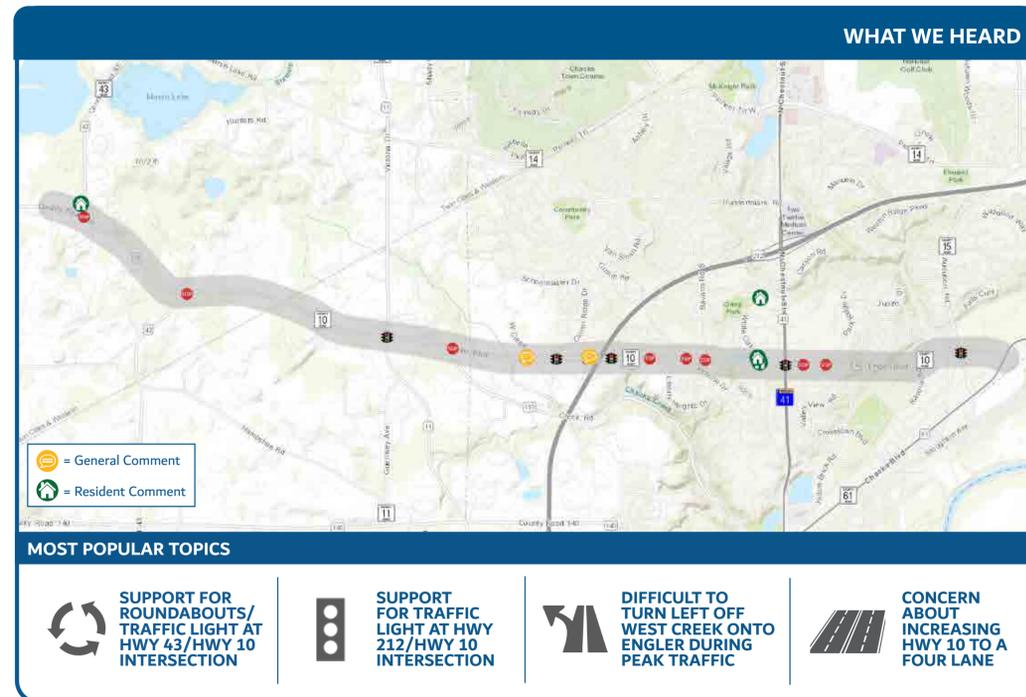
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COMMENTS

