



# HIGHWAY 10 CORRIDOR STUDY

## VICTORIA-CHASKA AREA



## 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.

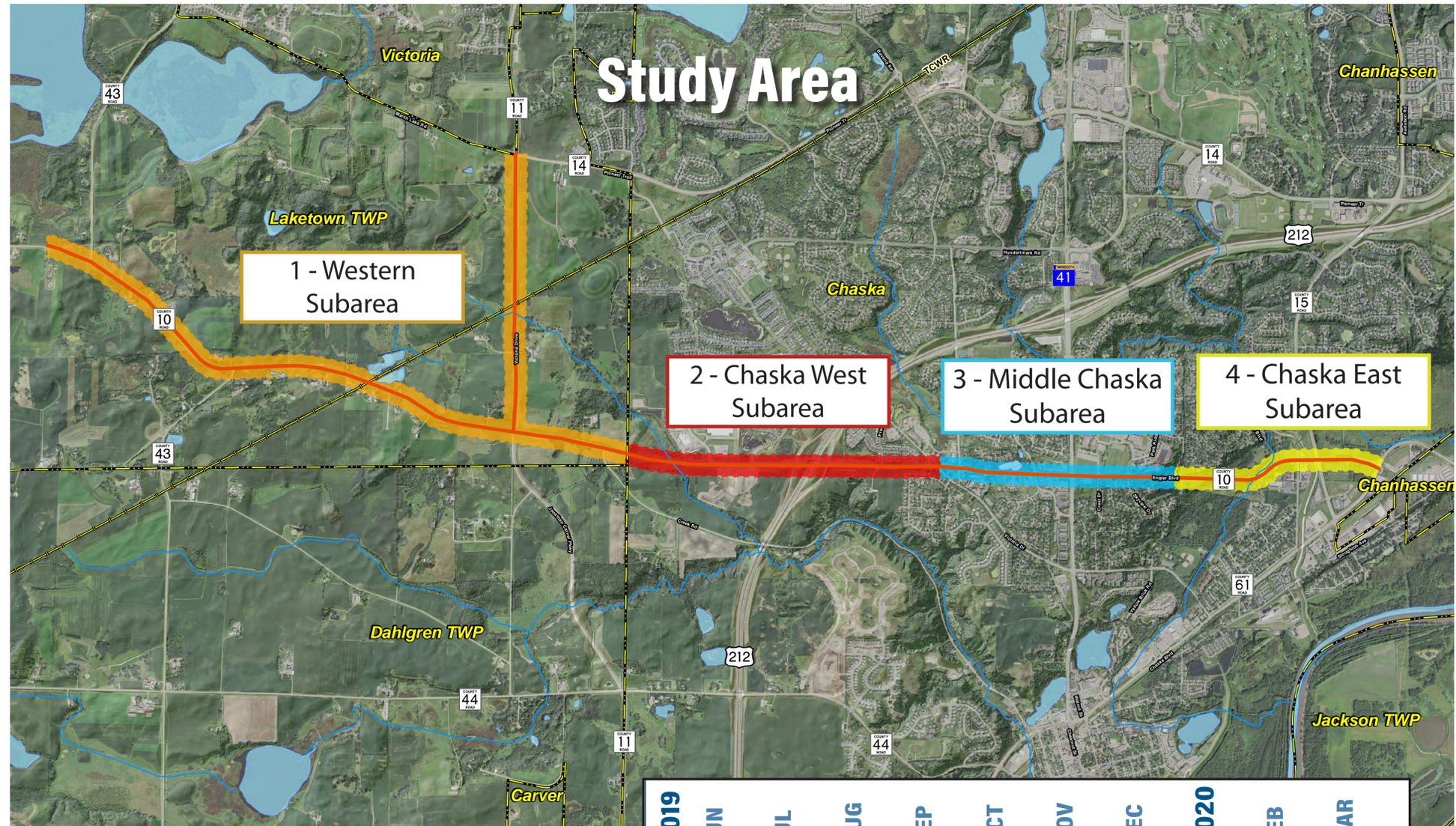
### Project Purpose

- 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

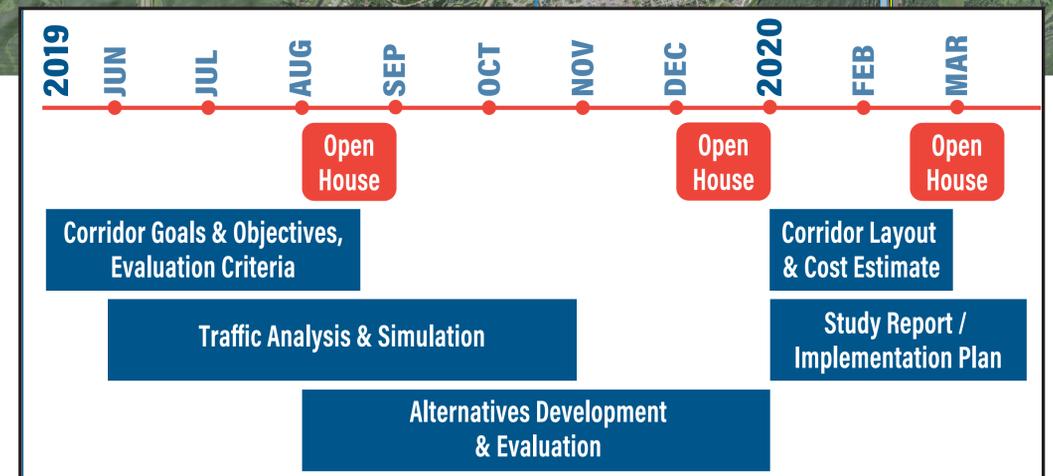
- Provide efficient and reliable vehicle mobility
- Safely accommodate all system users
- Provide a comprehensive transportation network that supports existing and future land development
- Provide infrastructure improvements compatible with the environment
- Develop a financially responsible implementation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

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



### Project Manager

Angie Stenson, AICP  
Sr. Transportation Planner  
952-466-5273  
astenson@co.carver.mn.us



## 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>

### Submit site-specific comments online!

INPUTiD will be reactivated **December 20** for one month. Visit the application to comment on materials from this open house and provide input on the range of options being considered for:

- Roadway typical sections
- Access alternatives
- Intersection alternatives

To submit your comment, visit the project website or go directly to:

[gis.bolton-menk.com/inputid/?app=csah10](https://gis.bolton-menk.com/inputid/?app=csah10)



### 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!

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. Stakeholders included members of public safety, emergency, transit services, the school district, neighborhood representatives, and parks and trails authorities. The following are major themes from those discussions.

-  **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**

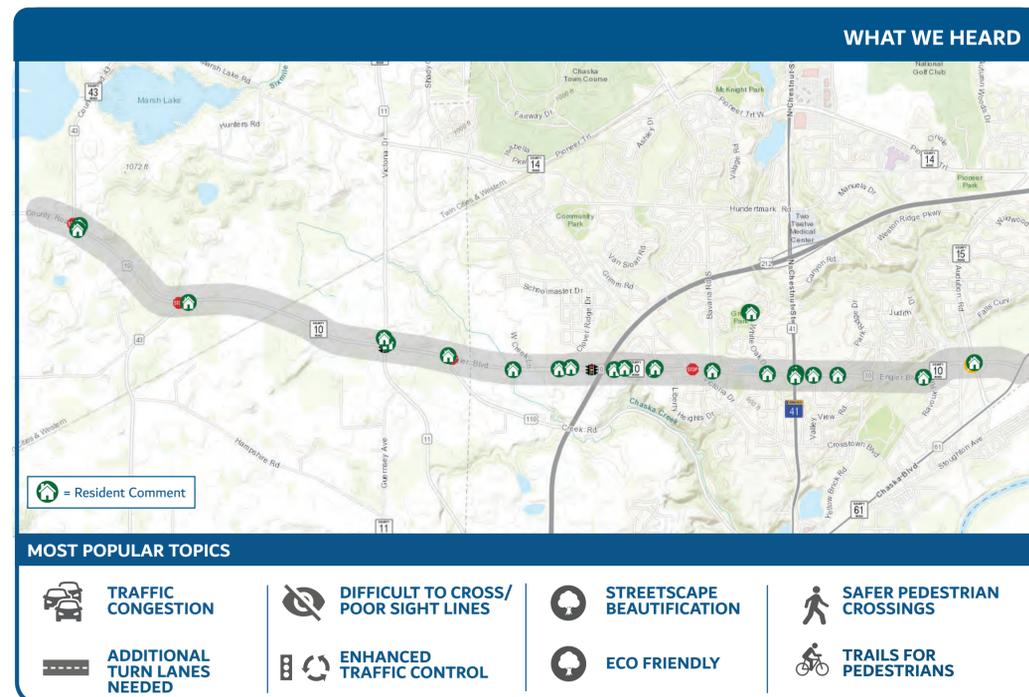
August - September 2019

### 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

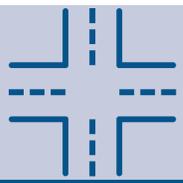
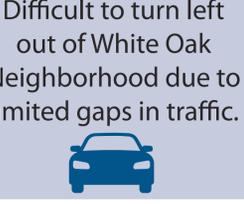
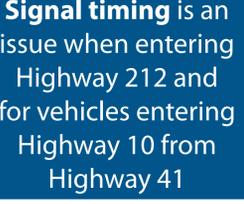
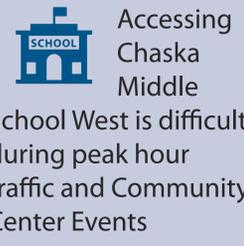
**Attendance**

