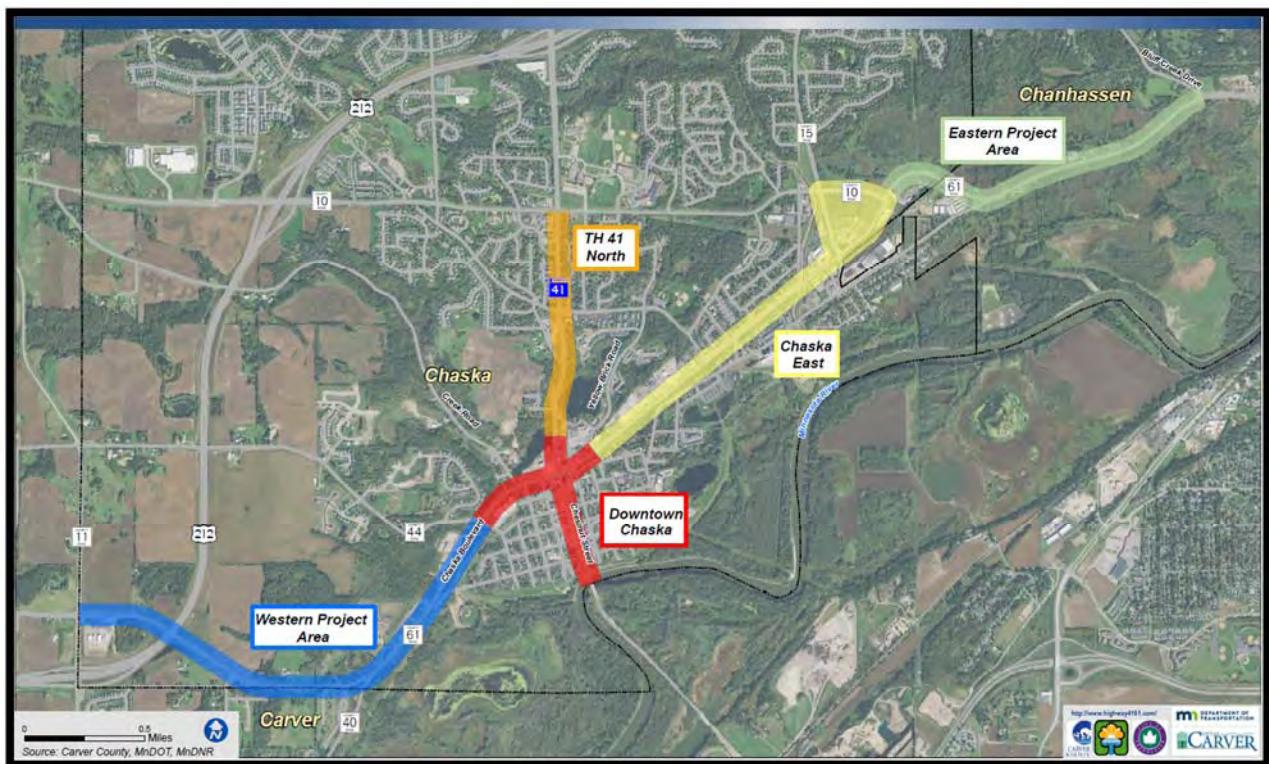




# CSAH 61 / TH 41 Improvements Project

Carver County, Minnesota

March 2018



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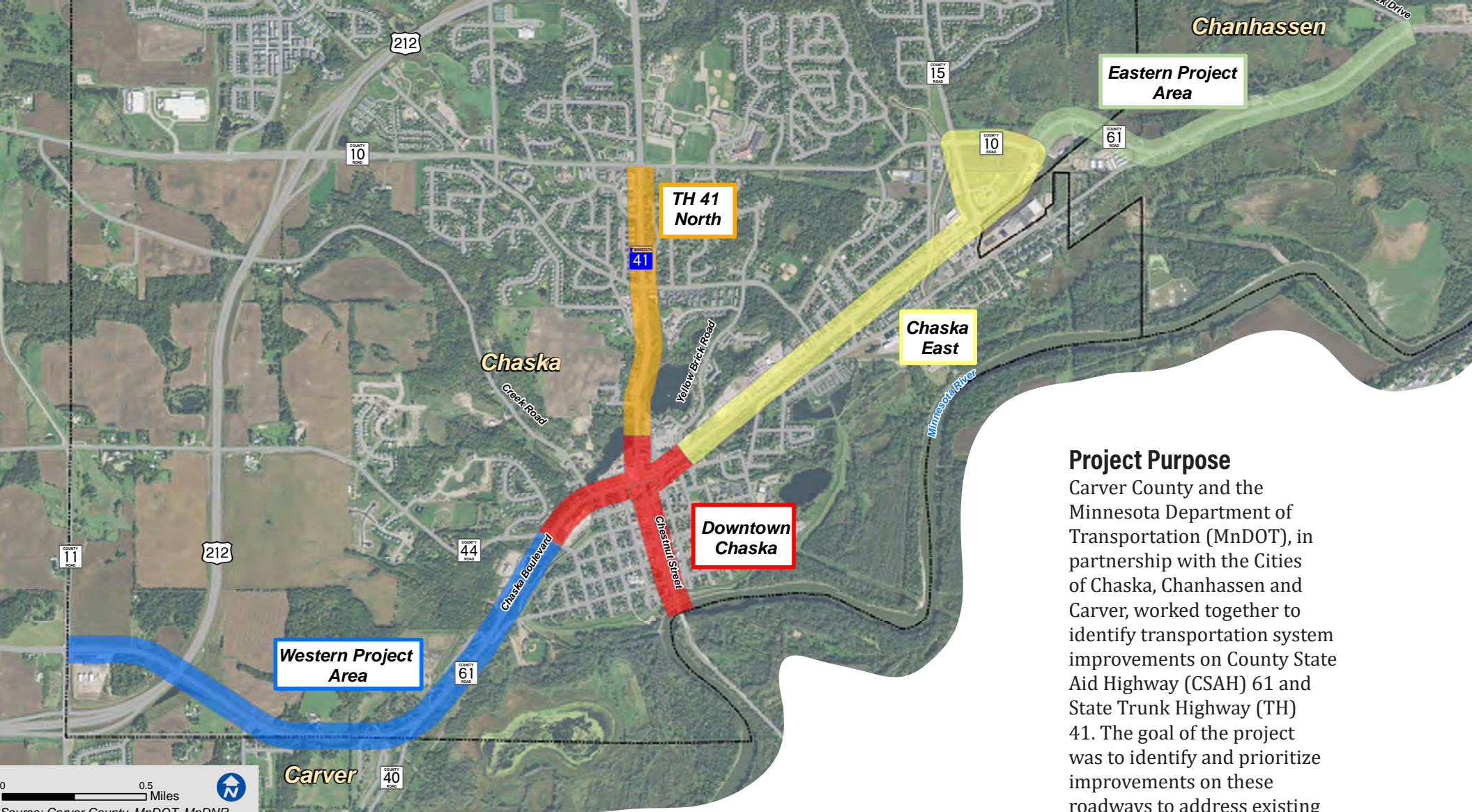
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# CSAH 61/TH 41 Improvements Project

# **EXECUTIVE SUMMARY**



# PROJECT AREA

# Study Partners

Carver County

MnDOT

City of Chaska

City of Chanhassen

City of Carver

## Corridor Overview

TH 41 and CSAH 61 connect the southwest metro area and provide access and connectivity within the local communities they serve. Both are important corridors serving multiple modes of transportation including automobiles, freight, transit, bicycles and pedestrians. MnDOT and Carver County initiated this project to identify improvements that can be made to CSAH 61 and TH 41 over the next 20 years to reflect the transportation needs of the region and the communities they serve.

The impetus for the CSAH 61/TH 41 Improvements Project was two-fold. First, improvement projects were planned for CSAH 61 and TH 41 in Downtown Chaska within the 2017-2019 timeframe, including a 2017 bridge replacement over West Chaska Creek and an improvement project on TH 41 through Downtown in 2019 to address safety concerns and aging infrastructure. The City, County, and state recognized now was the time to identify improvements on CSAH 61 and TH 41 in downtown Chaska that addressed those needs and also supported the City's vision to be a "hub of community destinations and gathering-places..."

Second, Carver County desired to identify future improvement needs on CSAH 61 from Carver to Chanhassen for turnback funding eligibility. MnDOT committed funding through the turnback program for improvements on CSAH 61 to address roadway deficiencies. Carver County needed to identify and prioritize these improvements.

## Recommendations

Project partners developed recommended improvements for each of the project subareas. The recommendations created a shared vision for future improvements on CSAH 61 and TH 41 such as changes in the number of lanes, intersection control, access management and pedestrian/bicycle accommodations. An improvement layout, similar to the example shown below, was developed for each recommendation along with estimated costs.



*Example of recommended improvement on CSAH 61.*

## Implementation Plan

The figure below illustrates anticipated implementation timeframes for each project subarea. Project partners put recommendations into implementation timeframes based on project needs, available funding and input from corridor stakeholders, the public and elected officials. The implementation plan describes individual projects, potential funding sources, lead agency, project costs, and the anticipated timeframes for completion.

Additional design, studies and public input will be needed for each of the recommended improvements to move forward. Study partners must continue to work together to further plan, obtain funding, design, and implement the recommended improvement projects.



## I. INTRODUCTION

Carver County and the Minnesota Department of Transportation (MnDOT), in partnership with the Cities of Chaska, Carver, and Chanhassen, worked together to identify transportation system improvements on County State Aid Highway (CSAH) 61 and State Trunk Highway (TH) 41. These corridors serve important roles in connecting the southwest metro area and providing access and connectivity within the local communities they serve. **Figure 1** illustrates the project area which includes CSAH 61 from CSAH 11 in Carver to Bluff Creek Drive in Chanhassen and TH 41 in Chaska from the Minnesota River Bridge to CSAH 10. Both of these roadways are important corridors serving multiple modes of transportation including automobiles, freight, transit, bicycles and pedestrians. MnDOT and Carver County initiated this project to identify improvements that can be made to CSAH 61 and TH 41 over the next 20 years to reflect the transportation needs of the region and the communities they serve.

The impetus for the CSAH 61/TH 41 Improvements Project was two-fold. First, improvement projects were planned for CSAH 61 and TH 41 in Downtown Chaska within the 2017-2019 timeframe. This included a bridge replacement project on CSAH 61 over West Chaska Creek in 2017 and an improvement project on TH 41 through Downtown in 2019 to address safety concerns and aging infrastructure. The CSAH 61/TH 41 Improvements Project was initiated to further evaluate and recommend specific improvements for these planned projects.

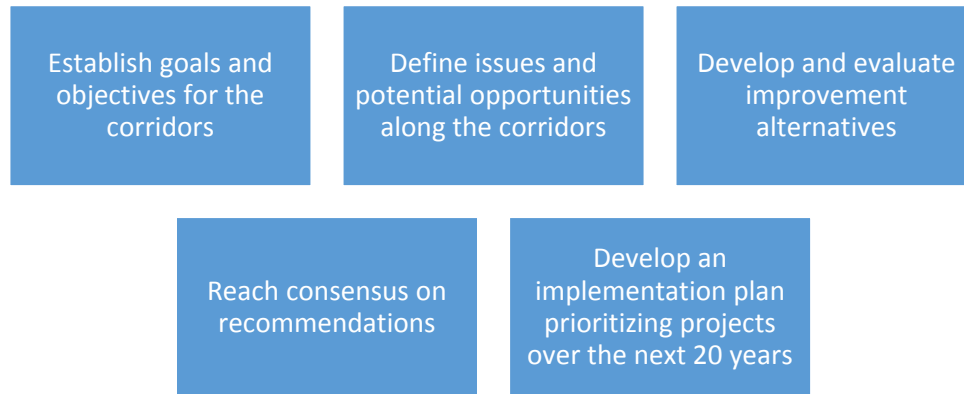
Second, Carver County desired to identify future improvement needs on CSAH 61 from Carver to Chanhassen for turnback funding eligibility. CSAH 61 was formerly a state highway that MnDOT turned back to the County in 2008. MnDOT committed funding through the turnback program for improvements on CSAH 61 to address roadway deficiencies. The CSAH 61/TH 41 Improvements Project was initiated to identify and prioritize improvements to address existing issues, prepare for future growth, and utilize turnback funding. **Figure 2** provides a snapshot of issues and considerations within the project area identified early in the planning process.

CSAH 61 has undergone much change over the last decade as the TH 212 freeway was built and much of the regional traffic shifted two miles to the north. The recession at the tail end of the last decade made it particularly difficult for the businesses along the corridor that experienced a drastic reduction in traffic in the ballpark of 10,000 vehicles per day (vpd). Today there are roadway and development projects occurring all around Chaska. The corridor no longer carries as much regional and truck trips, but still serves an important role in the transportation network. CSAH 61 has served the region well for many decades and now is the time to determine what the corridor should be for the next 50+ years. The roadway must continue to serve as a County arterial roadway while also being sensitive to the context of the communities it serves.

TH 41 is an important corridor providing one of four Minnesota River crossings in the southwestern metro while also serving as a “Main Street” to downtown Chaska. The corridor is a four-lane divided highway with numerous barriers to efficient traffic flow and vehicle and pedestrian safety. Relocating the Minnesota River Crossing would likely alleviate traffic pressures in downtown Chaska and allow the “Main Street” environment to thrive. However, no plans exist to preserve the land needed for the new corridor, nor is there funding identified in the foreseeable future. Agencies have agreed that future traffic demands on TH 41 must be accommodated on the existing alignment through the Downtown.

## A. Project Objectives

The overall objective of this project needs to be the region and the local communities these roadways serve. Partners worked to:



## B. Project Partners

The CSAH 61/TH 41 Improvements Project was a joint effort between partners listed to the right.

Planning and engineering staff from Carver County and MnDOT served as the lead agencies and met weekly throughout the project to review and discuss progress and technical deliverables. The Cities of Chaska, Carver, and Chanhassen joined Carver County and MnDOT on a Technical Advisory Committee (TAC) that met periodically throughout the duration of the project. The TAC provided input on existing and future conditions, corridor needs, alternatives to be considered, and recommended solutions.

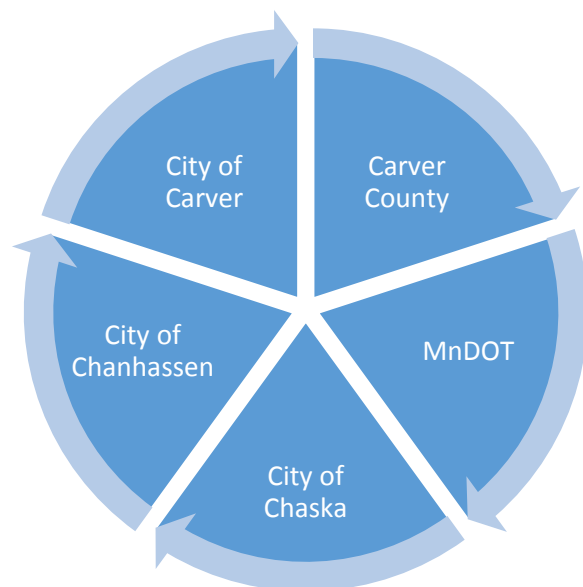
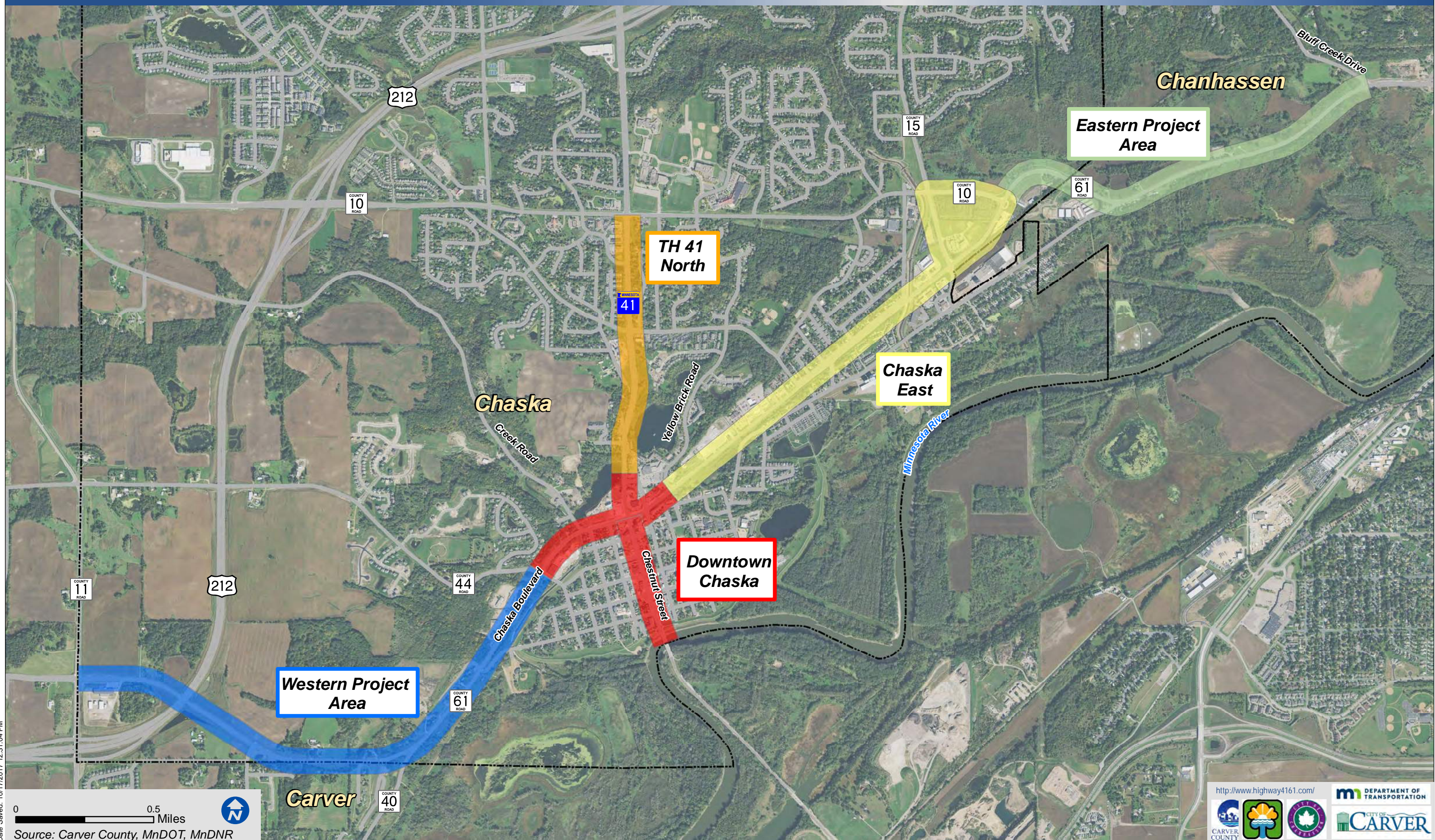
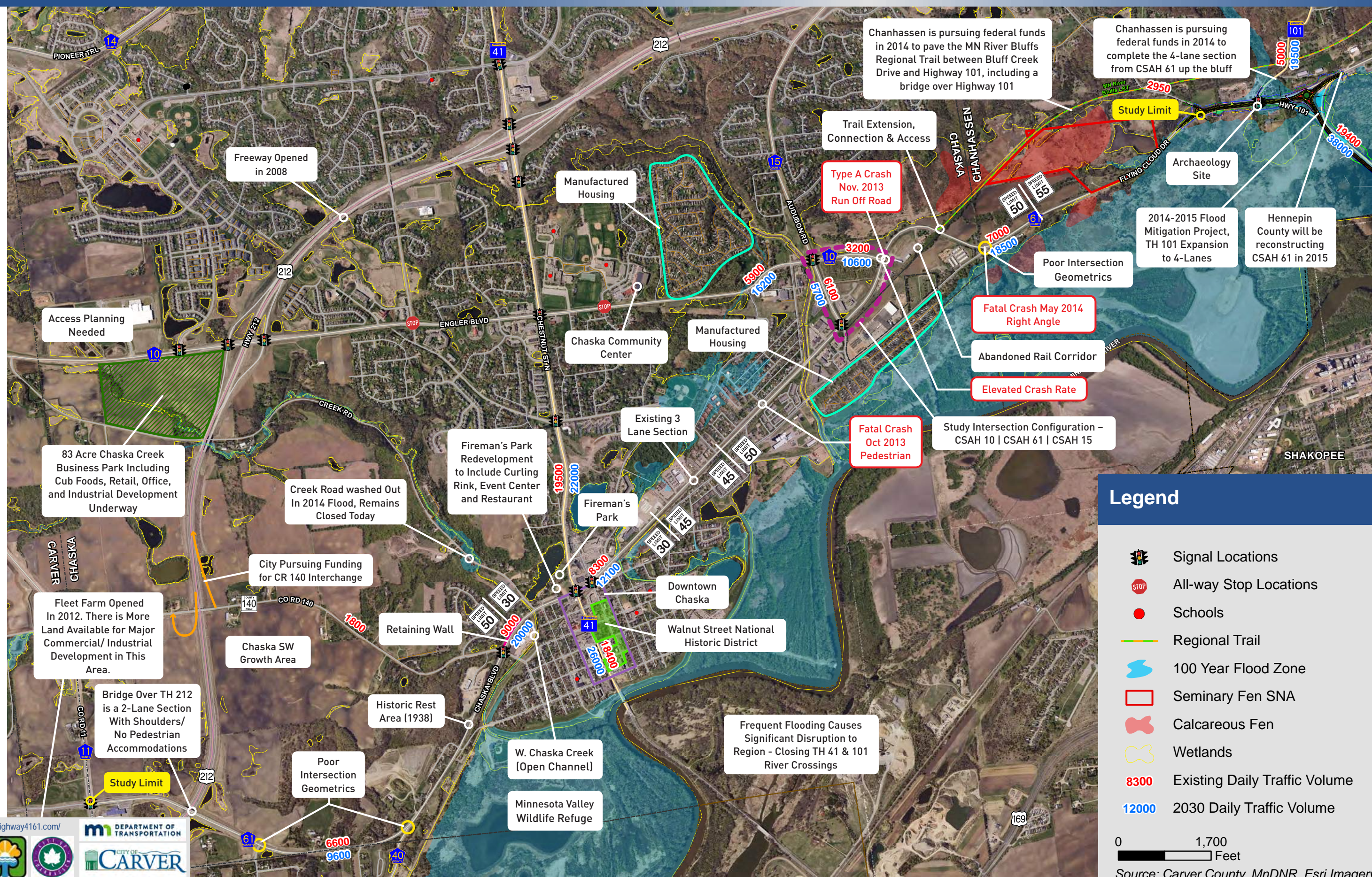


Figure 1



## Figure 2



## C. Public Involvement

Public involvement was an integral part of the the CSAH 61/TH 41 Improvements Project. Input from stakeholders, business and property owners, interested citizens, elected officials and other corridor users was critical to understanding issues and needs and to vet improvement concepts and priorities. **Figure 3** outlines the different groups, outreach activities, and their interaction and roles in the overall study's decision-making process.

The following methods were used to promote public involvement during the study (see meeting summaries in **Appendix A**):

### 1. *Focus Group Meetings*

The project team invited various interest groups to attend focus group meetings during the project. Representatives from emergency services, the school district, parks/trails, transit providers, and water resources stakeholders provided input on corridor issues and needs.

### 2. *Business Advisory Committee (BAC)*

Representatives from the City of Chaska, Carver County, and MnDOT met with members of Chaska's Downtown Business Alliance and other businesses within the corridor study areas several times throughout this process to solicit input on issues and needs and the range of concepts under consideration.

### 3. *Property Owner Meetings*

Project staff met with several property owners in a small group or individual setting to discuss potential corridor improvement options. Meetings were held with Dolce Vita Wine Shop and Meadow Springs Church, the Brickyard Commercial area businesses, and a business owner and property owners in the City of Chanhassen near the CSAH 61/Stoughton Avenue intersection.

### 4. *Public Open Houses*

Three public open houses occurred during the project. The first occurred during April 2016, in the early phases of the study, to introduce the project and solicit input on issues, needs, and opportunities in the Downtown Chaska subarea. The second open house was held in September 2016 to solicit input on a range of improvement options under consideration for CSAH 61 and TH 41 in Downtown Chaska. The third and final open house occurred in October 2017 to solicit input on all corridor subarea recommendations in the Cities of Chaska, Carver, and Chanhassen.

### 5. *Agency Meetings*

Consulting staff met consistently with staff from the Cities of Chaska, Carver, and Chanhassen as well as Carver County staff and representatives from MnDOT throughout the study duration. Meetings were focused on understanding each agency's vision for the study corridors where they intersect each jurisdiction in order to provide recommendations tailored to specific needs.

