Application

19842 - 2024 Multiuse Trails and Bicycle Facilities
20513 - Mississippi Street/CSAH 6 Trail Construction Project
Regional Solicitation - Bicycle and Pedestrian Facilities

Status: Submitted
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Primary Contact

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What Grant Programs are you most interested in? Regional Solicitation - Bicycle and Pedestrian Facilities

Organization Information

Name: FRIDLEY, CITY OF
Jurisdictional Agency (if different):
Organization Type: City
Organization Website:
Address: 7071 UNIVERSITY AVE NE

* City: FRIDLEY | State/Province: Minnesota | Postal Code/Zip: 55432-4383

County: Anoka
Phone:* 763-571-3450 Ext.
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PeopleSoft Vendor Number 0000020945A1

Project Information

Project Name Mississippi Street/CSAH 6 Trail Construction Project
Primary County where the Project is Located Anoka
Cities or Townships where the Project is Located: City of Fridley
Jurisdictional Agency (If Different than the Applicant): Anoka County

Brief Project Description (Include location, road name/functional class, type of improvement, etc.)

The Mississippi Street / CSAH 6 Trail Improvement Project will construct an 8-ft trail along CSAH 6 from University Avenue NE to Stinson Blvd NE in Fridley, MN. CSAH 6 (Mississippi Street) is an Anoka County roadway that runs east-west within the City of Fridley. Today, inadequate sidewalks line CSAH 6 and no bicycle facilities are present. The corridor, running from TH 47 (University Ave NE) to Stinson Boulevard includes low and high density residential, commercial, retail, institutional, and industrial land uses. It is the site of Hayes Elementary School, an Anoka County Library, low-income housing, shops, daycares, greenspace and places of worship. The 1.75-mile project area has a 35 mile per hour posted speed limit and includes nearly 100 access points to local streets and private driveways. The proposed changes are an improvement from the narrow, and sometimes absent, adjacent sidewalks that are currently on the corridor.

CSAH 6 is an automobile focused (~6,000 ADT) undivided four-lane roadway that is incompatible with its surrounding land uses. There are no bicycle facilities and sidewalks are directly adjacent to the roadway. Crossings are unsafe and average vehicle speed is well above the posted limit. This project aims to solve these problems by constructing new pedestrian and bicycle facilities to connect a Tier 1 Regional Bicycle Trail Network Alignment and eliminate a Tier 2 Regional Bicycle Barrier (expressway barrier).

The multi-use path and expanded sidewalk will safely integrate bicyclists with Mississippi Street, as bicyclists along the corridor today either use the sidewalks or are forced to ride in traffic. The path will remove bicycle riders from dangerous conditions and put them into a dedicated area, separated from vehicles. Pedestrians are also able to use the multi-use path or will be able to travel along the 5-ft sidewalk on the north side of the street. From there, connections to other regional trails and bus stops can be made on either side of the corridor. Bicyclists and pedestrians will be able to connect to the Mississippi River Regional Trail along the west end of the corridor which is a regional North/South connector.

(Limit 2,800 characters; approximately 400 words)

TRANSPORTATION IMPROVEMENT PROGRAM (TIP) DESCRIPTION - will be used in TIP if the project is selected for funding. See MnDOT's TIP description guidance.

Along Mississippi Street / CSAH 6, from University Avenue NE to Stinson Avenue, 1.75 Miles, Pedestrian and Bicyclist Trail

Include both the CSAH/MSAS/TH references and their corresponding street names in the TIP Description (see Resources link on Regional Solicitation webpage for examples).

Project Length (Miles)

1.8

to the nearest one-tenth of a mile

Project Funding

Are you applying for competitive funds from another source(s) to implement this project?

Yes

If yes, please identify the source(s)

HSIP

Federal Amount

$5,500,000.00

Match Amount

$1,790,950.00

Minimum of 20% of project total

Project Total

$7,290,950.00

For transit projects, the total cost for the application is total cost minus fare revenues.

Match Percentage

24.56%

Minimum of 20%
Compute the match percentage by dividing the match amount by the project total

Source of Match Funds

City of Fridley's Capital Investment Program

A minimum of 20% of the total project cost must come from non-federal sources; additional match funds over the 20% minimum can come from other federal sources

Preferred Program Year

Select one:

2028, 2029

Select 2026 or 2027 for TDM and Unique projects only. For all other applications, select 2028 or 2029.

Additional Program Years:

2025, 2026, 2027

Select all years that are feasible if funding in an earlier year becomes available.

Project Information

If your project has already been assigned a State Aid Project # (SAP or SP)	
Please indicate here SAP/SP#.	
Location	
County, City, or Lead Agency	City of Fridley
Name of Trail/Ped Facility:	Mississippi Street Trail
(example; CEDAR LAKE TRAIL)	
IF TRAIL/PED FACILITY IS ADJACENT TO ROADWAY:	
Road System	CSAH
(TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET)	
Road/Route No.	6
(Example: 53 for CSAH 53)	
Name of Road	Mississippi Street
(Example: 1st ST., Main Ave.)	
TERMINI: Termini listed must be within 0.3 miles of any work	
From: **Road System**	TH
(TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET)	
Road/Route No.	47
(Example: 53 for CSAH 53)	
Name of Road	University Avenue NE
(Example: 1st ST., Main Ave.)	
To: **Road System**	City Street
DO NOT INCLUDE LEGAL DESCRIPTION; INCLUDE NAME OF ROADWAY IF MAJORITY OF FACILITY RUNS ADJACENT TO A SINGLE CORRIDOR	
Road/Route No.	N/A
(Example: 53 for CSAH 53)	
Name of Road	Stinson Boulevard
(Example: 1st ST., Main Ave.)	
In the City/Cities of:	Fridley
(List all cities within project limits)	
IF TRAIL/PED FACILITY IS NOT ADJACENT TO ROADWAY: **Termini: Termini listed must be within 0.3 miles of any work**	
From:	
To:	
Or	
At:	
In the City/Cities of:	
(List all cities within project limits)	
Primary Types of Work (Check all that apply)	
Multi-Use Trail	Yes
Reconstruct Trail	
Resurface Trail	
Bituminous Pavement	
Concrete Walk	
Pedestrian Bridge	
Signal Revision	
Landscaping	
Other (do not include incidental items)	
BRIDGE/CULVERT PROJECTS (IF APPLICABLE)	
Old Bridge/Culvert No.:	
New Bridge/Culvert No.:	
Structure is Over/Under (Bridge or culvert name):	
Zip Code where Majority of Work is Being Performed	55432
Approximate Begin Construction Date (MO/YR)	05/01/2025
Approximate End Construction Date (MO/YR)	05/31/2026
Miles of Pedestrian Facility/Trail (nearest 0.1 miles):	1.8

Miles of trail on the Regional Bicycle Transportation Network (nearest 0.1 miles): 1.8

Is this a new trail? Yes

Requirements - All Projects

All Projects

1. The project must be consistent with the goals and policies in these adopted regional plans: Thrive MSP 2040 (2014), the 2040 Transportation Policy Plan (2018), the 2040 Regional Parks Policy Plan (2018), and the 2040 Water Resources Policy Plan (2015).

Check the box to indicate that the project meets this requirement. Yes

2. The project must be consistent with the 2040 Transportation Policy Plan. Reference the 2040 Transportation Plan goals, objectives, and strategies that relate to the project.

Briefly list the goals, objectives, strategies, and associated pages:

Objective A: Reduce fatal and serious injury crashes and improve safety and security for all modes of passenger travel and freight transport (Page 44)

Goal: Access to Destination (Page 46)

Objective D: Increase the number and share of trips taken using transit, carpools, bicycling, and walking (Page 46)

Objective E: Improve the availability and quality of multimodal travel options for people of all ages and abilities to connect to jobs and other opportunities, particularly for historically underrepresented populations (Page 46)

Goal: Healthy and Equitable Communities (Page 50)

Objective A: Reduce transportation-related air emissions (Page 50)

Objective C: Increase the availability and attractiveness of transit, bicycling, and walking to encourage healthy communities through the use of active transportation options (Page 50)

Objective D: Provide a transportation system that promotes community cohesion and connectivity for people of all ages and abilities, particularly for historically under-represented populations (Page 50)

(Limit 2,800 characters; approximately 400 words)

3. The project or the transportation problem/need that the project addresses must be in a local planning or programming document. Reference the name of the appropriate comprehensive plan, regional/statewide plan, capital improvement program, corridor study document [studies on trunk highway must be approved by the Minnesota Department of Transportation and the Metropolitan Council], or other official plan or program of the applicant agency [includes Safe Routes to School Plans] that the project is included in and/or a transportation problem/need that the project addresses.

List the applicable documents and pages: Unique projects are exempt from this qualifying requirement because of their innovative nature.

City of Fridley 2040 Comprehensive Plan - 3.10 Future Improvements Needs (Page 106)

City of Fridley 2040 Comprehensive Plan - Table 11.1 Action Steps and Time (Page 210)

City of Fridley Active Transportation Plan - Plan Purpose (Page 5); Plan Focus Routes (Page 47)

CSAH 6 (Mississippi Street) Study Report

Hayes Elementary School Safe Routes to School Plan

Anoka County Capital Improvement Plan 2023-2027 Road and Bridge Five-Year Planned Projects - CSAH 6 Reconstruction from TH 47 to TH 65

(Limit 2,800 characters; approximately 400 words)

4. The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of transit stations/stops, transit terminals, park-and-ride facilities, or pool-and-ride lots. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding as a standalone project, but can be included as part of the larger submitted project, which is otherwise eligible. Unique project costs are limited to those that are federally eligible.

Check the box to indicate that the project meets this requirement. Yes

5. Applicant is a public agency (e.g., county, city, tribal government, transit provider, etc.) or non-profit organization (TDM and Unique Projects applicants only). Applicants that are not State Aid cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.

Check the box to indicate that the project meets this requirement. Yes

6. Applicants must not submit an application for the same project in more than one funding sub-category.

Check the box to indicate that the project meets this requirement. Yes

7. The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below in Table 1. For unique projects, the minimum award is $500,000 and the maximum award is the total amount available each funding cycle (approximately $4,000,000 for the 2024 funding cycle).

Multiuse Trails and Bicycle Facilities: *$250,000 to $5,500,000*
Pedestrian Facilities (Sidewalks, Streetscaping, and ADA): *$250,000 to $2,000,000*
Safe Routes to School: *$250,000 to $1,000,000*

Check the box to indicate that the project meets this requirement. Yes

8. The project must comply with the Americans with Disabilities Act (ADA).

Check the box to indicate that the project meets this requirement. Yes

9. In order for a selected project to be included in the Transportation Improvement Program (TIP) and approved by USDOT, the public agency sponsor must either have a current Americans with Disabilities Act (ADA) self-evaluation or transition plan that covers the public right of way/transportation, as required under Title II of the ADA. The plan must be completed by the local agency before the Regional Solicitation application deadline. For future Regional Solicitation funding cycles, this requirement may include that the plan has undergone a recent update, e.g., within five years prior to application.

The applicant is a public agency that employs 50 or more people and has a completed ADA transition plan that covers the public right of way/transportation. Yes

Date plan completed: 03/01/2018

Link to plan: http://anokacountyada.com/wp-content/uploads/2018/05/ACHD-Transition-Plan2018.pdf

The applicant is a public agency that employs fewer than 50 people and has a completed ADA self-evaluation that covers the public right of way/transportation.

Date self-evaluation completed:

Link to plan:

Upload plan or self-evaluation if there is no link

Upload as PDF

10. The project must be accessible and open to the general public.

Check the box to indicate that the project meets this requirement. Yes

11. The owner/operator of the facility must operate and maintain the project year-round for the useful life of the improvement. This includes assurance of year-round use of bicycle, pedestrian, and transit facilities, per FHWA direction established 8/27/2008 and updated 4/15/2019. Unique projects are exempt from this qualifying requirement.

Check the box to indicate that the project meets this requirement. Yes

12. The project must represent a permanent improvement with independent utility. The term ?independent utility? means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match.

Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

Check the box to indicate that the project meets this requirement. Yes

13. The project must not be a temporary construction project. A temporary construction project is defined as work that must be replaced within five years and is ineligible for funding. The project must also not be staged construction where the project will be replaced as part of future stages. Staged construction is eligible for funding as long as future stages build on, rather than replace, previous work.

Check the box to indicate that the project meets this requirement. Yes

14. The project applicant must send written notification regarding the proposed project to all affected state and local units of government prior to submitting the application.

Check the box to indicate that the project meets this requirement. Yes

Requirements - Bicycle and Pedestrian Facilities Projects

1. All projects must relate to surface transportation. As an example, for multiuse trail and bicycle facilities, surface transportation is defined as primarily serving a commuting purpose and/or that connect two destination points. A facility may serve both a transportation purpose and a recreational purpose; a facility that connects people to recreational destinations may be considered to have a transportation purpose.

Check the box to indicate that the project meets this requirement. Yes

Multiuse Trails on Active Railroad Right-of-Way:

2. All multiuse trail projects that are located within right-of-way occupied by an active railroad must attach an agreement with the railroad that this right-of-way will be used for trail purposes.

Check the box to indicate that the project meets this requirement.

Upload Agreement PDF

Check the box to indicate that the project is not in active railroad right-of-way. Yes

Multiuse Trails and Bicycle Facilities projects only:

3. All applications must include a letter from the operator of the facility confirming that they will remove snow and ice for year-round bicycle and pedestrian use. The Minnesota Pollution Control Agency has a resource for best practices when using salt. Upload PDF of Agreement in Other Attachments.

Check the box to indicate that the project meets this requirement. Yes

Upload PDF of Agreement in Other Attachments.

Safe Routes to School projects only:

4. All projects must be located within a two-mile radius of the associated primary, middle, or high school site.

Check the box to indicate that the project meets this requirement.

5. All schools benefitting from the SRTS program must conduct after-implementation surveys. These include the student travel tally form and the parent survey available on the National Center for SRTS website. The school(s) must submit the after-evaluation data to the National Center for SRTS within a year of the project completion date. Additional guidance regarding evaluation can be found at the MnDOT SRTS website.

Check the box to indicate that the applicant understands this requirement and will submit data to the National Center for SRTS within one year of project completion.

Requirements - Bicycle and Pedestrian Facilities Projects

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	$301,200.00
Removals (approx. 5% of total cost)	$800,600.00
Roadway (grading, borrow, etc.)	$562,600.00
Roadway (aggregates and paving)	$3,021,900.00
Subgrade Correction (muck)	$0.00
Storm Sewer	$1,000,000.00
Ponds	$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	$499,200.00
Traffic Control	$301,200.00
Striping	$0.00
Signing	$90,550.00
Lighting	$0.00
Turf - Erosion & Landscaping	$452,100.00
Bridge	$0.00
Retaining Walls	$0.00
Noise Wall (not calculated in cost effectiveness measure)	$0.00
Traffic Signals	$0.00
Wetland Mitigation	$0.00
Other Natural and Cultural Resource Protection	$0.00
RR Crossing	$0.00
Roadway Contingencies	$0.00
Other Roadway Elements	$0.00
Totals	**$7,029,350.00**

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	$164,100.00
Sidewalk Construction	$72,600.00
On-Street Bicycle Facility Construction	$0.00
Right-of-Way	$0.00
Pedestrian Curb Ramps (ADA)	$24,900.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	$0.00
Pedestrian-scale Lighting	$0.00
Streetscaping	$0.00
Wayfinding	$0.00
Bicycle and Pedestrian Contingencies	$0.00
Other Bicycle and Pedestrian Elements	$0.00
Totals	**$261,600.00**

Specific Transit and TDM Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Fixed Guideway Elements	$0.00
Stations, Stops, and Terminals	$0.00
Support Facilities	$0.00
Transit Systems (e.g. communications, signals, controls, fare collection, etc.)	$0.00
Vehicles	$0.00
Contingencies	$0.00
Right-of-Way	$0.00
Other Transit and TDM Elements	$0.00
Totals	**$0.00**

Transit Operating Costs

Number of Platform hours	0
Cost Per Platform hour (full loaded Cost)	$0.00
Subtotal	$0.00
Other Costs - Administration, Overhead,etc.	$0.00

PROTECT Funds Eligibility

One of the new federal funding sources is Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT). Please describe which specific elements of your project and associated costs out of the Total TAB-Eligible Costs are eligible to receive PROTECT funds. Examples of potential eligible items may include: storm sewer, ponding, erosion control/landscaping, retaining walls, new bridges over floodplains, and road realignments out of floodplains.