**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
-  **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 enter Highway 10** from multiple intersections due to traffic congestion and backups
-  **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
-  **Brandondale Mobile Home Park** only has **one access point** to Highway 10.
-  **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





# HIGHWAY 10 CORRIDOR STUDY

## VICTORIA-CHASKA AREA



CITY OF  
**Chaska**  
MINNESOTA

Review information on this board first in order to understand the ratings identified with the other meeting information.

## Improvement Alternative Legend - West

### Improvement Categories

#### 1 Typical Sections

A typical section identifies the cross sectional features of a roadway including: number of lanes & width; shoulder width; sidewalk or trail location & width; etc. Typical sections do not generally show where turn lanes occur.



Existing corridor typical section

#### 2 Access Management Alternatives

Designates where and how vehicles access and exit a roadway.

**P Primary Full Movement Access**  
intersection examples: traffic signal, roundabout, all-way stop, thru/side street stop

**S Conditional Secondary Access**  
intersection examples: partial access intersection (examples - right-in/right-out, thru/side street stop, 3/4 access)

#### 3 Traffic Control Improvements

Intersection control improvements were explored at Highway 43W, Highway 43E, Highway 11, and Creek Road.



### Held up to Study Goals

**Vehicle Mobility**

Provide efficient and reliable vehicle mobility for the corridor.

**User Safety**

Safely accommodate all users along the corridor.

**Support Land Development**

Provide a comprehensive transportation network that supports existing and future land development.

**Environment Compatibility**

Provide infrastructure improvements compatible with the natural and human environment.

**Financially Responsible**

Develop a financially responsible infrastructure implementation plan.

### Assigned Rating

Alternative improvements for each category were reviewed against the individual study goals. Scores were averaged to determine which would best support the corridor vision.

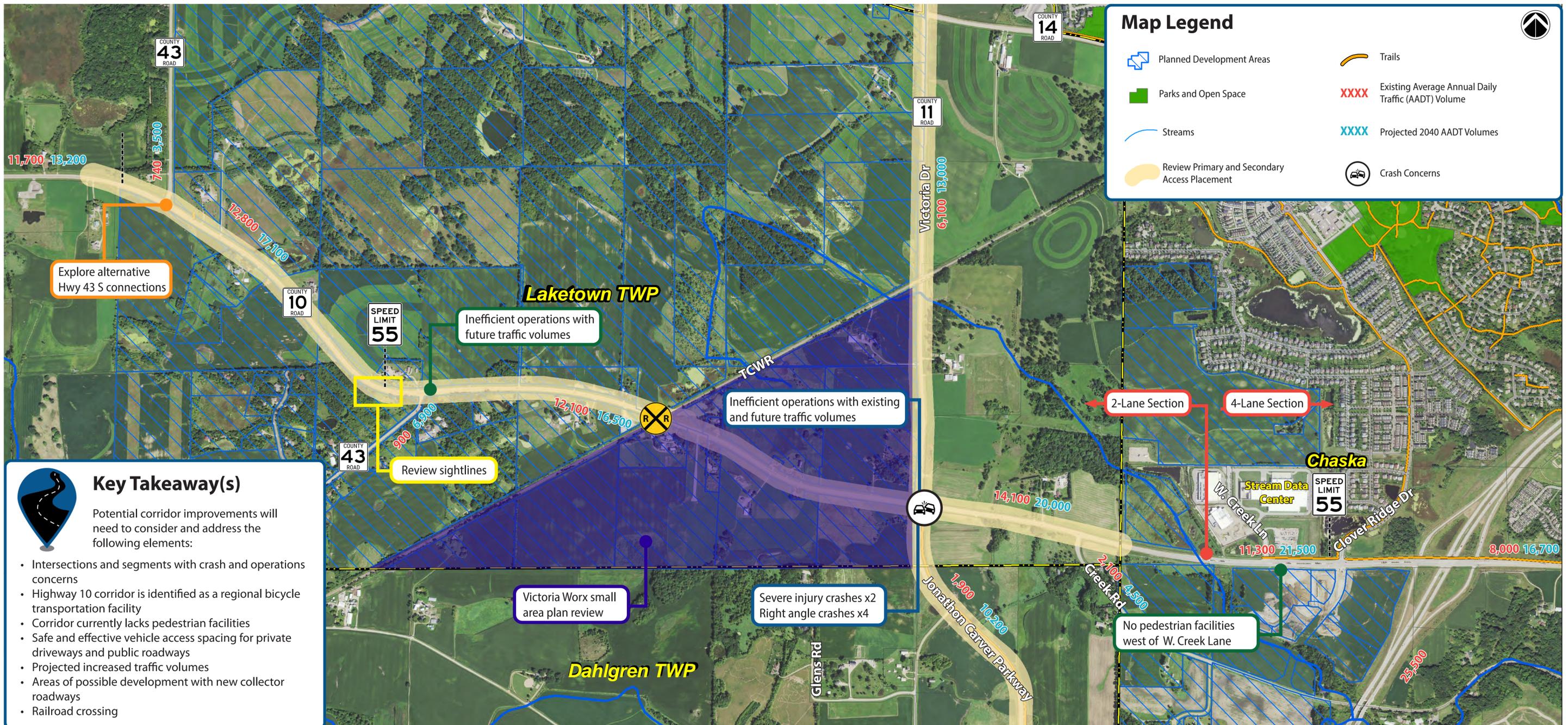
OVERALL SCORE  
- **Does not meet measure**

OVERALL SCORE  
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OVERALL SCORE  
+ **Meets measure**

OVERALL SCORE  
++ **Exceeds measure**

## Design Considerations Overview - West





# HIGHWAY 10 CORRIDOR STUDY

## VICTORIA-CHASKA AREA



CITY OF  
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### What do you think?

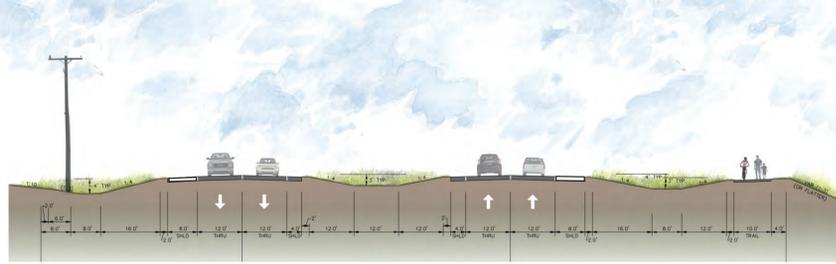
Review the typical roadway sections and let us know what you think on the provided handout.