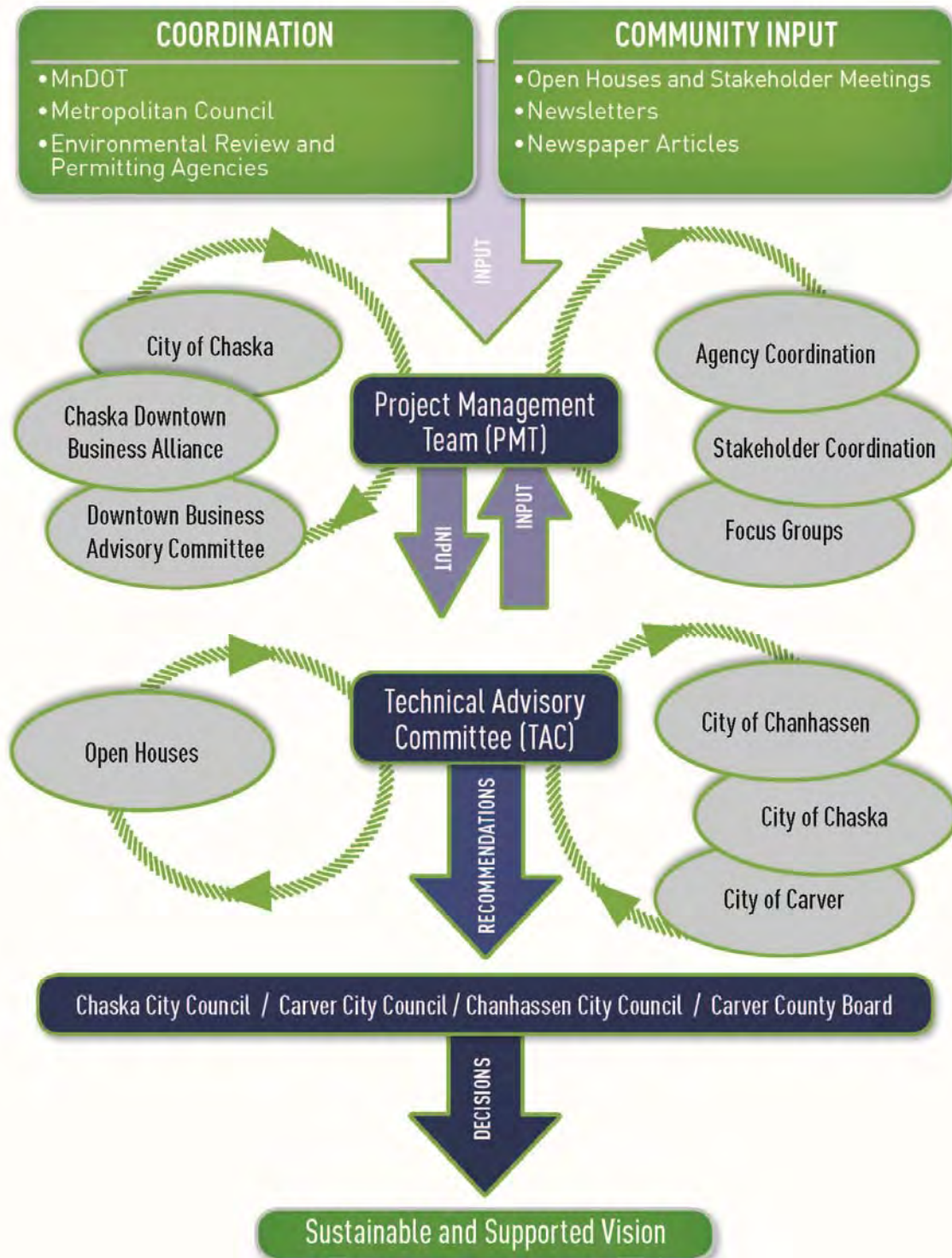
### 6. *City Council Updates*

Elected officials from each City received updates during the project at key milestones, as desired.

### 7. *Project Website and Facebook*

A project website and Facebook page were maintained during the project as another means of communicating study progress and upcoming meetings to the public. Notices and meeting materials were posted on these media for review and comment by all.

Figure 3. Decision Making Process



## D. Report Organization

Due to the size of the project area, the multiple jurisdictional boundaries, and varying contextual settings, the study area was broken into five project subareas. The organization of this report reflects the order in which subarea planning was approached. The following is a brief description of each project subarea:

- **Downtown Chaska:** Includes CSAH 61 from CSAH 44 to Yellow Brick Road and TH 41 from the Minnesota River Bridge to Walnut Court.
- **Western Project Area:** Includes CSAH 61 from CSAH 11 to CSAH 44 and includes lands in the Cities of Carver and Chaska.
- **TH 41 North:** Includes TH 41 from Walnut Court to CSAH 10 in Chaska.
- **Chaska East:** Includes CSAH 61 from Yellow Brick Road to CSAH 10 in Chaska.
- **Eastern Project Area:** Includes CSAH 61 from CSAH 10 to Bluff Creek Drive in the Cities of Chaska and Chanhassen.



Each of the following report sections focuses on one of the above subareas. Each section describes the context of the subarea, issues and design considerations, range of improvement concepts studied, and the recommended improvement alternative.

The report concludes with Implementation and Next Steps sections. The Implementation section outlines the prioritization of improvement projects over the next 20 years, the estimated costs, lead agencies and potential funding sources. The Next Steps section identifies how agencies can use the project's recommendations moving forward.

Several appendices back this report, providing in-depth information on project research and data analysis methodologies.

## II. DOWNTOWN CHASKA

### A. Downtown Overview

Chaska was founded in 1852 and provides a historic setting containing many 19<sup>th</sup> century structures. It is an active and evolving economic center and regional attraction home to more than 175 businesses. Both TH 41 and CSAH 61 traverse Downtown Chaska providing local access and circulation as well as connections to the greater Twin Cities metro area. TH 41 also serves as one of the four Minnesota River crossings in the southwestern metro area.

As noted in the introduction, improvement projects were planned on both TH 41 and CSAH 61 in Downtown Chaska. These included a bridge replacement project on CSAH 61 over the West Chaska Creek and an improvemnet on TH 41 to address safety issues and aging infrastructure.

In order to plan for these upcoming construction projects, the City of Chaska, Carver County and MnDOT joined together to identify potential additional improvements that should be implemented on these highways beyond repairing the bridge, fixing the pavement, and improving safety. A major consideration in this effort was incorporating the City of Chaska's vision for Downtown.

#### *Chaska's Vision for Downtown*

*... "the hub of community destinations and gathering places that reflects and celebrates its historic character, traditional small town atmosphere and values."*

One of the first steps in the project's process was identifying what is not working well. An existing conditions analysis was performed to identify existing land use, transportation, and environmental conditions within Downtown Chaska. This information was documented in a Downtown Subarea Findings of Fact (**Appendix C**). The following highlights the key findings from this analysis.

#### **TH 41 through Downtown**

TH 41 is a principal arterial roadway carrying 18,800 vpd through a constrained historic Downtown. Approximately 12 percent of these are heavy commercial vehicles. The highway is an important freight corridor for the region carrying regional freight, gravel and sand, landfill traffic, and seasonal grain deliveries from western Minnesota to the Ports of Savage. TH 41 also provides one of four Minnesota River crossings in the southwestern metro connecting Highway 169, County CSAH 61, and Highway 212.

TH 41 is just one of a few principal arterial roadways directly traversing a Downtown in the Twin Cities Metropolitan Region. This is due to the the Minnesota River crossing to the south of Downtown Chaska. Relocating the river crossing has been studied but there are no plans to preserve the needed land for the new corridor, nor is there funding identified in the foreseeable future. Study partners agree future heavy traffic demands on TH 41 must be accommodated on the existing alignment through the Downtown corridor.

#### **TH 41 Daily Traffic Volumes**



**18,800  
Total Vehicles**



**2,250 Trucks**



*TH 41 through Downtown Chaska.*

The existing four-lane divided roadway with parking on the northbound lanes leaves little room for sidewalks in a downtown that is not inviting to non-motorized travel. TH 41 does not have left turn lanes at intersections within Downtown. The lack of left turn lanes creates major disruptions to the mainline roadway, causing cars to weave over a lane so they do not get stuck behind those turning vehicles.

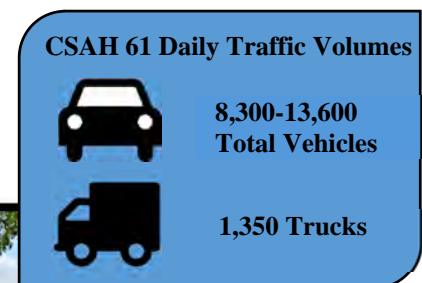
Safety, pedestrians, parking, speed, environment, access, and mobility are among the numerous concerns by the businesses, property owners, and public. These concerns will escalate as traffic volumes continue to rise to the forecasted 22,000 vehicle per day level.



### CSAH 61 through Downtown

Formerly U.S. Highway 212, CSAH 61 is an A-Minor arterial roadway carrying 8,300 to 13,600 through Downtown Chaska. CSAH 61 is also an important regional freight corridor providing connections to both the TH 41 and CSAH 101 river crossings. Within the downtown subarea, approximately 1,350 trucks per day use CSAH 61 west of TH 41 and over 800 trucks per day use CSAH 61 east of TH 41.

Today, during the heaviest travel periods of the day, vehicle delays are observed on both the eastbound and westbound CSAH 61 approaches to the intersection. Backups occasionally extend into adjacent intersections on the east, west, and south legs of approach. The CSAH 61/TH 41 intersection is expected to see traffic volumes rebound and surpass those that existed prior to the new TH 212 freeway. The growth in the western Cities of Chaska and Carver will put increased demands on this system as the population increases. Improvements are needed at the CSAH 61/TH 41 intersection to improve how it operates.



*Congestion at the TH 41/CSAH 61 Intersection*

## B. Project Goals

One of the first steps in the project after identifying what was not working well was to define what the improvement options should strive to achieve. The project team created the following goals to guide the development of improvement projects in Downtown Chaska:

### 1. Preserve and enrich the ambience of historic Downtown Chaska

It is important to maintain the historic, traditional small-town atmosphere and character of Downtown Chaska. This means the general public should be able to easily access downtown by car, bike, bus or foot, park in close proximity to downtown destinations, and feel welcome spending time in downtown.

### 2. Provide a comprehensive network for non-motorized transportation

People desire to walk and bike within and through Downtown. Improvements on Highway 41 and County Highway 61 should provide adequate space for walkers and bikers to allow them to move efficiently, feel safe and welcome, and be able to cross both highways at multiple locations.

### 3. Safely accommodate all users

Safely accommodating all users (vehicles, heavy trucks, pedestrians, bicyclists and buses) is a high priority. This means minimizing surprises to drivers, providing space for all users, and enhancing opportunities to cross both highways safely.

### 4. Provide efficient and reliable vehicle mobility

It is important that both Highway 41 and County Highway 61 continue to function efficiently allowing users to access and move through Downtown Chaska. The region is expected to see continued growth into the future. The highways that exist today will need to accommodate the anticipated growth.

### 5. Provide infrastructure improvements compatible with natural and human environment

Downtown Chaska is a unique destination with multiple historic buildings, a historic district, and numerous businesses. Preservation of historic resources, along with minimizing impacts to the natural and built environment, is a high priority to all agencies.

### 6. Develop a financially responsible implementation plan

Cost is a significant factor for the City, County, and MnDOT. Investments must expend funds in a reasonable and responsible manner. Improvement recommendations need to be affordable and packaged to leverage competitive state and federal funding sources.

## C. Identification, Evaluation, and Selection of Alternatives

The project team used the goals and objectives to guide the development and evaluation of improvement alternatives. The section below documents this process, the alternatives developed and evaluated, and the recommended improvements.

### 1. CSAH 61

Traffic on CSAH 61 is expected to increase by nearly 50 percent over the next 20 years to levels that approach the pre-Highway 212 freeway era west of TH 41. A four-lane roadway, much like what exists today, will accommodate this growth with some modifications. Medians are needed through Downtown to manage conflict points, provide pedestrian refuge opportunities, and to channelize turn lanes. Capacity improvements are also needed at the TH 41/CSAH 61 intersection to improve how it operates.

#### *Range of Concepts Studied*

##### CSAH 61 (CSAH 44 to TH 41)

The project team considered multiple improvement concepts for CSAH 61 between CSAH 44 and TH 41. Alternatives considered locations for full access, intersection control, medians, turn lane lengths, pedestrian, and bicycle accommodations. Carver County constructed the recommended alternative (shown in **Figure 4**) for this section of CSAH 61 in the summer of 2017.

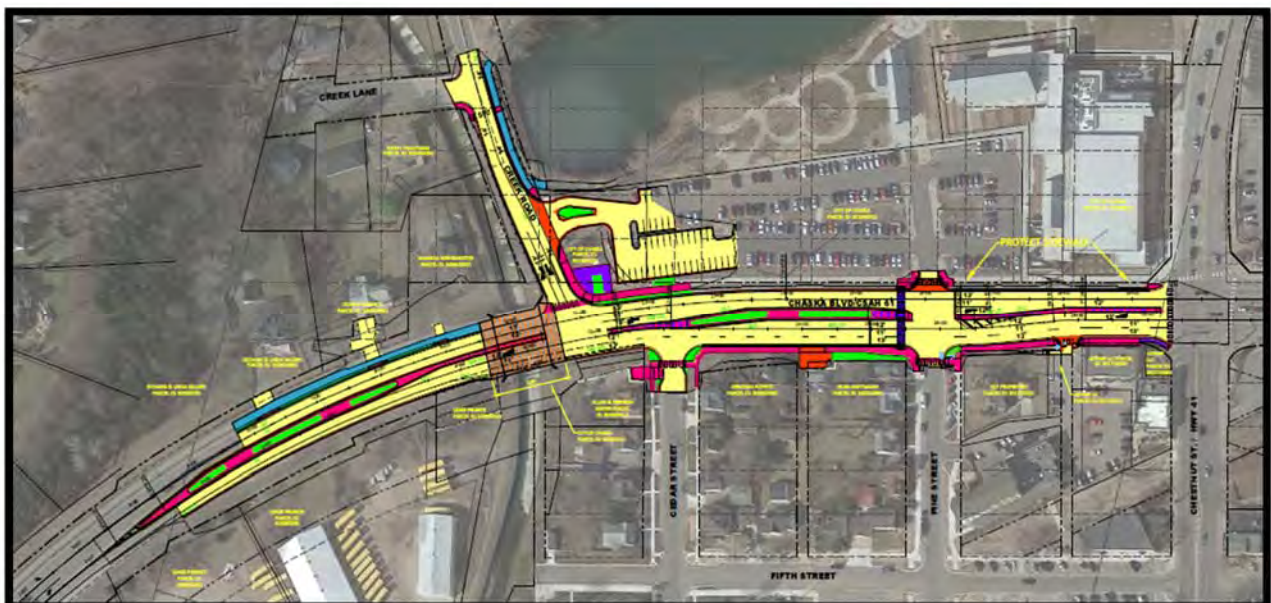


Figure 4. Recommended Layout for CSAH 61 West of TH 41. This was constructed in 2017.

**Figure 5** illustrates the overhead pedestrian hybrid beacon system installed across CSAH 61 at Pine Street to facilitate pedestrian and bicycle connections from the Downtown to the Fireman’s Park and Chaska Event Center area.



**Figure 5. Overhead Pedestrian Hybrid Beacon System installed across CSAH 61 at Pine Street.**

#### CSAH 61 (TH 41 to Yellow Brick Road)

All improvement alternatives considered in this segment of CSAH 61 included a median on CSAH 61 between full access intersections at TH 41, Walnut Street, and Yellow Brick Road. Traffic signals will remain at the CSAH 61 intersections with TH 41 and Walnut Street. The side street stop at Yellow Brick Road will remain, but current sight distance concerns will be resolved with proposed CSAH 61 bridge modifications. A discussion of the improvements needed at the CSAH 61/TH 41 intersection is included in the TH 41 section below.

The project team worked closely with business owners in this area to develop and evaluate options to improve the local roadway system to help offset the change in access resulting from the CSAH 61 medians. This included working closely with Dolce Vita Wine Shop and the Meadow Springs Church located south of CSAH 61, and the Brickyard Commercial Area, north of CSAH 61.

#### *Dolce Vita Wine Shop*

The proposed medians will transition the Dolce Vita Wine Shop driveway on CSAH 61 from a full access to a right-in/right-out. This change will ensure safe and efficient mobility on CSAH 61 and for Dolce Vita customers. During many hours of the day, the wine shop’s driveway is projected to be blocked by westbound CSAH 61 traffic, which makes maneuvering into and out of this driveway very difficult and unsafe. Through many discussions with Dolce Vita Wine Shop and the Meadow Springs Church, the driveway improvement option illustrated in **Figure 6** was developed. This improvement replaces Dolce Vita’s full access on CSAH 61 with a full access to Walnut Street. It requires westbound CSAH 61 customers to turn left at the CSAH 61/Walnut Street traffic signal to access Dolce Vita. Both Dolce Vita and Meadow Springs Church (owner of the parking lot) agreed to move forward with this improvement.

Carver County Railroad Authority owns the former railroad right-of-way and agreed to provide an easement to Dolce Vita Wine Shop across the former railroad for their driveway. Carver County is working with the wine shop owner to develop the new driveway connection in 2019 prior to a CSAH 61 construction project. This would allow the wine shop’s customers to adjust to the new driveway and travel patterns before transitioning the existing CSAH 61 driveway to a right-in/right-out.

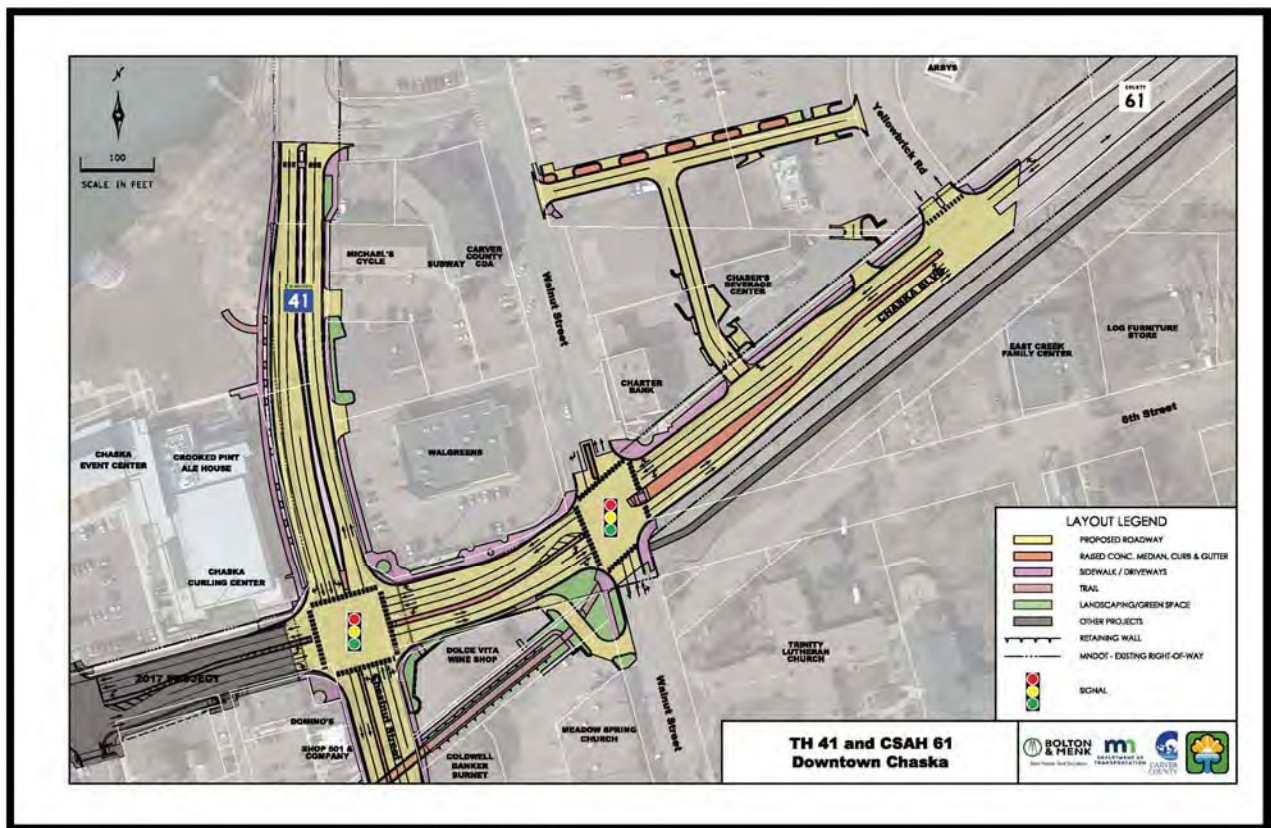


Figure 6. Driveway Improvements to the Dolce Vita Wine Shop.

### *Brickyard Commercial Area*

The Brickyard Commercial Area is located north of CSAH 61 between TH 41 and Yellow Brick Road. Access today is provided by Walnut Street and Yellow Brick Road and full access driveways to the Charter Bank building and Chaser's Beverage Center. The proposed medians on CSAH 61 are needed to reduce vehicle conflicts, better define traffic movements, and promote safety with concerns that stem from the close proximity of multiple local street intersections and private driveways in this area. The proposed medians will require the driveways to the Charter Bank building and Chaser's Beverage Center to be changed from full access to right-in/right-out.

The project team met with business owners from the Brickyard Commercial area including Cooper's Foods, Charter Bank (and building owner), Chaser's Beverage Center, and the owner of the former KFC building to discuss concerns and potential local roadway improvements. **Figure 6** illustrates the improvement option that was most supported. This includes the addition of a local street connection between the Charter Bank building and Chaser's Beverage Center connecting into a more formalized east-west street connection from Walnut Street to Yellow Brick Road. It also include a driveway easement and connection between Chaser's Beverage Center and the former KFC property. This would allow access into and out of Chaser's through the KFC property to the new east-west road connection and Yellow Brick Road. The goal of the local roadway improvements is to provide a more connected local street system for business access to both Walnut Street and Yellow Brick Road.

The improvement option shown in **Figure 6** also provides for a redevelopment opportunity on land currently owned by the City of Chaska. Charter Bank is concerned about the potential loss of parking and drive-thru circulation if the City property develops. However, the majority of property owners in this area generally felt the improvements would allow customers to move more easily from one business to the next.

The City of Chaska is actively seeking funding to help support the development of the proposed local road system improvements described above. The goal is to identify funding and construct these improvements prior to the CSAH 61 roadway construction. This would allow customers time to get used to the new travel patterns and access opportunities before construction occurs, similar to the plans for Dolce Vita. The City

and County will continue to work with business owners in this area to refine the local roadway improvements and identify a funding source.

## 2. TH 41

As previously stated, TH 41 is challenging as it serves over 18,000 vpd, including many trucks, through a constrained historic Downtown. The four-lane undivided roadway with parking on the northbound side leaves little room for sidewalks resulting in a Downtown that is not inviting to non-motorized travel. The lack of left turn lanes on TH 41 creates major disruptions to the mainline roadway, causing cars to weave over a lane rather than wait behind the turning vehicles. Safety, pedestrians, parking, speed, environment, access, and mobility are among the numerous concerns raised at previous public meetings. These concerns will escalate as traffic volumes continue to rise to the forecasted 22,000 vehicle per day level.

### *Range of Concepts Studied*

Multiple TH 41 improvement options were tested in Downtown Chaska including several three-lane concepts (without a center median, with parking on one side, parking both sides, and no parking) and a five-lane divided concept. The project team completed a detailed evaluation process that considered how well each alternative met the Downtown Goals and Objectives. The full evaluation is included in **Appendix E** and Downtown Subarea Concepts are shown in the Implementation Plan in **Appendix G**.

The following summarizes improvement options considered and dismissed:

- Three-lane without a center median – A detailed traffic analysis of this option showed major delays would occur for traffic on the side streets waiting to access or cross TH 41 at intersections without a traffic signal. These delays would also likely cause safety issues, as few gaps would exist on TH 41 for entering traffic or pedestrians.
- Three-lane with parking (one or both sides) – MnDOT does not support parking on TH 41 if a three-lane roadway is selected due to significant safety concerns. Additional discussion on the topic of parking is included in the section below.
- Five-lane divided roadway – This concept would provide two through lanes in each direction plus turn lanes at intersections. The project team dismissed this option early in the process since it is not consistent with the Downtown environment and reduces the available pedestrian space compared to today.

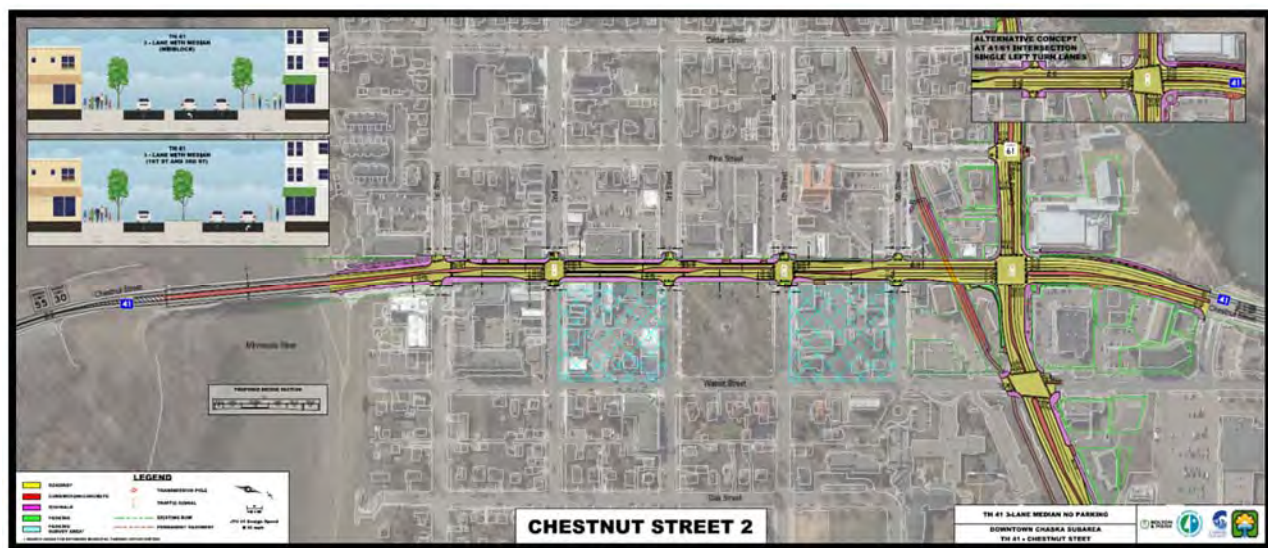
### *TH 41 Recommended Concept*

All agencies agreed a three-lane roadway on TH 41 provides the best balance of the project goals. Operationally, the current four-lane undivided roadway on TH 41 operates similarly to a three-lane section during peak conditions as a left-turning vehicle attempting to turn onto either 2nd Street or 4th Street often occupies the left (inside) lane. Right turn movements from TH 41 also slow the right (outside) lane of traffic. The proposed three-lane section will provide exclusive left and right-turn lanes at TH 41 intersections to remove turning from through traffic lanes.