INFORMATION: Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Formula Program Implementation Guidance (dot.gov).

Response:

The CSAH 6 Trail Construction Project will construct a new sidewalk and multi-use path along Mississippi Street (CSAH 6) from University Ave NE to Stinson Boulevard. With the construction of the project, new storm sewer and landscaping will be implemented. These items combined will cost $1,452,100 and greatly aid in storm water management and erosion control along the corridor.

Totals

Total Cost	$7,290,950.00
Construction Cost Total	$7,290,950.00
Transit Operating Cost Total	$0.00

Measure A: Project Location Relative to the RBTN

Select one:	
Tier 1, Priority RBTN Corridor	Yes
Tier 1, RBTN Alignment	
Tier 2, RBTN Corridor	
Tier 2, RBTN Alignment	
Direct connection to an RBTN Tier 1 corridor or alignment	
Direct connection to an RBTN Tier 2 corridor or alignment	
OR	
Project is not located on or directly connected to the RBTN but is part of a local system and identified within an adopted county, city or regional parks implementing agency plan.	
Upload Map	1702660160308_108_RBTN Orientation Map.pdf

Please upload attachment in PDF form

Measure A: Population Summary

Existing Population Within One Mile (Integer Only)	32936
Existing Employment Within One Mile (Integer Only)	17681
Upload the "Population Summary" map	1702589396288_106_Population and Employment Summary Map.pdf

Please upload attachment in PDF form

Measure A: Engagement

i. Describe any Black, Indigenous, and People of Color populations, low-income populations, disabled populations, youth, or older adults within a ½ mile of the proposed project. Describe how these populations relate to regional context. Location of affordable housing will be addressed in Measure C.

ii. Describe how Black, Indigenous, and People of Color populations, low-income populations, persons with disabilities, youth, older adults, and residents in affordable housing were engaged, whether through community planning efforts, project needs identification, or during the project development process.

iii. Describe the progression of engagement activities in this project. A full response should answer these questions:

1. *What engagement methods and tools were used?*
2. *How did you engage specific communities and populations likely to be directly impacted by the project?*
3. *What techniques did you use to reach populations traditionally not involved in community engagement related to transportation projects?*
4. *How were the project?s purpose and need identified?*
5. *How was the community engaged as the project was developed and designed?*
6. *How did you provide multiple opportunities for of Black, Indigenous, and People of Color populations, low-income populations, persons with disabilities, youth, older adults, and residents in affordable housing to engage at different points of project development?*
7. *How did engagement influence the project plans or recommendations? How did you share back findings with community and re-engage to assess responsiveness of these changes?*
8. *If applicable, how will NEPA or Title VI regulations will guide engagement activities?*

Response:

In 2020, the CSAH 6 (Mississippi Street) Roadway Modification Study was developed in partnership with Anoka County. The study recommends a 5-foot sidewalk on the north side and an 8-foot trail on the south side of CSAH 6 from University Ave NE to Stinson Blvd NE. During the study, the Project Team held two open house meetings to share study information, collect input from the public, and present the recommended improvements. These meetings were advertised via newspaper, social media blasts, online publications, and notifications on the city and county webpages. The Project Team also promoted virtual engagement through My Social Pinpoint, an online platform used to share and receive feedback about City projects.

The census tracts around the study are diverse Regional Environmental Justice Areas. According to the EPA's EJScreen, the corridor is within the 50-60 percentile for both Low Income populations and Populations of Color. Near the intersection with University Ave is Village Green, an affordable housing development that also serves older residents in assisted care facilities. Axle Apartments, nearby, is a 262-unit building that is at the 80% AMI level. In 2024, a 60% AMI, 169-unit building will be constructed, just south of Village Green. The project information flyers, that were distributed before Open Houses, were distributed to Village Green, nearby senior living centers, a plasma donation center and nearby transit stops to specifically engage Low Income and Elderly populations.

In June 2017, a Safe Routes to School Plan was approved for Hayes Elementary, located along the corridor. 35% of parents surveyed do not let their children walk or bike to school because of poor facilities. Nearby is a high concentration of housing which would benefit from updated trail facilities. By expanding the City's non-motorized routes, this project will directly benefit low-income populations that live along the corridor by making their trips to school and work safer. The trail will also connect to regional walking and biking routes that will connect residents to other areas and employment centers.

Through engagement, key feedback was provided that impacted the final design of the project and confirmed the purpose and need. Three key adjustments were made with incorporated feedback: wider multi-use trail for bicyclists and pedestrians, instead of on-street facilities, to increase safety; locating the trail on the south side of CSAH 6 to connect to other trails and corridor amenities; and, incorporating mini roundabouts throughout the corridor to create shorter pedestrian crossings. Engagement from residents emphasized the need for this project.

(Limit 2,800 characters; approximately 400 words):

Measure B: Disadvantaged Communities Benefits and Impacts

Describe the project?s benefits to Black, Indigenous, and People of Color populations, low-income populations, children, people with disabilities, youth, and older adults. Benefits could relate to:

? pedestrian and bicycle safety improvements;
? public health benefits;
? direct access improvements for residents or improved access to destinations such as jobs, school, health care, or other;
? travel time improvements;
? gap closures;
? new transportation services or modal options;
? leveraging of other beneficial projects and investments;
? and/or community connection and cohesion improvements.

This is not an exhaustive list. A full response will support the benefits claimed, identify benefits specific to Disadvantaged communities residing or engaged in activities near the project area, identify benefits addressing a transportation issue affecting Disadvantaged communities specifically identified through engagement, and substantiate benefits with data.

Acknowledge and describe any negative project impacts to Black, Indigenous, and People of Color populations, low-income populations, children, people with disabilities, youth, and older adults. Describe measures to mitigate these impacts. Unidentified or unmitigated negative impacts may result in a reduction in points.

Below is a list of potential negative impacts. This is not an exhaustive list.

? Decreased pedestrian access through sidewalk removal / narrowing, placement of barriers along the walking path, increase in auto-oriented curb cuts, etc.
? Increased speed and/or ?cut-through? traffic.
? Removed or diminished safe bicycle access.
? Inclusion of some other barrier to access to jobs and other destinations.

Response:

The proposed project will have direct, positive effects on those who live along CSAH 6 and travel to Hayes Elementary, the library, and other necessities. The CSAH 6 corridor connects two major roadways and currently has constrained pedestrian infrastructure and no bicycle infrastructure. The proposed corridor design will benefit the Regional Environmental Justice Area the corridor is within as safe alternatives to driving will be provided. The existing pedestrian infrastructure is difficult to maintain in the winter, due to narrowness and location adjacent to existing right-of-way. The existing pedestrian infrastructure does not meet ADA standards west of TH65 due to width and geometry of corner ramps.

This project will connect regional trails and Metro Transit bus stops that will allow residents to reach local and regional destinations, such as job centers in Downtown Minneapolis.

The corridor's current narrow sidewalks and lack of bicycle lanes do not follow the City of Fridley's Active Transportation Plan or Hayes Elementary's Safe Routes to School Plan. With the expanded sidewalks and multiuse trail, residents will have a safer place to walk and bike. Compact roundabouts, that have already secured the necessary funding for construction, will be installed at 7th Street NE and CSAH 35 along the corridor. The roundabout at Monroe St NE will apply for FY 28/29 funding through HSIP. They will shorten the distance for pedestrians and bicyclists crossing and slow vehicular traffic. When combined, these improvements will benefit those living adjacent, and in proximity to the corridor and help the City of Fridley better accommodate Communities of Color, low-income residents, children, people with disabilities, and older adults. Improvements to the corridor will also improve connections throughout the area and access to economic and employment centers. Additionally, Hayes Elementary School will benefit from this project with the installation of new pedestrian and bicycle infrastructure. Children and parents will be encouraged to walk or bike to school, instead of driving, which will promote active living and reduce congestion on surrounding streets.

This project will not result long-term, negative impacts to any surrounding populations, and no impacts on physical structures along the corridor will result as part of the project. The Project Team will work with nearby residents and businesses to minimize construction impacts in the short-term.

(Limit 2,800 characters; approximately 400 words):

Measure C: Affordable Housing Access

Describe any affordable housing developments?existing, under construction, or planned?within ½ mile of the proposed project. The applicant should note the number of existing subsidized units, which will be provided on the Socio-Economic Conditions map. Applicants can also describe other types of affordable housing (e.g., naturally-occurring affordable housing, manufactured housing) and under construction or planned affordable housing that is within a half mile of the project. If applicable, the applicant can provide self-generated PDF maps to support these additions. Applicants are encouraged to provide a self-generated PDF map describing how a project connects affordable housing residents to destinations (e.g., childcare, grocery stores, schools, places of worship).

Describe the project?s benefits to current and future affordable housing residents within ½ mile of the project. Benefits must relate to affordable housing residents. Examples may include:

- *? specific direct access improvements for residents*
- *? improved access to destinations such as jobs, school, health care or other;*
- *? new transportation services or modal options;*
- *? and/or community connection and cohesion improvements.*

This is not an exhaustive list. Since residents of affordable housing are more likely not to own a private vehicle, higher points will be provided to roadway projects that include other multimodal access improvements. A full response will support the benefits claimed, identify benefits specific to residents of affordable housing, identify benefits addressing a transportation issue affecting residents of affordable housing specifically identified through engagement, and substantiate benefits with data.

Response:

The CSAH 6 corridor, as described in the Metropolitan Council's Socio-Economic map, has 359 publicly subsidized rental housing units in ½ mile of the project area. A majority of these housing units are located within the Village Green development on the corridor as Section 8 Housing. According to the City of Fridley's Comprehensive Plan, Village Green provides 183 housing units and is located next to numerous community amenities including the Mississippi Street Library, Fairview Pharmacy of Fridley, Walgreens Pharmacy, and Commons Park.

This project will provide benefits to affordable housing tenants of Village Green and other developments by improving non-motorized access to employment opportunities, the regional transportation system, nearby parks and recreational greenspace, and daily service needs. This will greatly benefit the many residents of nearby affordable housing who do not own a vehicle or do not have full access to one. Given that the corridor is home to a library, elementary school, places of worship, daycares and other necessary amenities, providing connectivity through multi-modal options will be highly useful. By constructing an improved sidewalk on the north side and a multi-use path on the south side, residents will be able to travel safely along CSAH 6 to access daily necessities. The project will construct a 5-ft sidewalk separated by a 5-ft boulevard on the north side of the street with an 8-ft multi-use path separated by a 5-ft boulevard on the south side of the street from University Ave to Central Ave. From Central Ave to Stinson Blvd, a 5-ft sidewalk separated by a 5-ft boulevard will be constructed on the north side of the street. This will create adequate room for biking and walking. Intersections will also become safer as other funding has been secured for roundabouts at 7th Street and Central Avenue. These improvements will decrease travel distances for pedestrians and bicyclists and provide refuge islands between directions of traffic. (Monroe St. will apply for FY 28/29 HSIP funding for a roundabout).

Nearby residents will also be able to access Metro Transit's Route 10 on University Ave and Central Avenue more safely. In 2026, Bus Rapid Transit stations will be constructed for Route 10, as the F Line, which will increase the connectivity of the region. Residents will be able to access Downtown Minneapolis and the nearby transit routes safely and quickly. Major destinations along the F Line include Downtown Minneapolis, Northeast Minneapolis Cultural and Art Districts, Mercy Hospital, and the Northtown Mall.

(Limit 2,800 characters; approximately 400 words):

Measure D: BONUS POINTS

Project is located in an Area of Concentrated Poverty:	
Project?s census tracts are above the regional average for population in poverty or population of color (Regional Environmental Justice Area):	Yes
Project located in a census tract that is below the regional average for population in poverty or populations of color (Regional Environmental Justice Area):	
Upload the ?Socio-Economic Conditions? map used for this measure.	1702591289930_107_Socio-Economic Conditions Map.pdf

Measure A: Bikeway Network Gaps, Physical Barriers, and Continuity of Bicycle Facilities

PART 1: Qualitative assessment of project narrative discussing how the project will close a bicycle network gap, create a new or improved physical bike barrier crossing, and/or improve continuity and connections between jurisdictions.

Specifically, describe how the project would accomplish the following: Close a transportation network gap, provide a facility that crosses or circumvents a physical barrier, and/or improve continuity or connections between jurisdictions.

Bike system gap improvements include the following:

- *Providing a missing link between existing or improved segments of a local transportation network or regional bicycle facility (i.e., regional trail or RBTN alignment);*
- *Improving bikeability to better serve all ability and experience levels by:*
  - *Providing a safer, more protected on-street facility or off-road trail;*
  - *Improving safety of bicycle crossings at busy intersections (e.g., through signal operations, revised signage, pavement markings, etc.); OR*
  - *Providing a trail adjacent or parallel to a highway or arterial roadway or improving a bike route along a nearby and parallel lower-volume neighborhood collector or local street.*

Physical bicycle barrier crossing improvements include grade-separated crossings (over or under) of rivers and streams, railroad corridors, freeways and expressways, and multi-lane arterials, or enhanced routes to circumvent the barrier by channeling bicyclists to existing safe crossings or grade separations. Surface crossing improvements (at-grade) of major highway and rail barriers that upgrade the bicycle facility treatment or replace an existing facility at the end of its useful life may also be considered as bicycle barrier improvements. (For new barrier crossing projects, distances to the nearest parallel crossing must be included in the application to be considered for the full allotment of points under Part 1).

Examples of continuity/connectivity improvements may include constructing a bikeway across jurisdictional lines where none exists or upgrading an existing bicycle facility treatment so that it connects to and is consistent with an adjacent jurisdiction?s bicycle facility.

Response:

The CSAH 6 project includes constructing a multiuse trail (8 ft) and expanded sidewalk (5 ft) that is separated from the roadway by a 5-ft buffer. Currently, CSAH 6 has limited sidewalks, some of which are directly adjacent to the roadway, and no bike facilities. However, CSAH 6 has been identified by the Metropolitan Council as a Tier 1 Regional Bicycle Transportation Network Alignment. The City of Fridley's Active Transportation Plan also lists this project as a High Priority, as the trail project received the highest score possible within the City's evaluation system. The implementation of the project, and its separated biking and walking facilities, will greatly increase the connectivity of the area and provide safe routes to local and regional destinations. The new trail will connect to other RBTN alignments such as the Mississippi River Regional Trail and the Rice Creek West Regional Trail. These facilities connect to nearby Coon Rapids and neighboring Ramsey County. The trail will also connect to Route 10 / the Future F Line that will connect residents with Downtown Minneapolis and other NE Minneapolis attractions.