## Typical Roadway Section Alternatives - West

### KEY TO SCORES



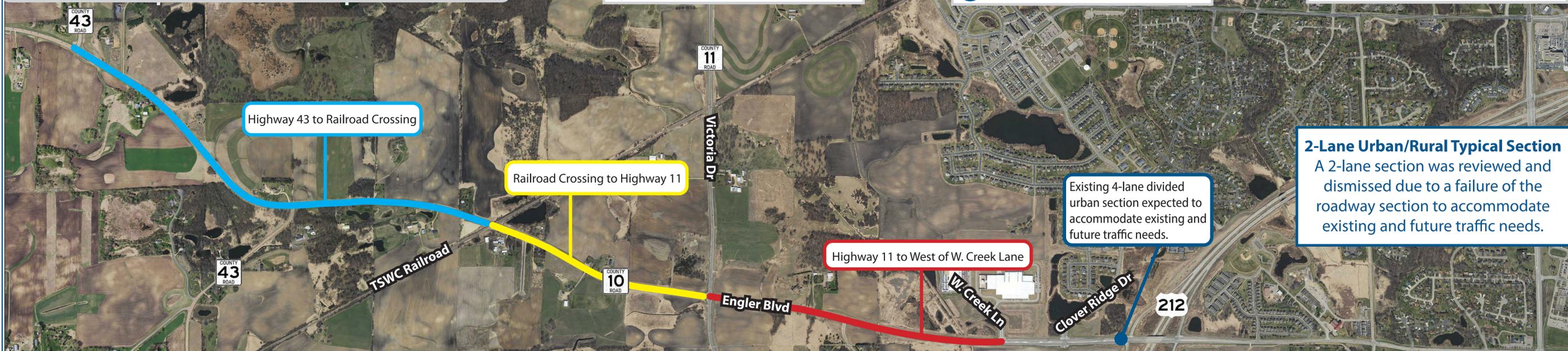
### Four-Lane Divided Rural



Highway 43 to Railroad Crossing		OVERALL SCORE
Scorecard		
Vehicle Mobility	++	++
User Safety	+	+
Support Land Development	++	++
Environment Compatibility	+	+
Financially Responsible	++	++

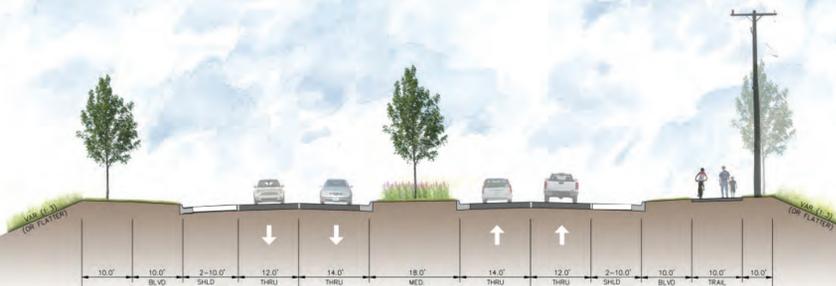
Railroad Crossing to Highway 11		OVERALL SCORE
Scorecard		
Vehicle Mobility	++	++
User Safety	+	+
Support Land Development	++	++
Environment Compatibility	+	+
Financially Responsible	++	++

Highway 11 to West of W. Creek Lane		OVERALL SCORE
Scorecard		
Vehicle Mobility	++	++
User Safety	+	+
Support Land Development	++	++
Environment Compatibility	+	+
Financially Responsible	++	++



**2-Lane Urban/Rural Typical Section**  
A 2-lane section was reviewed and dismissed due to a failure of the roadway section to accommodate existing and future traffic needs.

### Four-Lane Divided Urban



Highway 43 to Railroad Crossing		OVERALL SCORE
Scorecard		
Vehicle Mobility	++	++
User Safety	+	+
Support Land Development	++	++
Environment Compatibility	++	++
Financially Responsible	+	+

Railroad Crossing to Highway 11		OVERALL SCORE
Scorecard		
Vehicle Mobility	++	++
User Safety	+	+
Support Land Development	++	++
Environment Compatibility	++	++
Financially Responsible	+	+

Highway 11 to West of W. Creek Lane		OVERALL SCORE
Scorecard		
Vehicle Mobility	++	++
User Safety	+	+
Support Land Development	++	++
Environment Compatibility	++	++
Financially Responsible	+	+

**Note:** Typical section drawings are referenced in from the Carver County 2040 Comprehensive Plan. Lane widths and streetscaping (i.e. trees, grass, etc) depicted in the drawings are subject to change based on cost and community input.

## Access Management - West

### What is Access Management?

- Planning and control of the location, spacing, design, and operation of driveways, median openings, and street connections to a roadway.
- Designates where and how vehicles access and exit a roadway.
- Helps protect public investment in roadways by:
  - Preserving mobility
  - Reducing delay
  - Minimizing crashes
  - Reducing conflict points

### Access Conflict Points and Connection Safety



Full Access



Right-In /Out

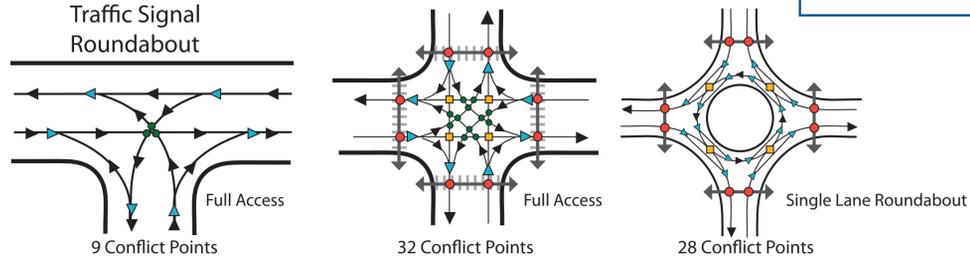


Directional Access

#### **P** Primary Full Movement Access

##### Traffic Control Alternatives Include:

- Two-Way Stop Control (TWSC)
- All-Way Stop Control (AWSC)
- Traffic Signal
- Roundabout

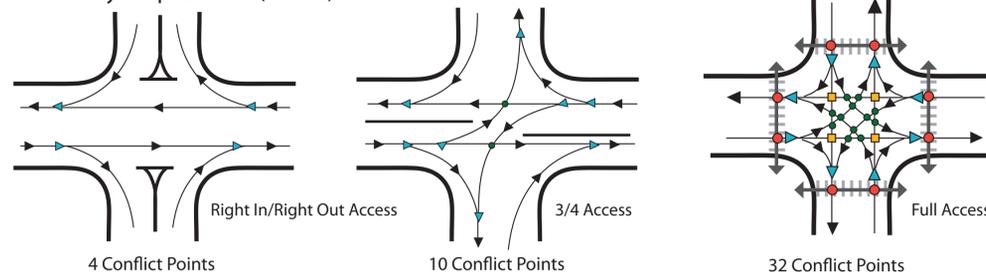


- Crossing
- Turning
- ▶ Merge/Diverge
- Pedestrian

#### **S** Conditional Secondary Access

##### Traffic Control Alternatives Include:

- Two-Way Stop Control (TWSC)



### County Access Spacing Guidelines



Classification	Purpose (Typical Trip Length <sup>1</sup> )	% of All Roads in Carver County	Access Spacing <sup>2</sup>			
			Primary Rural, Exurban, & Bypass	Urban/Urbanizing	Secondary Rural, Exurban, & Bypass	Urban/Urbanizing
Principal Arterial/Regional Corridor	Region to Region Connection (greater than 5 miles trips)	4.7%	1 mile (2 per mile)	1/2 mile (3 per mile)	1/2 mile (3 per mile)	1/4 (5 per mile)
Minor Arterial	City to Region Connection (3 to 5 mile trips)	18.5%	1/2 mile (3 per mile)	1/4 mile (5 per mile)	1/4 mile (5 per mile)	1/8 mile (9 per mile)
Collector	Neighborhood to Neighborhood Connection (less than 3 miles)	11.4%	1/2 mile (3 per mile)	1/4 mile (5 per mile)	1/4 mile (5 per mile)	1/8 mile (9 per mile)
Local	Local Connection	65.4%	-	-	-	-

(1.) Typical trip length from MnDOT Access Management Manual  
 (2.) Information from Carver County 2040 Comprehensive Plan

### Continuous Green T-Intersection & Reduced Conflict Intersection

#### Green-T Intersection

##### What are they?

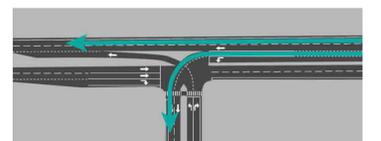
Green T-Intersections provide a low-cost intersection treatment that decreases fatalities occurring at conventional T-intersections while improving traffic flow.

##### Why does it work?

The design provides free-flow operations in one direction on the highway and can reduce the number of approach movements that need to stop via free-flow right-turn lanes on the arterial and cross streets as well as acceleration/merge lanes for left-turn movements from the cross street.

##### How does it work?

- The Continuous Green T-intersection is designed so that one direction of the main through-roadway does not have to stop.
- Designs that include free-flow right turns require only three movements to be subject to signal control.
- Includes a free-flow left merge lane onto the arterial
- Continuous Green T-intersections significantly reduce intersection delay and have narrower right-of-way requirements
- Signalization can be added, as needed, at a future date to improve traffic flow for movements turning on and off the side streets.



- Standard right turn on to main road
- Dedicated left turn lane on to main road
- Standard right turn on to side street
- Standard forward movement on main road
- Dedicated left turn lane on to side street
- Standard forward movement on main road

#### Reduced Conflict Intersection

##### What are they?

Reduced Conflict Intersections are intersections that decrease fatalities and injuries caused by broadside crashes. In some parts of the country, RCIs are sometimes referred to as J-turns or RCUTs.