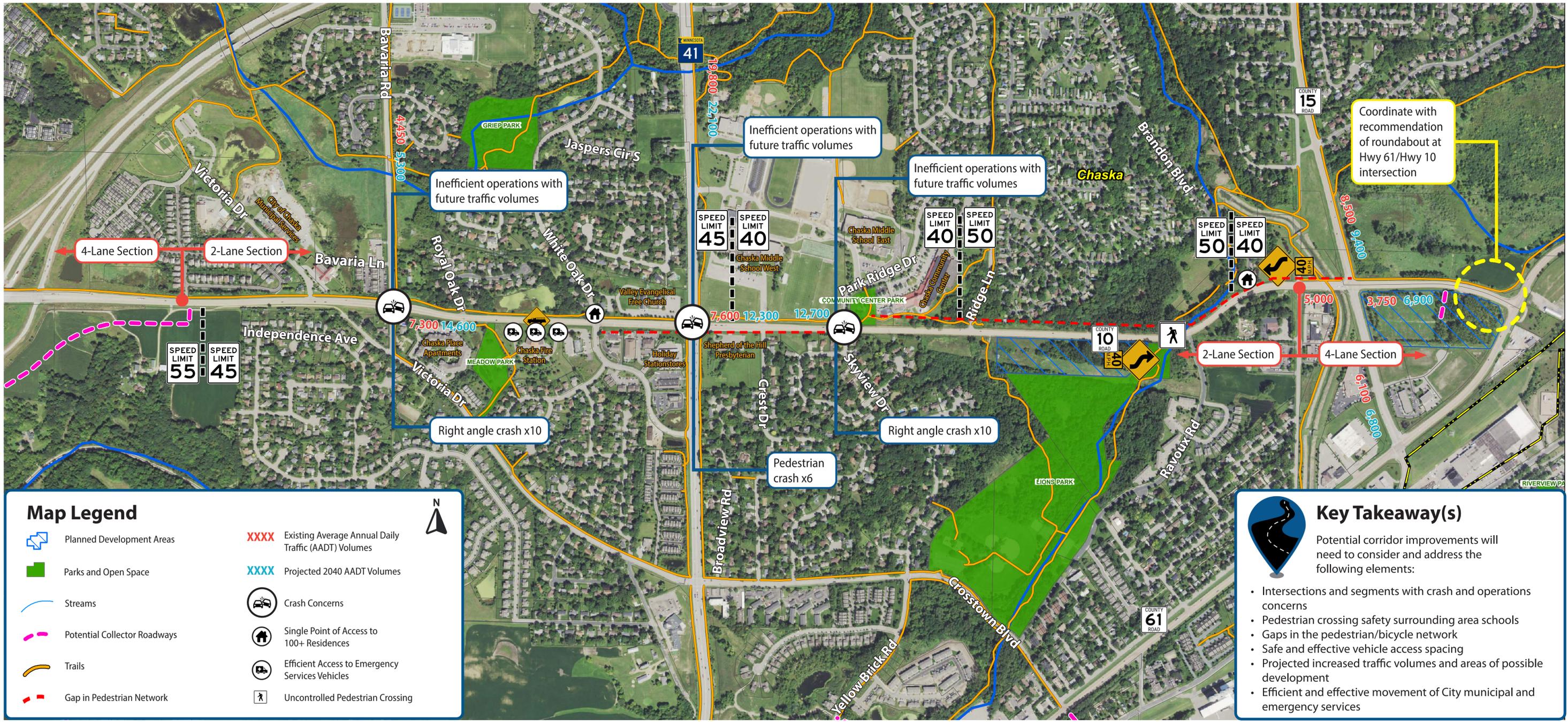


December 19, 2019  
Open House

### What We Heard

	<p>Consider a <b>right turn lane</b> on Highway 10 entering White Oak Drive and on White Oak Drive entering Highway 10.</p>	<p>Prefer a <b>traffic signal</b> at the Highway 11/ Highway 10 intersection.</p>	
<p>Consider a roundabout at Highway 10 intersections with <b>Park Ridge Drive and White Oak Drive.</b></p>	<p>Roundabout concept was <b>highly supported</b> on Bavaria Road.</p>	 <p>Improve the <b>traffic signal</b> at Highway 15.</p>	<p>Suggestion to <b>redirect the Creek Road intersection</b> alternatives to Clover Ridge Drive.</p>
<p>Consider adding a <b>traffic signal or roundabout</b> at the Highway 10/Highway 43W intersection.</p>	<p>Add a <b>full-build traffic signal</b> on Highway 41 and Highway 10 intersection.</p>	 <p>Multiple <b>access locations</b> surrounding the Highway 10/Highway 11 intersection are concerning.</p>	
<p>Consider <b>grade separation</b> at the TCWR Railroad crossing.</p> 	<p>Prefer a <b>modified reduced conflict</b> intersection at the Highway 10/Highway 43 E intersection.</p> 	<p><b>Pedestrian safety concerns</b> at Park Ridge Drive.</p> 	

### Design Considerations Overview - East



#### Map Legend

- Planned Development Areas
- Parks and Open Space
- Streams
- Potential Collector Roadways
- Trails
- Gap in Pedestrian Network
- Existing Average Annual Daily Traffic (AADT) Volumes
- Projected 2040 AADT Volumes
- Crash Concerns
- Single Point of Access to 100+ Residences
- Efficient Access to Emergency Services Vehicles
- Uncontrolled Pedestrian Crossing