In addition to the new sidewalks and trails, compact roundabouts, that have already secured the necessary funding for construction, will be installed at 7th Street NE and CSAH 35. The roundabout at Monroe St NE will apply for FY 28/29 funding through HSIP. They will enable pedestrians and bicyclists to cross these intersections with more visibility and less complex interactions with vehicles. Refuge islands will also be constructed between directions of traffic and all intersections will be painted with high-visibility crosswalks. These crash modification factors will largely impact the safety, functionality, and accessibility of the CSAH 6 corridor through Fridley. Residents traveling to the nearby library, elementary school, places of worship, green space, and other necessary amenities will be able to do so safely via the proposed trail.

As reported by MnCMAT, there have been 3 bicycle involved crashes and 1 pedestrian involved crash in the past 10 years along the corridor. Most recently, in 2023, the pedestrian crash resulted in a fatality between 5th and 7th Streets. This was a preventable death had the corridor been equipped with the correct facilities to separate modes and protect all users. The future CSAH 6 multi-use path will improve connections throughout the corridor, across major roadways, and allow users to safely travel locally and regionally.

(Limit 2,800 characters; approximately 400 words)

PART 2: Regional Bicycle Barrier Crossing Improvements and Major River Bicycle Barrier Crossings

DEFINITIONS:

Regional Bicycle Barrier Crossing Improvements include crossings of barrier segments within the ?Regional Bicycle Barrier Crossing Improvement Areas? as updated in the 2019 Technical Addendum to the Regional Bicycle Barriers Study and shown in the RBBS online map (insert link to forthcoming RBBS Online Map). Projects must create a new regional barrier crossing, replace an existing regional barrier crossing at the end of its useful life, or upgrade an existing barrier crossing to a higher level of bike facility treatment, to receive points for Part 2.

Major River Bicycle Barrier Crossings include all existing and planned highway and bicycle/pedestrian bridge crossings of the Mississippi, Minnesota and St. Croix Rivers as identified in the 2018 update of the 2040 Transportation Policy Plan. Projects must create a new major river bicycle barrier crossing, replace an existing major river crossing at the end of its useful life, or upgrade the crossing to a higher level of bike facility treatment, to receive points for Part 2.

Projects that construct new or improve existing Regional Bicycle Barrier Crossings or Major River Bicycle Barrier Crossings will be assigned points as follows: (select one)

Tier 1

Tier 1 Regional Bicycle Barrier Crossing Improvement Area segments & any Major River Bicycle Barrier Crossings

Tier 2 Yes

Tier 2 Regional Bicycle Barrier Crossing Improvement Area segments

Tier 3

Tier 3 Regional Bicycle Barrier Crossing Improvement Area segments

Non-tiered

Crossings of non-tiered Regional Bicycle Barrier segments

No improvements

No Improvements to barrier crossings

If the project improves multiple regional bicycle barriers, check box.

Multiple

Projects that improve crossing of multiple regional bicycle barriers receive bonus points (except Tier 1 & MRBBCs)

Measure B: Deficiencies corrected or safety problems addressed

Response:

Today, CSAH 6 has inadequate sidewalks and no bicycle facilities within the project area. This has created the opportunity for conflicts between bicyclists and pedestrians as they share space along sidewalks. CSAH 6 has a posted speed limit of 35 miles per hour, but due to the roadway layout, traffic speeds are usually much higher which forces bicyclists onto the sidewalk, especially those that do not fall into ?Strong and Fearless? category of bicyclists. By constructing the proposed trail and reconstructing the sidewalk, pedestrians and bicyclists will have a designated off-street facility that will improve their level of safety and connectivity throughout Fridley and the region. Users will be able to safely access bus stops and regional trails that will enable travel to neighboring communities and those farther away such as Downtown Minneapolis and St. Paul. Additionally, at the intersections of 7th Street, Monroe St, and CSAH 35 roundabouts will be installed that will significantly improve the safety of non-motorized traffic. Updated lighting will be installed in these areas, pedestrian/bicyclist visibility will be increased, and refuge islands will be constructed between directions of traffic.

In the past 10 years, as reported by MnCMAT, there have been 3 crashes involving bicyclists and 1 crash involving a pedestrian along the project corridor. Two of the three bicycle crashes occurred at the intersection of CSAH 6 and 7th Street. One in 2014 and the other in early 2023. Both resulted in possible injury. The third bicycle crash occurred at CSAH 6 and 5th Street in 2014, resulting in a minor injury. The pedestrian crash unfortunately resulted in a fatality in 2023 between 5th and 7th Street. Based on the CMF Clearinghouse website, CMF ID 2197 shows that converting the path from 4 feet to 8 feet would result in an 88% decrease in vehicle-bicycle crashes. These crashes could have been prevented had the corridor been equipped to handle all modes of traffic safely. With the implementation of the project, users will be separated from each other, which will significantly reduce the risk of crashes.

(Limit 2,800 characters; approximately 400 words)

Measure A: Multimodal Elements

Response:

The project is composed of a 5-ft separated sidewalk on the north side and an 8-ft separated multi-use path on the south side of Mississippi St. This corridor is approximately 1.75 miles long and passes by Hayes Elementary School, an Anoka County Library, low-income housing, shops, daycares, and places of worship. The proposed changes are an improvement from the narrow, and sometimes absent, adjacent sidewalks that are currently on the corridor. While there are no transit stops located directly on the corridor, there are Metro Transit bus stops for Route 10 on the corner of Mississippi St and Central Ave NE and on the corner of Mississippi St and University Ave NE. By 2026, the F Line will have replaced Route 10 as a BRT Route. This will include upgraded transit stops and more reliable and frequent service. Due to these improvements, more people will be traveling along Mississippi St which makes the proposed project even more significant for those who live and work in the area.

The multi-use path and expanded sidewalk will safely integrate bicyclists with Mississippi St, as bicyclists along the corridor today either use the sidewalks or are forced to ride in traffic. The path will remove bicycle riders from dangerous conditions and put them into a dedicated area, separated from vehicles. Pedestrians are also able to use the multi-use path or will be able to travel along the 5-ft sidewalk on the north side of the street. From there, connections to other regional trails and bus stops can be made on either side of the corridor. Bicyclists and pedestrians will be able to connect to the Mississippi River Regional Trail along the west end of the corridor which is a regional North/South connector.

Due to these improvements, the project will include moving the south curbline to the north to allow for a trail to be constructed within the existing right of way. As a result of moving the curbline, the roadway crown will need to shift to the north. Given the age of the pavement, the required crown shift will require the pavement to be reclaimed. The north curbline will remain largely in-place, with spot repairs completed in localized areas. The existing sidewalk located on the north side of the roadway will also remain in-place, with spot repairs completed as needed. Anoka County is responsible for the maintenance of CSAH 6, while the City if responsible for maintenance, including snow and ice control, on the trail and sidewalk.

(Limit 2,800 characters; approximately 400 words)

Upload Transit map

1702660649343_109_Transit Connections Map.pdf

Transit Projects Not Requiring Construction

If the applicant is completing a transit application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.

Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.

Check Here if Your Transit Project Does Not Require Construction

Measure A: Risk Assessment - Construction Projects

1. Public Involvement (20 Percent of Points)

Projects that have been through a public process with residents and other interested public entities are more likely than others to be successful. The project applicant must indicate that events and/or targeted outreach (e.g., surveys and other web-based input) were held to help identify the transportation problem, how the potential solution was selected instead of other options, and the public involvement completed to date on the project. The focus of this section is on the opportunity for public input as opposed to the quality of input. NOTE: A written response is required and failure to respond will result in zero points.

Multiple types of targeted outreach efforts (such as meetings or online/mail outreach) specific to this project with the general public and partner agencies have been used to help identify the project need.

100%

At least one meeting specific to this project with the general public has been used to help identify the project need.

50%

At least online/mail outreach effort specific to this project with the general public has been used to help identify the project need.

50%

No meeting or outreach specific to this project was conducted, but the project was identified through meetings and/or outreach related to a larger planning effort.

25%

No outreach has led to the selection of this project.

0%

Yes

Describe the type(s) of outreach selected for this project (i.e., online or in-person meetings, surveys, demonstration projects), the method(s) used to announce outreach opportunities, and how many people participated. Include any public website links to outreach opportunities.

Response:

For this project, many types of outreach opportunities were used to connect with residents and stakeholders. During the study, two open houses were held to share information, collect input, and present the recommended improvements. These meetings were advertised via newspaper, social media blasts, online publications, and notifications on the city and county webpages, along with informational flyers. The Project Team also promoted virtual engagement through the City of Fridley?s My Social Pinpoint, a platform used to share and receive feedback about City projects. (cityoffridley.mysocialpinpoint.com/roadprojects). Anoka County also shared project information on their website: https://www.anokastpprojects.com/#content

At the first meeting, seventy-six attendees signed in, although more attended. Attendees were asked to give input on the performance of the corridor and on presented alternatives. Alternatives focused on the roadway layout and types of trails that could be built within different configurations. The project staff also aimed to educate residents on the benefits of improving the corridor and presented boards accordingly. Public feedback was used to refine project alternatives in preparation or the second open house. For example, the project team originally proposed the 8-ft trail along the north side of Mississippi Street. After speaking with residents and gathering feedback online, the project team moved the trail to the south side of the street to better serve community needs. The trail, now proposed for the south side of Mississippi Street, will better connect to nearby parks and recreational greenspace to the east and west of the project area.

The second meeting attracted forty-nine community members. Summaries of comments from the first open house were displayed to confirm with the public that the feedback heard was accurate. Also, more detailed information of alternatives were presented for feedback and videos were played showing how different scenarios could look and feel.

Before each of these events, Open House Announcement flyers were distributed. If community members could not attend, virtual options to contact the project team and leave feedback were listed on the flyer. Virtual engagement is very important for this corridor due to the diverse group of people who live and work along it. Commercial retail workers may not have been able to attend due to working in the evening or parents who had to provide childcare. Flyers were also distributed to low-income housing developments and assisted care facilities to reach those populations as well as posted at a plasma donation center (now closed) and nearby transit stops. The City also met directly with staff from the Fridley Public School district and Hayes Elementary School.

(Limit 2,800 characters; approximately 400 words)

2. Layout (25 Percent of Points)

Layout includes proposed geometrics and existing and proposed right-of-way boundaries. A basic layout should include a base map (north arrow, scale; legend; city and/or county limits; existing ROW, labeled; existing signals;* and bridge numbers*) and design data (proposed alignments; bike and/or roadway lane widths; shoulder width;* proposed signals;* and proposed ROW). An aerial photograph with a line showing the project?s termini does not suffice and will be awarded zero points. *If applicable*

Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties/MnDOT. If a MnDOT trunk highway is impacted, approval by MnDOT must have occurred to receive full points. A PDF of the layout must be attached along with letters from each jurisdiction to receive points.	Yes
100%	
A layout does not apply (signal replacement/signal timing, stand-alone streetscaping, minor intersection improvements). Applicants that are not certain whether a layout is required should contact Colleen Brown at MnDOT Metro State Aid ? colleen.brown@state.mn.us.	
100%	
For projects where MnDOT trunk highways are impacted and a MnDOT Staff Approved layout is required. Layout approved by the applicant and all impacted local jurisdictions (i.e., cities/counties), and layout review and approval by MnDOT is pending. A PDF of the layout must be attached along with letters from each jurisdiction to receive points.	
75%	
Layout completed but not approved by all jurisdictions. A PDF of the layout must be attached to receive points.	
50%	
Layout has been started but is not complete. A PDF of the layout must be attached to receive points.	
25%	
Layout has not been started	
0%	
Attach Layout	1702670070123_104_Concept Drawing.pdf
Please upload attachment in PDF form	
Additional Attachments	
Please upload attachment in PDF form	
3. Review of Section 106 Historic Resources (15 Percent of Points)	
No known historic properties eligible for or listed in the National Register of Historic Places are located in the project area, and project is not located on an identified historic bridge	Yes
100%	
There are historical/archeological properties present but determination of ?no historic properties affected? is anticipated.	
100%	
Historic/archeological property impacted; determination of ?no adverse effect? anticipated	
80%	
Historic/archeological property impacted; determination of ?adverse effect? anticipated	
40%	
Unsure if there are any historic/archaeological properties in the project area.	
0%	
Project is located on an identified historic bridge	
4. Right-of-Way (25 Percent of Points)	
Right-of-way, permanent or temporary easements, and MnDOT agreement/limited-use permit either not required or all have been acquired	Yes
100%	
Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - plat, legal descriptions, or official map complete	
50%	
Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - parcels identified	
25%	
Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - parcels not all identified	
0%	
5. Railroad Involvement (15 Percent of Points)	
No railroad involvement on project or railroad Right-of-Way agreement is executed (include signature page, if applicable)	Yes
100%	
Signature Page	
Please upload attachment in PDF form	
Railroad Right-of-Way Agreement required; negotiations have begun	
50%	
Railroad Right-of-Way Agreement required; negotiations have not begun.	
0%	

Measure A: Cost Effectiveness

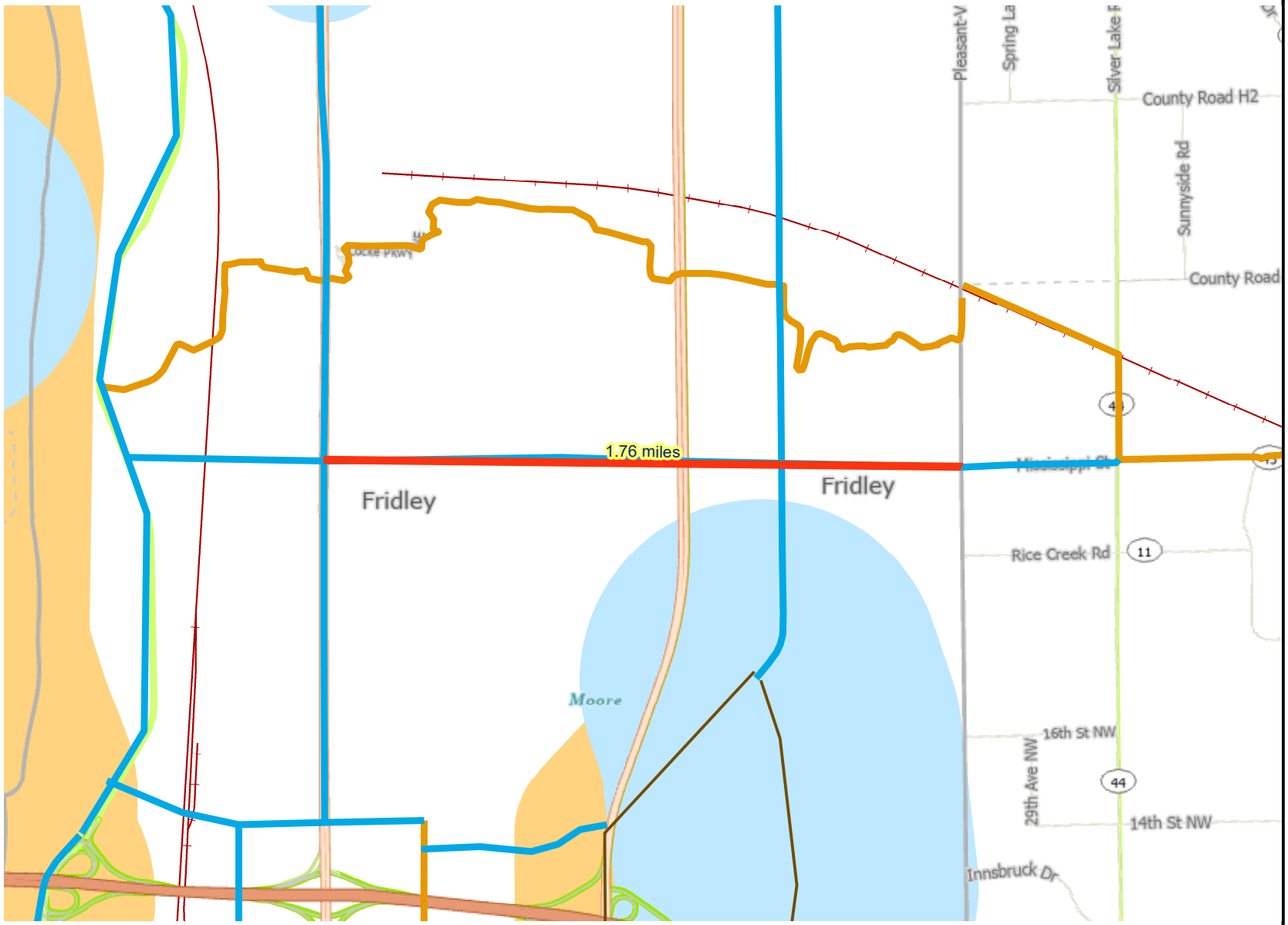
Total Project Cost (entered in Project Cost Form):	$7,290,950.00
Enter Amount of the Noise Walls:	$0.00
Total Project Cost subtract the amount of the noise walls:	$7,290,950.00
Points Awarded in Previous Criteria	
Cost Effectiveness	$0.00