The existing median will remain on TH 41 across 1<sup>st</sup>, 3<sup>rd</sup> and 5<sup>th</sup> Streets with the three-lane concept as it exists today. The median will allow the three-lane to operate efficiently and safely for vehicles and pedestrian traffic. The preferred TH 41 concept (**Figure 7**) includes reduction in the number of lanes across the Minnesota River Bridge from four-lanes to two-lanes. This geometry is consistent with the two-lane section on TH 41 south of the river and provides a transition in the downtown environment starting at the river bridge. A median will be added to the river bridge to clearly delineate the one lane in each direction.

### *Parking on TH 41*

MnDOT does not support parking on TH 41 in Downtown Chaska due to the lane reductions that accompany the three-lane conversion. A single parking maneuver would block TH 41 thru traffic as vehicles slow to stop and back into a parking stall. Statistics indicate the inclusion of parking along a three-lane corridor could increase crash risk by as much as 50% compared to a no-parking option. MnDOT expressed early in the study they would not support an improvement that could further degrade safety from today's conditions.



The Metropolitan Council oversees the principal arterial system for the seven-county metropolitan area. According to the Metropolitan Council's 2040 Transportation Policy Plan (Appendix D), parking is not recommended on a principal arterial due to its inconsistency with the function of this type of roadway.

By eliminating parking from the corridor, mobility, and safety for all users is improved. The three-lane concepts greatly enhance walkability when parking is prohibited as the additional space can be used to provide wider pedestrian walkways and more expansive streetscaping features.

Today, the sidewalks are approximately 7-feet to 9-feet wide. The three-lane section concepts would significantly increase the sidewalk area, up to 18-feet wide. In addition, the three-lane section allows for a widened center median to provide a more comfortable pedestrian refuge for those walking across TH 41 to do so in two phases, pausing in the center median to look for traffic from the other direction before completing their crossing. There will also be room to have green space in the medians, as well as many other amenities in the widened space between the roadway and the buildings for items such as benches, planters, and more open pedestrian areas enhancing the walkability of Downtown.

Project partners worked together to identify where the parking loss will be most impactful. **Figure 8** identifies businesses with front doors onto TH 41 and no other access to a side or rear entrance. The largest concentration of these businesses is on the east side of TH 41 between 2<sup>nd</sup> and 3<sup>rd</sup> Streets. Based on this information, the project team identified locations where the displaced on-street parking can be replaced within Downtown Chaska. **Figure 9** illustrates these locations.

### Enhanced Pedestrian Crossings

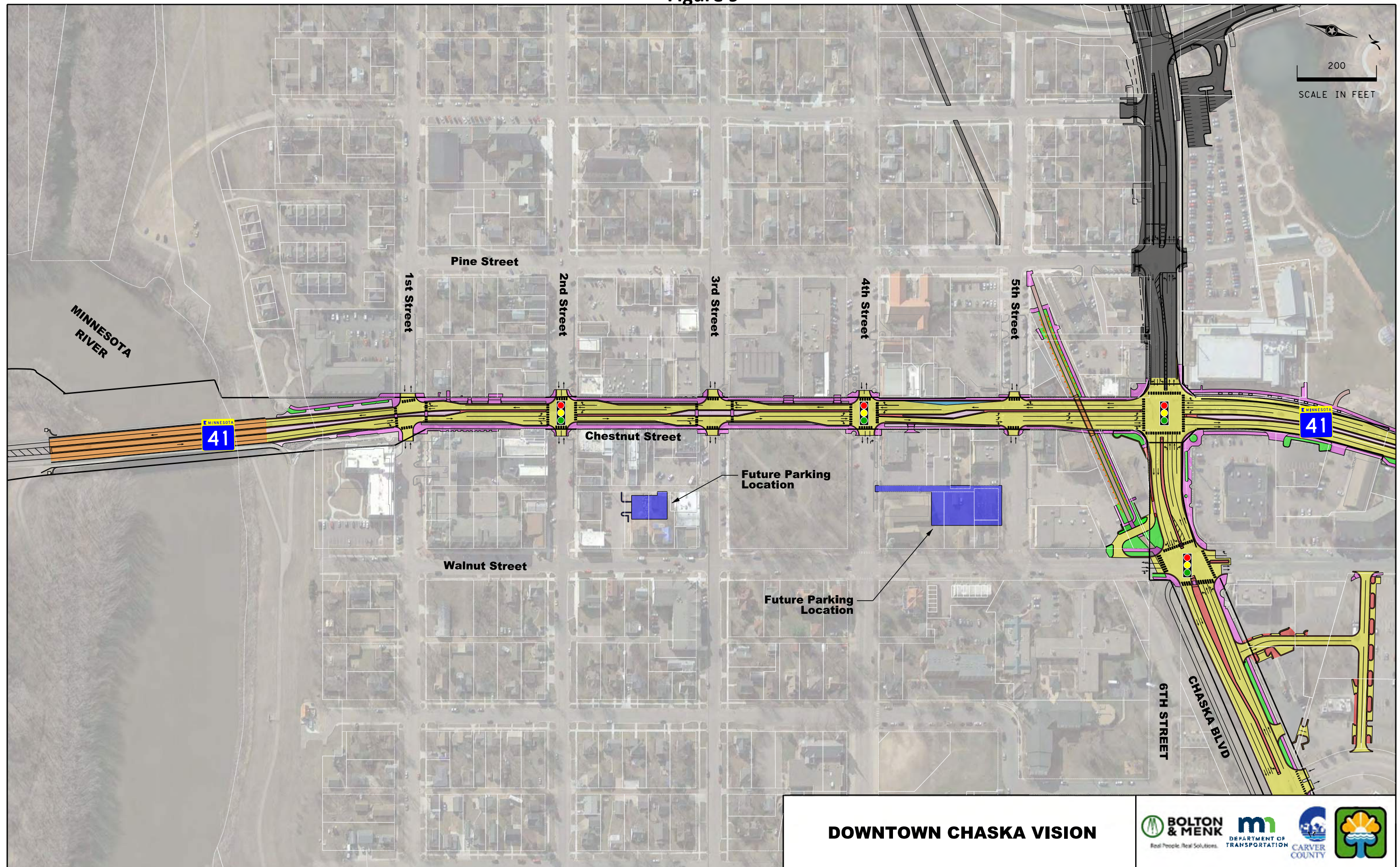
Similar to the CSAH 61/Pine Street intersection, the project team evaluated options to improve pedestrian safety across TH 41. At the TH 41/Walnut Street intersection, the team evaluated an Overhead Pedestrian Hybrid Beacon System. This type of system will require coordination with the TH 41/CSAH 61 intersection. The City of Chaska will work directly with MnDOT to seek approval for this improvement.

South of the CSAH 61/TH 41 intersection, the project team considered a trail connection utilizing the former railroad alignment across TH 41. The recommendation was a trail underpass at this location as shown in **Figure 10**.

Figure 8



### Figure 9



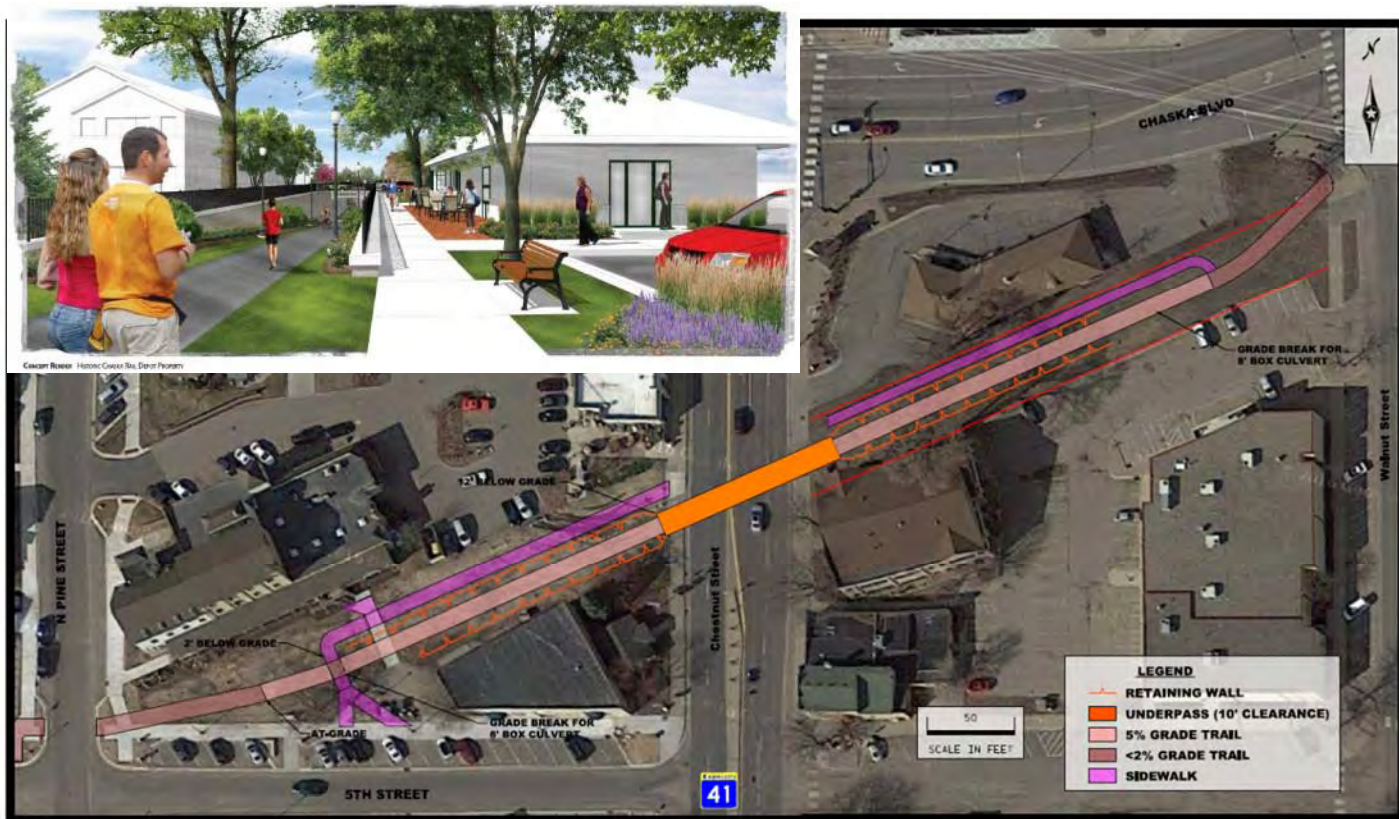


Figure 10. Proposed Pedestrian Underpass South of the CSAH 61/TH 41 Intersection.

#### TH 41/CSAH 61 Intersection

The TH 41/CSAH 61 intersection needs improvements to maintain safe and efficient operations. The project team considered two options. Both of these options add a southbound right turn lane from TH 41 onto CSAH 61. This will require shifting the sidewalk and landscaping closer to the building at Fireman's Park. Both options also extend the CSAH 61 westbound left turn lane to provide needed storage length. The major difference between the two improvement options was whether a single or dual northbound left turn lane is provided at the intersection. The project team recommended the TH 41/CSAH 61 Option 2 (dual left turn lanes) as it best accommodates the needs of the growing community and region. It also allows the intersection to operate most efficiently with the best opportunity to maintain full access at Pine Street and Walnut Street. **Figures 11 and 12** illustrate Option 1 and Option 2.

#### D. Downtown Stormwater Recommendations

A Preliminary Stormwater Management Plan was created as part of this project to determine stormwater management requirements. The Plan describes storm water management features and facilities needed to meet or exceed requirements based on preliminary roadway design improvements within and around the corridors. Project partners should consult The Plan whenever stormwater design begins for individual roadway projects. The Plan offers the following:



The TH 41/CSAH 61 Preliminary Stormwater Management Plan is located in **Appendix F**.

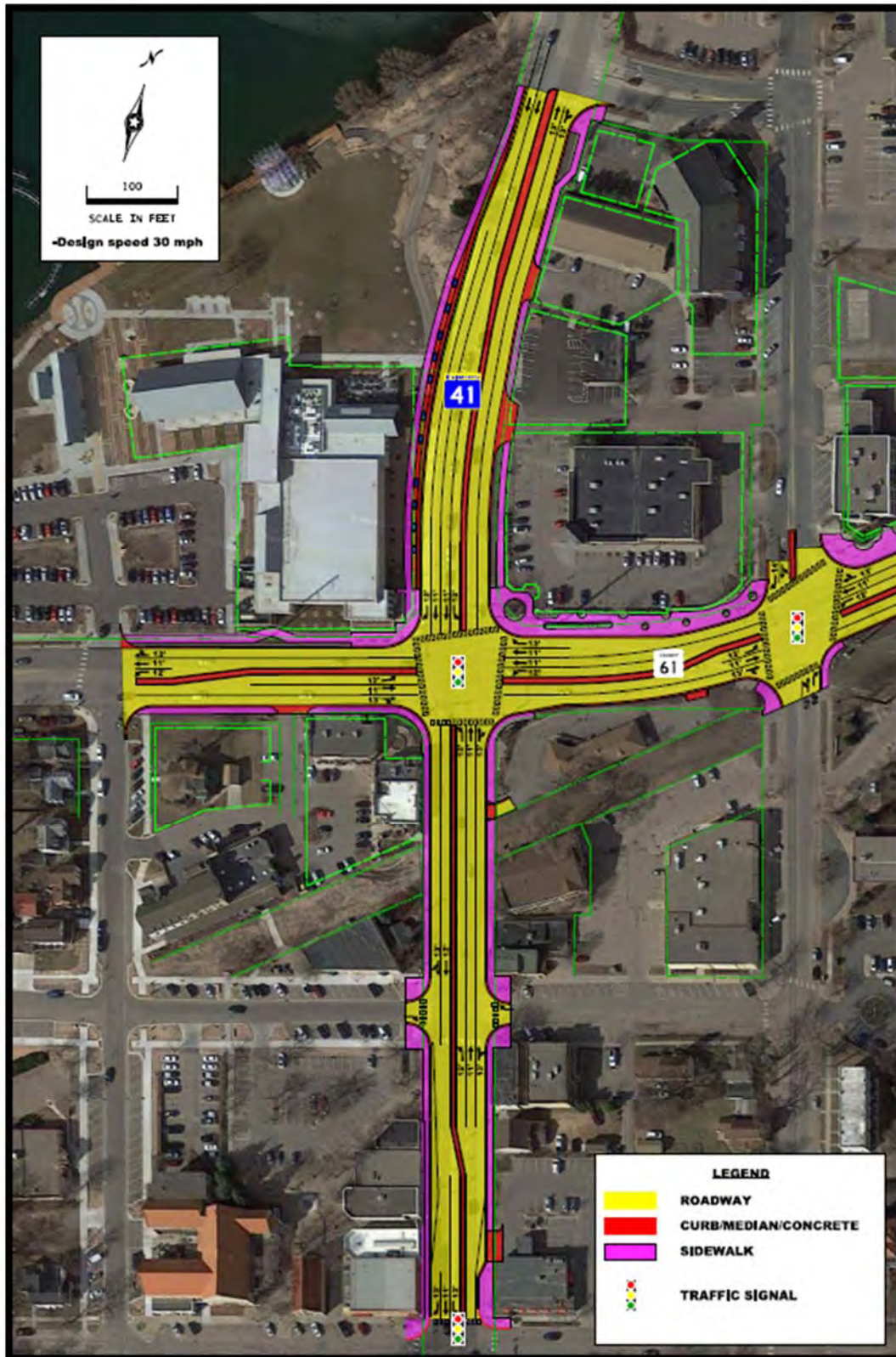


Figure 11. TH 41 - Option 1. Single Northbound Left Turn Lane Concept.

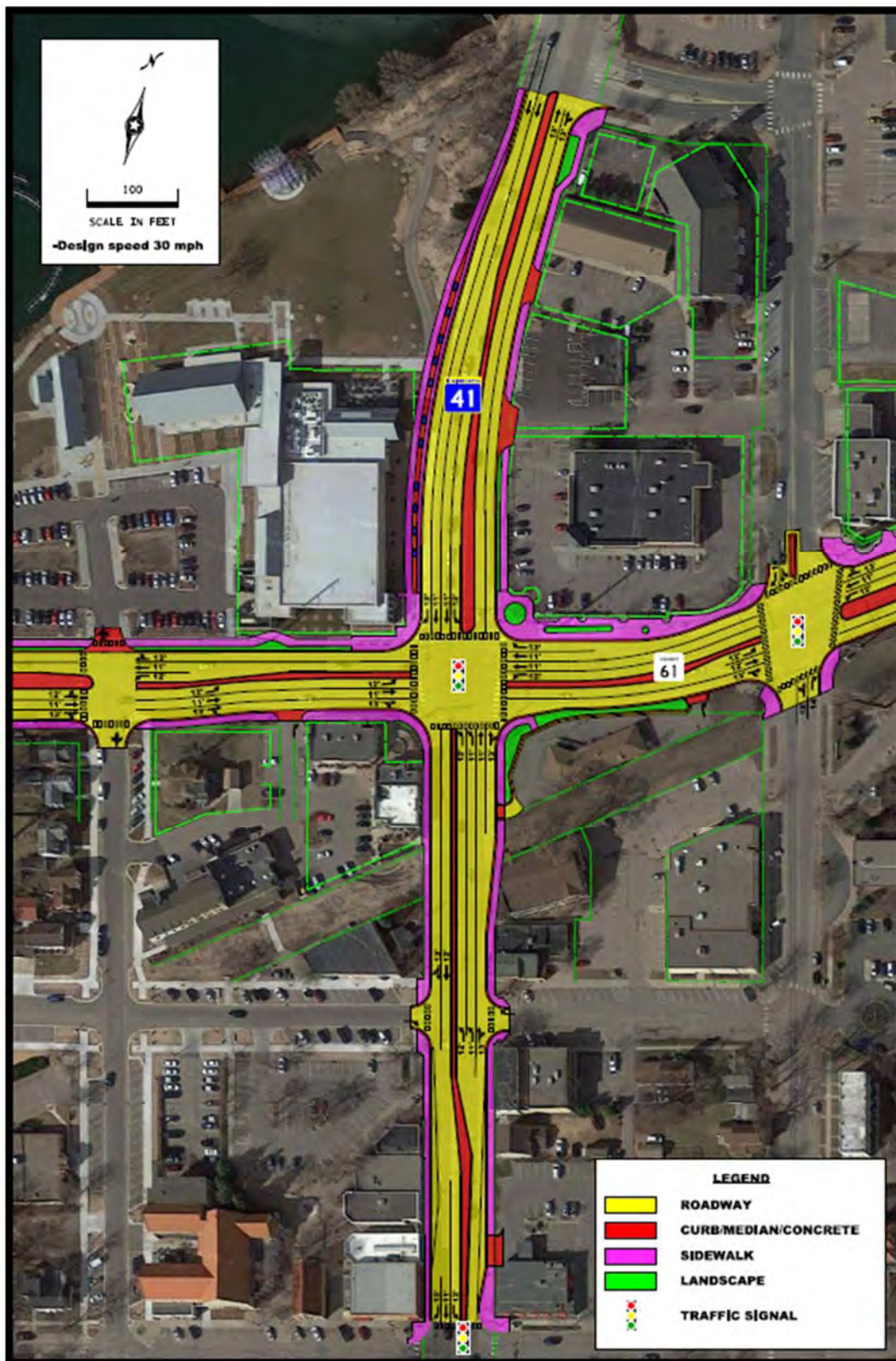
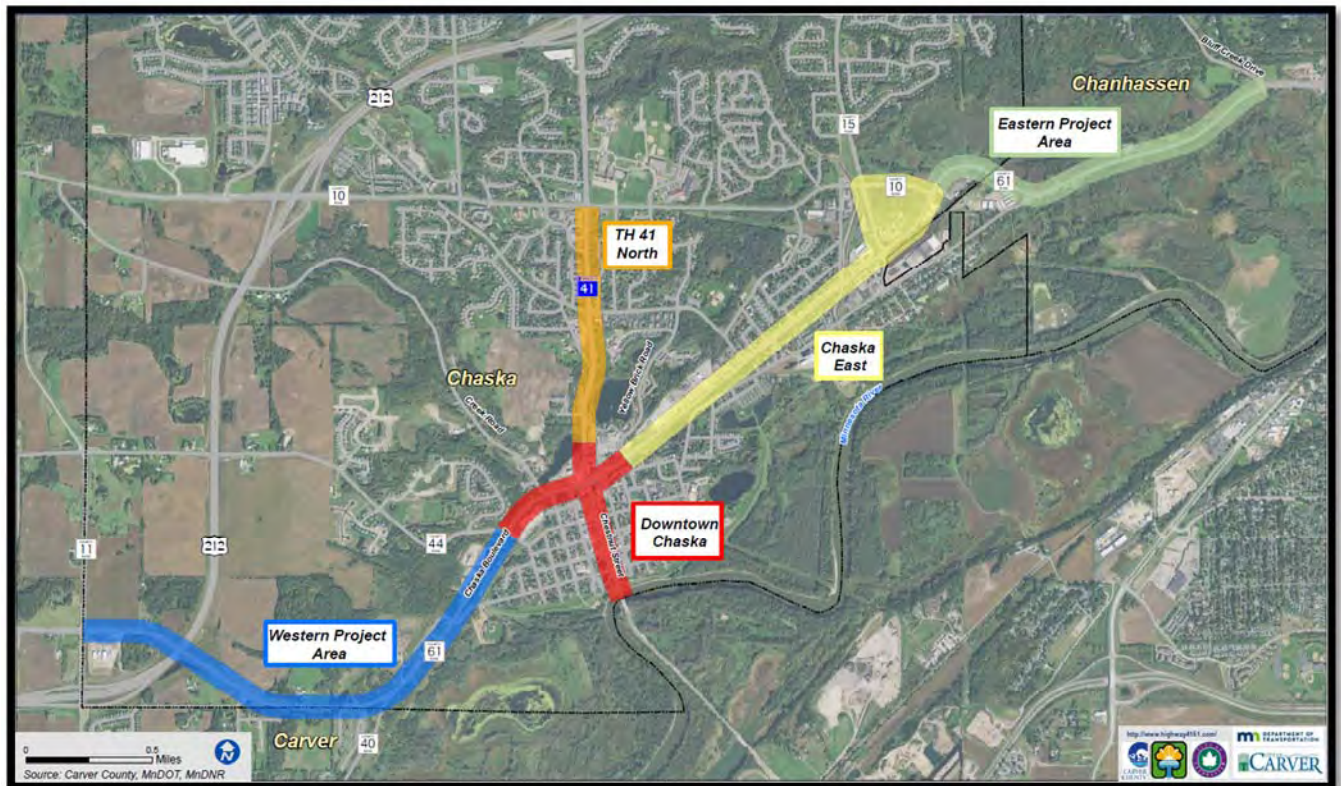


Figure 12. TH 41 - Option 2. Dual Northbound Left Turn Lane Concept.

### III. OTHER CORRIDOR SUBAREAS

#### A. Subarea Overview

This section outlines all other project subareas outside of Downtown Chaska. This includes the Western, TH 41 North, Chaska East, and Eastern subareas as shown on **Figure 13**. Corridor design within these subareas is largely rural. Given proposed development initiatives, agencies agreed a transition from rural roadway design to urban is appropriate for the corridor segments in the project area looking forward.



**Figure 13. Project Subareas.**

Each project subarea is outlined below along with a summary of the issues and design considerations, the alternatives considered, and the recommended alternative. The purpose of the 41/61 Improvements Project was to identify a corridor vision for CSAH 61 and TH 41 within these subareas that project partners could agree upon and work towards implementing as funding becomes available. The development of a recommended alternative (or vision) considered needs for additional lanes, intersection control, access management, and pedestrian and bicycle accommodations.

A detailed existing conditions analysis was completed to identify the issues, needs, and opportunities within the corridor subareas. A Findings of Fact document was completed and is attached in **Appendix C**. It contains figures illustrating traffic operations, crash history, pedestrian and bicycle connections, land use and environmental considerations.

Figures of all corridor subarea improvement recommendations are included in **Appendix G**.

#### B. Goals and Objectives

The project team used the analysis of existing and future conditions to identify goals and objectives for improvements to the greater Project Subareas.

##### 1. Provide efficient and reliable mobility on major transportation corridors

It is important that both Highway 41 and County Highway 61 continue to function efficiently allowing users to access and move throughout Carver County and beyond. The region is expected to see

continued growth into the future. The highways that exist today will need to accommodate the anticipated growth.

## **2. Safely accommodate all users**

Safely accommodating all users (vehicles, heavy trucks, pedestrians, and bicyclists) is a high priority. This means minimizing surprises to drivers, providing space for all users, and enhancing opportunities to cross both highways safely.

## **3. Provide a comprehensive network for non-motorized transportation that is compatible with the major transportation corridors**

People desire to walk and bike along and across TH 41 and CSAH 61. Improvements on Highway 41 and County Highway 61 should provide adequate space for walkers and bikers to move efficiently, feel safe and welcome, and be able to cross both highways at multiple locations.

## **4. Provide infrastructure improvements compatible with the historic and natural environment**

Multiple historic buildings and locations, archaeologically significant areas, and environmentally significant areas containing rare and endangered plant communities within complex wetland systems exist within and surrounding the project area. Preservation of historic resources, along with minimizing impacts to the natural and built environment, is a high priority to all agencies.