##### Why does it work?

Drivers from the side street are only concerned with one direction of traffic on the highway at a time - you don't need to wait for a gap in both directions to cross a major road.

##### How does it work?

- Drivers always make a right turn, followed by a U-turn.
- Motorists approaching divided highways from a side street are not allowed to make left turns or cross traffic; instead, they are required to turn right onto the highway and then make a U-turn at a designated median opening.
- This reduces potential conflict points and increases safety.
- Generally, the delay caused by a signal is greater than the delay caused by the RCI.



"Bulb Out" - pavement extension to ensure larger vehicles can complete u-turn

Diagram Credit: MnDOT



# HIGHWAY 10 CORRIDOR STUDY

## VICTORIA-CHASKA AREA



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## Existing Typical Roadway Section - West

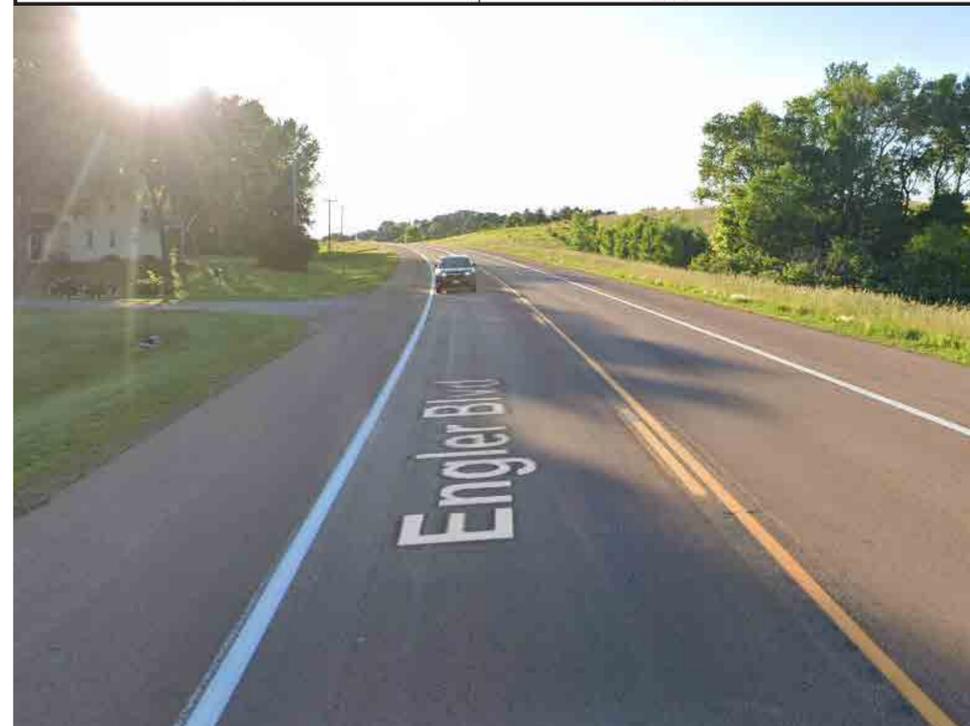
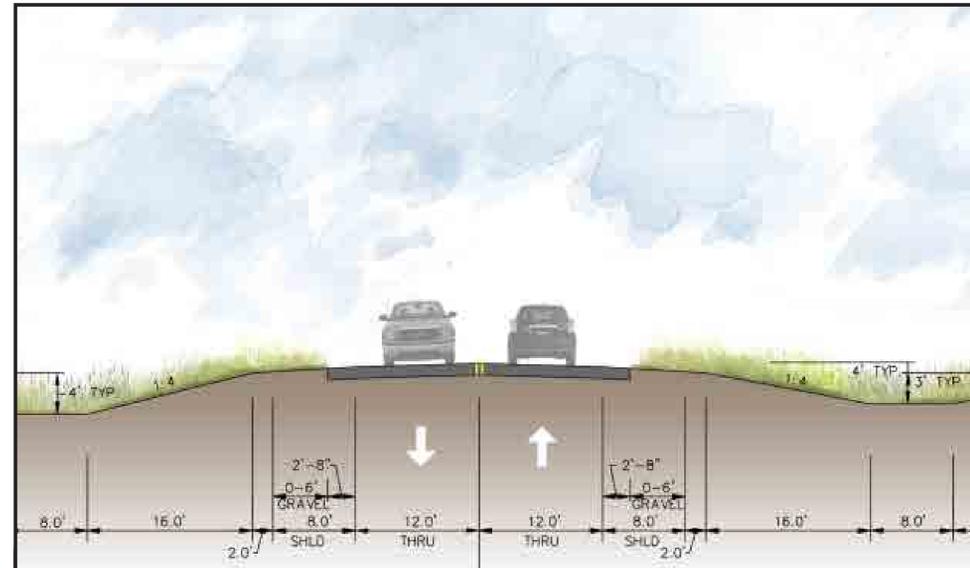
### What is a Typical Section?

A typical section identifies the cross sectional features of a roadway including: number of lanes & width; shoulder width; sidewalk or trail location & width; etc. Typical sections do not generally show where turn lanes occur.

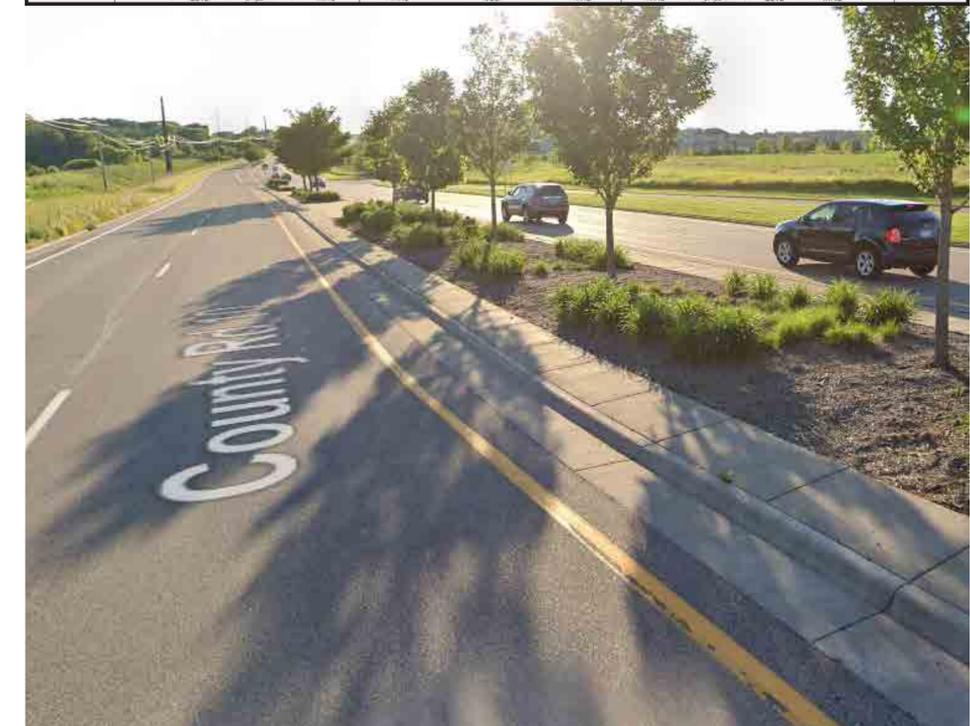
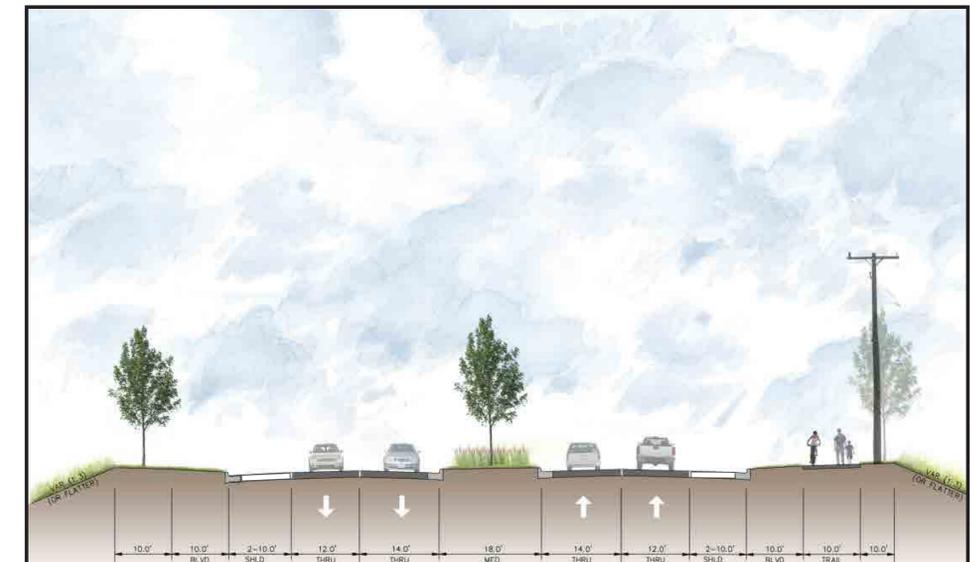
### What are the existing issues with the 2-lane divided typical section?