Other Attachments

File Name	Description	File Size
101_Project One Page Description.pdf	Project One Page Description	997 KB
102_Existing Conditions Photos.pdf	Existing Conditions Photos	1.1 MB
103_Project Location Map.pdf	Project Location Map	440 KB
110_Applicant Resolution.pdf	City of Fridley Council Resolution/Commitment of Winter Maintenance	59 KB
111_Letters of Support.pdf	Project Letters of Support	1.4 MB
112_CMF ID 2197 Sidewalk Width.pdf	Crash Modification Factors Sidewalk Width	139 KB
113_CSAH 6 (Mississippi St) Study Report Part I.pdf	CSAH 6 (Mississippi Street) Study Report Part I	2.4 MB
113_CSAH 6 (Mississippi St) Study Report Part II.pdf	CSAH 6 (Mississippi Street) Study Report Part II	1.9 MB
113_CSAH 6 (Mississippi St) Study Report Part III.pdf	CSAH 6 (Mississippi Street) Study Report Part III	1.1 MB
113_CSAH 6 (Mississippi St) Study Report Part IV.pdf	CSAH 6 (Mississippi Street) Study Report Part IV	205 KB
113_CSAH 6 (Mississippi St) Study Report Part V.pdf	CSAH 6 (Mississippi Street) Study Report Part V	378 KB
113_CSAH 6 (Mississippi St) Study Report Part VI.pdf	CSAH 6 (Mississippi Street) Study Report Part VI	1.1 MB
113_CSAH 6 (Mississippi St) Study Report Part VII.pdf	CSAH 6 (Mississippi Street) Study Report Part VII	4.0 MB
113_CSAH 6 (Mississippi St) Study Report Part VIII.pdf	CSAH 6 (Mississippi Street) Study Report Part VIII	3.3 MB
114_Hayes Elementary SRTS Plan Part I.pdf	Hayes Elementary SRTS Plan Part I	1.8 MB
114_Hayes Elementary SRTS Plan Part II.pdf	Hayes Elementary SRTS Plan Part II	1.7 MB
115_Village Green Apartments Property Detail.pdf	Village Green Apartments Property Details	653 KB

Project to RBTN Orientation

Multiuse Trails and Bicycle Facilities Project: Mississippi Street | Map ID: 1699987190941



Project
RBTN Tier 2 Alignment
Railroads
RBTN Corridor Centerlines
Principal Arterials
RBTN Tier 1
RBTN Tier 1 Alignment
Minor Arterials
RBTN Tier 2

0 0.25 0.5 1 1.5 2 Miles

Created: 11/14/2023
LandscapeRSA6

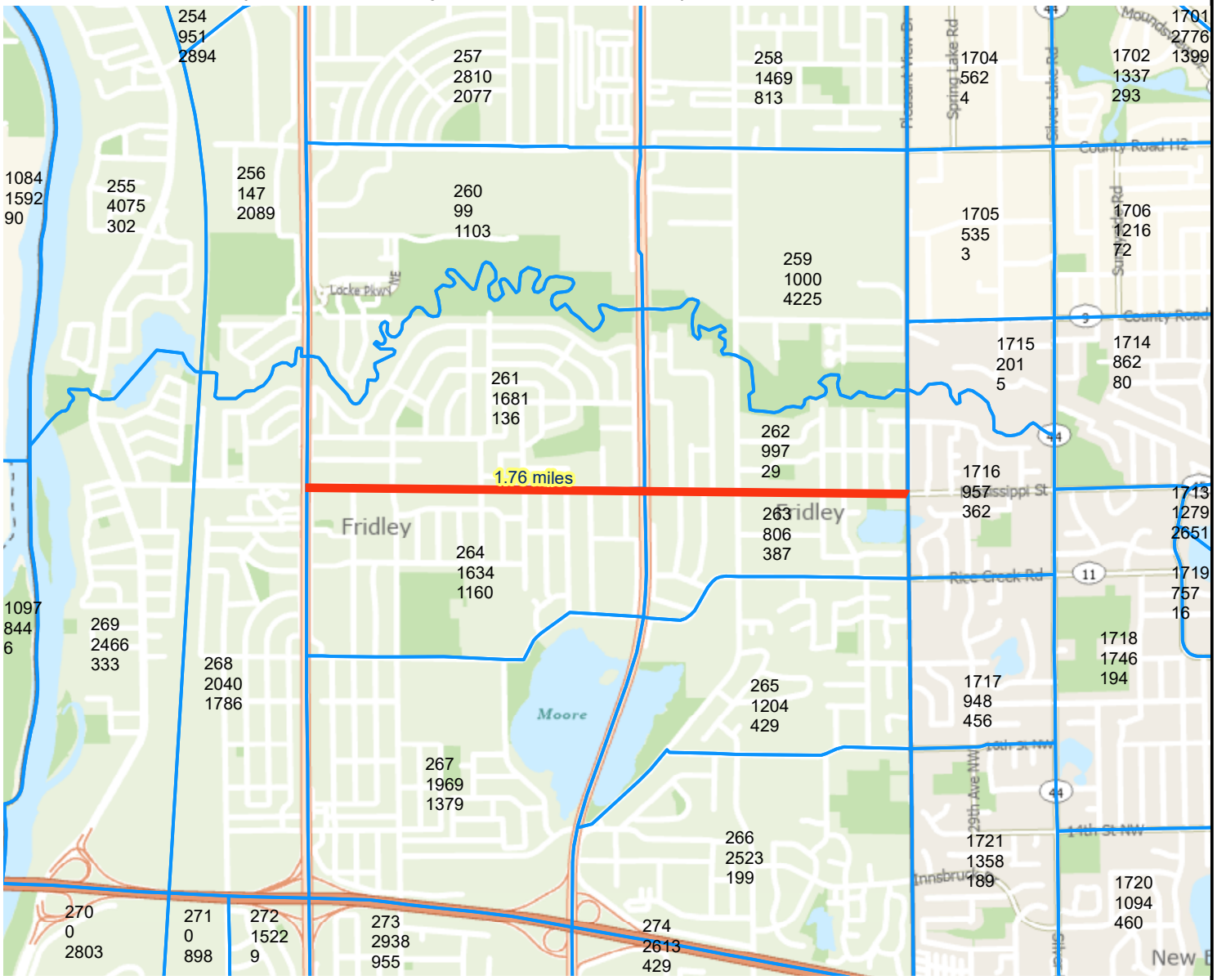
METROPOLITAN COUNCIL

Population/Employment Summary

Multiuse Trails and Bicycle Facilities Project: Mississippi Street | Map ID: 1699987190941

Results

Within ONE Mile of project:
Total Population: 32936
Total Employment: 17681



Created: 11/14/2023
LandscapeRSA4

METROPOLITAN COUNCIL

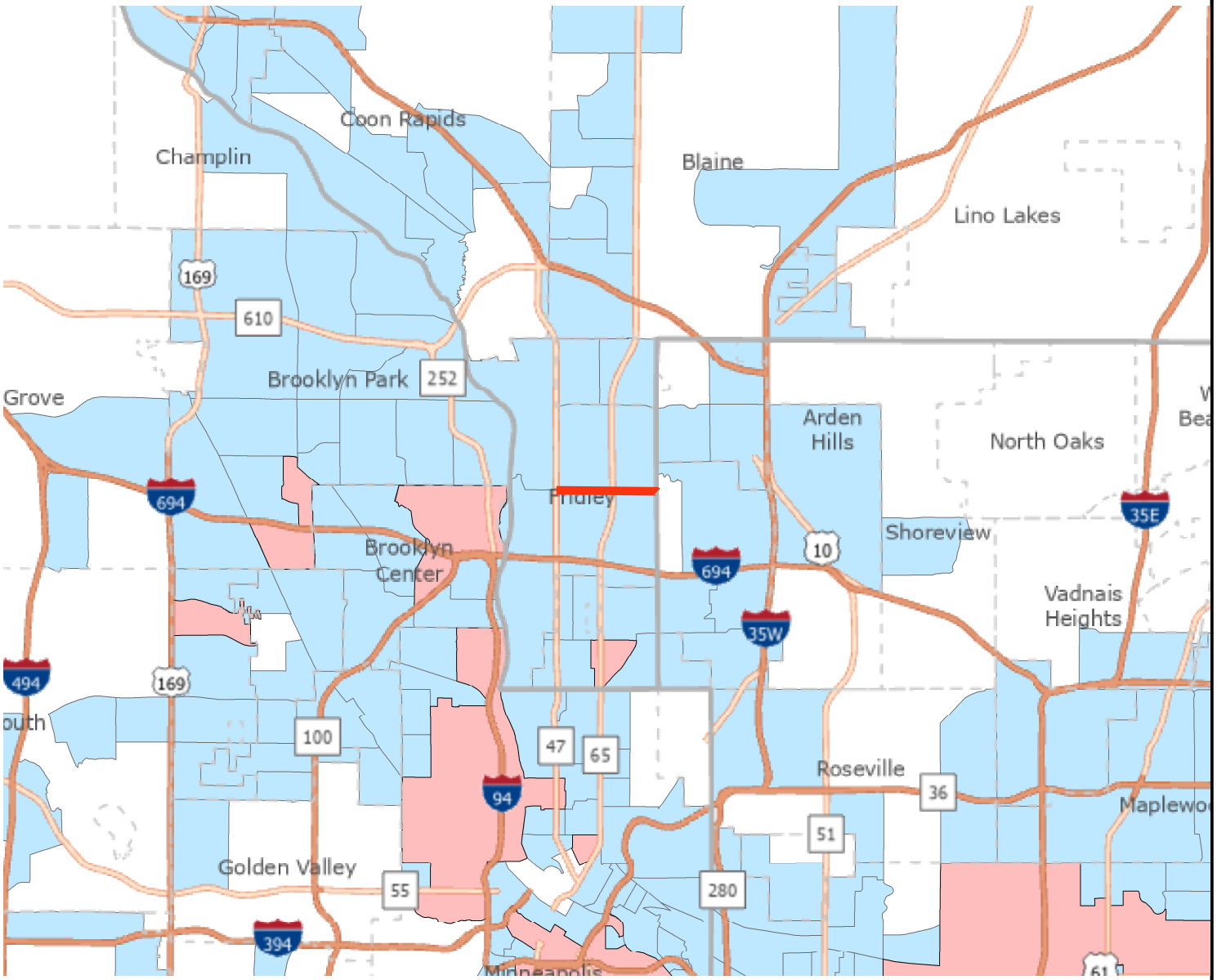
Socio-Economic Conditions

Multiuse Trails and Bicycle Facilities Project: Mississippi Street | Map ID: 1699987190941

Results

Total of publicly subsidized rental housing units in census tracts within 1/2 mile: 393

Project located in census tract(s) that are ABOVE the regional average for population in poverty or population of color.



Lines

Regional Environmental Justice Area

Area of Concentrated Poverty

0 1.5 3 6 9 12 Miles

Created: 11/14/2023
LandscapeRSA2

For complete disclaimer of accuracy, please visit http://giswebsite.metc.state.mn.us/gissite/notice.aspx

METROPOLITAN COUNCIL

Transit Connections

Multiuse Trails and Bicycle Facilities Project: Mississippi Street | Map ID: 1699987190941

Results

Transit with a Direct Connection to project:
10 824
*F Line

**indicates Planned Alignments*

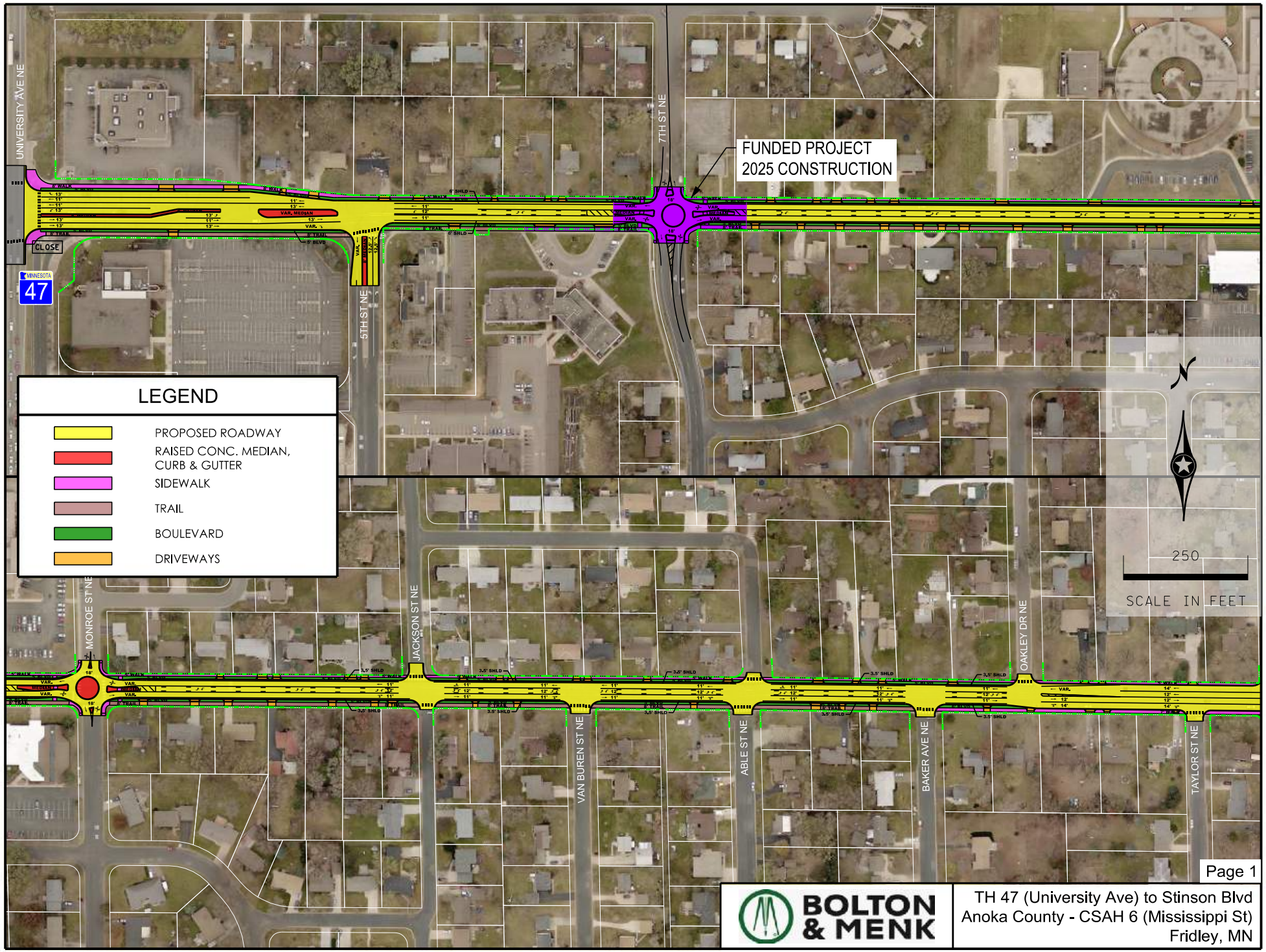
Transit Market areas: 2, 3

- Project Points
- Project
- Project Area
- Arterial Bus Rapid Transit
- Commuter Rail
- Dedicated Bus Rapid Transit
- Highway Bus Rapid Transit
- Light Rail
- Arterial Bus Rapid Transit
- Commuter Rail
- Dedicated Bus Rapid Transit
- Highway Bus Rapid Transit
- Light Rail
- Transit Routes