#### Key Takeaway(s)

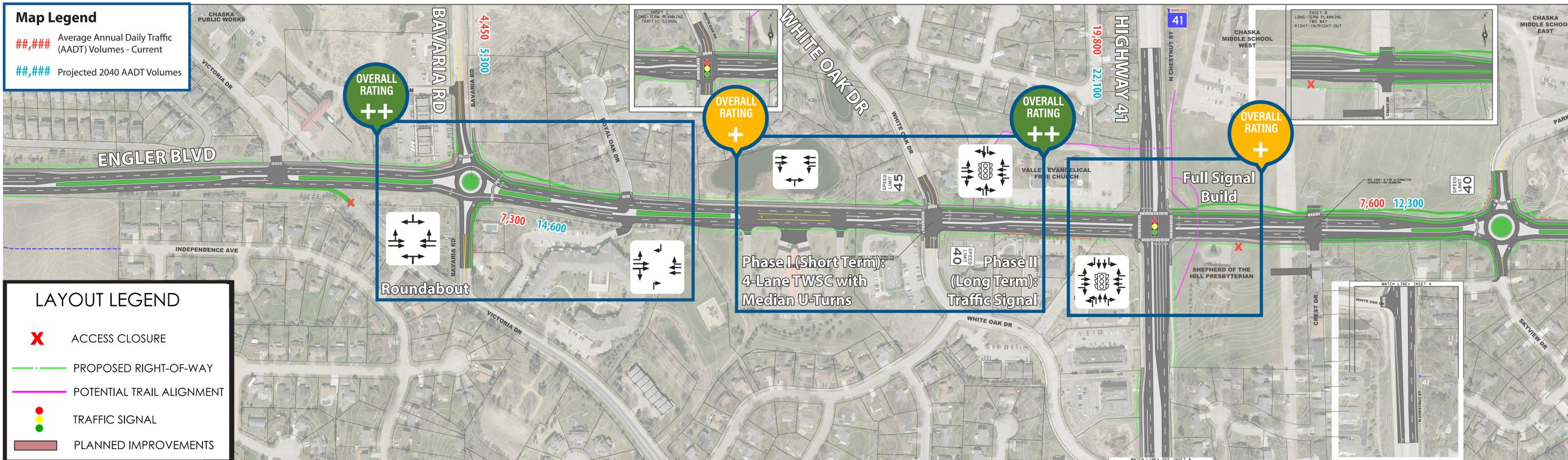
Potential corridor improvements will need to consider and address the following elements:

- Intersections and segments with crash and operations concerns
- Pedestrian crossing safety surrounding area schools
- Gaps in the pedestrian/bicycle network
- Safe and effective vehicle access spacing
- Projected increased traffic volumes and areas of possible development
- Efficient and effective movement of City municipal and emergency services

### KEY TO SCORES



# Traffic Control Improvements - East (Bavaria to Highway 41) - For Implementation



## Bavaria Road

### Roundabout

Scorecard	
	++
	++
	++
	++
	+

### Context for Supporting a Roundabout:

- Decreases side street delays
- Safer than traffic signal
- Lower forecasted crash and severity
- Less vehicle to vehicle conflicts
- Less vehicle to pedestrian conflicts
- Most public responses support this option

### Alternatives Reviewed and Dismissed:

**Traffic Signal:** Not as effective as roundabout for vehicle mobility or user safety

## White Oak Drive

### Phase I: 4 Lane TWSC w/ Median U-Turns

Scorecard	
	++
	0
	+
	+
	++

### Phase II: Traffic Signal

Scorecard	
	++
	++
	++
	+
	++

### Context for Supporting Options:

- 4-Lane TWSC (Short-Term)**
- Least cost
  - Efficient/reliable vehicle mobility
  - Intersection set up to accommodate signal in the future
  - Public responses support this option
- Traffic Signal (Long-Term)**
- Efficient vehicle mobility
  - Among safest options for pedestrians and entering sidestreet traffic
  - Optimal long-term solution
  - Most public responses support this option

### Alternatives Reviewed and Dismissed:

- TWSC (2-Lane):** Mobility concerns on Highway 10 and White Oak Drive
- Roundabout:** Operations/safety issues with proximity to traffic signal at Highway 41
- Alternate Full Access Connections:** Lack of agency support, property acquisition, and high costs
- Restricted Access:** Operations/safety issues; not supported