## **5. Develop a financially responsible infrastructure implementation plan**

Cost is a significant factor for the Cities, County, and MnDOT. Investments must expend turnback and other funds in a reasonable and responsible manner. Improvement recommendations need to be affordable and packaged to leverage competitive state and federal funding sources.

### **C. Western Subarea**

The Western Subarea includes approximately two miles of CSAH 61 extending from CSAH 11 (Jonathon Carver Parkway) east to CSAH 44 (Big Woods Boulevard). The corridor is a two-lane rural highway with turn lanes at key intersections such as CSAH 44, CSAH 40, Mt. Hope Road, and CSAH 11. An overpass exists on CSAH 61 at TH 212. The speed limit on CSAH 61 in this segment is 50 mph. This segment carries between 6,400 and 9,000 vpd and is anticipated to have extensive growth in the upcoming years that will increase traffic volumes in the area. 2040 projected volumes range from 8,200 to 14,500 vpd on CSAH 61. The following sections describe considerations in the planning and design of corridor improvements in the Western Subarea.

#### **1. Design Considerations**

**Figure 14** illustrates issues and design considerations as outlined below for the Western Subarea.

##### *Existing and Planned Land Use*

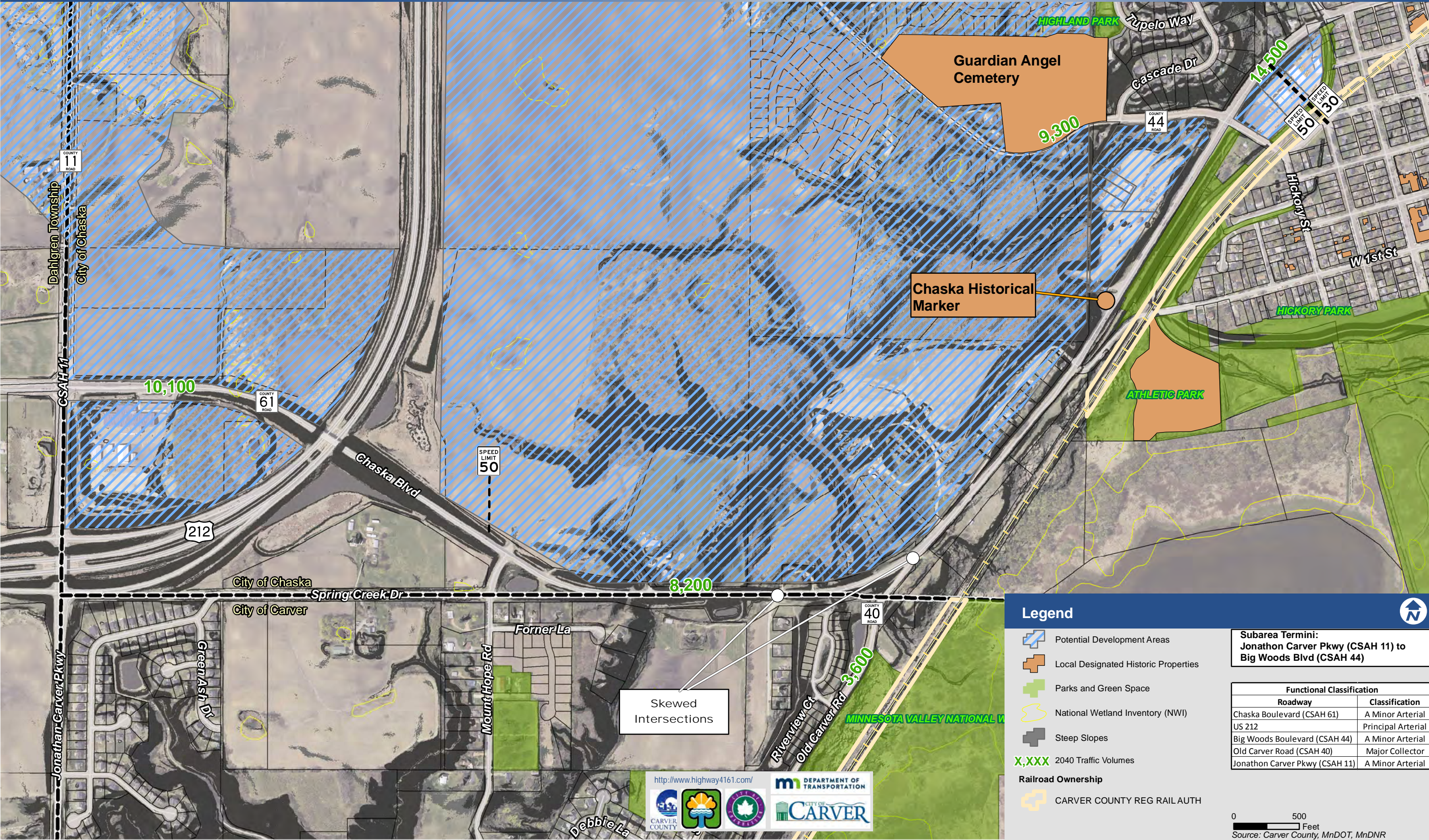
Existing land uses along CSAH 61 in the Western Project Area consist primarily of agricultural, undeveloped, rural and urban residential uses, and a few industrial uses. This area is planned for major urbanization of land uses within the next 20 years. The City of Chaska's Southwest Growth Area is located north of CSAH 61. The city's plan for the Southwest Growth Area includes two neighborhoods with small retail centers containing up to 3,600 households and approximately 70,000 square feet of retail. The plan also calls for a mix of housing types and community facilities such as an elementary school, playfields, daycare centers, and churches. Planned uses in the City of Carver include primarily low and medium-density residential development. The area west of CSAH 11 is planned to accommodate commercial and industrial development.

##### *Environmental Considerations*

Various environmental and cultural considerations guided the development of roadway improvement options as well. Wetlands line the corridor in this segment with most clustered near the Highway 212 intersection. Among these are two stormwater ponds. Beyond these ponds, there is currently little stormwater treatment along CSAH 61 in this segment.

The Chaska Historical Marker, a historic MnDOT Rest Area, is located on the north side of CSAH 61 and is listed on the National Register of Historic Places. This site includes a stone monument with an

Figure 14



informational plaque. The existing two access points to this site from CSAH 61 must be maintained due to its historic designation.

Other areas in the overall study area, namely the Eastern Project Area and the Downtown Chaska subareas, have archaeological significance with artifacts dating back 7,000 years. The proximity of significant archaeological findings in these areas point towards a high likelihood of archaeological resources within all subareas of this project. Archaeological studies will be required to investigate the potential for resources in these area as improvement projects are planned.

### *Issues*

Intersections along this high speed, two-lane rural roadway generally operate at free flow conditions during the heaviest travel periods of the day. Many horizontal and vertical curves exist in this section due to a 250 foot drop in elevation. This results in steep ditch grades which require the presence of guard rail and multiple skewed intersections with sight distance concerns. Skewed intersections include CSAH 40 and Lano Lane. With 18 total crashes recorded from 2010 to 2014, this segment operates within the expected normal range when compared to similar statewide corridors. However, increasing urbanization of land uses adjacent to the corridor and projected increases in traffic volumes is a concern for future safety in areas of skewed intersections and roadway curvature.

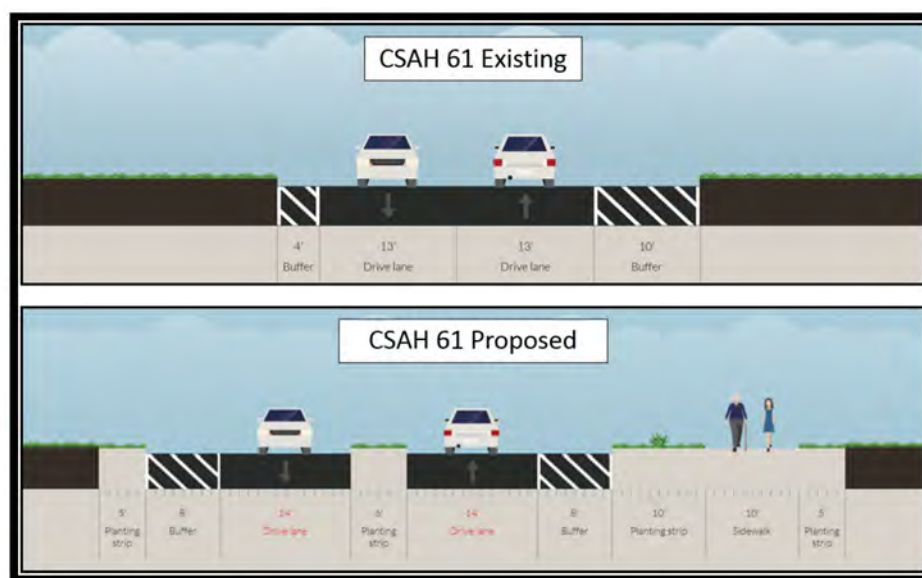
There are currently no pedestrian or bicycle facilities along CSAH 61 in the Western Project Area, however, the roadway has eight to nine-foot shoulders.

## **2. Identification and Evaluation of Alternatives**

Future development and land use change are the primary drivers for improvements on CSAH 61 in the Western subarea. Improvement options in this subarea considered additional roadway design and capacity needs, an access plan to accommodate future development, and pedestrian and bicycle facilities.

### *Roadway Design and Capacity*

Projected CSAH 61 traffic volumes in this subarea are 8,200 to 14,500 vpd. These volumes indicate a two-lane roadway with some modifications will be adequate in the future to accommodate the projected growth in this area. Major intersections will need additional turn lanes such as at Mt. Hope Road, Lano Lane, CSAH 40, and CSAH 44. The proposed improvement adds medians to the corridor to ensure the two-lane roadway continues to operate efficiently and safely. The roadway will be reconstructed as an urban section with curb and gutter. Reconstruction is not needed on the portion of CSAH 61 between CSAH 11 and the TH 212 overpass since it was constructed in conjunction with the TH 212 Project. The existing rural roadway section will remain in place. Therefore, the limits of the proposed CSAH 61 improvements in the Western subarea are from approximately the TH 212 overpass to CSAH 44. **Figure 15** illustrates the existing and proposed typical sections.



**Figure 15. Western Project Area - CSAH 61 Corridor Typical Sections**

### *Pedestrian and Bicycle Facilities*

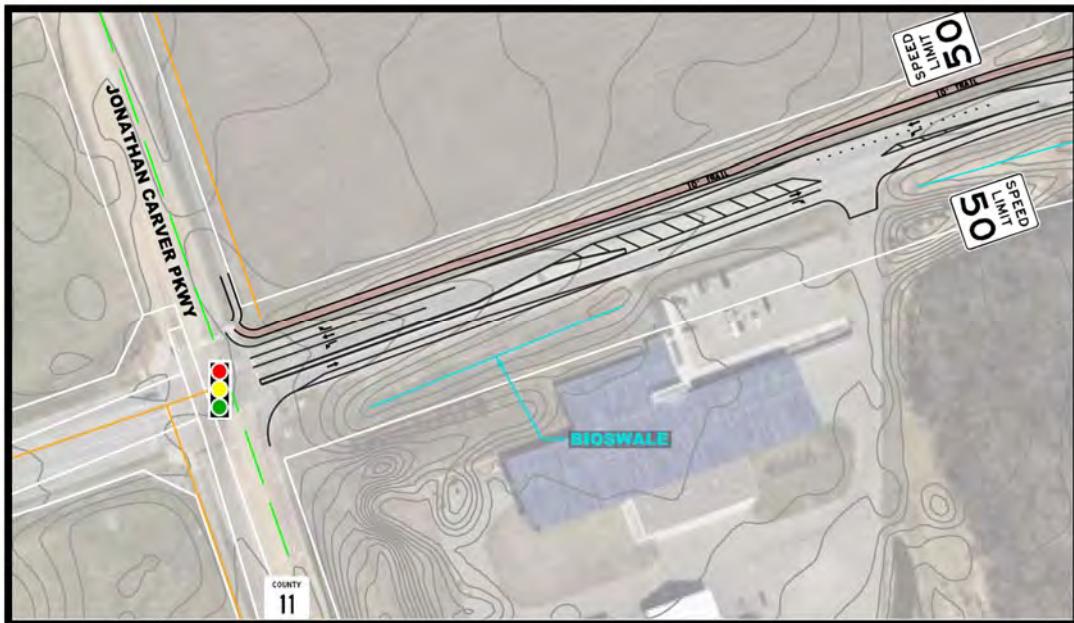
Pedestrian and bicycle facilities are planned along portions of CSAH 61 with connections into the planned local network of sidewalks/trails in the Cities of Chaska and Carver and the existing Minnesota River Bluffs LRT Regional Trail connection. **Figure 17** illustrates the existing and proposed trails along CSAH 61.

### *Access Plan*

The majority of the identification and evaluation phase of work in the Western Subarea is related to future access planning. This area is planned for substantial urbanization of land uses within the near future. The project team worked closely with the Cities of Chaska and Carver to identify future full access locations consistent with Carver County access spacing guidelines, the cities' plans for local street connections, and the area's topography. The results of this analysis and evaluation are described below by intersection.

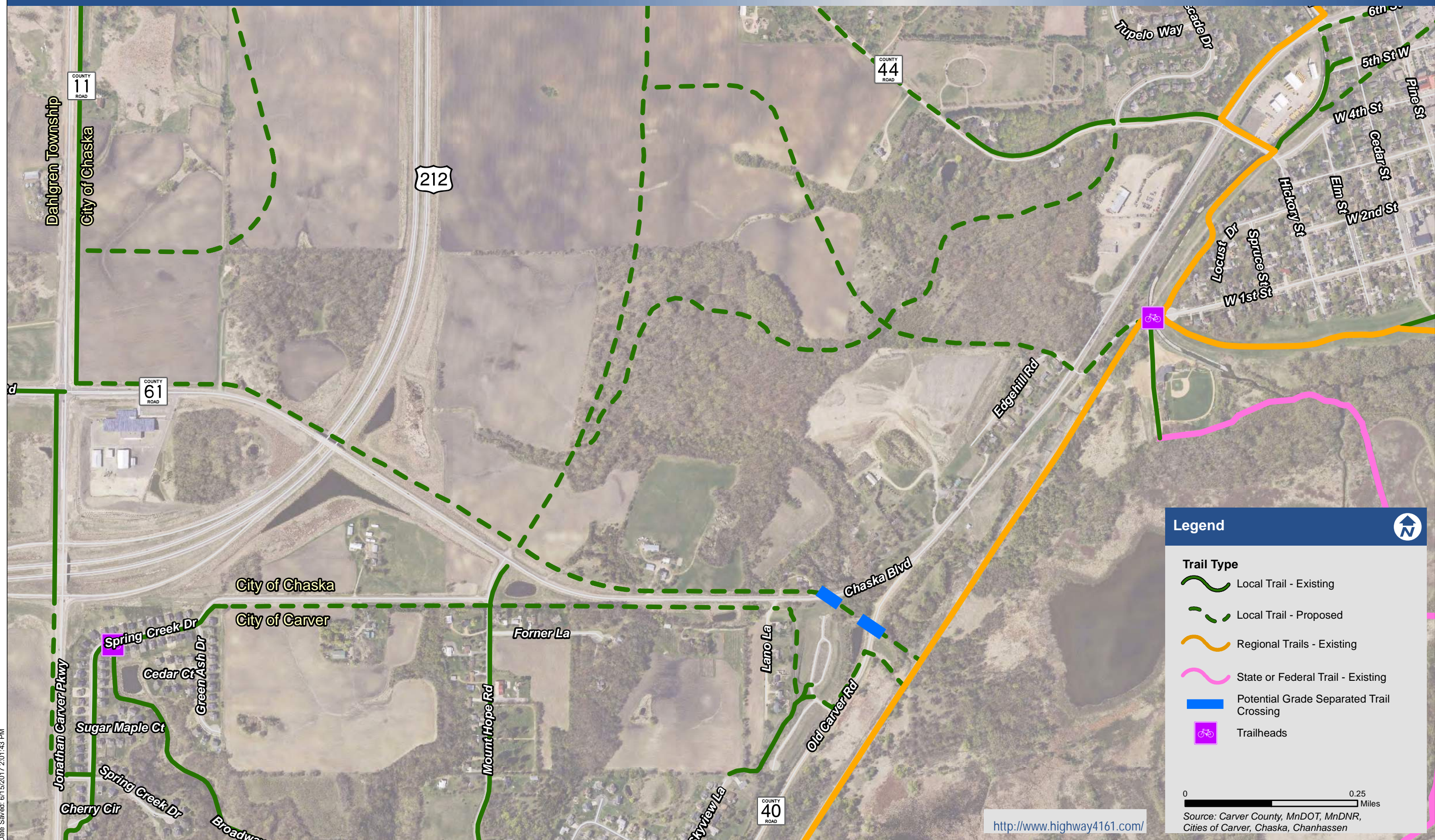
### *CSAH 61/CSAH 11 Intersection*

CSAH 61 approaching the CSAH 11 corridor will remain largely unchanged. The CSAH 61/CSAH 11 intersection currently operates at acceptable levels of service. The only addition to this location is a 10-foot multi-use path along the north side of CSAH 61. The path will extend the length of the corridor from CSAH 11 to Mount Hope Road. **Figure 17** illustrates the intersection and added path.



**Figure 16. CSAH 61/CSAH 11 Intersection Concept.**

Figure 17



Legend

Trail Type

- Local Trail - Existing
- Local Trail - Proposed
- Regional Trails - Existing
- State or Federal Trail - Existing
- Potential Grade Separated Trail Crossing
- Trailheads

0 0.25  
Miles

Source: Carver County, MnDOT, MnDNR,  
Cities of Carver, Chaska, Chanhassen

<http://www.highway4161.com/>

### CSAH 61 Pedestrian Bridge over TH 212

Bridge number 10024 on CSAH 61 over TH 212 was constructed without pedestrian facilities and does not contain adequate width to easily retrofit and provide a trail connection. Several alternatives were explored including bridge widening, lane restriping, and construction of an adjacent pedestrian bridge. Construction of a pedestrian bridge adjacent to the existing CSAH 61 bridge was selected as the preferred alternative to reduce construction impacts and provide the most convenient facility for trail users to cross TH 212. **Figure 18** illustrates the placement of a pedestrian bridge to serve that purpose.

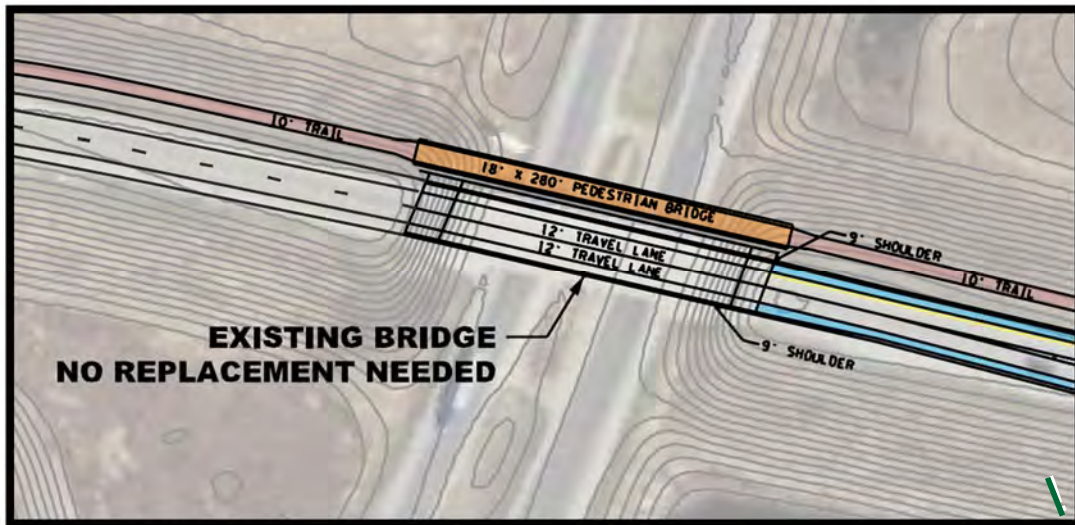


Figure 18. CSAH 61/Highway 212 Pedestrian Bridge.

### CSAH 61/Mount Hope Road Intersection

The CSAH 61/Mount Hope Road intersection is planned for conversion to a full access intersection. This intersection will accommodate a future collector roadway as the area north of CSAH 61 develops. This will add a northern leg to the intersection and increase traffic volumes thus requiring intersection improvements that will accommodate that growth.

Improvements include turn lanes with medians that will provide increased intersection capacity and accommodate turning traffic safely as the area grows and traffic increases. The center median will also provide a center refuge area for crossing pedestrians. **Figure 19** illustrates improvements at this intersection.

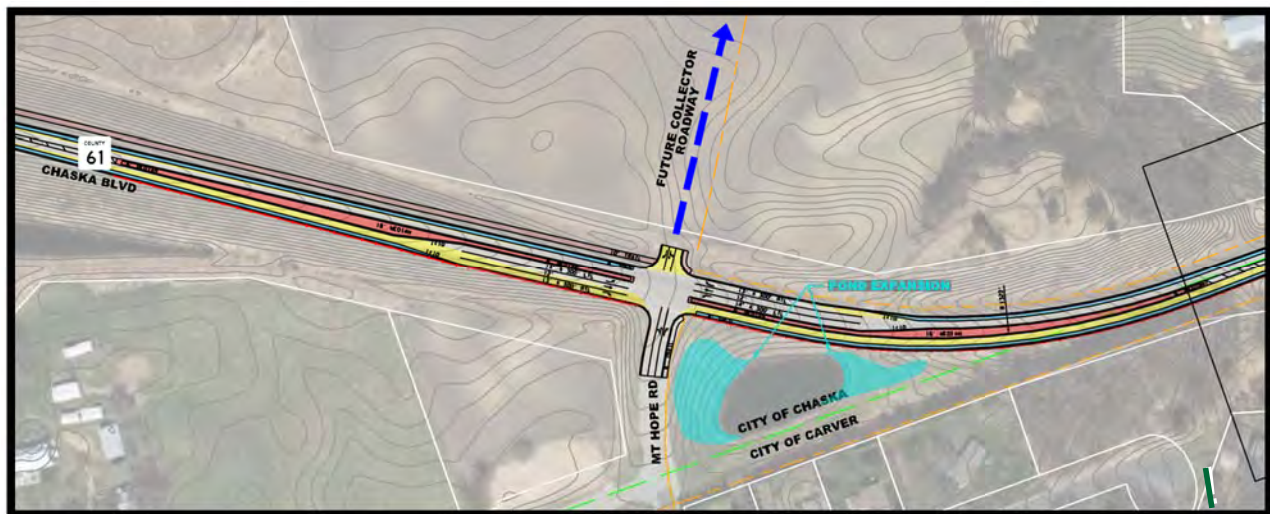
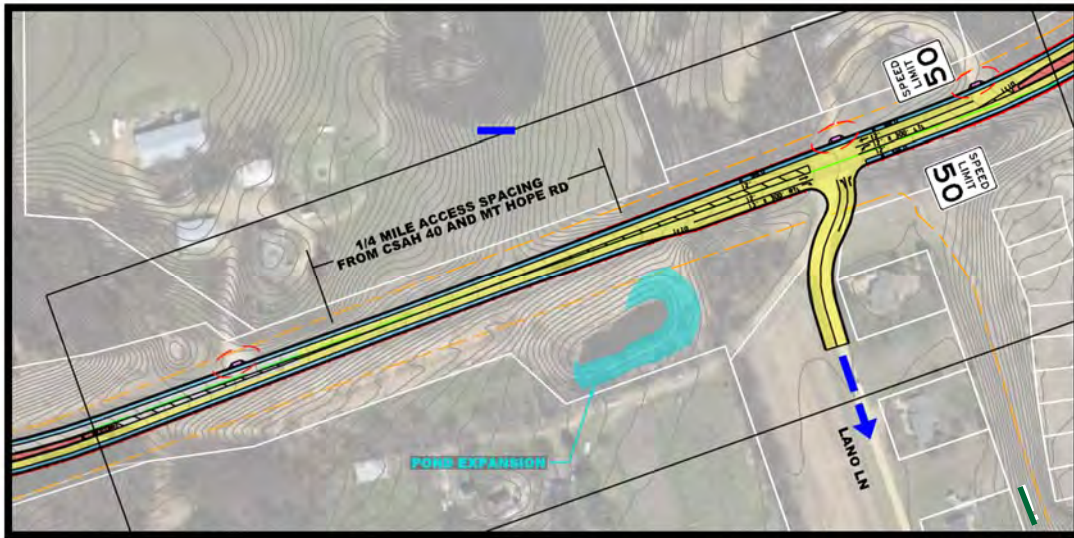


Figure 19. CSAH 61/Mount Hope Road Intersection.

### CSAH 61/Lano Lane Intersection

The Lano Lane approach to CSAH 61 is skewed. This, combined with steep topography, leads to unsafe conditions at this intersection that could be exacerbated as the area grows and traffic volumes increase. Two options were considered to improve this section. The first option, illustrated in **Figure 20**, realigns Lano Lane with CSAH 61 to remove skew at its connection to CSAH 61. This serves the City of Carver's existing residents and future growth area well.