0 0.275 0.55 1.1 1.65 2.2 Miles

Created: 11/14/2023
LandscapeRSA3

METROPOLITAN COUNCIL



Page 1

BOLTON & MENK

TH 47 (University Ave) to Stinson Blvd
Anoka County - CSAH 6 (Mississippi St)
Fridley, MN

BOLTON & MENK

TH 47 (University Ave) to Stinson Blvd
Anoka County - CSAH 6 (Mississippi St)
Fridley, MN

Mississippi Street/CSAH 6 Trail Project

City of Fridley, Minnesota

Project Name: Mississippi Street/CSAH 6 Trail Construction Project

Applicant: City of Fridley

Route & Location: University Avenue NE to Stinson Boulevard along CSAH 6, 1.75 miles

Application Category: Bicycle and Pedestrian Facilities – Multiuse Trails and Bicycle Facilities

Funding Information:

Requested Award Amount: $5,500,000
Local Match: $1,790,950
Project Total: $7,290,950

Primary Contact:

James Kosluchar
Public Works Director | City Engineer
City of Fridley
763-572-3550
Jim.Kosluchar@FridleyMN.gov

Issues to be Addressed:

- Identified as a Tier 1 Regional Bicycle Trail Network Alignment, connects with two other Tier 1 Alignments
- Eliminates a Tier 2 Regional Bicycle Barrier (expressway barrier)
- Prioritized in the Safe Routes to School Plan for Hayes Elementary School and the Fridley 2040 Comprehensive Plan
- Part of a larger project previously awarded HSIP funding for intersection improvements

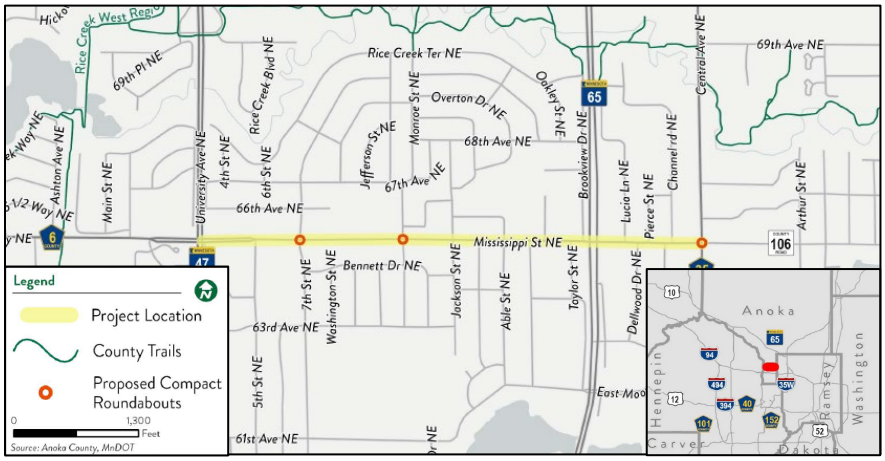
2024 Award → 2024-26 Design* → 2027 Construction

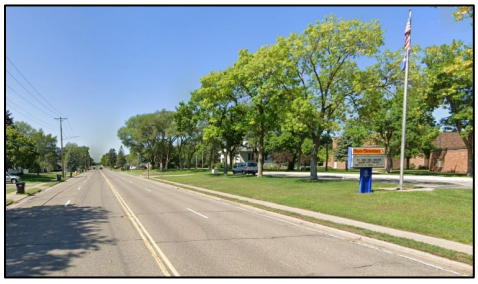
**Design time frame will depend on construction year, which may be advanced.*

Anoka County
MINNESOTA
Respectful, Innovative, Fiscally Responsible

Project Description

CSAH 6 (Mississippi Street) is an Anoka County roadway that runs east-west within the City of Fridley. Today, **inadequate sidewalks** line CSAH 6 and **no bicycle facilities** are present. The corridor, running from TH 47 (University Ave NE) to Stinson Boulevard includes low and high density residential, commercial, retail, institutional, and industrial land uses. It is the site of Hayes Elementary School, an Anoka County Library, low-income housing, shops, daycares, greenspace and places of worship. The **1.75-mile project area** has a 35 mile per hour posted speed limit and includes nearly 100 access points to local streets and private driveways.





Project Benefits

CSAH 6 is an automobile focused (~6,000 ADT) undivided four-lane roadway that is incompatible with its evolving land uses. There are no bicycle facilities and sidewalks do not meet ADA standards. Crossings lengths are excessive and speeds are high. This project aims to solve these problems by constructing new pedestrian and bicycle facilities and simultaneously reducing lanes from four to three; improving multimodal connectivity through and across the corridor and region.

Corridor Study

In 2020, Anoka County, in partnership with the City of Fridley, engaged the public to learn their needs and desires for the future of this corridor. Using the input from the public as a basis for alternatives and selection of a preferred alternative, ithe CSAH 6 (Mississippi Street) Roadway Modification Study was completed. The study developed the future roadway configuration and the corridor based on safety, access, and the ability to enhance the level of service from the pedestrian and bicyclist perspective. Results recommend establishment of a trail, providing modern walks, and lane conversion for increased safety.

CSAH 6/Mississippi Street Trail Project

City of Fridley

Existing Conditions Photos


Mississippi St
6
65

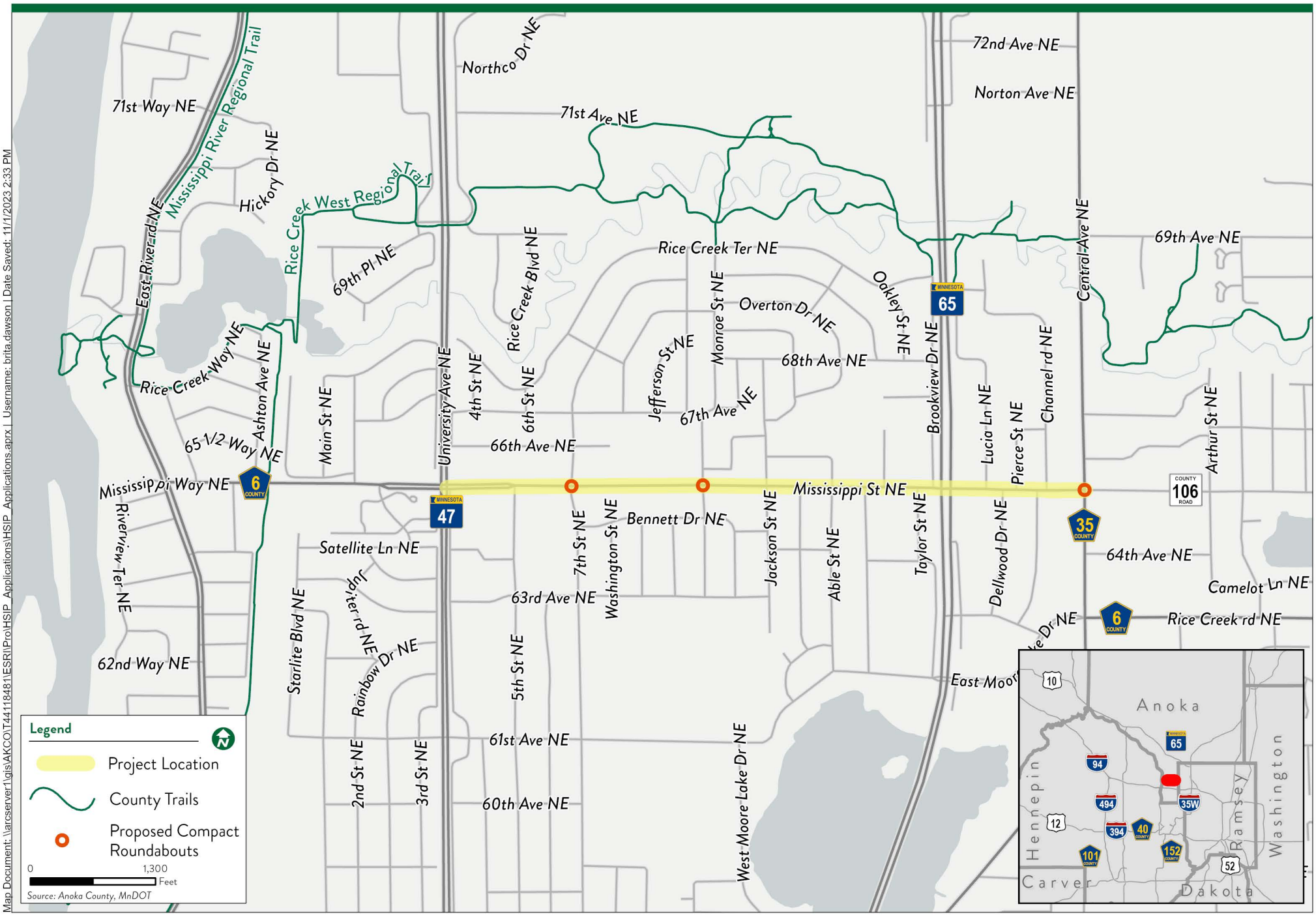
Anoka CSAH 6 Roadway Study

Anoka County, MN

Figure 1: Project Location

November 2023

BOLTON & MENK



Resolution No. 2023-138

Approving a Regional Solicitation Grant Application to the Metropolitan Council for Mississippi Street Reconstruction from University Avenue to Central Avenue

Whereas, the Regional Solicitation Program provides federal transportation funding for projects as part of the Metropolitan Council's federally-required continuing, comprehensive, and cooperative transportation planning process for the 7-County Twin Cities Metropolitan Area; and

Whereas, the Metropolitan Council is accepting candidate projects for the Fiscal Years (FY) 2028-2029 and providing up to 80 percent of the project construction cost for transportation projects; and

Whereas, the City of Fridley is seeking Regional Solicitation funds to reconstruct Mississippi Street (CSAH 6) from University Avenue (TH 47) to Central Avenue (CSAH 35); and

Whereas, Mississippi Street (CSAH 6) has observed higher crash rates than similar roadways and intersections statewide; and

Whereas, construction of this modernization project will improve operations, safety, and access for all modes of transportation along Mississippi Street (CSAH 6); and

Whereas, the proposed construction year is 2026; and

Whereas, City of Fridley staff recommends application for funding through this program and Anoka County supports such an application including sharing local costs at an amount proportioned to corridor improvements.

Now therefore be it resolved, that the City Council hereby:

1. Authorizes the submittal of a 2024 Regional Solicitation application for the reconstruction of Mississippi Street from University Avenue to Central Avenue, and

2. Commits to providing the required 20% match for the project, and

3. Commits to maintaining the project for year-round use following construction.

Passed and adopted by the City Council of the City of Fridley this 27th day of November, 2023.

Scott J. Lund

Scott J. Lund – Mayor

Attest:

Melissa Moore

Melissa Moore – City Clerk

Anoka County
TRANSPORTATION DIVISION
Highway

Joseph J. MacPherson, P.E.
County Engineer

November 17, 2023

Jim Kosluchar
Public Works Director/City Engineer
City of Fridley
7071 University Avenue NE
Fridley, MN 55432

RE: Mississippi Street Reconstruction

Dear Mr. Kosluchar:

Anoka County supports the City of Fridley's funding application for the CSAH 6 (Mississippi Street) Reconstruction Project within the City of Fridley.

Mississippi Street is an Anoka County arterial east-west corridor within the City of Fridley. The current roadway design consists of a four-lane undivided urban roadway that services low-density residential housing with pockets of high density residential, commercial, retail, institutional, and industrial land uses, including at CSAH 1 (East River Road), TH 47 (University Avenue), TH 65 and CSAH 35. Anoka County, in participation with the City of Fridley, initiated a roadway modification study to understand the local and regional corridor needs in consideration of access, mobility, and safety for all modes of transportation, and develop alternatives to meet those needs. The corridor study focused on safety, traffic operations, delay, and the impacts each alternative had on right-of-way, access, cost, and the ability to enhance the user experience for all modes travel.

Currently, the roadway is inadequate for pedestrians and bicyclists due to no shoulder, a very narrow sidewalk, and minimal to no boulevard space between pedestrians and vehicular traffic. This project will improve the safety of both motorist and pedestrian travel along the corridor by reducing the number of vehicular travel lanes, the addition of shoulders, intersection modifications, wider multimodal walkways, and expanded green spaces.

We appreciate your time and efforts in pursuing funding to improve this corridor. If you have any questions, or need additional information, please let us know.

Sincerely,

Joseph MacPherson

Joe MacPherson, P.E.
County Engineer

DEPARTMENT OF TRANSPORTATION

MnDOT Metro District
1500 West County Road B-2
Roseville, MN 55113

11/29/2023

Jim Kosluchar
Public Works Director / City Engineer
City of Fridley
7071 University Avenue NE
Fridley, MN 55432

Re: MnDOT Letter for The City of Fridley
Metropolitan Council/Transportation Advisory Board 2024 Regional Solicitation Funding Request for Mississippi Street Reconstruction

Dear Jim Kosluchar,

This letter documents MnDOT Metro District's recognition for the City of Fridley to pursue funding for the Metropolitan Council/Transportation Advisory Board's (TAB) 2024 Regional Solicitation for the Mississippi Street Reconstruction project.

The proposed project on Mississippi Street (CSAH 6) will address safety and mobility concerns in the corridor. Currently, the roadway is inadequate for pedestrians and bicyclists due to no shoulder, a very narrow sidewalk, and minimal boulevard space between pedestrians and moving vehicular traffic. This project will include lane reductions, added shoulders, intersection modifications, wider and multimodal walkways, and more boulevard space.

Mississippi Street intersects MnDOT jurisdictional roadways Trunk Highway 47 (TH47) and Trunk Highway 65 (TH65). As the agency with jurisdiction over TH 47 and TH 65, MnDOT will allow the City to seek improvements proposed in the application. If funded, details of how the project is delivered and any future maintenance agreement with the City of Fridley will need to be determined during the project's development to define how the improvements will be maintained for the project's useful life.

MnDOT does not anticipate partnering on local projects beyond current agreements. If your project receives funding, continue to work with MnDOT Area staff to coordinate and review needs and opportunities for cooperation.