- High speed roadway and limited number of turn lanes increases risk for rear-end crashes
- Poor sight lines at intersections and driveways
- Reduced vehicle mobility (more congestion) with projected traffic volumes

### 2-Lane Undivided Rural



### 4-Lane Divided Urban





# HIGHWAY 10 CORRIDOR STUDY

## VICTORIA-CHASKA AREA



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### What do you think?

Review the intersection concepts and let us know what you think on the provided handout.

## Traffic Control Improvements - West (Highway 43 W to Highway 43 E)

### KEY TO SCORES



### Highway 43 W



### Highway 43 E





# HIGHWAY 10 CORRIDOR STUDY

## VICTORIA-CHASKA AREA



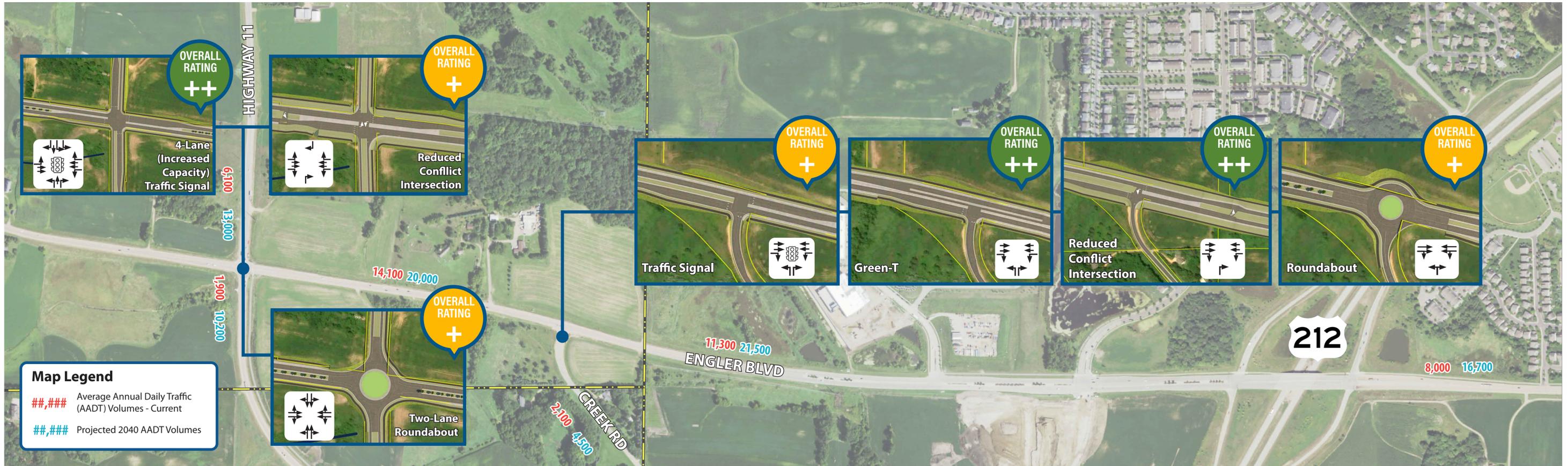
CITY OF  
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### What do you think?

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## Traffic Control Improvements - West (Highway 11 to Creek Road)

<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



**Map Legend**

###,### Average Annual Daily Traffic (AADT) Volumes - Current

###,### Projected 2040 AADT Volumes

### Highway 11

**Traffic Signal** **OVERALL SCORE ++**

Scorecard

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

**Reduced Conflict Intersection** **OVERALL SCORE +**

Scorecard

- Vehicle Mobility 0
- User Safety ++
- Support Land Development +
- Environment Compatibility ++
- Financially Responsible ++

**Two-Lane Roundabout** **OVERALL SCORE +**

Scorecard

- Vehicle Mobility 0
- User Safety ++
- Support Land Development +
- Environment Compatibility +
- Financially Responsible +

### Creek Road

**Traffic Signal** **OVERALL SCORE +**

Scorecard

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

**Green-T** **OVERALL SCORE ++**

Scorecard

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

**Reduced Conflict Intersection** **OVERALL SCORE ++**

Scorecard

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

**Roundabout** **OVERALL SCORE +**

Scorecard

- Vehicle Mobility 0
- User Safety ++
- Support Land Development ++
- Environment Compatibility +
- Financially Responsible +



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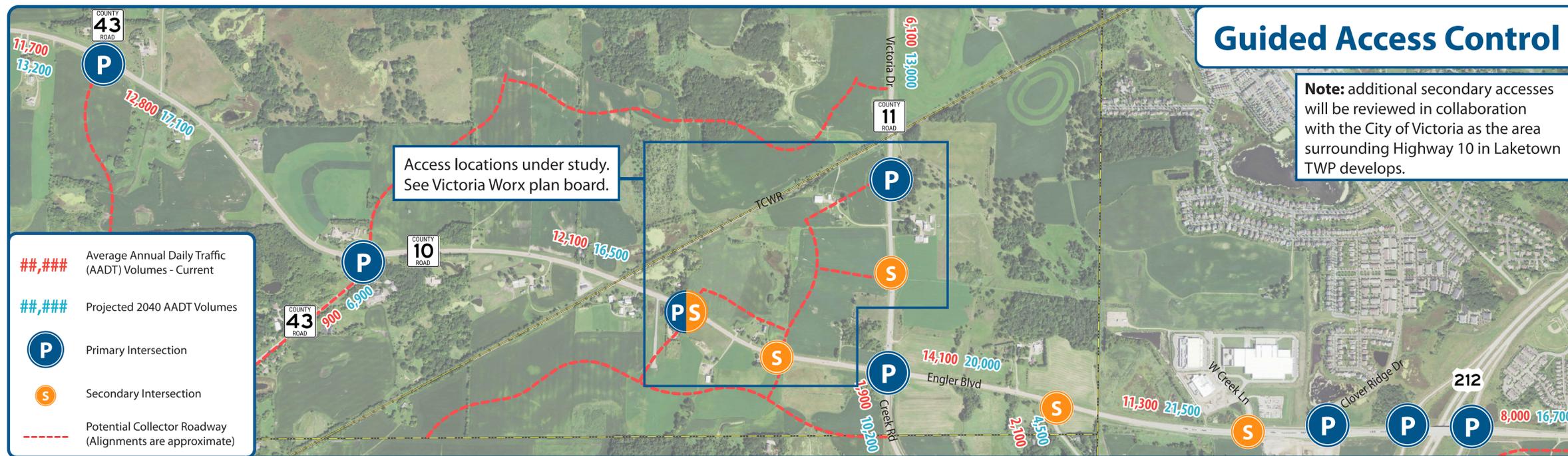
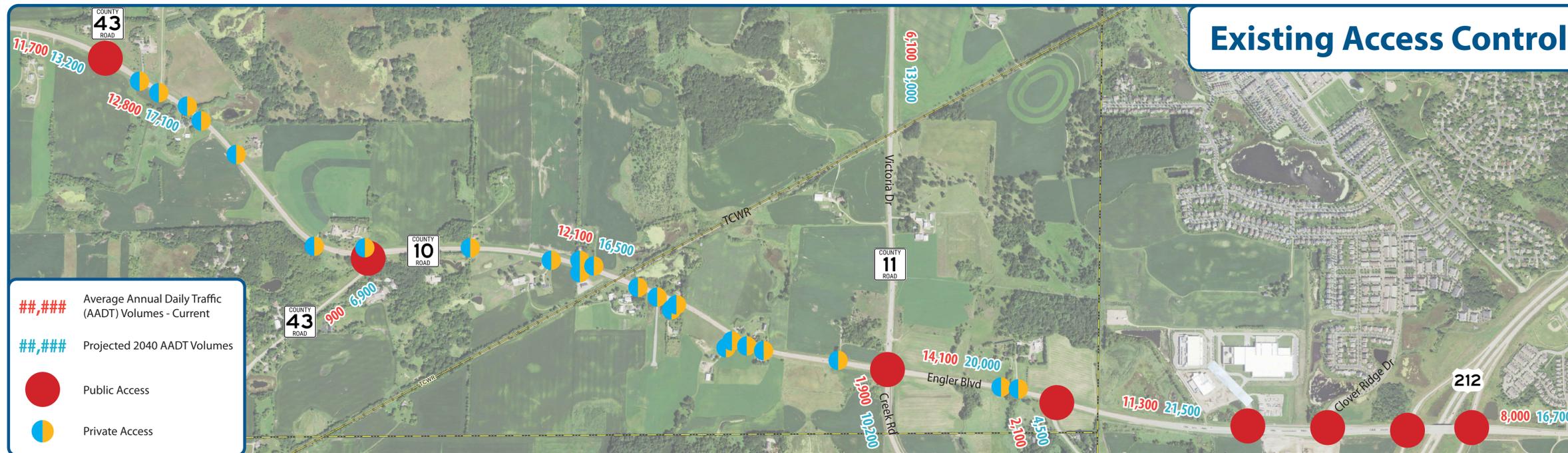


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### What do you think?