## Highway 41

### Full Signal Build

Scorecard	
	++
	+
	+
	+
	+

### Context for Supporting a Full Build Traffic Signal

- Provides more vehicle efficiency than other options
- Most effective for accommodating vehicle freight demands for development
- Has agency support
- Will include grade-separated pedestrian crossings if funding available
- Most public responses support this option

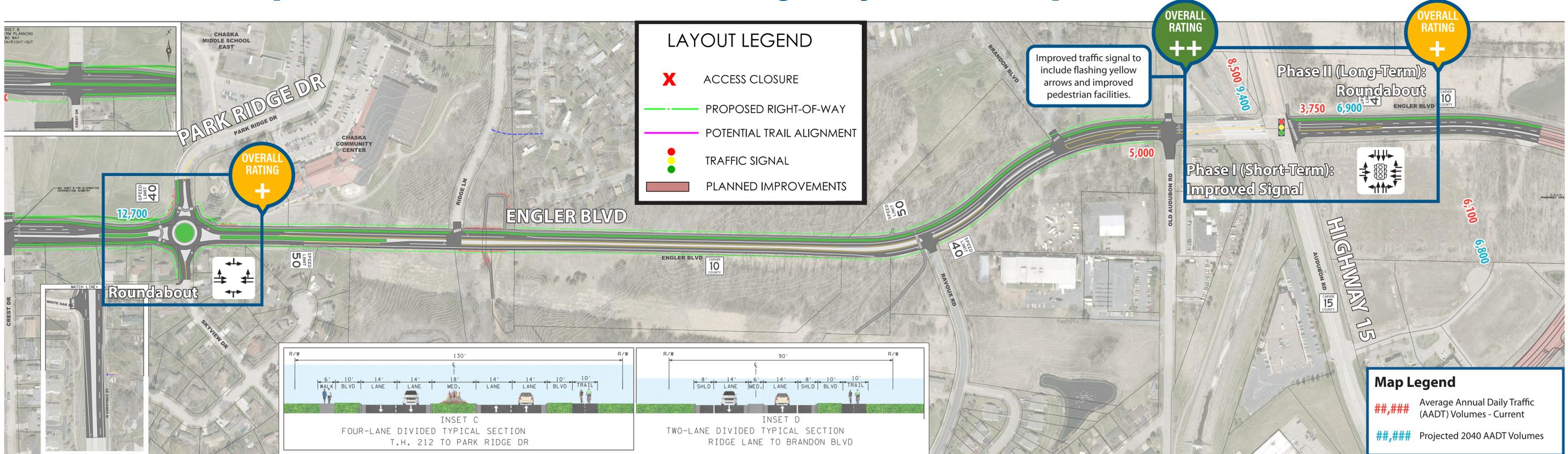
### Alternatives Reviewed and Dismissed:

- Two-Lane Roundabout:**
- Environmental, safety, pedestrian/bike, and mobility conflicts
  - Long traffic delays with future traffic volumes
  - Pedestrian/bike stress and confusion
  - Significant right-of-way impacts
- Partial Signal Build:**
- Less effective than Full Signal Build for vehicle mobility

### KEY TO SCORES

<b>OVERALL RATING</b> -	<b>OVERALL RATING</b> 0	<b>OVERALL RATING</b> +	<b>OVERALL RATING</b> ++
Does not meet measure	Minimally meets measure	Meets measure	Exceeds measure

# Traffic Control Improvements - East (Crest Dr to Highway 15) - For Implementation



## Park Ridge Drive

### Roundabout

**Scorecard** **OVERALL SCORE**  
+

Vehicle Mobility	++
User Safety	++
Support Land Development	++
Environment Compatibility	+
Financially Responsible	+

### Context for Supporting a Roundabout:

- Efficient and reliable vehicle mobility
- Lower forecasted crash and severity than traffic signal
- Less vehicle to vehicle conflicts
- Less vehicle to pedestrian conflicts
- Most public responses support this option