MnDOT Metro District looks forward to continued cooperation with the City of Fridley as this project moves forward and as we work together to improve safety and travel options within the Metro Area.

If you have questions or require additional information at this time, please reach out to your Area Manager at Molly.McCartney@state.mn.us or 651-775-0326.

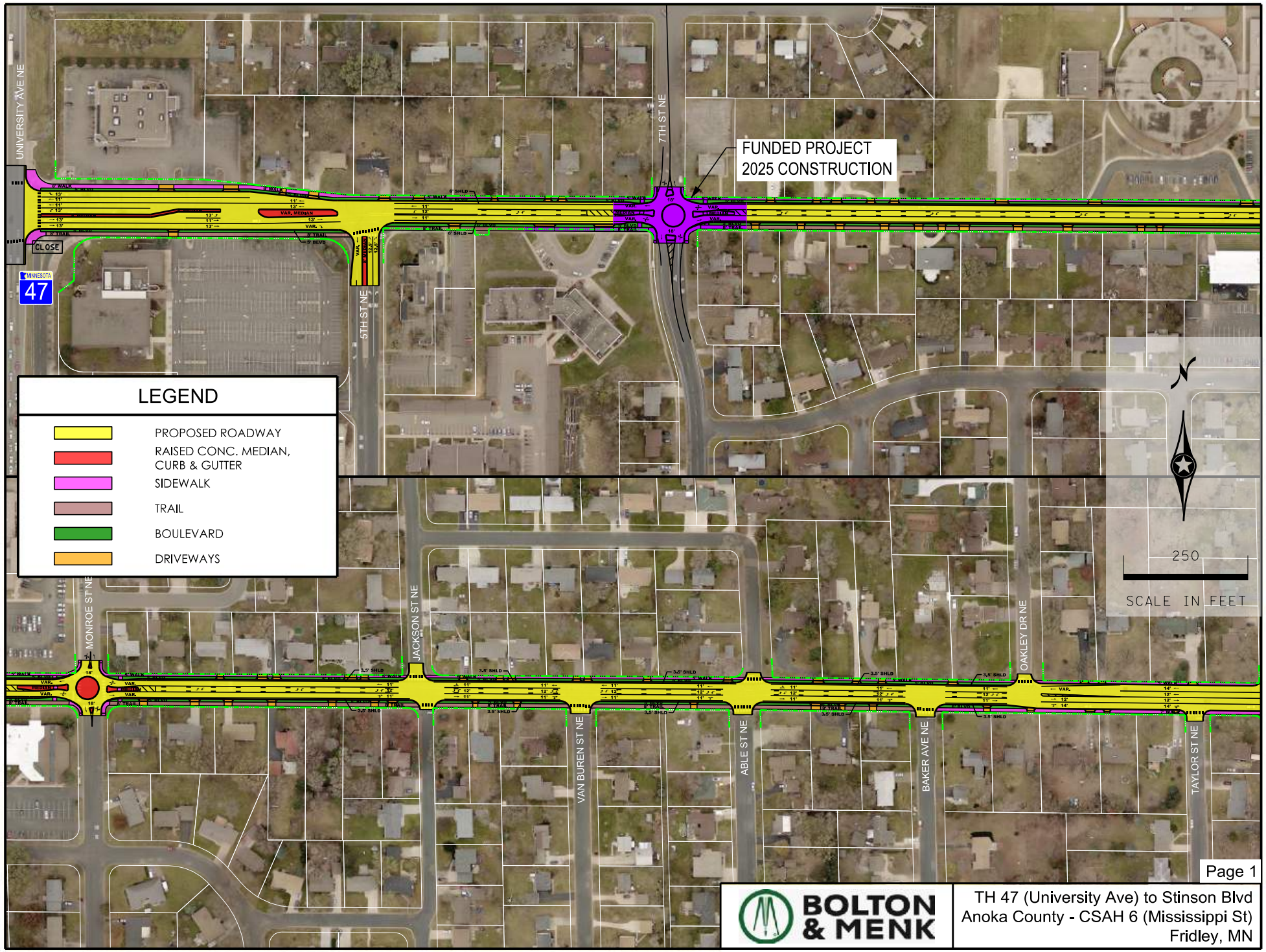
Sincerely,

Sheila Kauppi

Digitally signed by Sheila Kauppi
Date: 2023.11.29 13:51:00 -06'00'

Sheila Kauppi, PE
Metro District Engineer

CC:
Molly McCartney, Area Manager
Aaron Tag, Metro Program Director
Dan Erickson, Metro State Aid Engineer



Page 1

BOLTON & MENK

TH 47 (University Ave) to Stinson Blvd
Anoka County - CSAH 6 (Mississippi St)
Fridley, MN

BOLTON & MENK

TH 47 (University Ave) to Stinson Blvd
Anoka County - CSAH 6 (Mississippi St)
Fridley, MN

Metro Transit
a service of the Metropolitan Council

December 1, 2023

Jim Kosluchar
Public Works Director / City Engineer
City of Fridley
7071 University Avenue NE
Fridley, MN 55432

Dear Mr. Kosluchar:

Metro Transit supports the City of Fridley's funding pursuits for the CSAH 6 (Mississippi Street) Reconstruction Project from West River Road to TH 47 (University Avenue), and University Avenue to CSAH 35 (Central Avenue NE) in the City of Fridley.

Mississippi Street provides key pedestrian connections to transit at three locations. Metro Transit currently serves transit stops for local bus Route 10 on University Avenue at Mississippi Street. Metro Transit is also advancing the METRO F Line Project, a bus rapid transit (BRT) line with new, high-amenity stations planned at the same locations along TH 47 currently served by Route 10. The project area also intersects with transit service at West River Road (bus Route 852) and TH 65 (bus Route 10). Metro Transit supports efforts by our local partners to improve safe and comfortable first- and last-mile access to existing bus stops and future BRT stations.

The proposed improvements to CSAH 6 will reduce barriers to accessing existing and planned transit. Currently, the roadway is inadequate for pedestrians and bicyclists reaching existing bus stops and future F Line stations due to the lack of a shoulder, a very narrow sidewalk, and minimal to no boulevard space between pedestrians and moving vehicular traffic. This project will improve the safety of people walking, biking, and driving along the corridor through lane reductions, added shoulders, intersection modifications, wider and multimodal walkways, and more boulevard space. Providing safe and accessible routes to transit benefits existing transit riders and future riders who will be better able to use transit to access their jobs, homes, and other destinations.

Thank you for making us aware of this pursuit and the opportunity to provide support.

Sincerely,

Lesley Kandaras
Lesley Kandaras (Nov 30, 2023 18:44 CST)

Lesley Kandaras
General Manager

CC: Nick Thompson, METRO Projects for Metro Transit
Katie Roth, Director, Arterial Bus Rapid Transit
Marilyn Porter, Director, Engineering & Facilities

November 14, 2023

Attn: Jim Kosluchar
Public Works Director / City Engineer
City of Fridley
7071 University Avenue NE
Fridley, MN 55432

Re: City of Fridley Mississippi Street Reconstruction – Pursuit of Funding

Dear Jim,

On behalf of the City of Fridley's Environmental Quality and Energy Commission (EQEC), I offer support for the City of Fridley's funding application for the CSAH 6 (Mississippi Street) Reconstruction Project.

CSAH 6 is an Anoka County arterial roadway that runs east-west within the City of Fridley. As a result of the high concentration of community significant locations along the corridor, including an elementary school, library, historical center, and multiple parks, Mississippi Street serves as Fridley's de facto "Main Street". The roadway is currently a four-lane undivided urban roadway and is largely low-density residential housing with pockets of high density residential, commercial, retail, institutional, and industrial land uses, including at CSAH 1 (East River Road), TH 47 (University Avenue), TH 65 and CSAH 35. Anoka County, in participation with the City of Fridley and the input of the Environmental Quality and Energy Commission, initiated a roadway modification study to understand the local and regional corridor needs in consideration of access, mobility, and safety for all modes of transportation, and develop alternatives to meet those needs. Evaluation of the corridor focused on safety, operations and delay, and the impacts of the alternatives to right-of-way, access, costs, and the ability to enhance the user experience of all traffic modes.

The proposed improvements to Mississippi Street support the EQEC's environmental priorities by addressing safety and mobility concerns in the corridor. Currently, the roadway is inadequate for pedestrians and bicyclists due to no shoulder, a very narrow sidewalk, and minimal to no boulevard space between pedestrians and moving vehicular traffic. This project will improve the safety of both motorist and pedestrian travel along the corridor through lane reductions, added shoulders, wider and multimodal walkways, and more boulevard space. Additional boulevard space will reduce impervious surfaces along the corridor and allow and create comfortable environments for non-vehicular travel.

Thank you for your time and consideration in reviewing the Mississippi Street Reconstruction Project application.

Sincerely,

Aaron Klemz
Chair
Environmental Quality and Energy Commission

FRIDLEY PUBLIC SCHOOLS

A World-Class Community of Learners

Hayes Elementary School
615 Mississippi St NE
Fridley, Minnesota 55432
Phone: 763-502-5200
Fax: 763-502-5240

Attn: Jim Kosluchar
Public Works Director / City Engineer
City of Fridley
7071 University Avenue NE
Fridley, MN 55432

Re: City of Fridley Mississippi Street Reconstruction – Pursuit of Funding

Dear Jim,

I am pleased to express my support for the City of Fridley's Mississippi Street reconstruction project as the Principal of Hayes Elementary School. I fully support Fridley's pursuit of funding for the Mississippi Street Reconstruction Project, as the improvements will enhance traffic safety and provide a better connection to nearby residential housing areas through active transportation improvements.

The Mississippi Street Reconstruction Project will include the reconstruction of the roadway, the addition of shoulders, wider multimodal travel ways, and more boulevard space to separate vehicles from pedestrians and bicyclists. Most impactful to Hayes Elementary School will be the construction of an eight-food paved trail on the south side of Mississippi Street and a five-foot sidewalk on the north side of the street. Additionally, boulevards that separate vehicular traffic from pedestrians and bicyclists will be increased to a minimum of five feet. These upgrades and newly constructed paths will allow for the students of Hayes Elementary to safely walk and bike to school. Having alternative routes to access the school will also reduce the amount of congestion and promote students to be more active through walking or biking to school. The surrounding development of the community and use of Mississippi Street to commute has resulted in increased traffic on the Street. Currently, Mississippi Street is a four-lane undivided roadway. With the implementation of this project, it will become a three-lane road, including a dedicated middle turn lane. Those traveling to the school from the west will be able to move out of through traffic and reduce the risk of rear-end crashes occurring.

Considering the benefits this project would offer to the local community and to Hayes Elementary School, I strongly support the City of Fridley's request for funding.

Sincerely,

Angaelicka Iverson
Principal
Hayes Elementary School

CMF / CRF DETAILS

CMF ID: 2197

CHANGE SIDEWALK WIDTH FROM X TO Y METERS (BIKE CRASHES)

DESCRIPTION:

PRIOR CONDITION: *NO PRIOR CONDITION(S)*

CATEGORY: BICYCLISTS

STUDY: *ASSESSING CRITICAL FACTORS ASSOCIATED WITH BICYCLE COLLISIONS AT URBAN SIGNALIZED INTERSECTIONS*, OH ET AL., 2008

Star Quality Rating:	[VIEW SCORE DETAILS]
Rating Points Total:	90

Crash Modification Factor (CMF)

Value:	$e^{-1.76(Y-X)}$
Adjusted Standard Error:	
Unadjusted Standard Error:	

Crash Reduction Factor (CRF)

Value:	$100(1-e^{-1.76(Y-X)})$
Adjusted Standard Error:	
Unadjusted Standard Error:	

Applicability

Crash Type:	Vehicle/bicycle
Crash Severity:	All
Roadway Types:	Not Specified
Street Type:	
Minimum Number of Lanes:	
Maximum Number of Lanes:	
Number of Lanes Direction:	
Number of Lanes Comment:	

Crash Weather:	Not specified
Road Division Type:	
Minimum Speed Limit:	
Maximum Speed Limit:	
Speed Unit:	
Speed Limit Comment:	
Area Type:	
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	
Intersection Geometry:	
Traffic Control:	Signalized
Major Road Traffic Volume:	
Minor Road Traffic Volume:	
Average Major Road Volume :	
Average Minor Road Volume :	

Development Details

Date Range of Data Used:	2005 to 2005
Municipality:	Incheon, South Korea
State:	notusa
Country:	
Type of Methodology Used:	Regression cross-section

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Dec 01, 2009
Comments:	Only for bicycle-related crashes.

VIEW THE FULL STUDY DETAILS

EXPORT DETAIL PAGE AS PDF

BOLTON & MENK

Real People. Real Solutions.

CSAH 6 (Mississippi St) Roadway Modification Study

Study Report

Anoka County, MN

Submitted by:
Bolton & Menk, Inc.
12224 Nicollet Avenue
Burnsville, MN 55337
P: 952-890-0509
F: 952-890-8065

Certification

CSAH 6 (Mississippi St) Roadway Modification Study

Anoka County Highway Department
Anoka County, MN

August 24, 2020

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

By: _____

Bryan Nemeth, P.E., PTOE
License No. 43354

Date: 08/24/2020

Table of Contents

Executive Summary

County State Aid Highway (CSAH) 6 (Mississippi Street) is an Anoka County arterial roadway that runs east-west within the City of Fridley. The roadway is currently a four-lane undivided urban roadway from CSAH 1 (East River Road) to CSAH 35 (Old Central Avenue) and is a two-lane undivided roadway from CSAH 35 to Stinson Boulevard. The corridor is largely low-density residential housing with pockets of high density residential, commercial, retail, institutional, and industrial land uses. The pockets of commercial/retail/industrial are primarily located near the higher volume intersections of CSAH 1, TH 47 (University Ave), TH 65, and CSAH 35 while the institutional is between TH 47 and TH 65. The 2.3-mile study corridor has a 35 mile per hour posted speed limit and includes nearly 120 access points to local streets and private driveways. The project location is shown in **Figure 1.**

The CSAH 6 Roadway Modification Study was initiated by Anoka County, in participation from the City of Fridley, to understand the local and regional corridor needs in consideration of access, mobility and safety for all modes of transportation, and develop alternatives to meet those needs. Evaluation of the corridor primarily focused on safety, operations and delay, and the impacts of the alternatives to right-of-way, access, costs, and the ability to enhance the user experience of all traffic modes. A key component of this study was the engagement of stakeholders and the public to understand the local and regional needs of the corridor and gain informed consent for the recommended solution.

Recent crash data indicates that the CSAH 6 Corridor and multiple intersections have a statistically higher crash rate when compared to similar roadways and intersections statewide. The four-lane undivided roadway often results in increased crashes as all turning traffic must turn from the through lanes, entering traffic must navigate onto or across multiple lanes of traffic at once, and the current configuration does not allow for adequate pedestrian and bicycle facilities within the current right-of-way. Implementing a four to three lane conversion on CSAH 6 would be anticipated to increase the safety of the corridor by providing a dedicated left turn lane, reducing the number of through lanes, decreasing crossing distances, and providing more space for pedestrians and bikers.

The current and projected traffic volumes do not justify the need for four lanes on CSAH 6. A three-lane roadway would be expected to have enough capacity to handle the anticipated traffic volumes on CSAH 6 now and in the future, with adequate capacity to handle traffic fluctuations. While this provides acceptable operations throughout the corridor, the signalized intersections of TH 47 and TH 65 should remain with multiple through lanes to take advantage of the limited green time given to the CSAH 6 traffic.