Review the access control configurations and let us know what you think on the provided handout.

## Access Control Configurations - West





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## Improvement Alternative Legend - East

### Improvement Categories

#### 1 Typical Sections

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#### 2 Access Management Alternatives

Designates where and how vehicles access and exit a roadway.

**P Primary Full Movement Access**  
intersection examples: traffic signal, roundabout, all-way stop, thru/side street stop

**S Conditional Secondary Access**  
intersection examples: partial access intersection (examples - right-in/right-out, thru/side street stop, 3/4 access)

#### 3 Traffic Control Improvements

Intersection control improvements were explored at Prescott Dr, Victoria Dr, Bavaria Rd, Royal Oak Dr, White Oak Dr, Highway 41, Crest Dr, and Park Ridge Dr/Skyview Dr.



### Held up to Study Goals

#### Vehicle Mobility

Provide efficient and reliable vehicle mobility for the corridor.

#### User Safety

Safely accommodate all users along the corridor.

#### Support Land Development

Provide a comprehensive transportation network that supports existing and future land development.

#### Environment Compatibility

Provide infrastructure improvements compatible with the natural and human environment.

#### Financially Responsible

Develop a financially responsible infrastructure implementation plan.

### Assigned Rating

Alternative improvements for each category were reviewed against the individual study goals. Scores were averaged to determine which would best support the corridor vision.

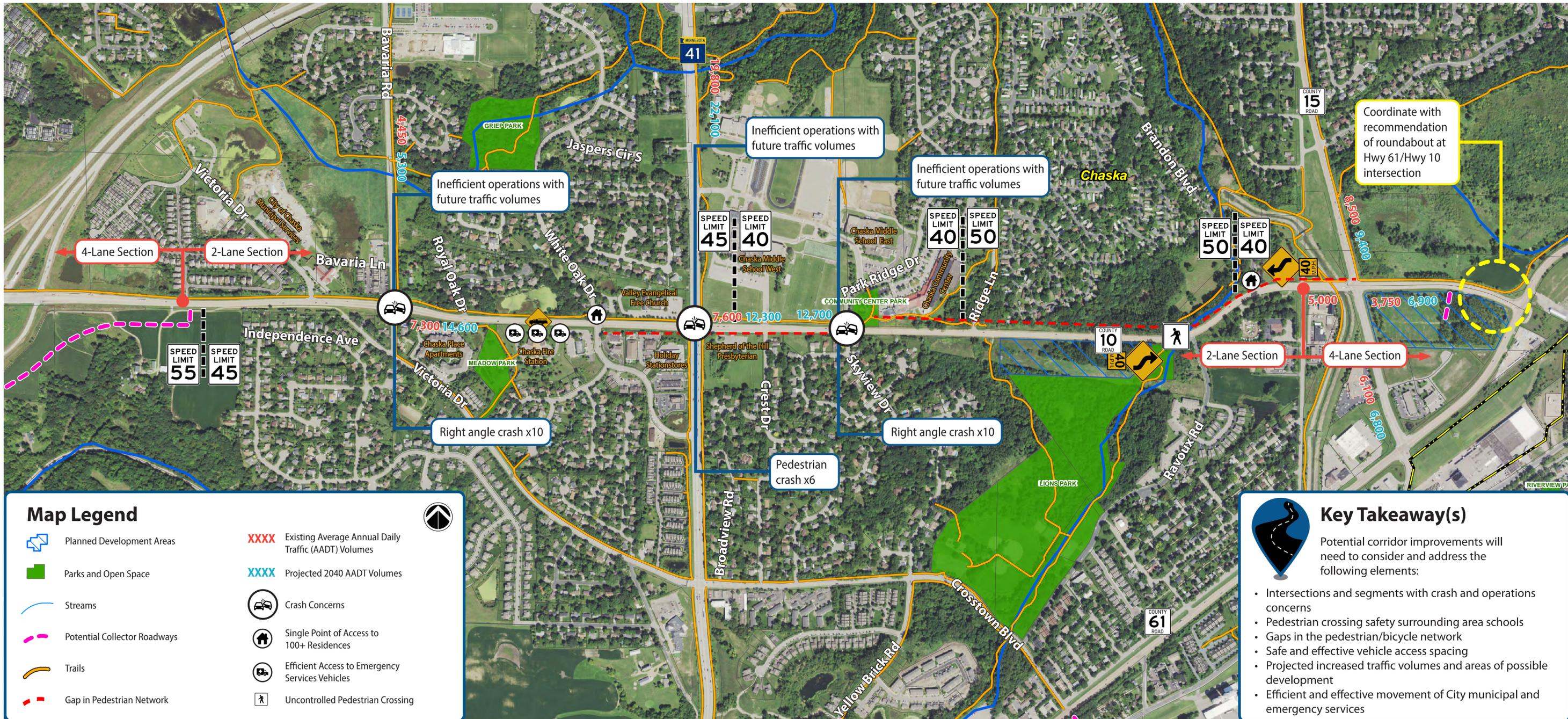
OVERALL SCORE  
- **Does not meet measure**

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OVERALL SCORE  
+ **Meets measure**

OVERALL SCORE  
++ **Exceeds measure**

## 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



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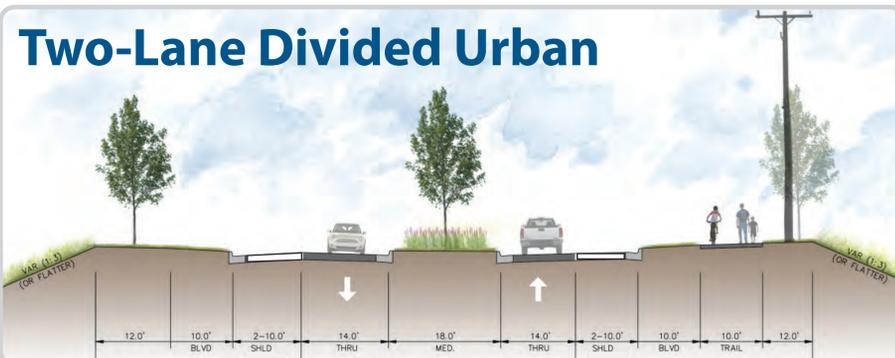
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MINNESOTA

**What do you think?**  
Review the typical roadway sections and let us know what you think on the provided handout.

## Typical Roadway Section Alternatives - East

### 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



**Highway 212 to Bavaria Rd** **OVERALL SCORE ++**

*Scorecard*

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

**Bavaria Rd to Park Ridge Dr** **OVERALL SCORE ++**

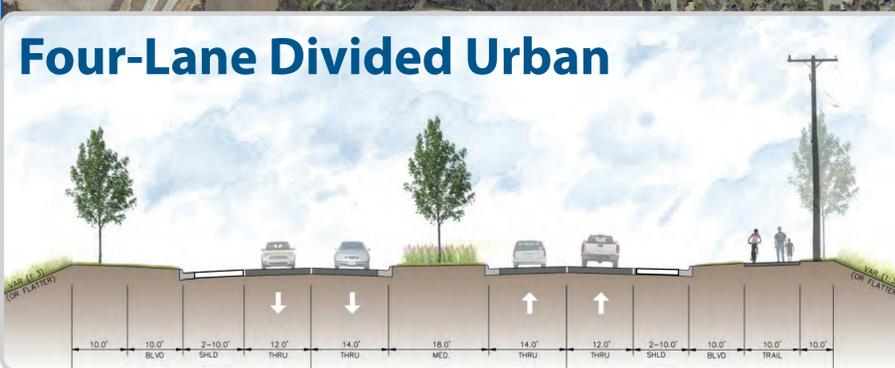
*Scorecard*

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

**East of Park Ridge Dr** **OVERALL SCORE ++**

*Scorecard*

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



**Highway 212 to Bavaria Rd** **OVERALL SCORE ++**

*Scorecard*

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

**Bavaria Rd to Park Ridge Dr** **OVERALL SCORE ++**

*Scorecard*

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

**East of Park Ridge Dr** **OVERALL SCORE +**

*Scorecard*

- Vehicle Mobility: ++
- User Safety: +
- Support Land Development: ++
- Environment Compatibility: +
- Financially Responsible: 0