### Alternatives Reviewed and Dismissed:

**Traffic Signal:** Higher expected crash rate and less efficient peak and off-peak traffic operations.

## Highway 15

### Phase I: Improved Signal

**Scorecard** **OVERALL SCORE**  
++

Vehicle Mobility	++
User Safety	+
Support Land Development	++
Environment Compatibility	++
Financially Responsible	++

### Phase II: Roundabout

**Scorecard** **OVERALL SCORE**  
+

Vehicle Mobility	++
User Safety	++
Support Land Development	++
Environment Compatibility	+
Financially Responsible	+

### Context for Supporting an Improved Traffic Signal

- Efficient traffic operations
- Minimal property acquisitions and environmental impacts
- Low cost
- Most public responses support this option

### Context for Supporting a Roundabout

- Efficient traffic operations
- Increased user safety

## Highway 10/Highway 41 Pedestrian Crossing Safety

The City of Chaska and Carver County are exploring several options for improving pedestrian crossing safety at Highway 10 and Highway 41. This includes "At Grade" and "Grade Separated" crossing improvement options. This project will help to identify options that could be implemented if funding becomes available.

### At Grade Improvements

Intersection improvements to the Highway 41/ Highway 10 intersection include traffic signal improvements with additional lanes and expanded center medians added to both highways. Center medians provide pedestrian refuge; pedestrians can wait at the median until traffic stops and proceed to the other side in a two-phased crossing. In addition to providing center medians on all approaches, traffic signal improvements could be completed to improve pedestrian safety, possible improvements would include:

- Implementing a leading pedestrian interval
- No right turn on red
- A blank out sign with additional messaging when a pedestrian is present