Multiple typical sections and intersection traffic control alternatives were developed for the corridor. Alternatives were evaluated based on their ability to satisfy the outlined goals developed by the project stakeholders specifically regarding operations, safety, and impacts to right-of-way, access, costs, and accommodation of all traffic modes. The recommended alternative for the corridor is a three-lane section except on the east and west ends, and at the signalized intersections of TH 47 and TH 65. The recommendation includes a proposed trail on the south side of the corridor, a wider sidewalk on the north side of the corridor, and wider boulevards for signing and snow storage throughout. Compact roundabouts are also recommended at 7th Street, Monroe St, and Old Central Avenue to improve safety, provide for improved pedestrian crossings, and better handle peak traffic fluctuations.

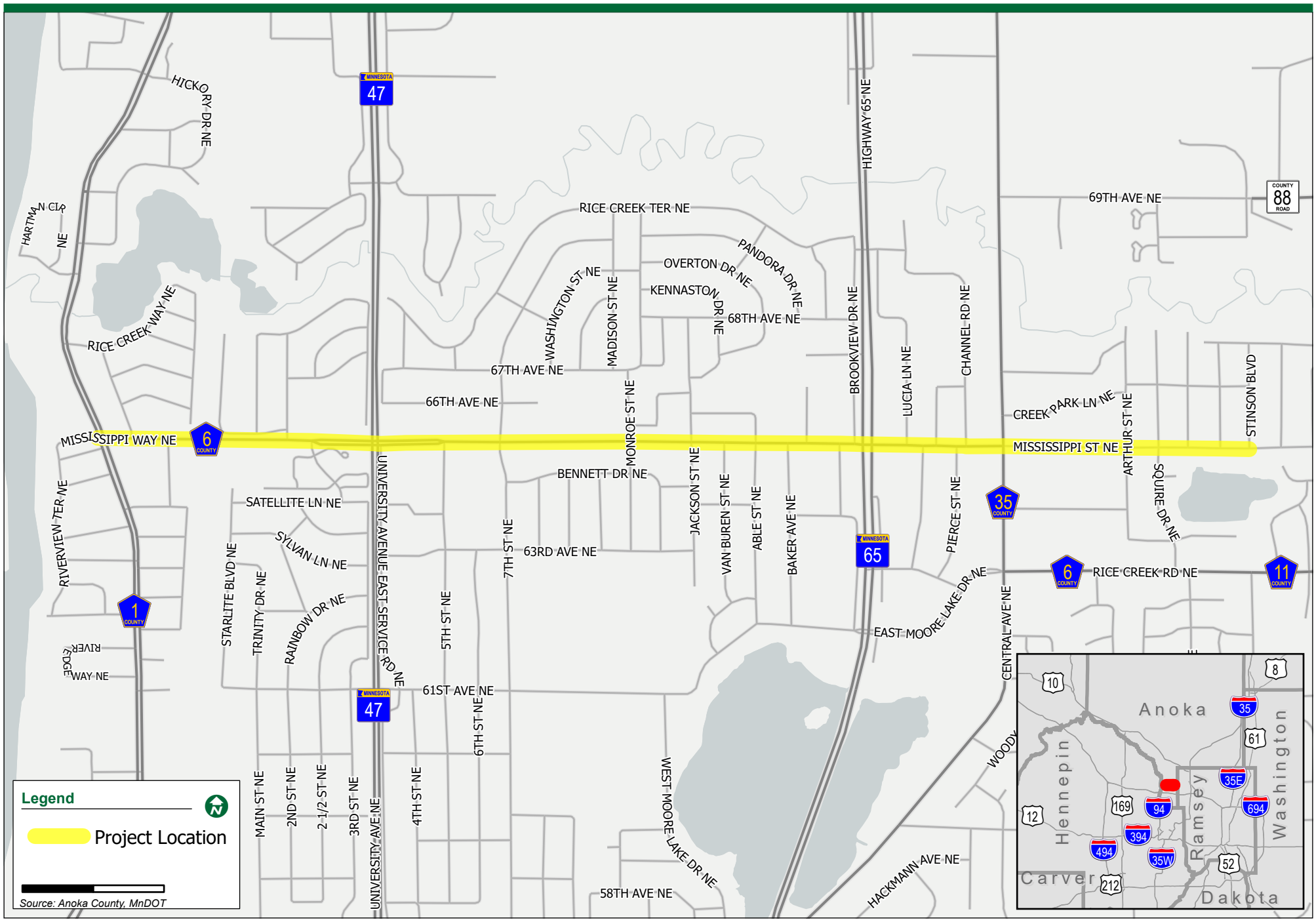
Anoka CSAH 6 Roadway Study

Anoka County, MN

Figure 1: Project Location

May 2020

BOLTON & MENK



I. Recommended Alternatives

Based on the project goals, evaluation, and public input the following alternatives are recommended for the CSAH 6 (Mississippi Street) Corridor Study.

- A three-lane typical section is recommended from TH 47 to CSAH 35 (Old Central Avenue).
- CSAH 6 to transition to a two-lane roadway between CSAH 1 (East River Road) and 2nd Street underneath the railroad overpass and regional trail crossing, and east of CSAH 35 to the County border at Stinson Avenue.
- The existing lane configuration on CSAH 6 at TH 47 and TH 65 to remain in place, but considerations for turn lane development at TH 65 should be considered in future studies along the TH 65 corridor such as the current study by MnDOT.
- Compact roundabouts to be implemented at the current all-way stop controlled intersections of 7th Street, Monroe Street and CSAH 35 (Old Central Avenue).
- An eight-foot paved trail to be constructed on the south side of CSAH 6 where feasible.
- A five-foot sidewalk to be constructed on the north side of CSAH 6. The width of the sidewalk should be increased near TH 47 and underneath the railroad underpass where feasible.
- A minimum of five-foot boulevards to be developed where feasible.

II. Study Introduction

County State Aid Highway (CSAH) 6 (Mississippi Street) is an arterial roadway running east-west through the City of Fridley. The highway is functional classified as an “other minor arterial” by the Metropolitan Council. Minor arterials supplement the principal arterial system and provide connections to the principal arterial system (namely TH 47 and TH 65 in this area). CSAH 6 is a four-lane undivided urban roadway from CSAH 1 (East River Road) to CSAH 35 (Old Central Avenue) and an undivided two-lane urban roadway from CSAH 35 to the county line/Stinson Avenue. The corridor includes three signalized intersections at CSAH 1, TH 47 (University Avenue), and TH 65, as well as three all-way stop control (AWSC) intersections at 7th Street, Monroe Street and CSAH 35. The remaining intersections are two-way stop controlled or private accesses. The posted speed limit for CSAH 6 is 35 miles per hour and the roadway currently handles up to 5,800 vehicles per day.

The CSAH 6 Roadway Modification Study aims to build off previous and ongoing work completed in the area. The Minnesota Department of Transportation (MnDOT) completed the TH 47 and 65 Road Safety Audit (RSA) in 2018 in response to a high number of crashes along these corridors, specifically serious injury or fatal crashes. The RSA identified multiple potential safety and operational improvements for the intersections with CSAH 6. Similarly, the Corridor Development Report completed by the City of Fridley, along with MnDOT and LISC, identified many safety concerns at the CSAH 6 intersection with TH 47 and with TH 65. Currently, MnDOT is working on the TH 47 and TH 65 Corridor Planning and Environmental Linkages PEL Study. Many of the recommendations in these reports were considered as part of the CSAH 6 Roadway Modification Study, especially at TH 47, however, there are still many uncertainties regarding the State's direction with the TH 65 and TH 47 corridors.

The corridor is largely classified as low density residential with pockets of high density residential, commercial, retail, institutional, and industrial/manufacturing. The pockets of retail, commercial, and industrial are primarily located near the higher volume intersections of CSAH 1, TH 47, TH 65

and CSAH 35. The mixed use of residential homes and businesses along the corridor result in nearly 120 access points in the study area. With the current lane configuration, these access points can impact traffic operations and safety along the corridor with turning vehicles slowing down or stopping in all lanes. Furthermore, specific land uses and features along CSAH 6 offer unique traffic operations and safety needs, including Hayes Elementary School, five places of worship, Holly Center, an Anoka County Library branch, Fairview Health Services, the Mississippi River Regional Trail (MRT), a railroad overpass, Edgewater Gardens Park and Harris Lake Park. CSAH 6 serves as a primary east-west main street roadway for the City of Fridley with access to the retail centers, its continuous access across the city, and its centralized location for the community.

CSAH 6 currently has sidewalks on one or both sides of the roadway throughout the study area, however, these pedestrian facilities are directly behind the back of curb or only separated by a narrow two to three-foot boulevard. Opinion from project stakeholders, as well as the public, have indicated that CSAH 6 does not feel like a safe place to walk or bike. This is a major concern given the land uses along the corridor.

Evaluation of the corridor primarily focused on safety, operations and delay, and the impacts of the alternatives to right-of-way, access, costs, and the ability to enhance the user experience of all traffic modes. A key component of this study was the engagement of stakeholders and the public to understand the local and regional needs of the corridor and gain informed consent for the recommended solution.

The project management team (PMT), consisting of staff from Anoka County, the City of Fridley, and Bolton and Menk have identified the following goals for the study:

- Identify the necessary roadway configuration that is compatible with local and regional needs.
- Provide efficient, reliable, and safe mobility for all users of the corridor.
- Prioritize the safety of pedestrians and bicycle use along the corridor and at major crossing locations.
- Support future redevelopment identified in the City’s Comprehensive plan.
- Provide for the future through access control management.
- Support the Safe Routes to School Plan for Hayes Elementary School.

III. Existing Conditions Analysis

A. Data Collection

Thirteen hour turning movement and pedestrian counts were completed in May 2019 at the following fifteen intersections with CSAH 6:

- CSAH 1 (East River Road)
- 2nd Street
- 3rd Street
- 5th Street
- 7th Street
- Monroe Street
- Jackson Street
- Able Street
- Brookview Drive
- Lucia Lane
- Channel Road
- CSAH 35 (Old Central Avenue)
- Arthur Street
- Squire Drive
- McKinley Street

Traffic counts were completed prior to any construction closures which were planned for the summer of 2019 at the railroad overpass between TH 47 and CSAH 1. The most recent turning movement count data for TH 47 and TH 65 were collected from a recent MnDOT study of the corridor. All remaining public street intersections between CSAH 1 and Stinson Boulevard (for a total of 30 intersections included in the study) were included in the traffic analysis and turning movement volumes were estimated based on the available traffic data.

The traffic operations analysis considered the weekday AM and PM peak hours of the day with the highest traffic volumes while Sunday morning traffic was also reviewed. Existing weekday peak hour turning movements and most recent MnDOT Average Annual Daily Traffic (AADT) volumes, are shown in **Figure 2.**

Anoka County/CSAH 6 Roadway Study

Anoka County, MN

Figure 2a: Existing (2019) Turning Movements - West

June 2019

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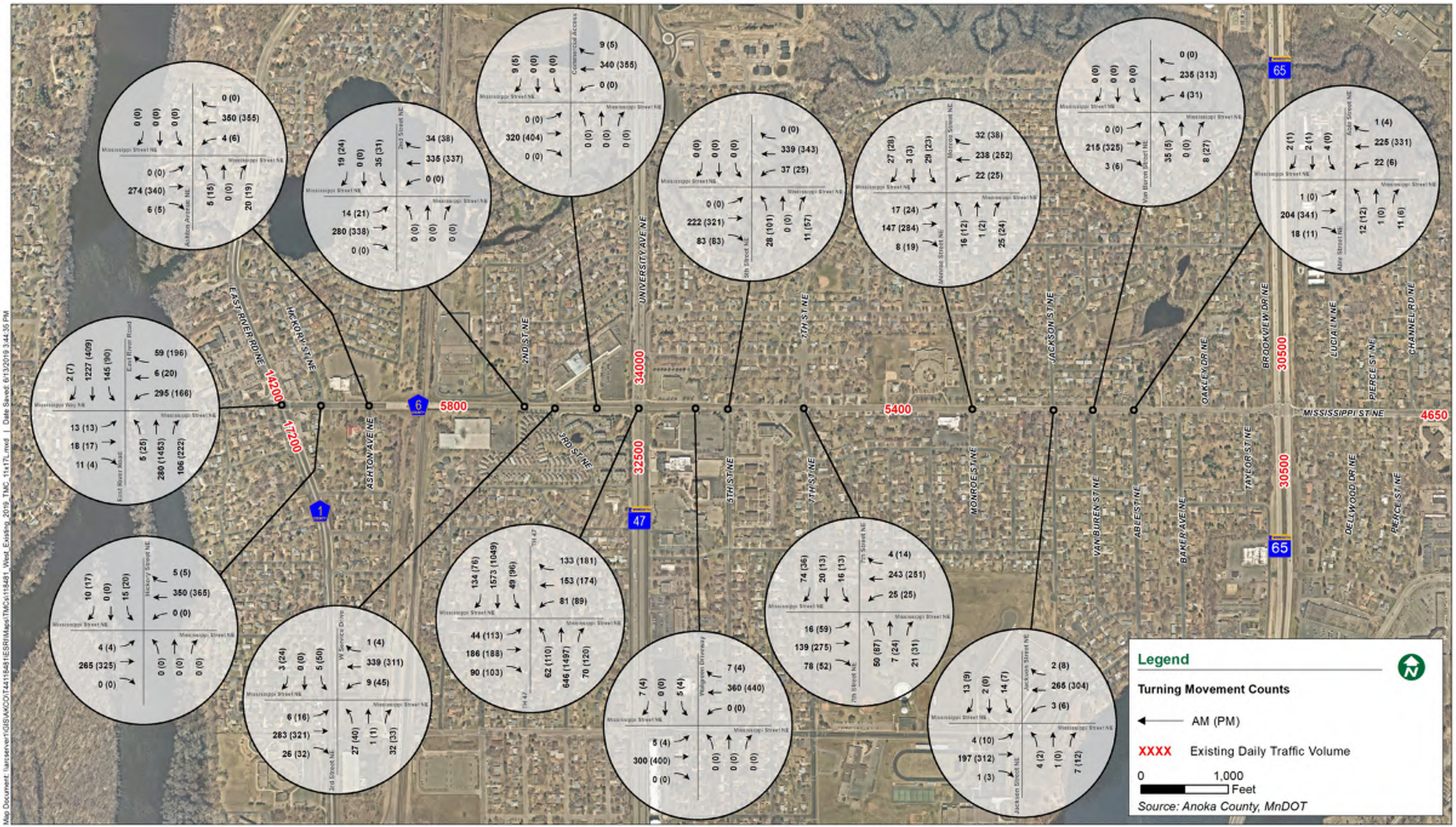
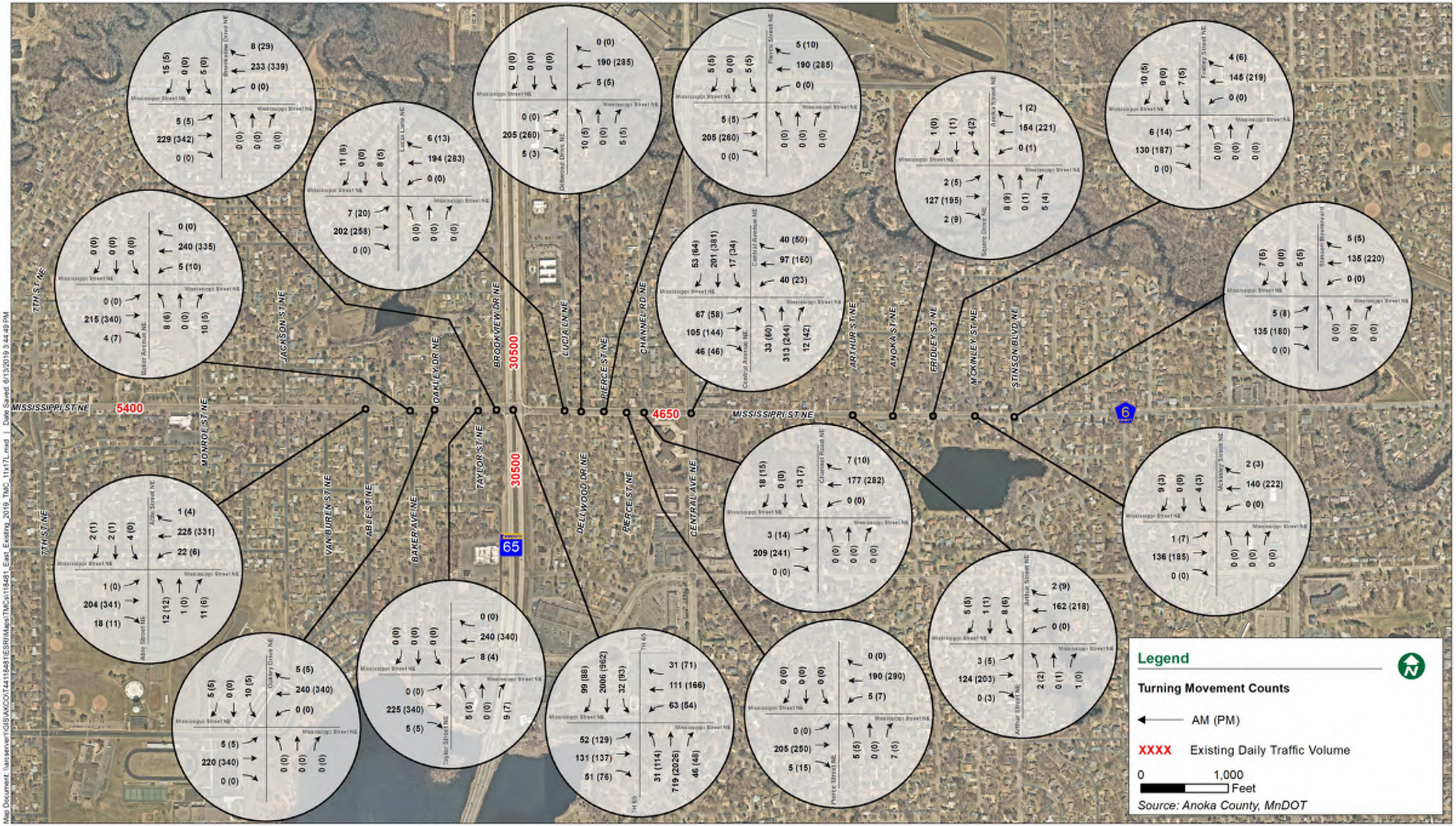
Real People. Real Solutions.