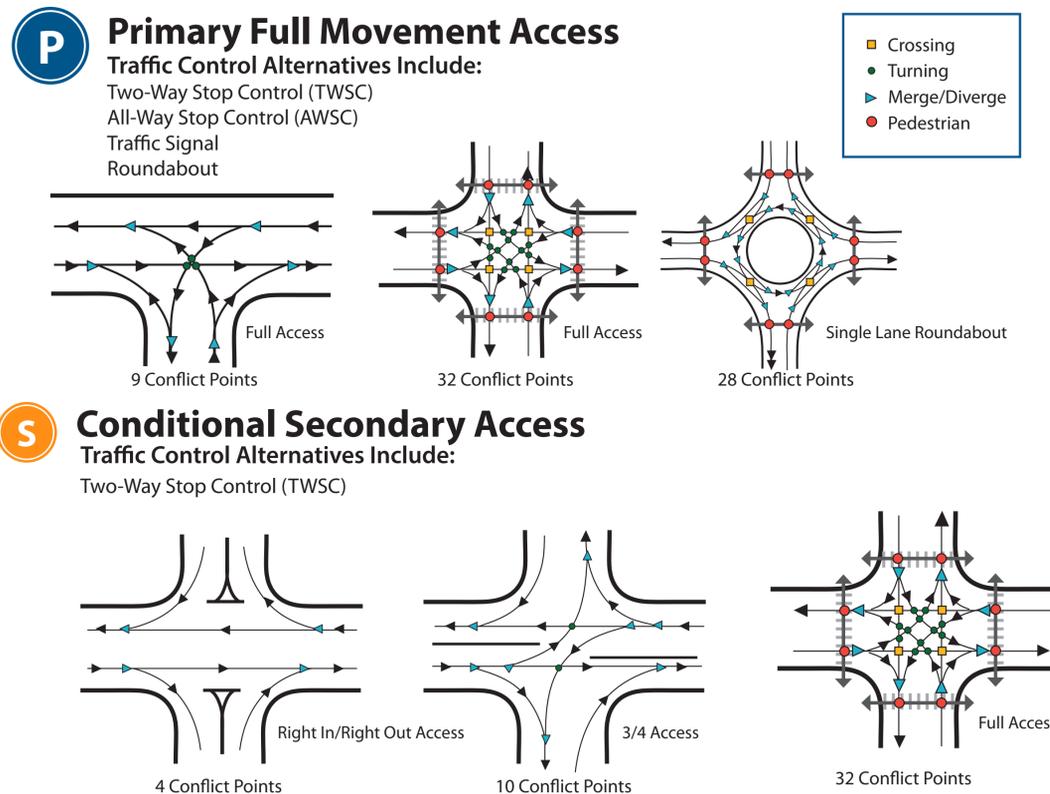
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## Access Management - East

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- Helps protect public investment in roadways by:
  - Preserving mobility
  - Reducing delay
  - Minimizing crashes
  - Reducing conflict points

### Access Conflict Points and Connection Safety



### County Access Spacing Guidelines



Classification	Purpose (Typical Trip Length <sup>1</sup> )	% of All Roads in Carver County	Access Spacing <sup>2</sup>			
			Primary Rural, Exurban, & Bypass	Primary Urban/Urbanizing	Secondary Rural, Exurban, & Bypass	Secondary Urban/Urbanizing
Principal Arterial/Regional Corridor	Region to Region Connection (greater than 5 miles trips)	4.7%	1 mile (2 per mile)	1/2 mile (3 per mile)	1/2 mile (3 per mile)	1/4 mile (5 per mile)
Minor Arterial	City to Region Connection (3 to 5 mile trips)	18.5%	1/2 mile (3 per mile)	1/4 mile (5 per mile)	1/4 mile (5 per mile)	1/8 mile (9 per mile)
Collector	Neighborhood to Neighborhood Connection (less than 3 miles)	11.4%	1/2 mile (3 per mile)	1/4 mile (5 per mile)	1/4 mile (5 per mile)	1/8 mile (9 per mile)
Local	Local Connection	65.4%	-	-	-	-

(1.) Typical trip length from MnDOT Access Management Manual  
 (2.) Information from Carver County 2040 Comprehensive Plan

### Reduced Conflict Intersections (RCI)

#### What are they?

Reduced Conflict Intersections are intersections that decrease fatalities and injuries caused by broadside crashes. In some parts of the country, RCIs are sometimes referred to as J-turns or RCUTs.



#### Why does it work?

Drivers from the side street are only concerned with one direction of traffic on the highway at a time - you don't need to wait for a gap in both directions to cross a major road.

#### How does it work?

- Drivers always make a right turn, followed by a U-turn.
- Motorists approaching divided highways from a side street are not allowed to make left turns or cross traffic; instead, they are required to turn right onto the highway and then make a U-turn at a designated median opening.
- This reduces potential conflict points and increases safety.
- Generally, the delay caused by a signal is greater than the delay caused by the RCI.

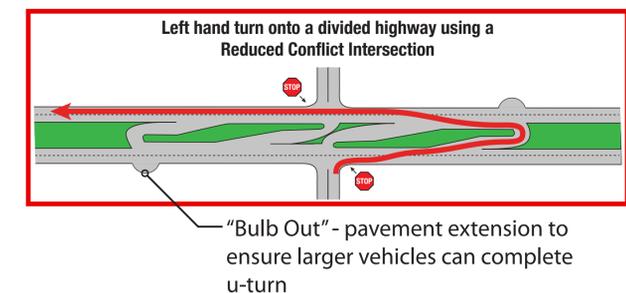


Photo & Diagram Credit: MnDOT



# HIGHWAY 10 CORRIDOR STUDY

## VICTORIA-CHASKA AREA



## Existing Typical Roadway Section - East

### What is a Typical Section?

A typical section identifies the cross sectional features of a roadway including: number of lanes & width; shoulder width; sidewalk or trail location & width; etc. Typical sections do not generally show where turn lanes occur.

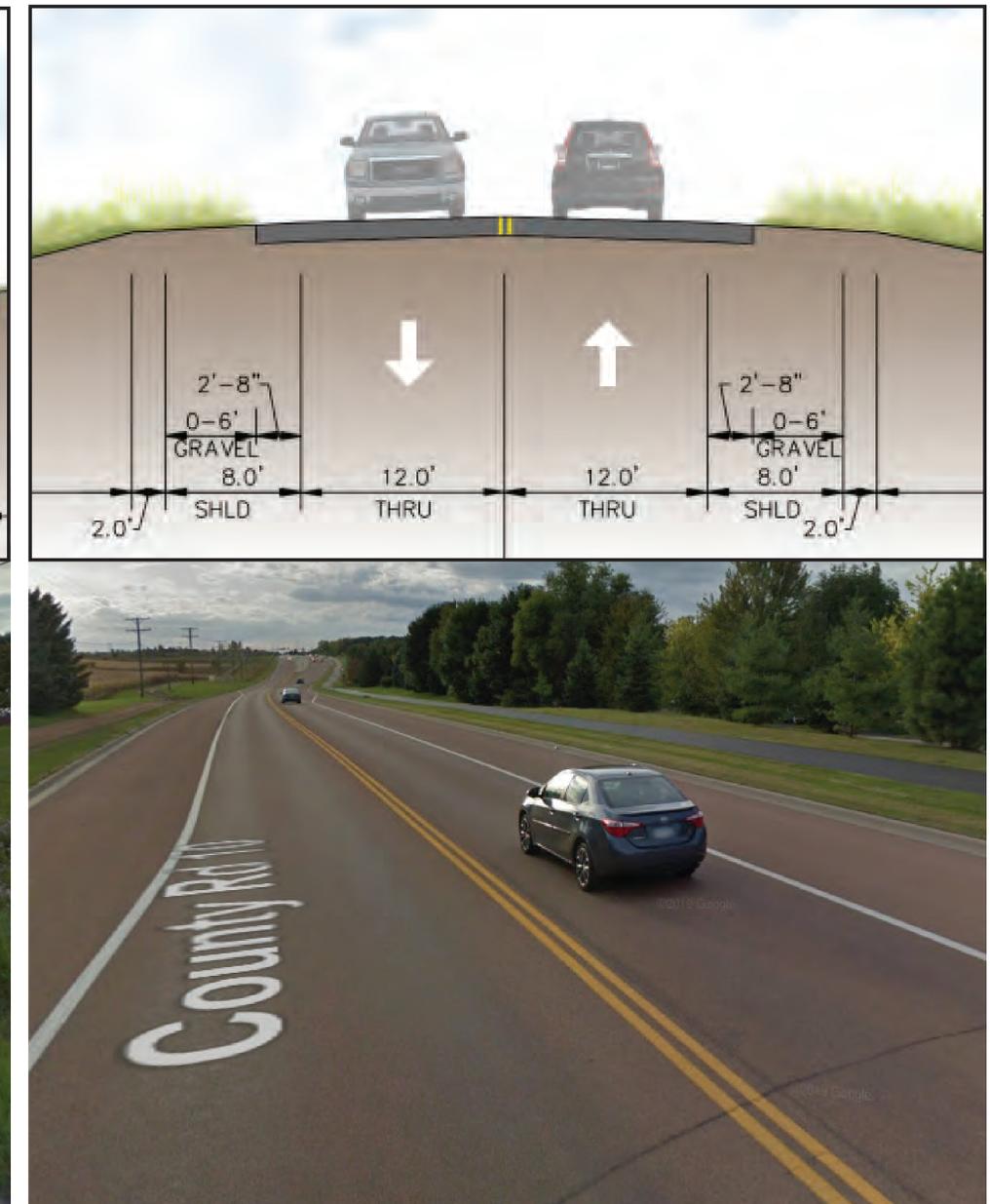
### What are the existing issues with the typical sections?