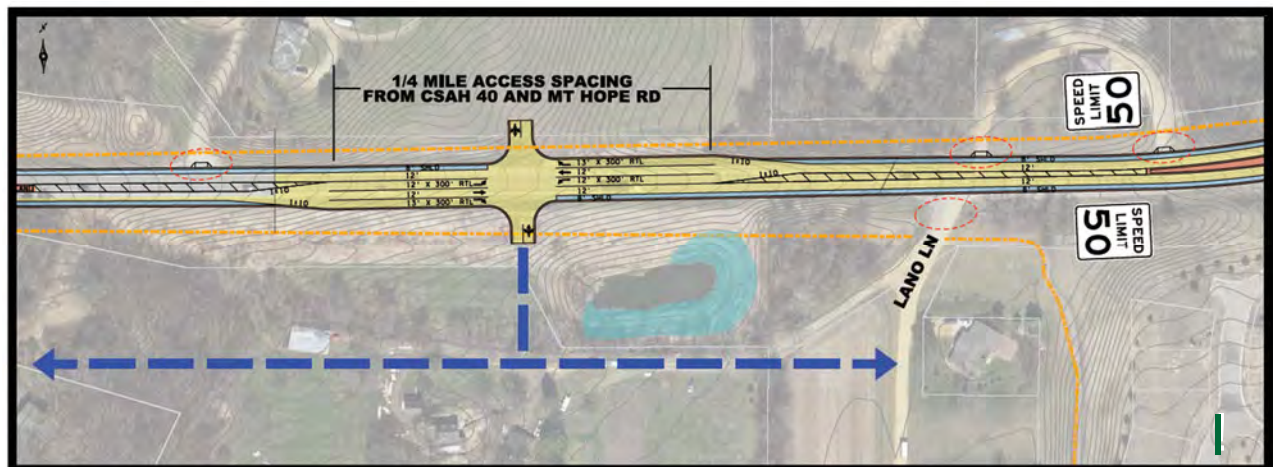


**Figure 20. CSAH 61/Lano Lane Intersection – Option 1.**

The City of Chaska expressed concern with this alignment because it does not allow for a future connection to the north side of CSAH 61 in Chaska's Southwest Growth Area at this location due to the topography. Chaska would be unable to obtain another full access to CSAH 61 between Lano Lane and Mt. Hope Road due to Carver County's access spacing requirements. Chaska also noted the parcels north of CSAH 61 near Lano Lane may develop prior to those adjacent to Mt. Hope Road, making access to this area from CSAH 61 important.

The project team developed a second Lano Lane/CSAH 61 intersection option to address Chaska's concerns. **Figure 21** illustrates the second option that shifts the Lano Lane/CSAH 61 connection to the west to a location where both a north and south connection to CSAH 61 is feasible and could serve both the Cities of Chaska and Carver future development areas.

The public reviewed both Lano Lane/CSAH 61 options at the third open house. Property owners adjacent to the second Lano Lane/CSAH 61 option (shown in **Figure 21**) on both sides of CSAH 61 expressed concern with the impacts of moving this intersection. The Cities of Chaska and Carver both agreed to keep both options under consideration at this time and to revisit when development in this area is better defined.



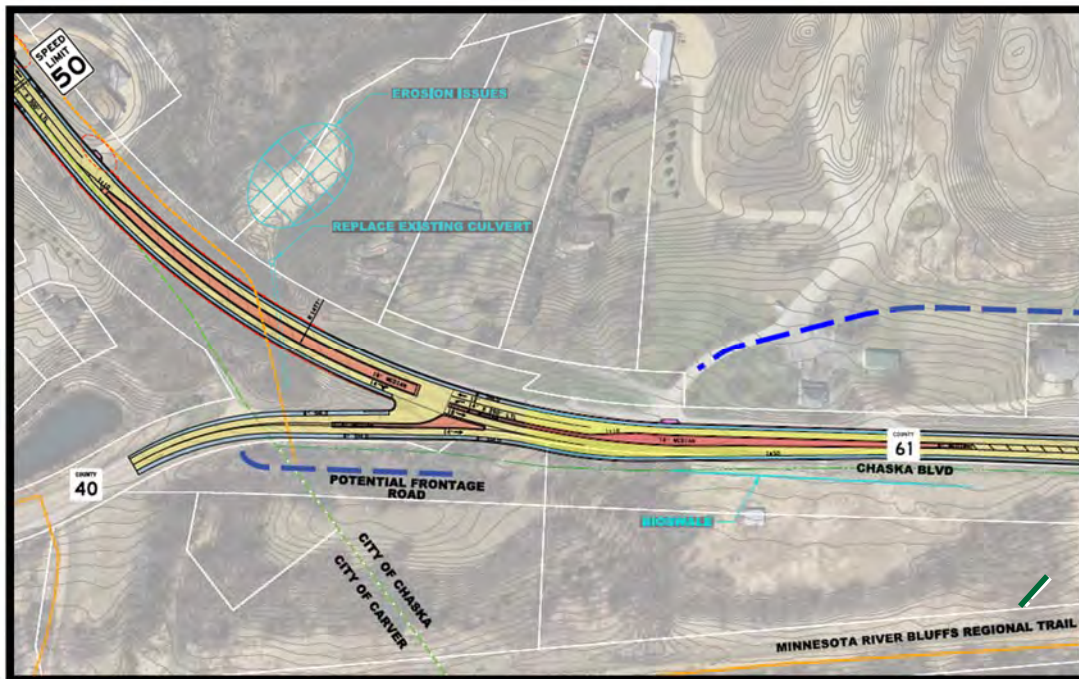
**Figure 21. CSAH 61/Lano Lane Intersection – Option 2.**

Carver County supports implementation of either option (but not both) since they are consistent with the County's access spacing guidelines.

#### *CSAH 61/CSAH 40 Intersection*

The CSAH 61/CSAH 40 intersection is significantly skewed providing unsafe conditions. This intersection exhibits crash and severity rates greater than statewide averages. The addition of a center median will reduce access at this location to a  $\frac{3}{4}$  intersection and better define turn movements at the intersection. Potential frontage road connections were also identified to guide future development access in this area. Improvements in this section can be seen in **Figure 22**.

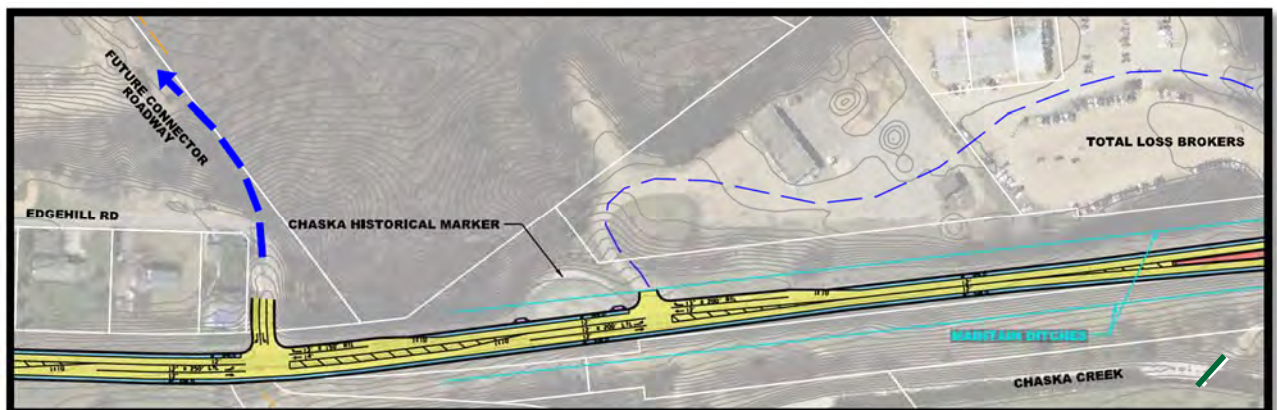
The City of Carver supports reduced access at this intersection. The City feels Mt. Hope Road will increase in importance and will serve the community well by providing access to CSAH 61 as the city grows.



**Figure 22. CSAH 61/CSAH 40 Intersection.**

#### *CSAH 61/Edgehill Road Intersection*

Edgehill Road is anticipated to convert to a future connector roadway through the Chaska Southwest Growth Area. This will require intersection improvements on CSAH 61. **Figure 23** illustrates proposed improvements including the addition of both eastbound and westbound turn lanes on CSAH 61. Turn lanes will also be provided on CSAH 61 at the nearby Total Loss redevelopment site access to improve safety by separating the turning movements into the site from high-speed CSAH 61 thru traffic.



**Figure 23. CSAH 61/Edgehill Road Intersection.**

### CSAH 61/Hickory Street/CSAH 44 Intersection

The western approach of the CSAH 61/Hickory Street/CSAH 44 intersection will remain largely unchanged aside from the addition of a concrete median to separate turn lanes from opposing through traffic and provide a refuge area for pedestrian crossings. **Figure 24** illustrates this improvement.

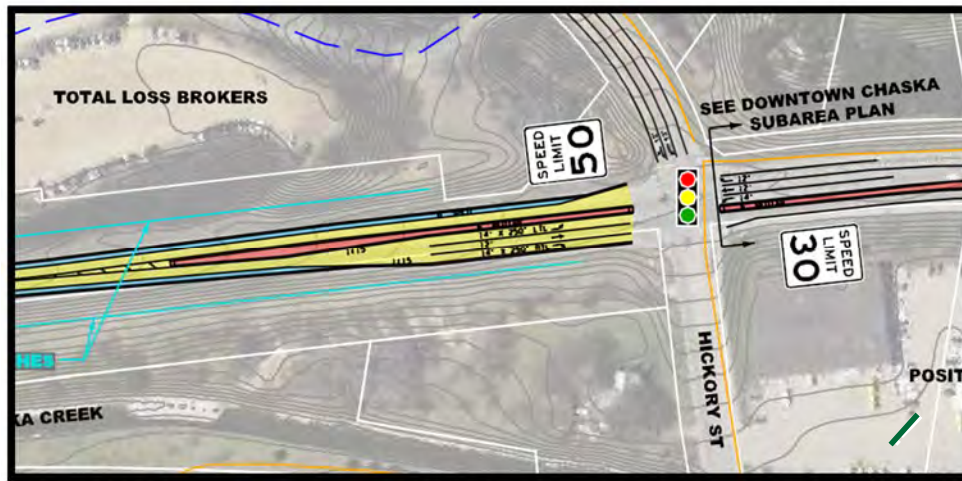


Figure 24. CSAH 61/Hickory Street/CSAH 44 Intersection.

### D. TH 41 North Subarea

The TH 41 North Subarea includes approximately one mile of TH 41 from Walnut Court north to CSAH 10. TH 41 carries an average of 19,500 vpd on two northbound lanes and one southbound lane with a posted speed of 40 mph. Heavy commercial vehicles account for approximately 920 vpd. A trail/sidewalk is provided along both sides of the roadway.

**Figure 25** illustrates the primary issues in this segment which include projected growth in traffic volumes, intersection delay, a crash issue at TH 41/CSAH 10, and pedestrian and bicycle crossing safety. Each of these issues are explained in more detail.

#### 1. Design Considerations

##### *Existing and Planned Land Use*

The land surrounding TH 41 in this subarea is largely developed containing mostly residential developments. Uses include single and multi-family residential, institutional, commercial, recreational, and office. Area schools are located at the intersection of TH 41 and CSAH 10 including the Chaska Middle School West, Chaska Middle School East, the Chaska Elementary School, and the Step by Step Montessori School of Chaska. The Chaska Community Center and the Chaska City Office share a building to the east of the schools.

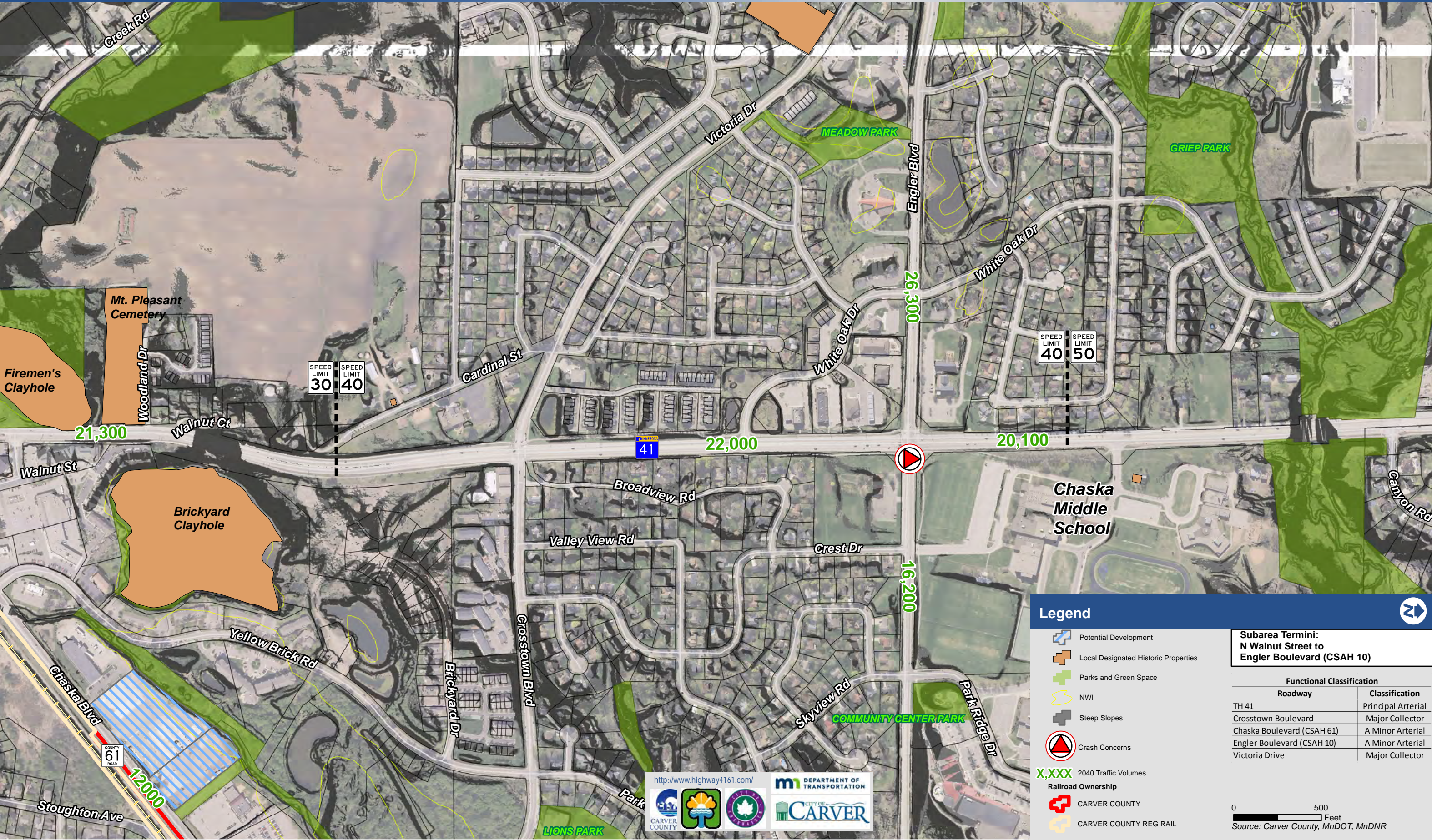
##### *Environmental Considerations*

The Brickyard Clayhole Lake, Fireman's Clayhole Lake, and Mount Pleasant Cemetery are all adjacent to TH 41 and are locally designated historic sites. Multiple wetlands are present in this subarea. Much of the area east of TH 41 near the Brickyard Clayhole Lake and following Chaska Creek is in the FEMA designated floodplain. Stormwater is collected and is directed to the Minnesota River (an impaired waterway) untreated. Roadway improvements will need to meet or exceed stormwater management requirements prior to any construction.

##### *Traffic Operations and Safety*

Two signalized intersections are located on TH 41 within this segment, at Crosstown Boulevard and CSAH 10, both of which currently operate acceptably during peak hours. However, operations at the CSAH 10 intersection are approaching unacceptable levels. This limits the ability to provide efficient traffic operations to vehicles traveling on these major corridors. Left turn movements from and turning onto CSAH 10 and Crosstown Boulevard/Victoria Drive, in either direction, exhibit elevated traffic delays during peak periods.

Figure 25



Traffic volumes are anticipated to elevate from 19,800 vpd currently to approximately 22,000 vpd by 2040. The TH 41/CSAH 10 signalized intersection is projected to fall below acceptable service thresholds with this increased traffic volumes if no improvements are made.

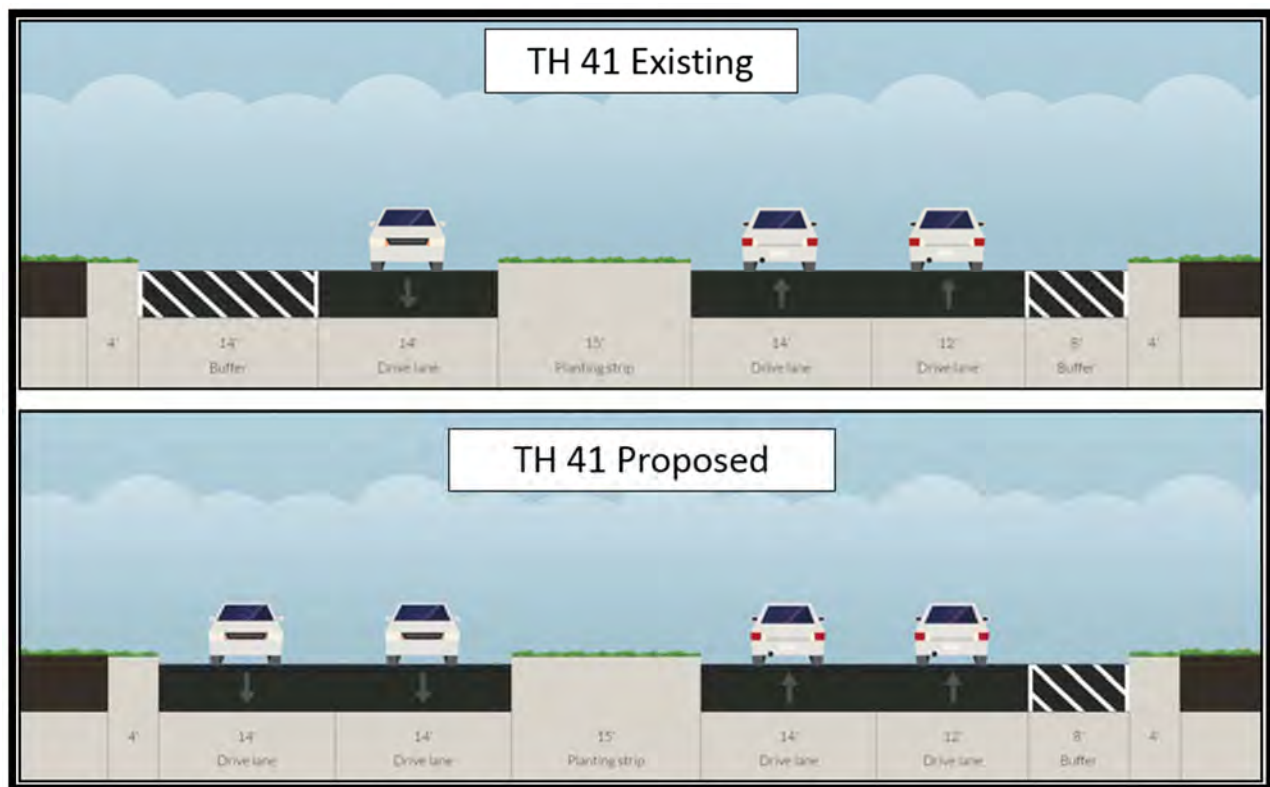
There were 59 total crashes within this segment of TH 41 between 2010 and 2014 indicating the segment operates within the expected, normal range when compared to similar statewide corridors. However, 29 crashes were recorded at the TH 41/CSAH 10 intersection, which is above the normal expected range for similar intersections statewide. Pedestrian crashes are also a concern at this intersection. Eight pedestrian crashes have been recorded at this intersection since 2005. The majority of these occurred between TH 41 vehicles turning right onto CSAH 10. This is a concern due to the schools and community center destinations located in the northeast quadrant of the intersection.

### *Pedestrian and Bicycle*

A continuous trail exists on the east side of TH 41 and the north side of CSAH 10 through this subarea. Pedestrian and bicycle facilities are not continuous and/or do not exist on the west side of TH 41 and south side of CSAH 10. Pedestrian and bicycle use is high throughout this subarea for recreational users and those accessing the schools and community center. **Figure 27** illustrates the existing and proposed trails within the TH 41 North Subarea.

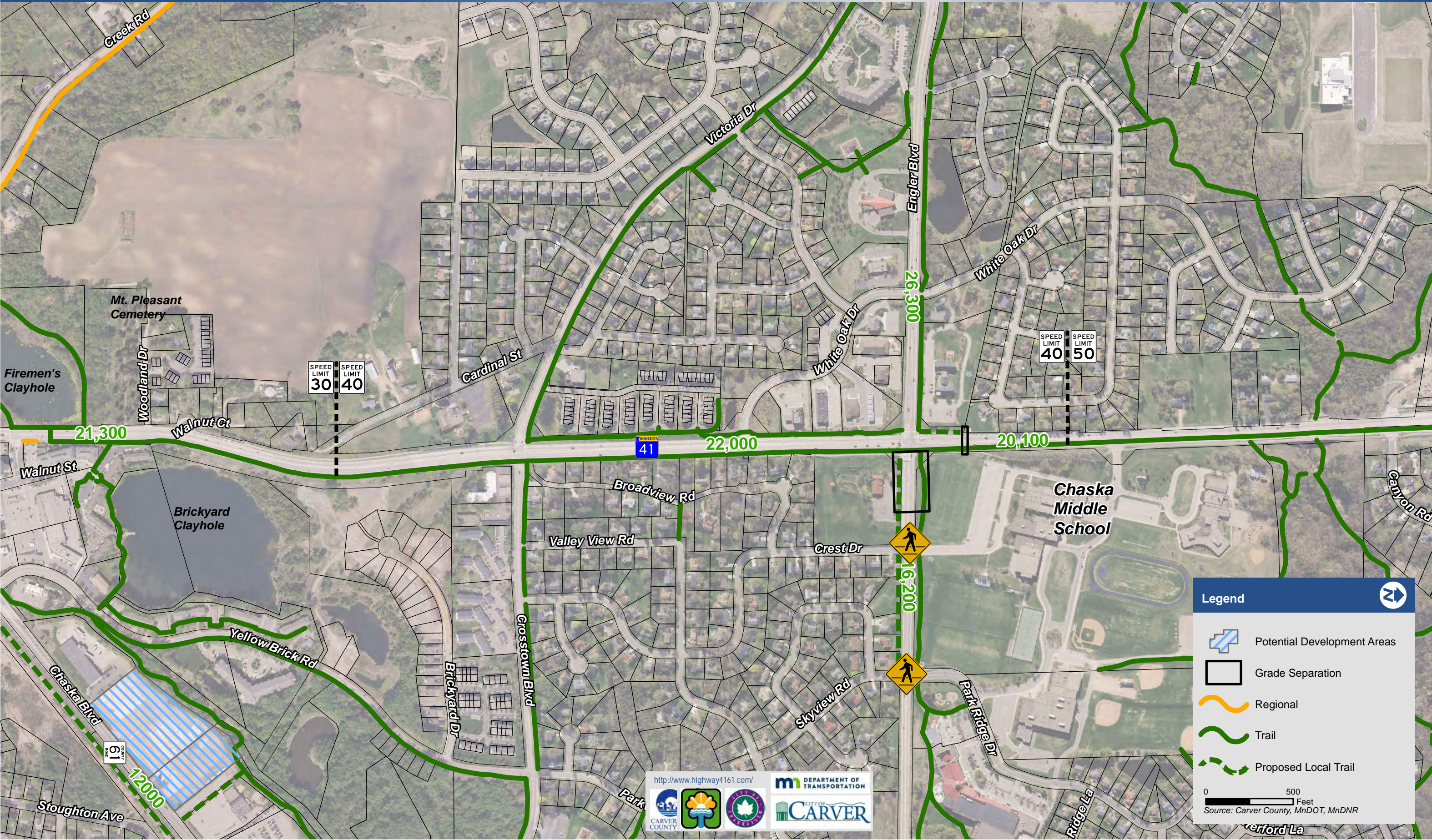
## **2. Identification, Evaluation, and Selection of Alternative**

Improvements to TH 41 were considered to address vehicle, pedestrian, and bicycle mobility and safety. The improvements considered for this subarea include widening TH 41 to accommodate two lanes in each direction, expanding capacity at the TH 41/CSAH 10 intersection, and providing additional bicycle/pedestrian accommodations. No changes to the existing center median or full access locations were proposed, as the City of Chaska and MnDOT addressed access issues during a TH 41 improvement project in 2002. **Figure 26** identifies existing and proposed typical sections for TH 41 in this subarea. Location specific improvements are also described below with supporting figures.



**Figure 26. Existing and Proposed Typical Sections for the TH 41 North Subarea.**

Figure 27



Map Document: \\arserver1\gis\CACOT\T42110396\ESRI\Maps\Corridor - Findings of Facts\Design Consideration Maps\Proposed Local Trail Map\_TH41 North.mxd  
Date Saved: 2/17/2017 11:47:28 AM

#### TH 41 from Walnut Court to Victoria Drive

The proposed TH 41 improvement between Walnut Court and Victoria Drive will restripe TH 41 to provide two through lanes northbound and southbound. The existing southbound right-turn lane at Woodland Drive and adjacent trail will be shifted to the west to accommodate the additional through lane in this area. These improvements are shown in **Figure 28**.



Figure 28. TH 41 near Woodland Drive.

#### TH 41 from Victoria Drive to White Oak Drive

Again, TH 41 in this segment will be restriped to provide two lanes in both directions. The existing southbound right-turn lane at Victoria Drive will be shifted west to accommodate the additional through lane. White Oak Drive will remain a right-in/right-out access and the existing southbound right-turn lane and adjacent trail at this location will be shifted west to accommodate the TH 41 restriping.

It is likely a noise study will be required to convert the existing shoulder on southbound TH 41 in this subarea to a through lane due to the proximity of existing residential properties to the highway. **Figure 29** illustrates improvements in this section of roadway including the need to review the future project for noise wall requirements.