### Grade Separated Improvements

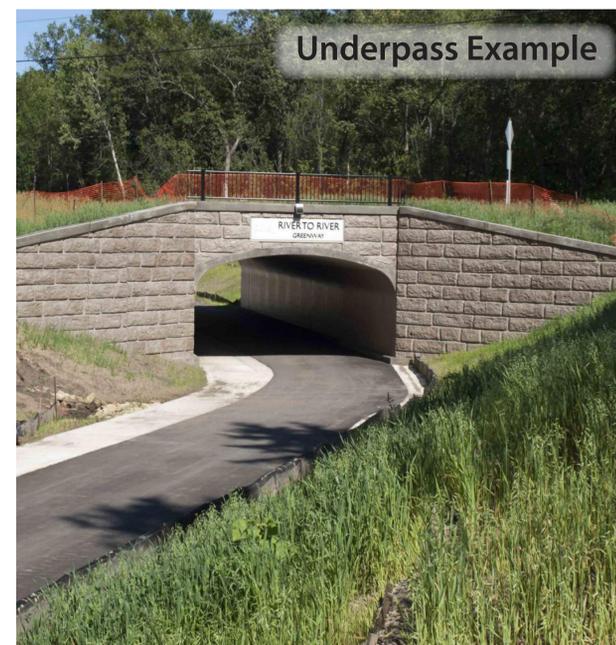
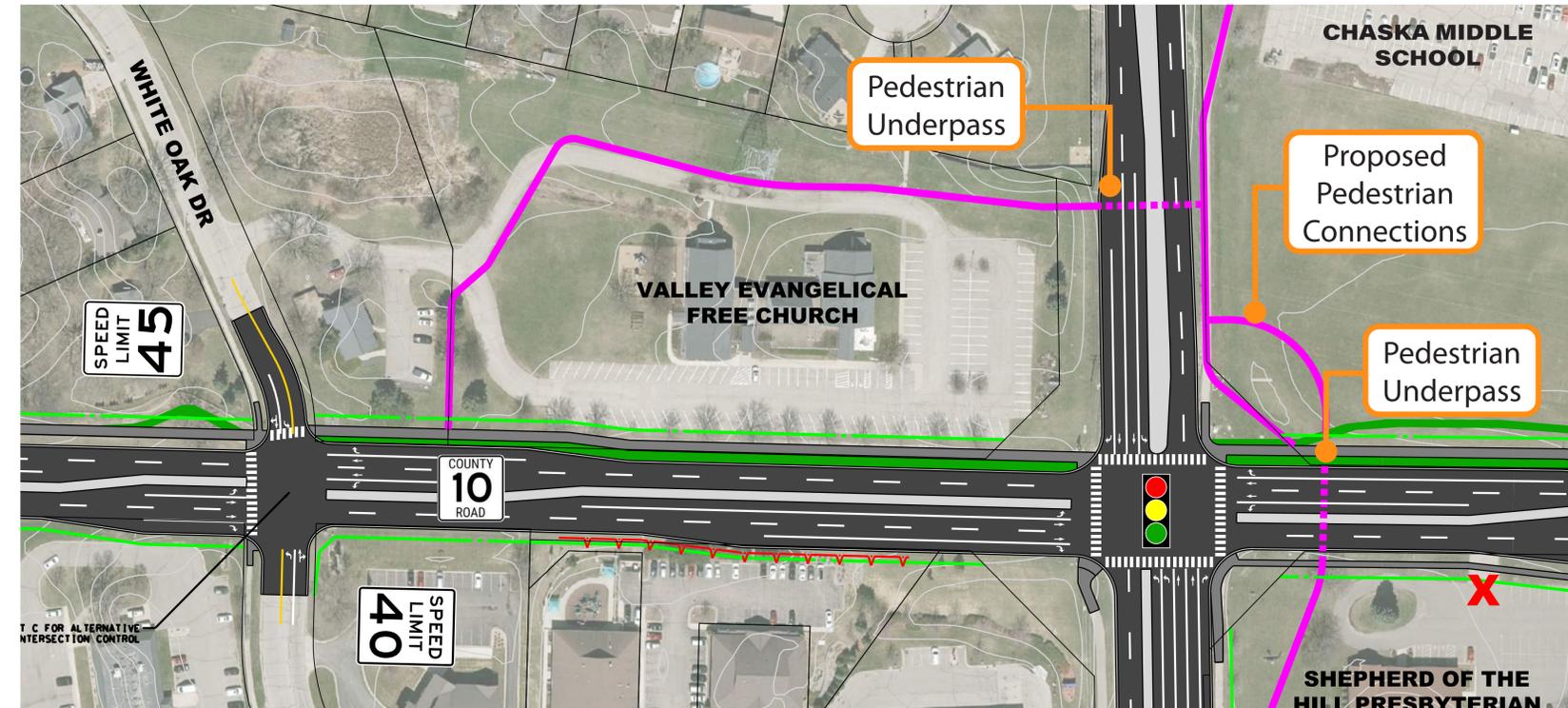
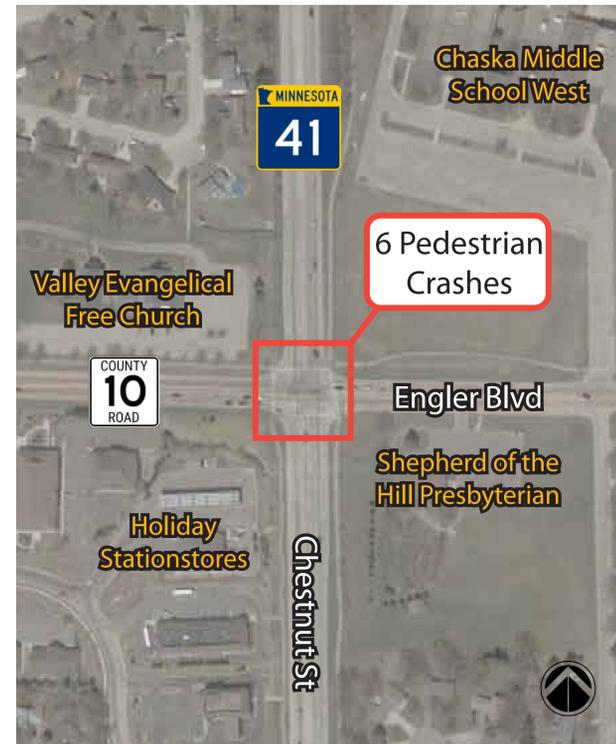
Project partners are considering options for grade separation which will allow pedestrians to pass under the roadway between destinations. This option would maximize pedestrian safety but would cost substantially more than at-grade options.