- Reduced vehicle mobility (more congestion) with projected traffic volumes
- Lacks ability of access control and providing city aesthetic without center median
- Poor pedestrian accommodations with long crossing distances

### 2-Lane with Continuous Left Turn Lane



### 2-Lane Rural





# HIGHWAY 10 CORRIDOR STUDY

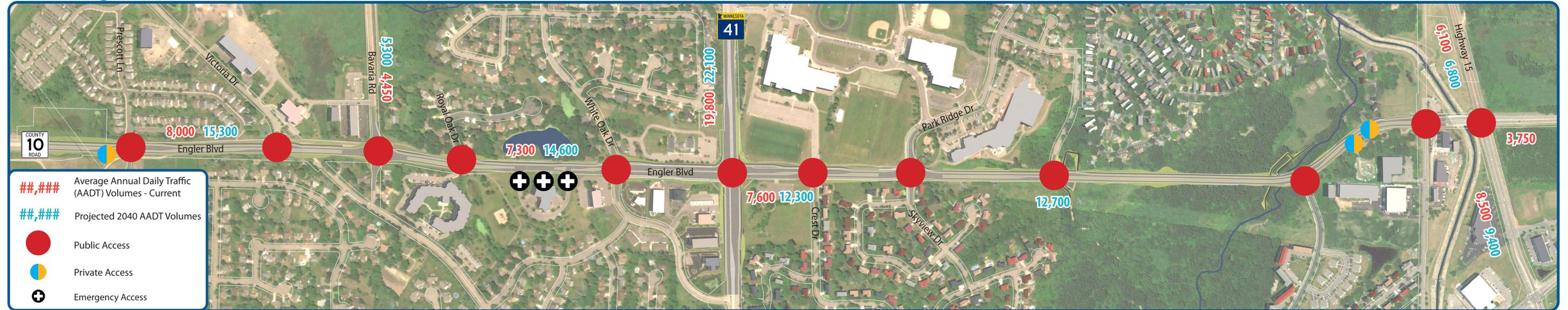
## VICTORIA-CHASKA AREA



**What do you think?**  
Review the access control types and let us know what you think on the provided handout.

## Access Control Configurations - East

### Existing Access Control



### Guided Access Control



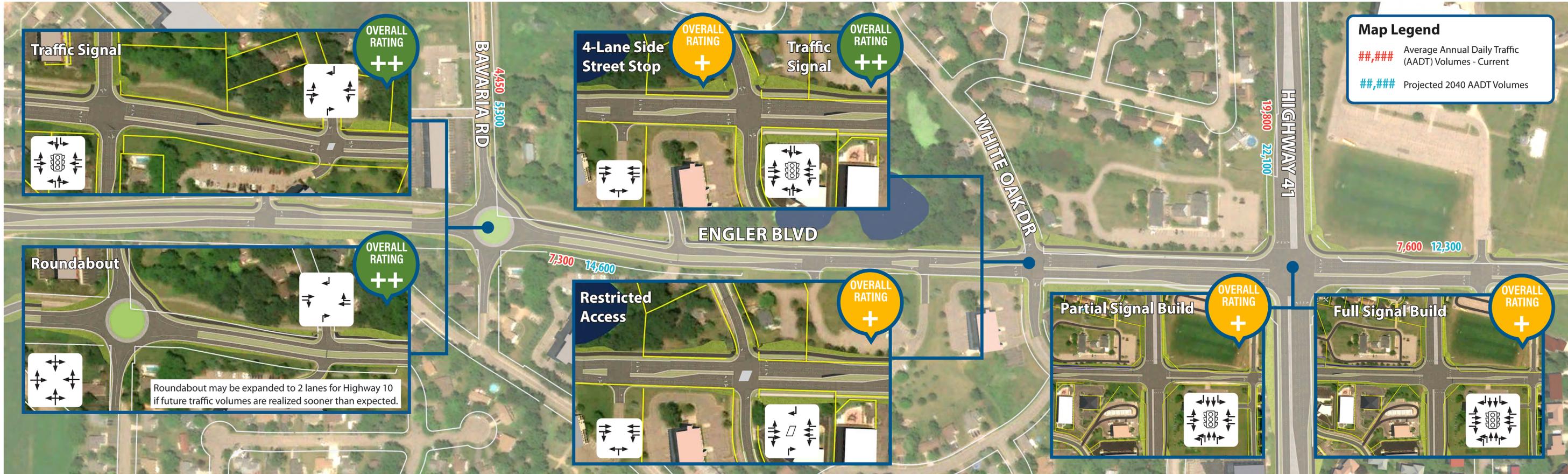
**Note:** Conditional Secondary Access identified for the intersections of Highway 10 at Victoria Drive and Crest Drive assume side street stop control without median in the near-term. If operational and safety concerns develop due to increasing volumes on Highway 10, access may be reduced.

**What do you think?**  
Review the intersection concepts and let us know what you think on the provided handout.

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

**KEY TO SCORES**

- OVERALL RATING -** Does not meet measure
- OVERALL RATING 0** Minimally meets measure
- OVERALL RATING +** Meets measure
- OVERALL RATING ++** Exceeds measure



#### Bavaria Road

Concept	Overall Score
<b>Traffic Signal</b>	++
<b>Roundabout</b>	++
Vehicle Mobility	+
User Safety	+
Support Land Development	++
Environment Compatibility	++
Financially Responsible	++

#### White Oak Drive

Concept	Overall Score
<b>Restricted Access</b>	+
<b>4-Lane TWSC</b>	+
<b>Traffic Signal</b>	++
Vehicle Mobility	+
User Safety	+
Support Land Development	-
Environment Compatibility	+
Financially Responsible	++

**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

#### Highway 41

Concept	Overall Score
<b>Partial Signal Build</b>	+
<b>Full Signal Build</b>	+
Vehicle Mobility	+
User Safety	+
Support Land Development	+
Environment Compatibility	++
Financially Responsible	+

**Alternatives Reviewed and Dismissed:**

**Two-Lane Roundabout:**

1. Environmental, safety, pedestrian/bike, and mobility conflicts
2. Long traffic delays
3. Pedestrian/bike stress and confusion
4. Significant right-of-way impacts



# HIGHWAY 10 CORRIDOR STUDY

## VICTORIA-CHASKA AREA



CITY OF  
**Chaska**  
MINNESOTA

**What do you think?**  
Review the intersection concepts and let us know what you think on the provided handout.

### Traffic Control Improvements - East (Crest Drive to Highway 15)

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



#### Park Ridge Drive

##### Roundabout

**OVERALL SCORE**  
+

Scorecard

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

##### Signal

**OVERALL SCORE**  
+

Scorecard

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

#### Highway 15

##### Roundabout

**OVERALL SCORE**  
+

Scorecard

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

##### Improved Signal

**OVERALL SCORE**  
++

Scorecard

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

## 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.