Figure 29. TH 41 from Victoria Drive to White Oak Drive

#### TH 41/CSAH 10 (Engler Boulevard) Intersection Improvements

The TH 41/CSAH 10 intersection is projected to see significant increases in traffic volumes in this future. TH 41 traffic is projected to increase from 19,800 to 22,000 vpd. CSAH 10 traffic volumes are projected to increase from approximately 10,000 to 26,000 vpd. Additional capacity at the intersection of these two roadways is needed to accommodate these volumes.

**Figure 30** illustrates the proposed intersection improvements, which include two through lanes on TH 41 and CSAH 10 in all directions and dual northbound TH 41 left turn-lanes. Center medians are also

proposed on TH 41 to channelize turning movements and provide a refuge for pedestrian crossings. The scope of CSAH 10 improvements outside of the TH 41/CSAH 10 intersection area have not yet been identified. Carver County intends to conduct a corridor study of CSAH 10 through this area in the near future to identify specific improvement needs.

The project team considered two options for pedestrian and bicycle crossings at the TH 41/CSAH 10 intersection. The first option accommodates pedestrians and bicycles through this intersection with at-grade improvements such as additional sidewalk/trail connections on both sides of TH 41 and CSAH 10 at the intersection and median refuges on both legs of TH 41 for these crossings. The second option provides grade separated trail crossings for both TH 41 and CSAH 10. The grade separations illustrated in **Figure 30** were developed only to test feasibility and quantify potential construction costs at this time. Additional study, design, and coordination will be required with adjacent properties prior to establishing the long-term improvements for the CSAH 10 corridor. The City of Chaska may consider at-grade improvements with additional enhancements that the TH 41/CSAH 10 intersection in the short-term with an ultimate goal of grade separating the trail improvements in the future.

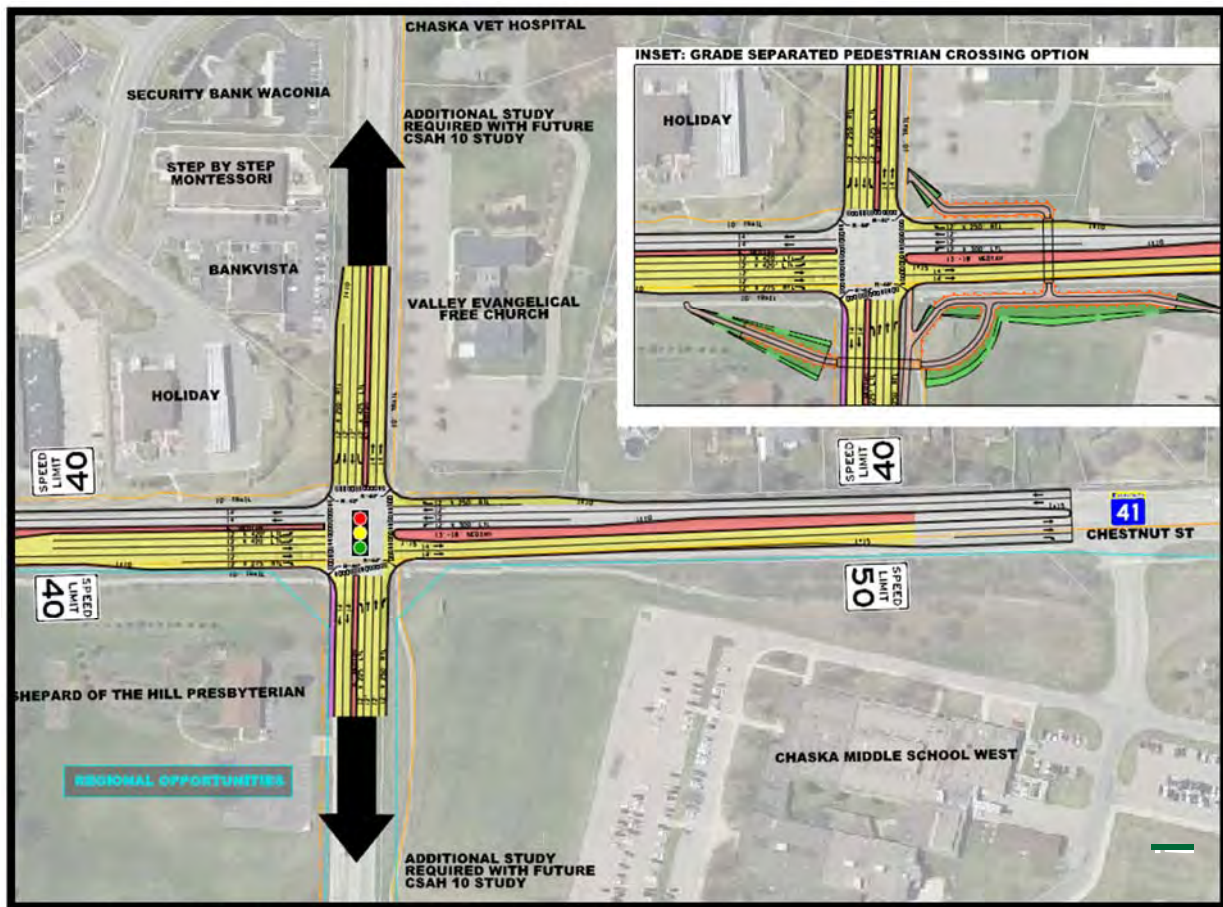


Figure 30. TH 41/CSAH 10 (Engler Boulevard) Intersection Improvements

## E. Chaska East Subarea

The Chaska East Subarea includes approximately 1.5 miles of CSAH 61 extending from Yellow Brick Road to CSAH 10 near the Chaska/Chanhassen border. CSAH 61 currently carries approximately 8,300 vpd near Fire Lane and 3,200 vpd near CSAH 15. These values are anticipated to increase to 12,000 and 6,100 respectively by 2040. CSAH 61 transitions from a four-lane divided roadway west of Yellow Brick Road to a three-lane roadway with one lane in each direction and a center two-way left turn lane. Speed limits range from 30 mph near Downtown Chaska to 50 mph further east.

## 1. Design Considerations

**Figure 32** illustrates the primary issues in this segment such as the need for additional local road connections into Downtown, lack of pedestrian and bicycle facilities, and pedestrian and bicycle crossing safety. The paragraphs below explain each of these issues in more detail.

### *Additional Connections into Downtown Chaska*

Intersections along CSAH 61 in this subarea function adequately and will continue to into the future. The City of Chaska's Downtown Master Plan identified the need for additional connections into Downtown in this area to alleviate pressure from major Downtown intersections like CSAH 61/Walnut Drive and TH 41/CSAH 61. The master plan identified a future extension of Stoughton Avenue to CSAH 61 and Fire Lane to Yellow Brick Road.

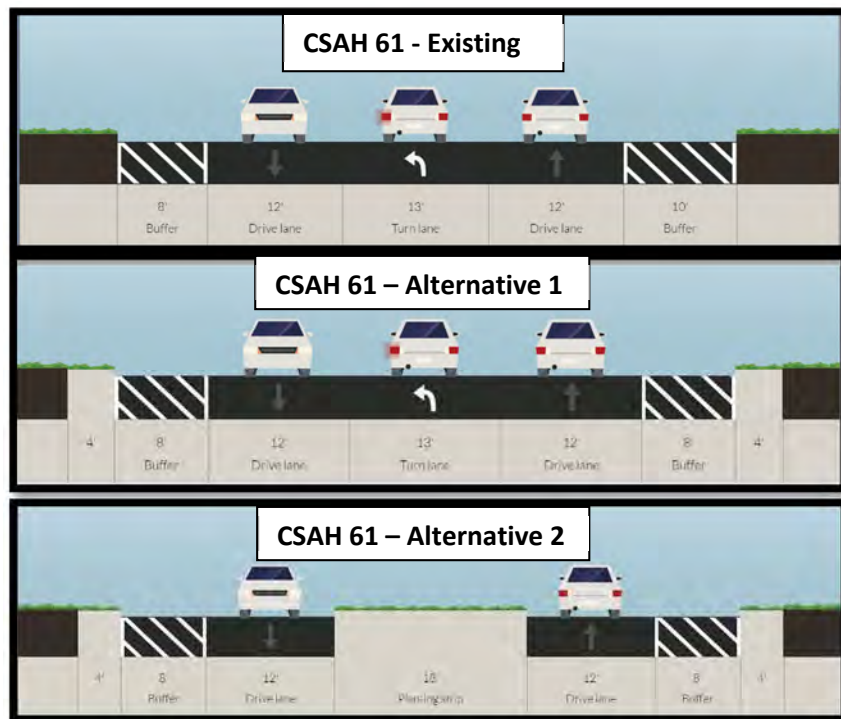
### *Pedestrian and Bicycle*

There are no sidewalks or trails along CSAH 61 in this subarea. Pedestrians are routinely observed walking along and crossing CSAH 61 from the adjacent residential neighborhoods to the gas station, fast food restaurants, and into Downtown Chaska. One fatal vehicle/pedestrian crash occurred in this segment at the intersection of State Street with CSAH 61 in 2013.

The Southwest Regional Trail intersects CSAH 61 in this subarea and a trailhead is located at the CSAH 10/Old Audubon Street intersection, north of CSAH 61. **Figure 33** illustrates existing and proposed trails in the Chaska East Subarea.

## 2. Identification, Evaluation, and Selection of Alternative

Improvements to CSAH 61 in this subarea focused on vehicle, pedestrian, and bicycle mobility and safety. **Figure 31** shows roadway typical sections illustrating improvement alternatives considered in this subarea. The projected traffic volumes in this segment can be accommodated adequately with the current configuration of one through lane in each direction with turn lanes at major intersections. The project team considered Alternative 1, which included a continuous two-way center turn lane, and compared that with Alternative 2, which added concrete medians at major intersection locations. The project team recommended a hybrid of Alternative 1 and Alternative 2. This provided an opportunity to minimize impacts and construction costs while enhancing pedestrian crossings with center median refuges at key intersections along the CSAH 61 corridor.



**Figure 31. Existing and Proposed Typical Sections - Chaska East Subarea.**

Figure 32

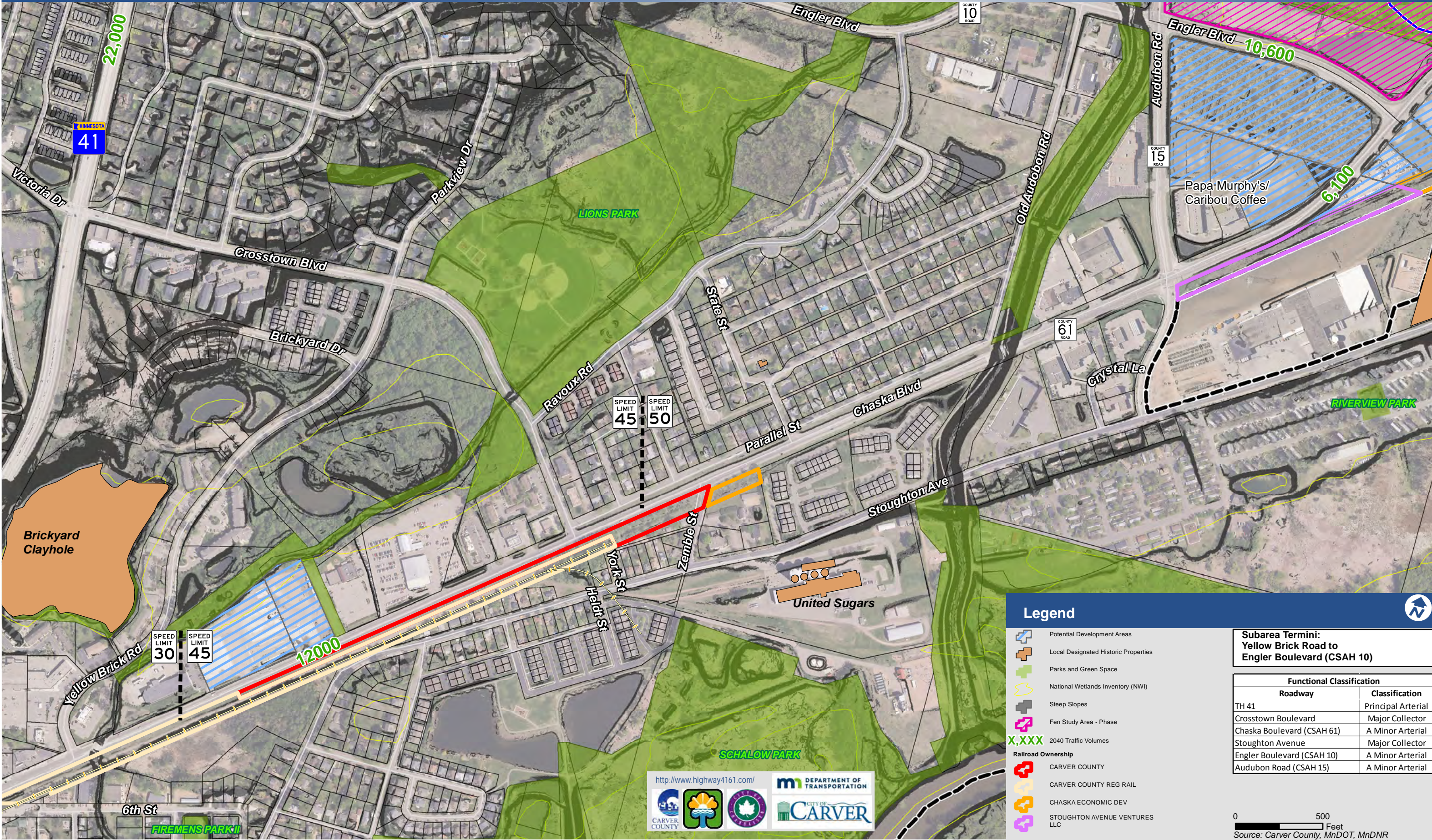


Figure 33

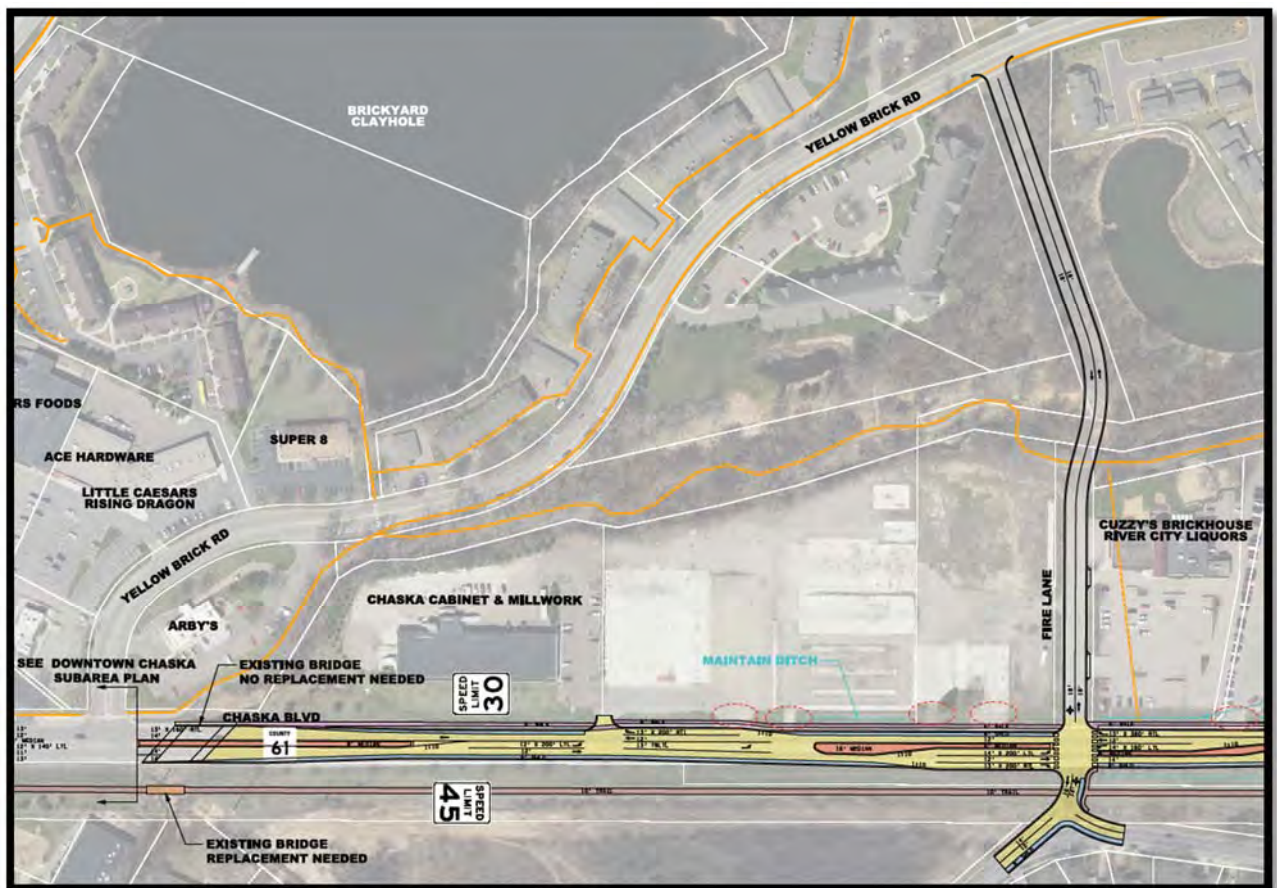


The project team also considered alternatives for addressing pedestrian and bicycle needs in this subarea of CSAH 61. Ultimately, the project team recommended a continuous trail or sidewalk along the entire length of CSAH 61. On the south side of CSAH 61 the recommendation includes a 10-foot multi-use trail on the former railroad property to connect into Downtown Chaska to the existing Southwest Regional Trail connection near CSAH 15. A six-foot sidewalk is also recommended along the north side of CSAH 61 between Yellow Brick Road and Crosstown Boulevard.

Location specific improvements are described below with supporting figures.

#### *CSAH 61 from Yellow Brick Road to Fire Lane*

Various private access locations to the Lumberyard Redevelopment Site will be closed and one main access left at the Chaska Cabinet and Millwork facility (shown in red circles on **Figure 36**). The City of Chaska anticipates future access to the former lumberyard property will be included on Fire Lane as the location develops. A southern leg will be added to the CSAH 61/Fire Lane intersection that will connect to Stoughton Avenue providing increased access to Downtown Chaska. Fire Lane is also proposed to extend northwest to intersect with Yellow Brick Road. CSAH 61 at the Fire Lane intersection will maintain one through lane in each direction, however, turn lanes will be added to accommodate right and left turning traffic onto Fire Lane. Improvements proposed for this segment of CSAH 61 are illustrated in **Figure 34**.



**Figure 34. CSAH 61 from Yellow Brick Road to Fire Lane**

#### *CSAH 61 from Fire Lane to Zemble Street*

The project team considered two options for CSAH 61 between Fire Lane and Zemble Street to address the skewed intersection at this location. The first option realigns Zemble Street in its current location to remove the skew. Crosstown Blvd also maintains its current location in this first option. The second option closes access to Zemble with a cul-de-sac and adds a south leg to Crosstown Boulevard at CSAH 61 to Stoughton Avenue. This option also adds turn lanes and medians to the new Crosstown Blvd/CSAH 61 intersection to accommodate the concentration of traffic volumes at this location. **Figure 35** illustrates both alternatives. The City of Chaska requested Carver County maintain both options for future consideration. The City

intends to work closely with the County when a project on CSAH 61 in this subarea becomes imminent in order to recommend one of these access options.

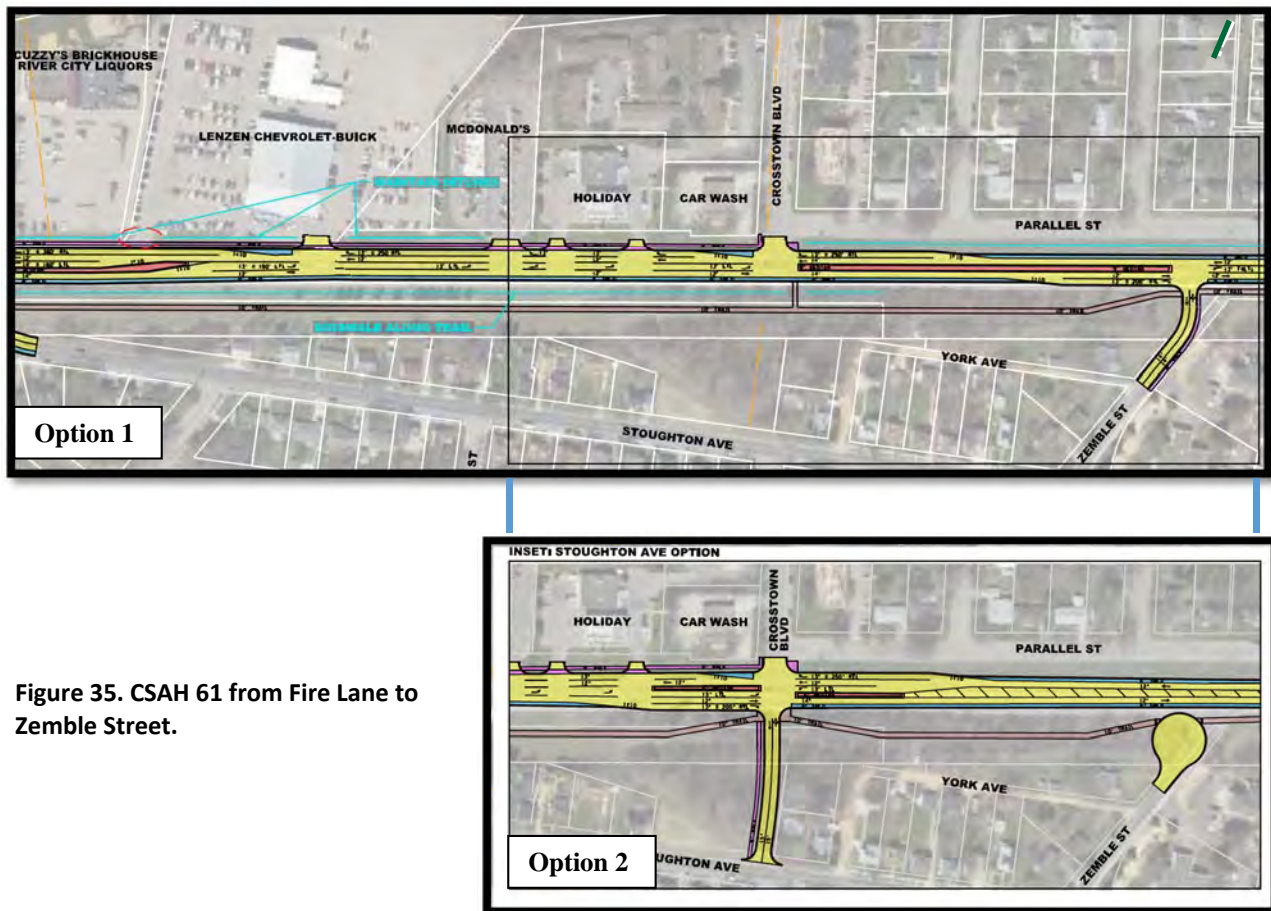


Figure 35. CSAH 61 from Fire Lane to Zemble Street.

#### CSAH 61 from State Street to CSAH 15 (Audubon Road)

CSAH 61 in this segment will remain largely unchanged. Improvements include the addition of a six-foot walk on the south side from CSAH 15 to the proposed 10-foot multi-use trail across CSAH 61 from Old Audubon Road. This sidewalk addition would utilize existing pedestrian facilities on the East Chaska Creek Bridge.

The City of Chaska also requested Carver County add a trail on the south side of CSAH 61 east of CSAH 15 and on the west side of CSAH 15 for future connection opportunities. The proposed improvement adds medians to CSAH 61 at the CSAH 61/CSAH 15 intersection to channelize traffic and improve pedestrian and vehicle mobility and safety. **Figure 36** illustrates these improvements. The existing traffic control at



Figure 36. CSAH 61 from State Street to CSAH 15 (Audubon Road).

the CSAH 61 at CSAH 15 intersection is maintained with the project team's recommendation. It is recommended that a roundabout also be reviewed during the preliminary design phase to determine whether it better suits the corridor at the time of construction and into the future. Both traffic control alternatives are expected to efficiently accommodate the existing and future pedestrian and vehicle traffic traveling through the intersection.

## F. Eastern Project Subarea

The Eastern Project Subarea includes approximately 1.7 miles of CSAH 61 extending from CSAH 15 to Bluff Creek Drive in Chanhassen. CSAH 61 carries approximately 3,200 vpd near CSAH 15 and 7,000 vpd east of CSAH 10. Approximately 300 heavy commercial trucks use this segment of CSAH 61. CSAH 61 is currently a two-lane rural roadway with turn lanes at major intersections such as CSAH 15, CSAH 10, and Stoughton Avenue.

Projected traffic volumes in this subarea are anticipated to increase to 6,100 and 17,100 respectively on CSAH 61 by 2040. In addition, traffic volumes on CSAH 10 are projected to more than triple over the next 20 years from 3,000 vpd today to 10,000 vpd by 2040. These changes are related to increased development and growth along these corridors and areas beyond such as southwestern Cities of Chaska and Carver.

**Figure 37** illustrates primary issues in this segment such as land development potential, significant environmental considerations, substantial traffic volume growth, intersection delays, driveway accesses, and crash issues near roadway curves. The paragraphs below explain each of these issues in more detail.

### 1. Design Considerations

#### *Land Development Potential*

Both the Cities of Chaska and Chanhassen have identified potential future development areas along CSAH 61 in this subarea. This will change the area over time from primarily agricultural, rural residential and some industrial uses to medium-density residential, office and industrial uses. As shown on **Figure 37**, not all of the lands along CSAH 61 have development potential. Barriers of topography, natural and environmental features pose challenges to full development along the CSAH 61 corridor.