### Why consider a grade-separated crossing?

Grade-separated crossings:

- promote regional connectivity for non-motorized activities
- reduce barriers of crossing roads with high traffic volumes
- improve pedestrian and bicyclist safety

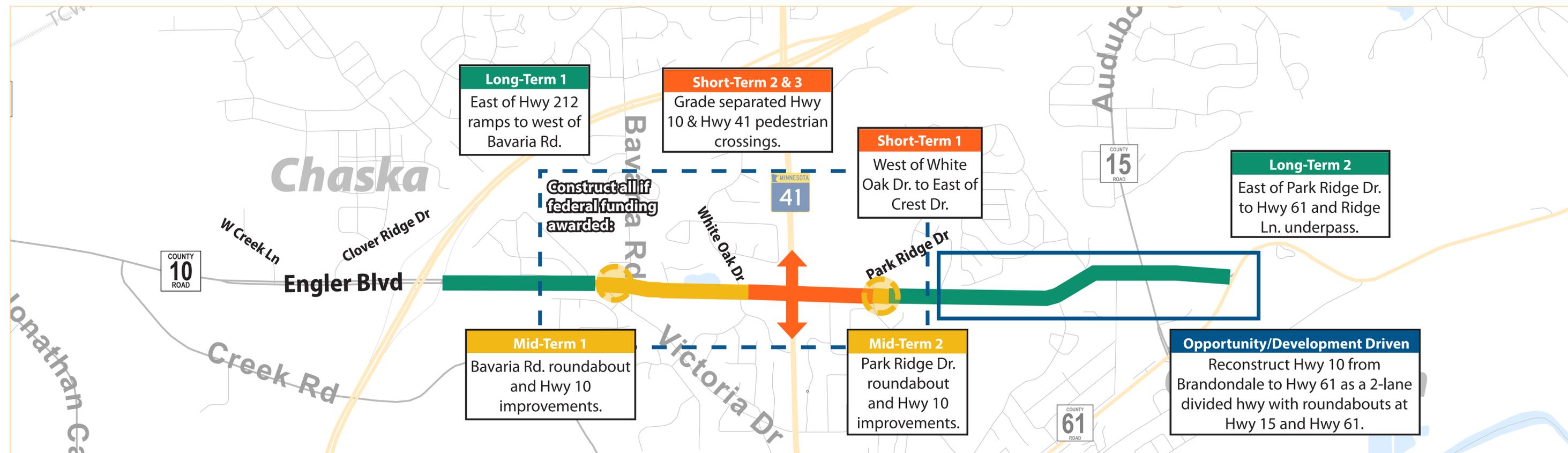
View the maps to the right to see potential locations for grade-separated crossings.



# Highway 10 Project Implementation

## What is an implementation plan?

An implementation plan breaks down all recommended improvements into potential projects for final design and construction. Phases are identified with time frames based on need, priority, and available funding opportunities.



### Short-Term 4-6 Years

1. Reconstruction from west of White Oak Drive to east of Crest Drive.
- 2 & 3. Grade Separated Pedestrian Crossings at the Highway 10/Highway 41 Intersection (North and East Legs).

**Western Subarea:**  
4. Intersection improvements at Highway 10/Highway 11 are also identified as a short-term project.

### Mid-Term 6-12 Years

1. Reconstruction and roundabout at Highway 10 and Bavaria Road intersection.
2. Reconstruction from Bavaria Road to White Oak Drive.
3. Highway 10 reconstruction and Park Ridge Drive improvements.

### Long-Term 12-20 Years

1. Reconstruction from east of Highway 212 ramps to west end of Bavaria Road.
2. Reconstruction from east of Park Ridge Drive to Highway 61 and Ridge Lane Underpass.

## Highway 10/Highway 11 Intersection

Western Project Area improvement concept development is in progress. An open house is anticipated for June 2020 to present preferred concepts and a plan for implementation.