#### *Environmental Considerations*

Environmental features within the Eastern project area are substantial and significant. These include a 600-acre wetland complex, a Scientific and Natural Area, a Wildlife Management Area, a trout stream, calcareous fens, a floodplain, and a high likelihood of significant archaeological resources. The proximity and significance of these resources is great and make roadway expansion difficult, if not impossible, in some locations within this subarea.

#### *Traffic Operations and Safety*

CSAH 61 in this subarea is a high speed, two-lane rural roadway lined with guardrail. There are multiple horizontal curves that have speed warning signs and limited sight distance within this subarea. There were six crashes at the CSAH 61/Stoughton Avenue intersection reported between 2010 and 2014. A fatal crash occurred in 2014 at this intersection as well. This intersection has a skewed approach which is an issue for drivers to see oncoming traffic and provides a false sense of a free-flow type movement from westbound CSAH 61 to Stoughton Avenue.

Intersections along this segment are operating at acceptable levels today. However, this is anticipated to change in the future as traffic volumes increase significantly on CSAH 61 and major connecting roadways such as CSAH 10. These changes in traffic volumes will require additional traffic control at the intersection of CSAH 61/CSAH 10 and additional capacity on CSAH 61 between CSAH 10 and Stoughton Avenue. In addition, there are various private access locations located on CSAH 61 between CSAH 15 and Bluff Drive. Safe access into and out of these driveways is a concern as traffic volumes increase on CSAH 61 over time.

#### *Pedestrian and Bicycle*

The Southwest Regional Trail is located north of CSAH 61 near its intersection with CSAH 10 and continues into Chaska along East Chaska Creek. No other pedestrian and bicycle facilities are located along CSAH 61 in this subarea. Trails in the Eastern Project Subarea are shown in **Figure 38**.

Figure 37

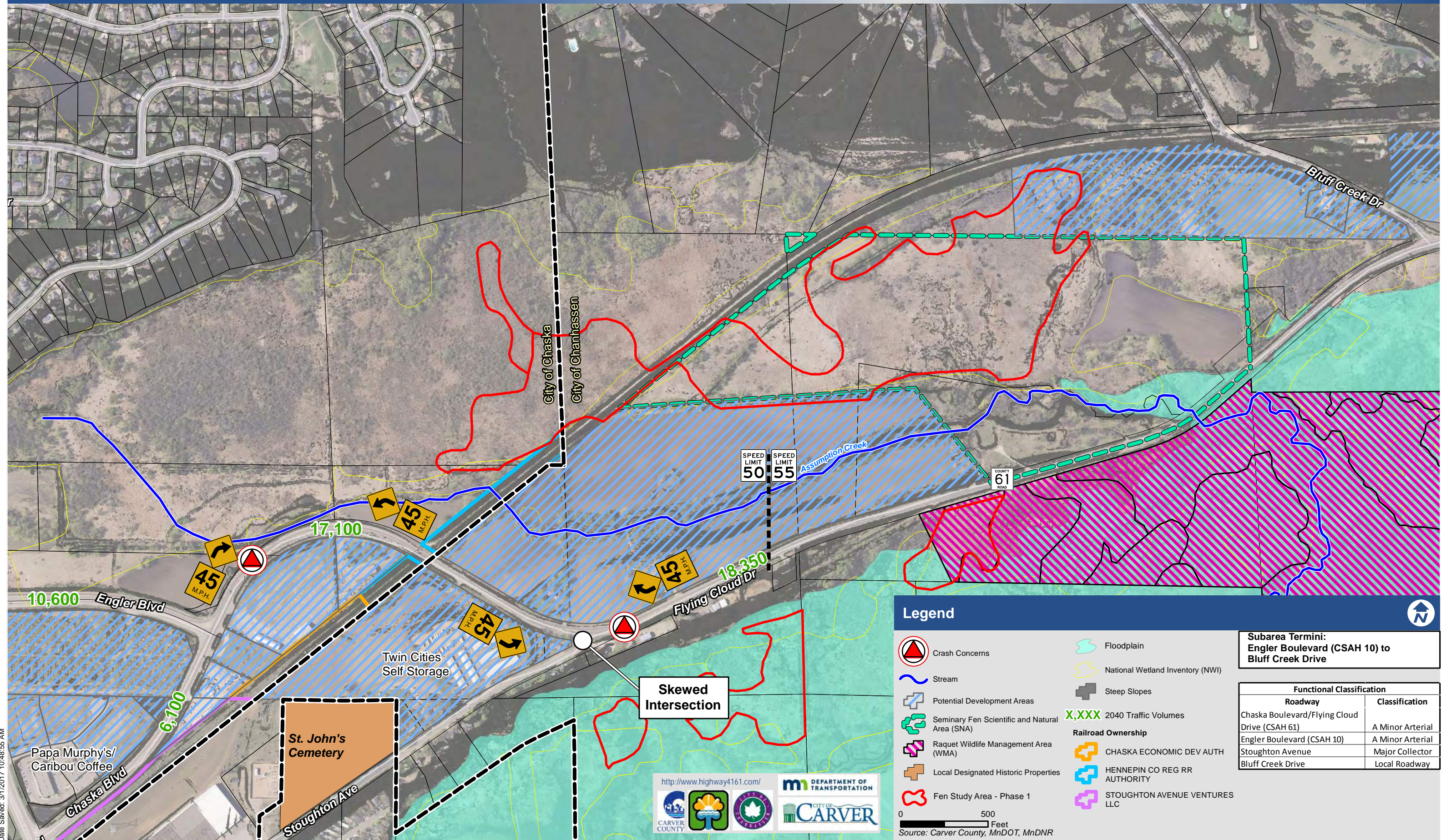
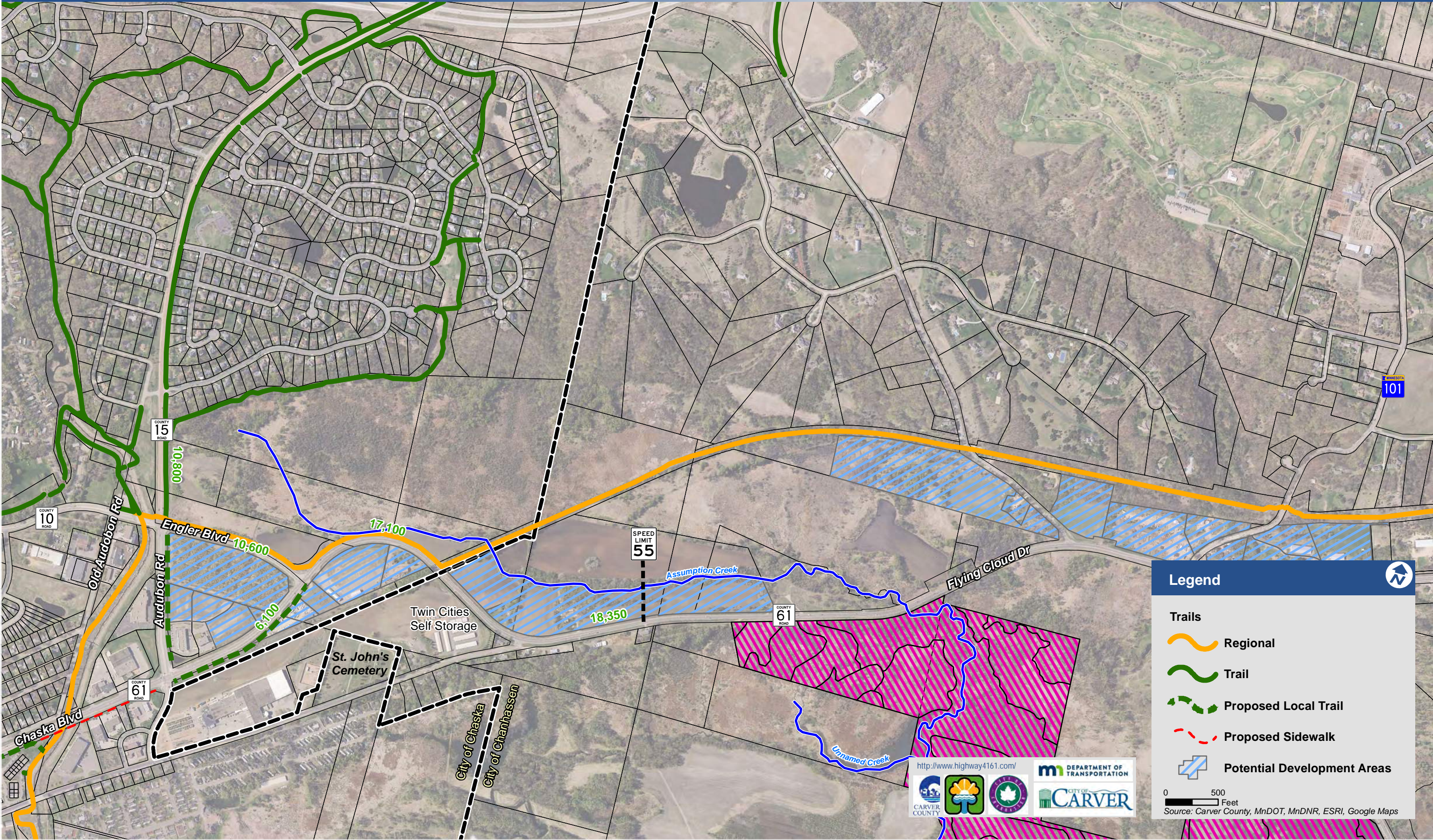


Figure 38



## 2. Identification, Evaluation, and Selection of Alternative

Improvements to CSAH 61 in this subarea focused on providing adequate capacity on CSAH 61 and at major intersections, improving safety, and providing for pedestrians and bicycles. **Figures 39 and 40** illustrate the existing and proposed typical sections for CSAH 61.

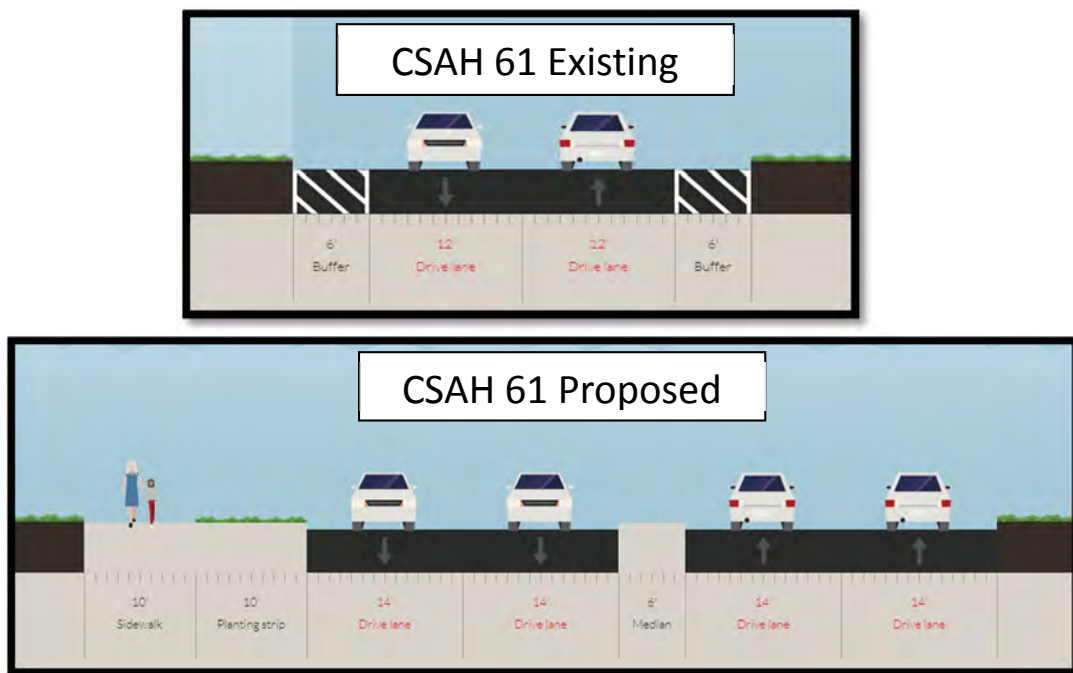


Figure 39. Eastern Project Area Typical Sections - West of Stoughton Avenue.

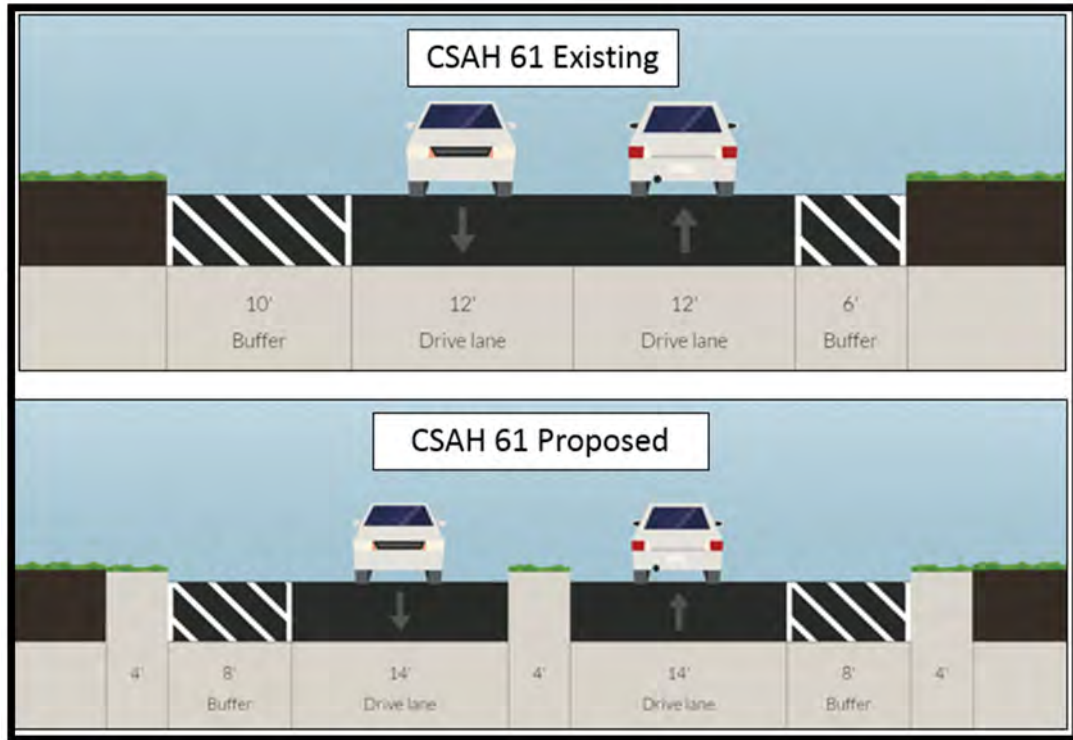


Figure 40. Eastern Project Subarea Typical Sections - East of Stoughton Avenue.

### *Roadway Lane and Traffic Control Needs*

The projected traffic volumes on CSAH 61 near the CSAH 10 intersection will require expansion from a two-lane undivided rural county highway to a four-lane divided urban roadway between CSAH 10 and Stoughton Avenue. Turn lanes are required at the Stoughton Avenue intersection. Multiple intersection control options were tested at the CSAH 61/CSAH 10 intersection. A roundabout was found to be most effective at efficiently and safely accommodated the projected traffic volumes. The CSAH 61/Stoughton Avenue intersection is projected to continue to operate effectively into the future as a side-street stop controlled intersection. The need for additional traffic control at the intersection is not expected at this time but may become necessary depending on the amount of development that occurs near the intersection in the future.

Beyond the Stoughton Avenue intersection, CSAH 61 will be able to continue to accommodate the projected traffic volumes as a two-lane roadway. Future volumes are projected to be around 18,000 vpd. However, access to CSAH 61 is limited in this area due to the topography and environmental resources making future development highly unlikely. Therefore, CSAH 61 can be managed adequately as a two-lane roadway without the need for additional capacity expansion.

### *Alternatives Considered*

The stretch of CSAH 61 between CSAH 10 and Stoughton Avenue received careful consideration in this study. The project team developed various improvement alternatives to address safety concerns with the roadway curvature in this area. **Figure 41** illustrates the range of improvement options considered which includes alternatives both on existing alignment and on new alignment. The project team evaluated the benefits and trade-offs of each. This evaluation, included in **Appendix E**, considered safety, impacts to existing property, future development, environmental resources, and cost.

A major consideration for the project team in the evaluation of alternatives was property and business owner input. Project representatives held meetings with the Chanhassen City Council and property/business owners in this area to solicit input. Existing property and business owners that attended these meetings expressed content with their operations and properties and had no immediate plans or interest in selling or relocating. Because of this feedback and the significant cost involved in acquiring property for a realignment option, Carver County's recommendation is to proceed with an improvement on existing alignment as shown in **Figures 42 and Figure 43**. If property owner willingness changes in the future, the County may reconsider Realignment Option 9.

The County's recommendation to improve CSAH 61 on existing alignment through this area will improve safety over existing conditions. The recommended improvements will change the roadway from a rural to urban condition, add additional capacity from approximately CSAH 10 to Stoughton Avenue, add turn lanes at Stoughton Avenue, and add a roundabout at CSAH 61/CSAH 10. Carver County, and Cities of Chaska and Chanhassen agree these changes together improve the overall safety of CSAH 61 and will provide a safe and reliable roadway into the future.

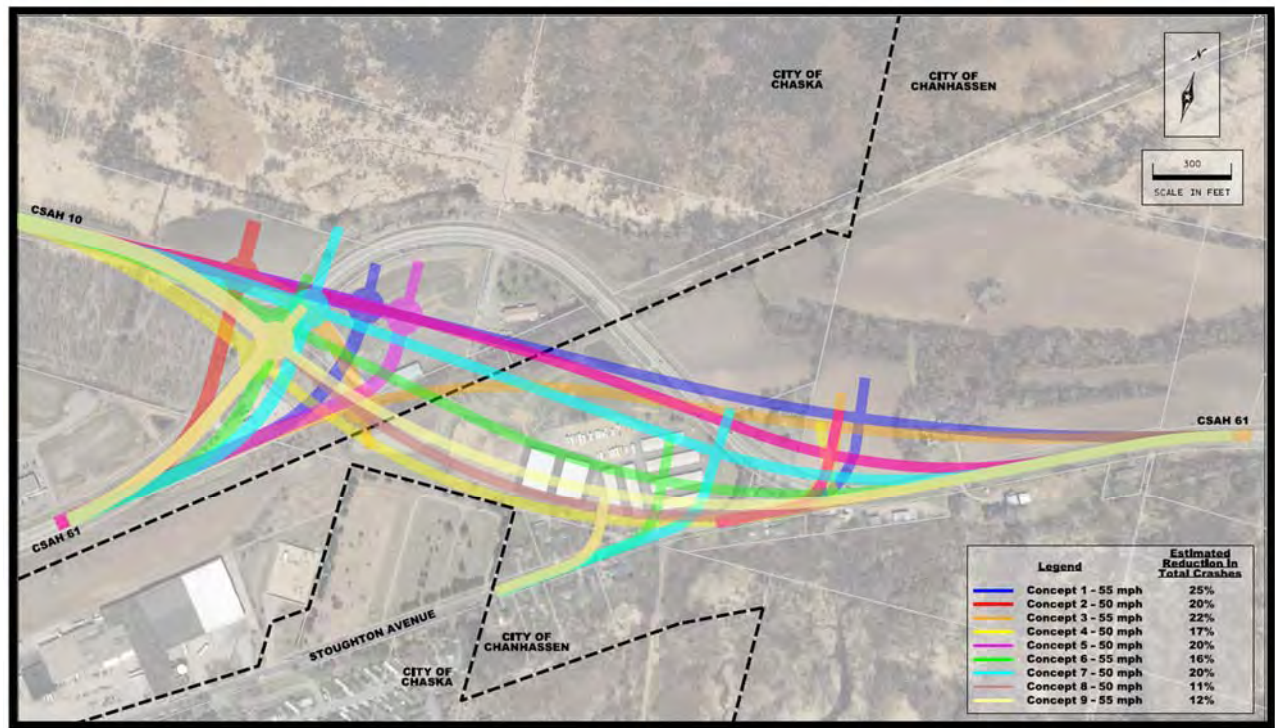


Figure 41. CSAH 61 from CSAH 10 to Stoughton Avenue – Realignment Alternatives.

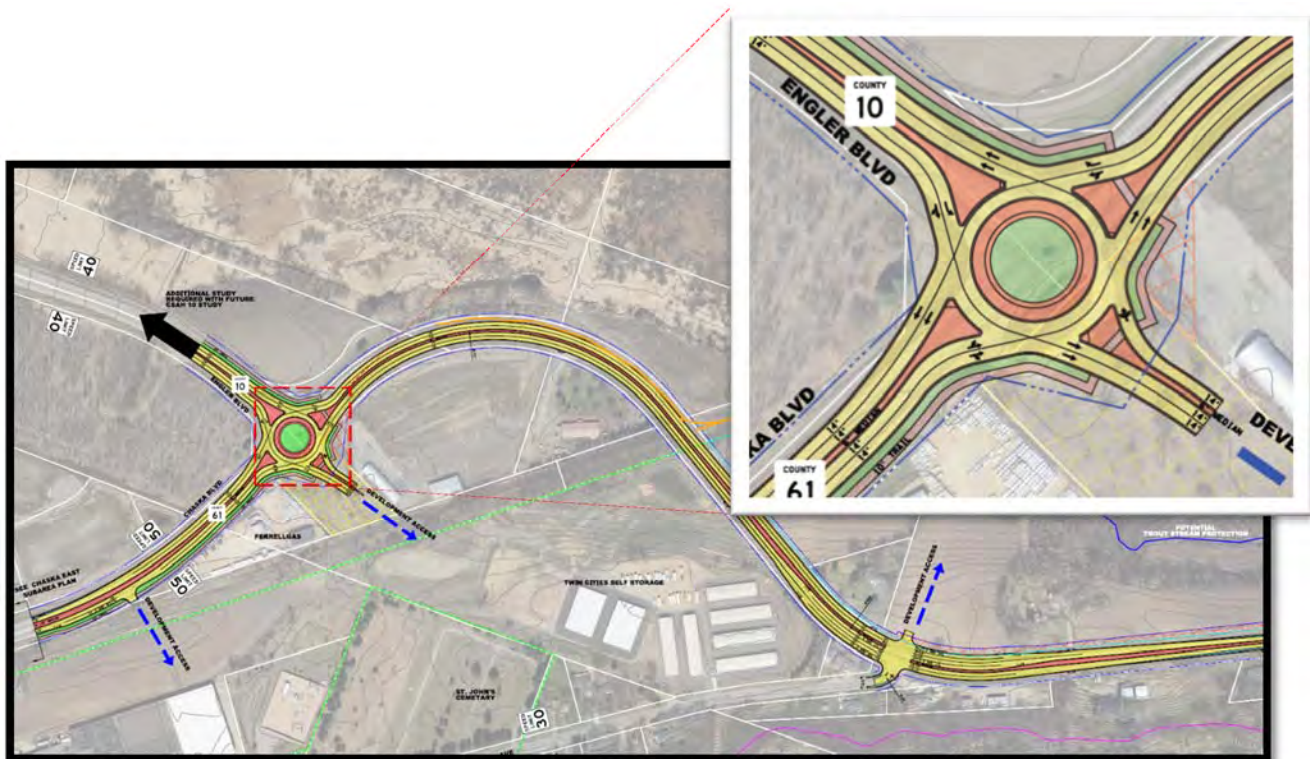
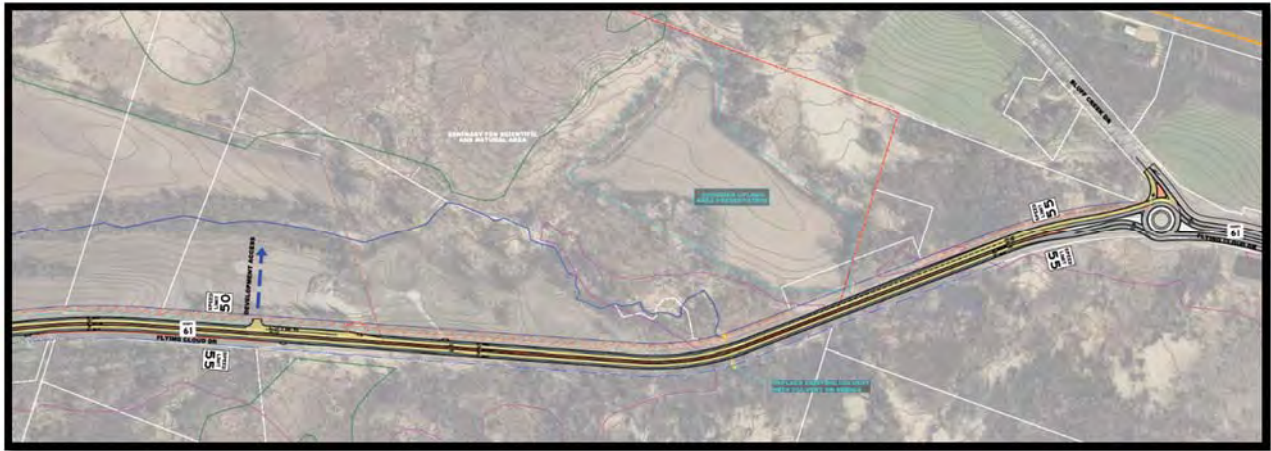


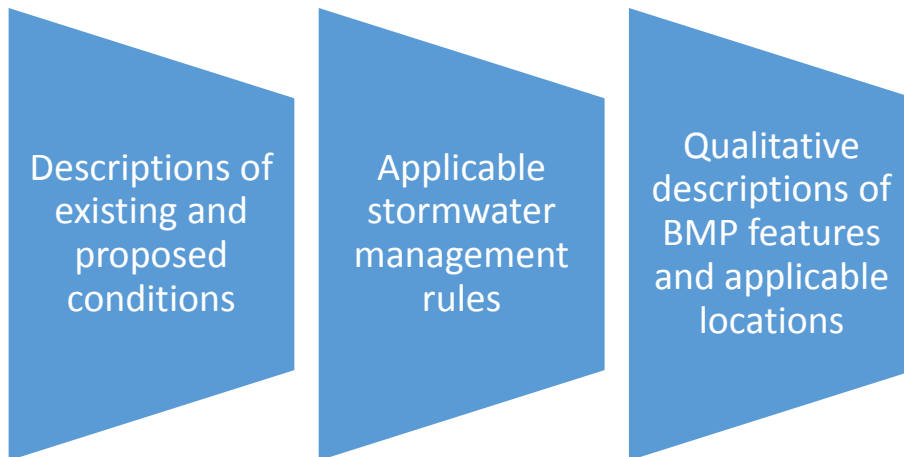
Figure 42. CSAH 61 from CSAH 10 to Stoughton Avenue – Existing Alignment.



**Figure 43. CSAH 61 from Stoughton Ave to Bluff Creek Drive – Existing Alignment.**

### G. Corridor Stormwater Recommendations

A Preliminary Stormwater Management Plan was created as part of this project to determine stormwater management requirements. The Plan describes storm water management features and facilities needed to meet or exceed requirements based on preliminary roadway design improvements within and around the corridors. Project partners should consult The Plan whenever stormwater design begins for individual roadway projects. The Plan offers the following:



The TH 41/CSAH 61 Preliminary Stormwater Management Plan is located in **Appendix F**.

## IV. IMPLEMENTATION

**Table 1** on the following page documents the improvement recommendations for Downtown Chaska and each of the corridor subareas. Project partners put recommendations into implementation timeframes based on project need, available funding, input from corridor stakeholders, the public, and elected officials. The implementation plan describes individual projects, potential funding sources, lead agency, project costs (construction and right-of-way), and the anticipated timeframes for completion. **Figures 44 and 45** illustrate the project location and implementation timeframes. **Figure 46** provides a summary of timeframes for the improvement recommendations.

Short-term improvements include the years 2018 and 2020 and focus on completing supporting projects in Downtown Chaska prior to TH 41 and CSAH 61 reconstruction. These projects include Dolce Vita site improvements, Brickyard Commercial area improvements, and construction of off-street parking lots. Short-term projects also include completing a corridor study of CSAH 10 from CSAH 43 to CSAH 61. In total, short-term projects total approximately \$4 million.

The largest number of projects occur in the mid- and long-term between the years of 2022 and 2030. This aligns with the agency partners desire to seek multiple funding sources, including federal funding, for the reconstruction of TH 41. It also aligns well with turnback funding availability for CSAH 61 projects. There are approximately ten projects planned in the mid- and long-term that make up the majority of reconstruction on TH 41 and CSAH 61 in Downtown Chaska and the corridor subareas. Mid-term projects are planned between 2022 and 2025 and total approximately \$40 million. Long-term projects are planned between 2027 and 2030 and total approximately \$35 million.

The opportunity/development driven timeframe is comprised of the remaining projects. Project partners will implement these projects over time as development occurs and other opportunities such as funding is identified. For that reason, a specific timeframe and in some cases an estimated cost have not yet been identified for some of these projects.

Each of the timeframes identified in the implementation plan are approximate and will largely be dependent upon available funding. However, this plan gives Carver County, the Cities, and MnDOT a guide to focus efforts to secure funding and construct projects in a logical manner.

## V. SUPPORT FOR PROJECT RECOMMENDATIONS

Project partners evidenced their support for project recommendations through resolutions of support and MnDOT approval of the TH 41 Level 1 Staff Approved Layout on February 1, 2018. Resolutions of support from Carver County and the Cities of Chaska, Carver, and Chanhassen are included in **Appendix H**.

## VI. NEXT STEPS

Additional design, studies, and public input will be needed for each of the recommended improvements to move forward. The concepts developed as part of this study are high-level and will need additional refinement through preliminary and final design. Environmental review and permitting will also be required with exact requirements based on the scope of the project and the funding source.

The improvement options identified and prioritized in this project helped obtain a shared vision among project partners, stakeholders, and the general public. Study partners must continue to work together to further plan, obtain funding, design, and implement the recommended improvement projects. All partners have an active role in implementing these improvements. All competitive funding sources should be considered. Agencies should also update their comprehensive and transportation plans to include these findings to better leverage funding sources.





Highway 41/CSAH 61 Improvements Project

Table 1 - Implementation Plan

January 2018



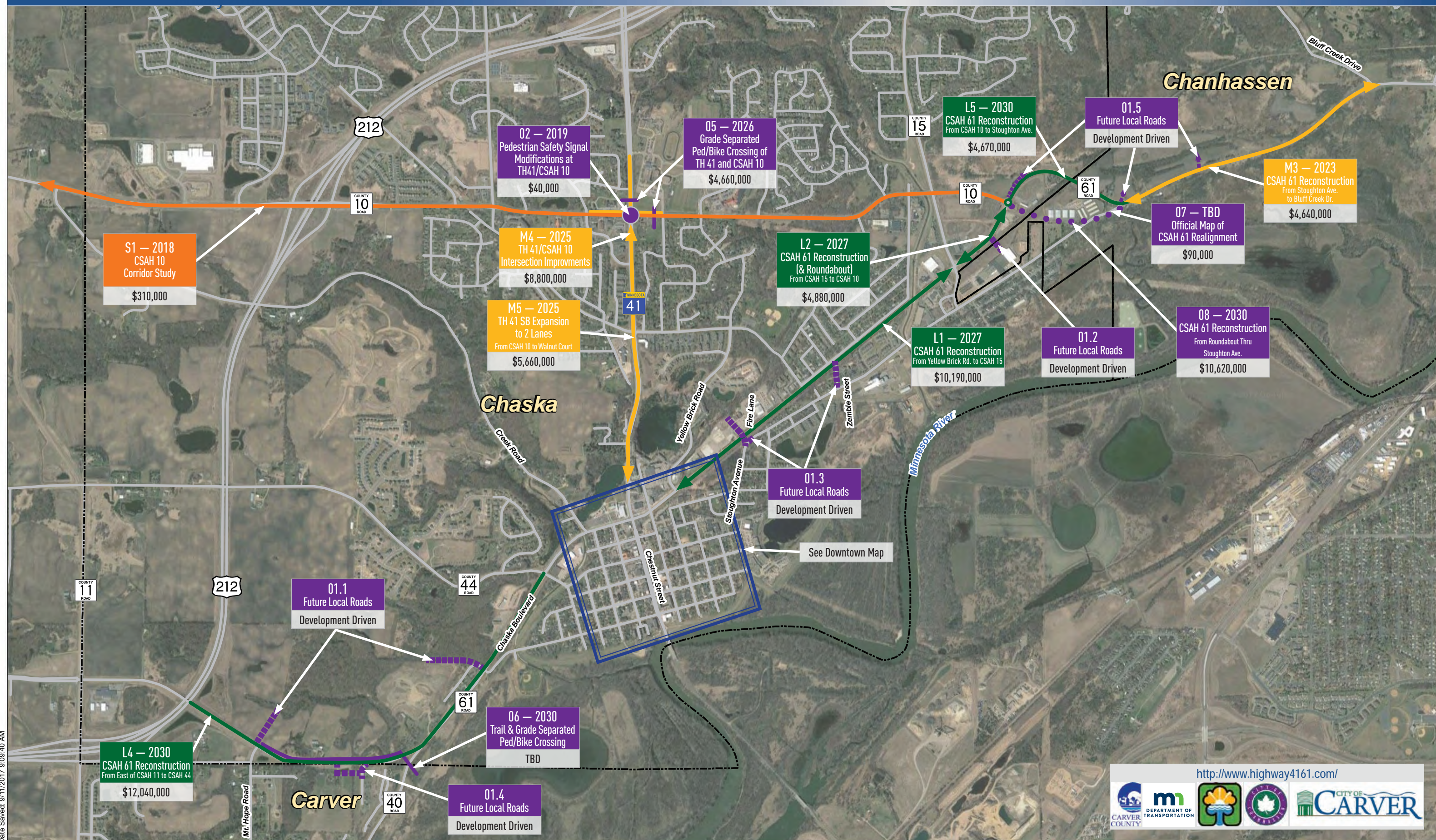
Priority	Project Number	Sub-Area	Project Description	Potential Funding	Lead Agency	Cost													Comments	
						Construction			Project Development and Delivery			ROW T			otal (2017 Dollars)			Year		Total Expected Cost (with 3% inflation)
						Low (5th %)	Expected (85th %)	High (95th %)	Low	Expected	High	Low Estimate (1.25x EMV)	Expected	High Estimate (3.0x EMV)	Low Estimate	Expected Estimate	High Estimate			
Short-Term (2018-2020)	S1	TH 41 North	CSAH 10 Corridor Study (CSAH 43 to CSAH 61)	CO, Local	County	\$0	\$0	\$0	\$270,000	\$300,000	\$330,000	\$0	\$0	\$0	\$270,000	\$300,000	\$330,000	2018	\$310,000	
	S2	Downtown	Dolce Vita Site Modifications	TH, TBACK	County	\$80,000	\$120,000	\$130,000	\$20,000	\$40,000	\$50,000	\$40,000	\$90,000	\$130,000	\$140,000	\$250,000	\$310,000	2019	\$270,000	Includes moving sign and constructing new driveway to Walnut Street
	S3	Downtown	Brickyard Commercial Area Improvements	TEDI, Local	Chaska	\$380,000	\$560,000	\$600,000	\$90,000	\$130,000	\$170,000	\$110,000	\$190,000	\$270,000	\$580,000	\$880,000	\$1,040,000	2019	\$930,000	Local road connections between Walnut Street and Yellow Brick Road  Chaser's site connection
	S4	Downtown	South Parking Lot Construction (Phase I - lower level of structure between 2nd and 3rd Streets)	TH, Local	Chaska	\$340,000	\$380,000	\$420,000	\$70,000	\$100,000	\$130,000	\$0	\$0	\$0	\$410,000	\$480,000	\$550,000	2020	\$520,000	
	S5	Downtown	208-210 Chestnut Sidewalk Breakthrough & Rear of Building Modifications	Local, PRIV	Chaska	\$500,000	\$560,000	\$620,000	\$30,000	\$50,000	\$70,000	\$0	\$0	\$0	\$530,000	\$610,000	\$690,000	2020	\$670,000	ROW cost included in construction estimate
	S6	Downtown	North Parking Lot Construction (Moravian Church Area)	TH, Local	Chaska	\$420,000	\$470,000	\$520,000	\$80,000	\$90,000	\$100,000	\$400,000	\$400,000	\$400,000	\$900,000	\$960,000	\$1,020,000	2020	\$1,050,000	
	Subtotal					\$1,720,000	\$2,090,000	\$2,290,000	\$560,000	\$710,000	\$850,000	\$550,000	\$680,000	\$800,000	\$2,830,000	\$3,480,000	\$3,940,000		\$3,750,000	
Mid-Term (2021 - 2025)	M1	Downtown	TH 41 Reconstruction From Minnesota River Bridge to Walnut Street	STP, MHFP, COC, TED, LRIP, MA, TIGER, TH, TE, CO, WR, Local	Chaska	\$8,760,000	\$11,160,000	\$11,720,000	\$1,620,000	\$2,280,000	\$2,980,000	\$110,000	\$180,000	\$260,000	\$10,490,000	\$13,620,000	\$14,960,000	2022	\$15,790,000	Includes city utilities, lane modifications, on-street parking removal, streetscape/landscape enhancements, TH 41 HAWK, stormwater management and TH 41 underpass. May shift to 2024(25) if 41/10 project not ready or funded.
	M2	Downtown	CSAH 61 Reconstruction From TH 41 to Yellow Brick Road	STP, TBACK, CO, WR, Local	County	\$2,350,000	\$2,930,000	\$3,070,000	\$420,000	\$590,000	\$770,000	\$10,000	\$10,000	\$10,000	\$2,780,000	\$3,530,000	\$3,850,000	2022	\$4,090,000	Includes roadway, access modifications, landscape/streetscape, stormwater management, East Chaska Creek bridge replacement with box culvert. May shift to 2024(25) if 41/10 project not ready or funded.
	M3	Eastern	CSAH 61 Reconstruction From Stoughton Ave to Bluff Creek Drive	STP, TBACK, CO, WR, Local	County	\$2,000,000	\$3,060,000	\$3,330,000	\$410,000	\$670,000	\$890,000	\$100,000	\$160,000	\$220,000	\$2,510,000	\$3,890,000	\$4,440,000	2023	\$4,640,000	Includes roadway, access modifications, Bluff Creek roundabout modification Does not include City Utilities
	M4	TH 41 North	TH 41/CSAH 10 Intersection Improvements	COC, MA, MHFP, STP, TIGER, TH, CO, HSIP, WR, Local	County	\$3,810,000	\$5,690,000	\$6,150,000	\$730,000	\$1,180,000	\$1,590,000	\$50,000	\$80,000	\$110,000	\$4,590,000	\$6,950,000	\$7,850,000	2025	\$8,800,000	Includes lane additions, medians, stormwater management. Does not include City Utilities. CSAH 10 reconstruction extends from White Oak Dr to Park Ridge Dr; Roundabout at Park Ridge Dr included in Most Likely and High Cost.
	M5	TH 41 North	TH 41 SB Expansion to 2 Lanes From CSAH 10 to Walnut Court	COC, MA, MHFP, STP, TIGER, TH, CO, WR, Local	MnDOT	\$2,210,000	\$3,040,000	\$3,240,000	\$520,000	\$1,000,000	\$1,400,000	\$230,000	\$430,000	\$640,000	\$2,960,000	\$4,470,000	\$5,280,000	2025	\$5,660,000	Restripe TH 41 southbound from CSAH 10 to Walnut Court to include two thru lanes. Add southbound TH 41 right turns lanes at public intersections. Potential Noise Wall (Scoping Report 1008-77) Noise Wall High Cost Estimated at \$2.4 Mill. Does not include City Utilities.
	Subtotal					\$19,130,000	\$25,880,000	\$27,510,000	\$3,700,000	\$5,720,000	\$7,630,000	\$500,000	\$860,000	\$1,240,000	\$23,330,000	\$32,460,000	\$36,380,000		\$38,980,000	
Long-Term (2026 - 2030)	L1	Chaska East	CSAH 61 Reconstruction From Yellow Brick Road to CSAH 15	STP, TBACK, CO, WR, Local	County	\$4,780,000	\$6,140,000	\$6,460,000	\$900,000	\$1,270,000	\$1,660,000	\$100,000	\$170,000	\$240,000	\$5,780,000	\$7,580,000	\$8,360,000	2027	\$10,190,000	Includes roadway, trail, sidewalk, access modifications, stormwater management Does not include City Utilities
	L2	Eastern	CSAH 61 Reconstruction (and roundabout) From CSAH 15 to CSAH 10	STP, TBACK, CO, HSIP, WR, Local	County	\$1,970,000	\$2,880,000	\$3,100,000	\$370,000	\$590,000	\$790,000	\$100,000	\$160,000	\$230,000	\$2,440,000	\$3,630,000	\$4,120,000	2027	\$4,880,000	Includes roadway, CSAH 10/CSAH 61 roundabout- 3 legs, trail reconnection Does not include City Utilities
	L3	Downtown Chaska East	Trail on former RR From Walnut Street to the existing Southwest LRT Regional Trail	TE, Local	Chaska	\$520,000	\$700,000	\$740,000	\$110,000	\$220,000	\$300,000	\$10,000	\$20,000	\$30,000	\$640,000	\$940,000	\$1,070,000	2027	\$1,260,000	Includes Pedestrian Bridge and Removal of Railroad Bridge
	L4	Western	CSAH 61 Reconstruction From east of CSAH 11 to CSAH 44	TBACK, CO	County	\$4,590,000	\$6,740,000	\$7,270,000	\$840,000	\$1,370,000	\$1,840,000	\$60,000	\$90,000	\$120,000	\$5,490,000	\$8,200,000	\$9,230,000	2030	\$12,040,000	Roadway, access modifications, trail, stormwater management. Includes \$1.5 Mil Pedestrian Bridge over 212 - in high cost scenario, No inflation. Does not include City Utilities
	L5	Eastern	CSAH 61 Reconstruction From CSAH 10 to Stoughton Ave	STP, TBACK, CO, WR, Local	County	\$1,670,000	\$2,520,000	\$2,730,000	\$340,000	\$550,000	\$740,000	\$70,000	\$110,000	\$150,000	\$2,080,000	\$3,180,000	\$3,620,000	2030	\$4,670,000	Project on existing alignment or do O8. Revisit approach for this segment with Projects M3 and L2.
	Subtotal					\$13,530,000	\$18,980,000	\$20,300,000	\$2,560,000	\$4,000,000	\$5,330,000	\$340,000	\$550,000	\$770,000	\$16,430,000	\$23,530,000	\$26,400,000		\$33,040,000	
Total 12 Year Investment					\$34,380,000	\$46,950,000	\$50,100,000	\$6,820,000	\$10,430,000	\$13,810,000	\$1,390,000	\$2,090,000	\$2,810,000	\$42,590,000	\$59,470,000	\$66,720,000		\$75,770,000		
Opportunity / Development Driven	O1.1	Western	Local Roads - City of Chaska	Local, PRIV	Chaska													-	-	Mt Hope Rd Connection (North of CSAH 61) - Chaska, CSAH 40 Frontage Rd Connection (South of CSAH 61) - Chaska/Carver, Edgehill Rd Connection (North of CSAH 61) - Chaska, W. 1st Street Frontage Road Connection - Chaska
	O1.2	Eastern	Local Roads - City of Chaska	Local, PRIV	Chaska													-	-	Chaska Development Connection
	O1.3	Chaska East	Local Roads - City of Chaska	Local, PRIV	Chaska													-	-	Fire Lane/Stoughton Ave Connections Zemble St Connection
	O1.4	Western	Local Roads - City of Carver	Local, PRIV	Carver													-	-	Lano Ln Connection (South of CSAH 61) - Carver in coordination with Chaska
	O1.5	Eastern	Local Roads - City of Chanhassen	Local, PRIV	Chan.													-	-	Chanhassen Development West Connection Chanhassen Development East Connection
	O2	TH 41 North	Pedestrian Safety Signal Modifications at TH 41/CSAH 10 (No Rights On Red)	TH, HSIP	MnDOT	\$30,000	\$30,000	\$30,000	\$10,000	\$10,000	\$10,000	\$0	\$0	\$0	\$40,000	\$40,000	\$40,000	2019	\$40,000	
	O3	Downtown	Parking Lot Construction (Phase 2 - upper level of structure between 2nd and 3rd Streets)	Local, PRIV	Chaska	\$590,000	\$650,000	\$720,000	\$120,000	\$160,000	\$220,000	\$0	\$0	\$0	\$710,000	\$810,000	\$940,000	2022	\$940,000	ROW cost included in construction estimate
	O4	Downtown	Trail On former RR from Pine Street to West Chaska Creek	Local, TE	Chaska													2024	-	
	O5	TH 41 North	Grade separated ped/bike crossings of TH 41 and CSAH 10	SRTS, TE, Local	Chaska	\$1,700,000	\$2,770,000	\$3,030,000	\$320,000	\$570,000	\$770,000	\$140,000	\$230,000	\$330,000	\$2,160,000	\$3,570,000	\$4,130,000	2026	\$4,660,000	If City gets funded combine with TH 41 North Improvements (L1 and L2). Additional study required, possibly with CSAH 10 Corridor Study (S3).
	O6	Western	Pedestrian trail (Mt. Hope to CSAH 40) and Grade separated ped/bike crossing of CSAH 61 near CSAH 40	Local, TE	Chaska													2030	-	
O7	Eastern	Official Map of CSAH 61 Realignment	CO, TBACK	County	\$0	\$0	\$0	\$50,000	\$60,000	\$70,000	\$0	\$0	\$0	\$50,000	\$60,000	\$70,000	TBD	#N/A	From proposed CSAH 10/CSAH 61 roundabout thru Stoughton Avenue. Revisit approach for this segment with Projects M3 and L2.	
O8	Eastern	CSAH 61 Reconstruction From new CSAH 10/CSAH 61 roundabout thru Stoughton Ave	STP, TBACK, CO, HSIP, WR, Local, PRIV	Chan.	\$1,700,000	\$2,570,000	\$2,790,000	\$800,000	\$1,060,000	\$1,300,000	\$1,570,000	\$3,600,000	\$5,630,000	\$4,070,000	\$7,230,000	\$9,720,000	2030	\$10,620,000	Includes 4th leg of roundabout at CSAH 10/CSAH 61, roadway, access modifications, trail. Residual Land Value is included. Finalize plan in CSAH 10 study	

FUNDING KEY

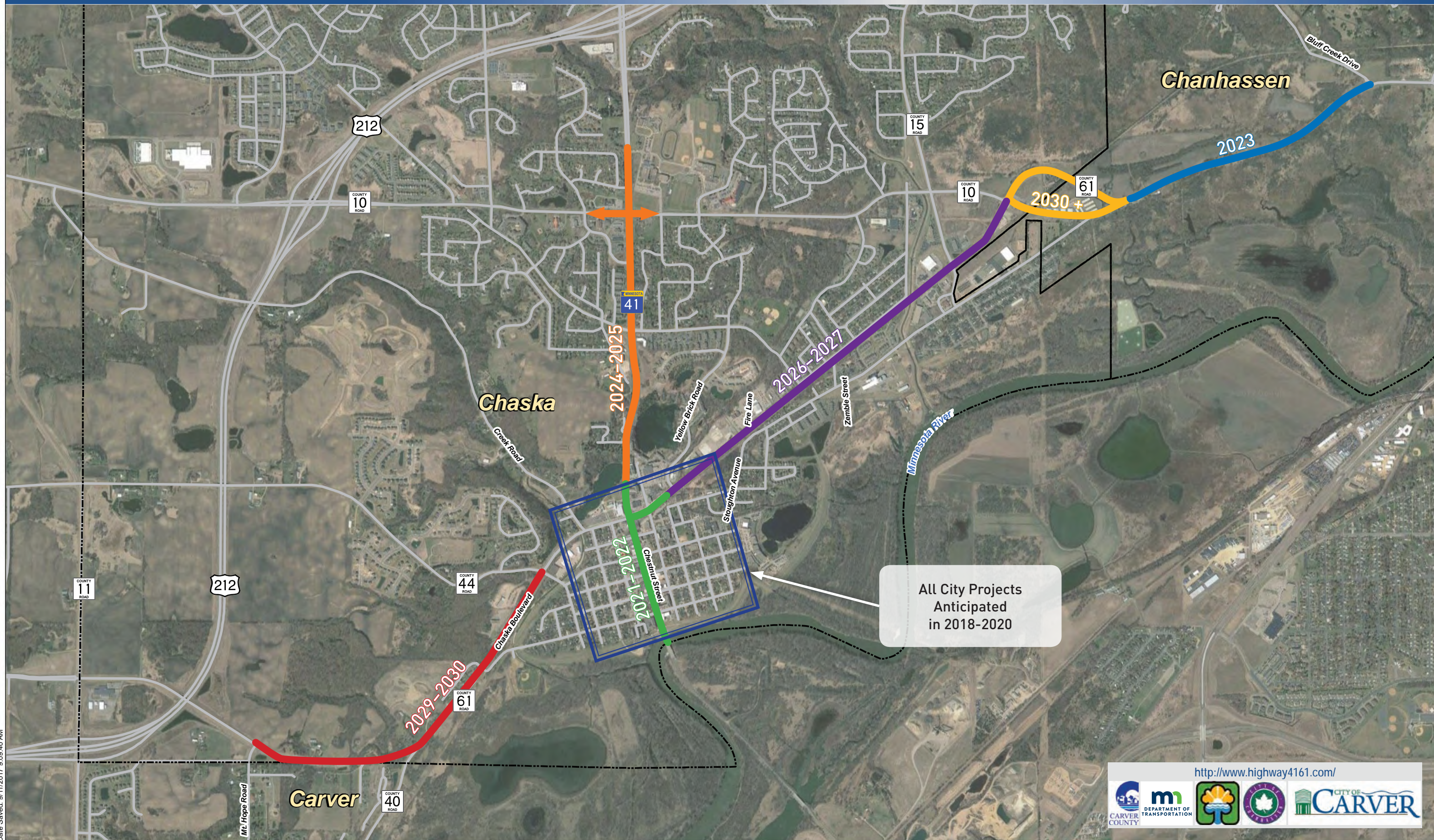
COC CO HSIP LOCAL LRIP	Corridors of Commerce Funds (State) County State Aid Highway, County Sales Tax, Wheelage, or Other County Funds Highway Safety Improvement Program Funds (Federal) City Funding MSAS Local Road Improvement Program Funds (State)	MA MHFP PRIV SRTS STP	Municipal / Cooperative Agreement Funds (State) Minnesota Highway Freight Program Funds (State) Private Funding / Development (Private) Safe Routes to School Surface Transportation Program Funds (Federal)	TE TED/I TH TIGER TRLF	Transportation Enhancement Funds (Federal) Transportation Economic Development (State) Trunk Highway Funds (State) Transp. Invest. Generating Economic Recovery (Federal) Transportation Revolving Loan Fund (Federal)	TBACK WR	Turnback Funds (State) Lower Minnesota and/or CCWMO
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Figure 44





**Figure 46**



## Appendix A: Meeting Summaries

## Appendix B: Traffic Conditions Memorandums

## Appendix C: Findings of Fact

## Appendix D: Goals, Objectives and Performance Measures

## Appendix E: Concept Evaluation

## Appendix F: Preliminary Stormwater Management Plan

## Appendix G: Implementation Plan

## Appendix H: Resolutions of Support