Map Document: \\anserver1\GIS\AKOD\T44118481\ESRI\Maps\TMCs\t118481_West_Existing_2019_TMC_11x17L.mxd | Date Saved: 6/13/2019 3:44:35 PM

Figure 2b: Existing (2019) Turning Movements - East



B. Existing Safety Analysis

Crash data was obtained from Anoka County for the last three complete years of data (2016-2018). The corridor was compared to similar types of corridors and intersections in the state with similar lanes, volumes, traffic control, and environment. This includes a comparison of the observed crash rate to the statewide average crash rate and critical crash rate to determine the critical index. The observed crash rate is the number of crashes per million entering vehicles (MEV) for the segment or intersection. The statewide average crash rate is the average crash rate for similar type locations statewide. The critical crash rate is the statistical comparison based on similar locations statewide. The critical index is the comparison of the observed crash rate to the critical crash rate; a critical index greater than 1.0 indicates that the observed crash rate is greater than the critical rate and that the segment or intersection operates outside the expected, normal range. **Tables 1** summarize the safety analysis results for the intersections and the segment of the CSAH 6 study area. Intersections without any reported crashes during the analysis period are not included in the table.

Table 1: Crash Data Analysis

Intersection	Traffic Control	Total Crashes (3 Years)	Entering ADT	Crash Rate			
				Observed	*Statewide Average*	*Critical Rate*	Critical Index
CSAH 1 (East River Road)	Signal	15	21,500	0.64	*0.72*	*1.19*	**0.54**
Hickory St.	Thru / Stop	2	5,800	0.31	*0.19*	*0.71*	**0.44**
Ashton Ave.	Thru / Stop	3	5,800	0.47	*0.19*	*0.71*	**0.66**
Main St.	Thru / Stop	1	5,800	0.16	*0.19*	*0.71*	**0.23**
2nd St.	Thru / Stop	1	5,800	0.16	*0.19*	*0.71*	**0.23**
3rd St.	Thru / Stop	3	5,800	0.47	*0.19*	*0.71*	**0.66**
TH 47 (University Ave NE)	Signal	47	38,850	1.10	*0.47*	*0.75*	**1.47**
5th St	Thru / Stop	1	5,600	0.16	*0.19*	*0.72*	**0.22**
7th St.	All Stop	9	5,600	1.47	*0.34*	*1.04*	**1.41**
611 Mississippi (Historical Center)	Thru / Stop	2	5,600	0.33	*0.19*	*0.72*	**0.46**
Monroe St.	All Stop	1	5,025	0.18	*0.34*	*1.08*	**0.17**
Jackson St.	Thru / Stop	1	5,025	0.18	*0.19*	*0.75*	**0.24**
Taylor St.	Thru / Stop	4	5,025	0.73	*0.19*	*0.75*	**0.97**
Brookview Dr.	Thru / Stop	1	5,400	0.17	*0.19*	*0.73*	**0.23**
TH 65	Signal	33	35,525	0.85	*0.40*	*0.68*	**1.25**
Lucia Ln.	Thru / Stop	2	5,025	0.36	*0.19*	*0.75*	**0.48**
Dellwood Dr.	Thru / Stop	1	5,025	0.18	*0.19*	*0.75*	**0.24**
Channel Rd.	Thru / Stop	1	5,025	0.18	*0.19*	*0.75*	**0.24**
CSAH 35 (Old Central Ave)	All Stop	10	5,025	1.82	*0.34*	*1.08*	**1.69**
Arthur St.	Thru / Stop	1	4,650	0.20	*0.19*	*0.78*	**0.26**
Corridor (2.3 miles)	**-**	**139**		**10.44**	**3.87**	**5.30**	**1.97**

Four intersections have a critical index greater than 1.0: TH 47 (University Ave.), 7th Street, TH 65, and Central Avenue. Statistically these intersections are operating outside the expected, normal range for similar intersections statewide. Additionally, the entire CSAH 6 corridor from CSAH 1 to Stinson Boulevard has a critical index of 1.97.

The signalized intersections at TH 47 and TH 65 have significantly more entering traffic and have the most crashes within the study area. Most of the crashes are rear end crashes (53% at TH 47 and 64% at TH 65). Rear end crashes are typical at signalized intersections and usually mitigated with changes in signal timing, providing for more advance notice to drivers of the changing signal phases, or mitigated through removal of signal phases or the signal altogether.

The intersections of 7th Street, Monroe Street, and CSAH 35 (Old Central Avenue) are all-way stop controlled (AWSC) intersections with multiple lanes on the CSAH 6 approaches,

and multiple lanes of approach on the CSAH 35 approaches. AWSC intersections with multiple approach lanes can be confusing for drivers at times because it can be unclear who goes next when multiple vehicles approach the intersection simultaneously. Furthermore, based on observations and the crash data it is possible that drivers on CSAH 6 are not complying with the stop control due to the lack of side street traffic at most times of the day.

Eight other intersections have observed crash rates greater than the statewide average but less than the critical rate. The observed crash rate at Taylor Street is just below the critical rate having a critical index of 0.97.

There were no fatal or incapacitating injury crashes reported from 2016-2018 within the study area. No Fatal or Serious Injury Rates are observed for the corridor.

Recommendations:

The entire corridor to be investigated for safety improvements in regard to vehicle crash reduction. The crash rate for CSAH 6 is nearly twice the critical rate for similar type facilities statewide. Specifically, intersection safety improvements to be considered at TH 47, TH 65, 7th Street, Taylor Street, and CSAH 35 (Old Central Avenue).

Crash detail information can be found in **Appendix A.**

C. Existing Warrant Analysis

All-way stop control (AWSC) can be a useful traffic control type where there are high traffic volumes in multiple directions, there is an existing safety issue that can be resolved with implementation, or if there is an insufficient sight distance available to see conflicting traffic on an approach to an intersection. The decision to implement all-way stop control should be based on an engineering study. The MnMUTCD identifies the following criteria that should be considered in the engineering study for an all-way stop control installation. Further guidance and details are provided in the MnMUTCD:

- Condition A: Where traffic control signals are justified, an all-way stop can be installed as an interim measure.
- Condition B: Five or more crashes are reported in a 12-month period.
- Condition C: The volume of either vehicles or a combination of vehicles, pedestrians and bicycles entering the intersection from all approaches for any eight hours of an average day meets the minimum volume requirements set forth in section 2B.7 of the 2018 MnMUTCD.

AWSC warrants were evaluated using the 2019 turning movement counts for the three existing AWSC intersections of 7th Street, Monroe Street and CSAH 35. None of the intersections satisfied AWSC warrants with the 2019 turning movement counts.

- 7th Street and Monroe Street satisfied zero of the required eight hours required.
- CSAH 35 (Old Central Ave) satisfied ten of the required eight hours required.

Additionally, all three intersections have clear sight lines and are not experiencing five or more crashes within a 12-month period.

Recommendation:

The all-way stop control at 7th Street, Monroe Street, and CSAH 35 are currently unjustified based on warrants. Alternative intersection control to be investigated to improve the operations and safety at all three intersections. The type of intersection design at 7th Street and Monroe Street to consider their proximity to Hayes Elementary School and the pedestrian

crossings that are used by students.

Detailed warrant analysis results can be found in **Appendix B.**

D. Existing Traffic Operations Analysis

The operational analysis was performed using the Highway Capacity Manual (HCM) 6th Edition methodology through Synchro/SimTraffic analysis software.

The operational analysis results are described as a Level of Service (LOS) ranging from A to F. These letters serve to describe a range of operating conditions for different types of facilities. Levels of Service are calculated based on the Highway Capacity Manual 6th Edition, which bases the level of service on control delay. Control delay is the delay experienced by vehicles slowing down as they are approaching the intersection, the wait time at the intersection, and the time for the vehicle to speed up through the intersection and enter into the traffic stream. The average intersection control delay is a volume weighted average of delay experienced by all motorists entering the intersection on all intersection approaches for signalized and unsignalized (stop control and roundabout) intersections. Level of Service D is commonly taken as an acceptable design year LOS. The level of service and its associated intersection delay for a signalized and unsignalized intersection is presented below. The delay threshold for unsignalized intersections is lower for each LOS compared to signalized intersections, which accounts for the fact that people expect a higher level of service when at a stop-controlled or roundabout intersection.

Table 2: Level of Service Criteria

LOS	Signalized	Unsignalized
	Control Delay per Vehicle (sec.)	Control Delay per Vehicle (sec)
A	≤10	≤10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

The existing geometric conditions for the corridor were modeled in Synchro/SimTraffic software. Signal timing information for the TH 47 and TH 65 intersections were provided by MnDOT and included in the model. The CSAH 1 signal timing was obtained from Anoka County. While the timings at CSAH 1 were optimized based on the traffic volumes, the signal timings for TH 47 and TH 65 were maintained, with optimization of side street phasing and timing as needed. This is in recognition of the high volume on TH 47 and TH 65 and the need for maintenance of existing operations along those corridors.

Table 3 and Figure 3 detail the existing AM and PM peak hour traffic operation results for the corridor. The intersection delay shown represents the overall average delay of all the vehicles traveling through the intersection.

Table 3: Existing Traffic Operations

Intersection	Peak Hour	Intersection Delay (sec/veh)		Movement Delay (sec/veh)																							
				NBL		NBT		NBR		SBL		SBT		SBR		EBL		EBT		EBR		WBL		WBT		WBR	
East River Rd & Mississippi Way NE/Mississippi St NE	AM	21	C	53	D	17	B	3	A	53	D	14	B	4	A	55	E	65	E	21	C	42	D	47	D	5	A
Signalized Intersection	PM	16	B	35	D	15	B	6	A	39	D	7	A	3	A	31	C	40	D	6	A	35	D	30	C	18	B
Hickory St NE & Mississippi St NE	AM	3	A	-		-		-		9	A	-		12	B	5	A	3	A	-		-		3	A	0	A
Stop Controlled	PM	2	A	-		-		-		7	A	-		4	A	6	A	4	A	-		-		1	A	0	A
Ashton Ave NE & Mississippi St NE	AM	1	A	8	A	-		3	A	-		-		-		-		0	A	0	A	3	A	1	A	-	
Stop Controlled	PM	1	A	8	A	-		4	A	-		-		-		-		0	A	0	A	3	A	1	A	-	
2nd St NE & Mississippi St NE	AM	1	A	-		-		-		10	B	-		4	A	4	A	1	A	-		-		1	A	0	A
Stop Controlled	PM	1	A	-		-		-		11	B	-		4	A	4	A	1	A	-		-		1	A	0	A
3rd St NE/W Service Dr & Mississippi St NE	AM	1	A	10	B	5	A	2	A	9	A	-		4	A	3	A	0	A	0	A	2	A	0	A	0	A
Stop Controlled	PM	2	A	12	B	14	B	2	A	11	B	-		4	A	2	A	0	A	0	A	3	A	1	A	0	A
Commercial Access & Mississippi St NE	AM	1	A	-		-		-		-		-		2	A	-		1	A	-		-		2	A	1	A
Stop Controlled	PM	2	A	-		-		-		-		-		2	A	-		1	A	-		-		2	A	1	A
TH 47 & Mississippi St NE	AM	25	C	72	E	15	B	4	A	61	E	17	B	7	A	68	E	77	E	25	C	75	E	63	E	6	A
Signalized Intersection	PM	38	D	74	E	27	C	12	B	90	F	27	C	7	A	87	F	78	E	15	B	85	F	86	F	37	D
Walgreen DWY & Mississippi St NE	AM	1	A	-		-		-		6	A	-		4	A	5	A	3	A	-		-		0	A	0	A
Stop Controlled	PM	1	A	-		-		-		10	B	-		4	A	5	A	2	A	-		-		0	A	0	A
5th St NE & Mississippi St NE	AM	2	A	9	A	-		3	A	-		-		-		-		1	A	1	A	6	A	3	A	-	
Stop Controlled	PM	3	A	15	C	-		4	A	-		-		-		-		1	A	1	A	8	A	3	A	-	
7th St NE & Mississippi St NE	AM	8	A	5	A	6	A	3	A	5	A	7	A	4	A	6	A	8	A	5	A	8	A	10	B	5	A
All-Way Stop Controlled	PM	9	A	7	A	8	A	4	A	6	A	8	A	4	A	8	A	10	B	6	A	8	A	11	B	7	A
Monroe St NE & Mississippi St NE	AM	7	A	5	A	6	A	3	A	5	A	7	A	3	A	7	A	9	A	5	A	6	A	8	A	4	A
All-Way Stop Controlled	PM	8	A	5	A	5	A	3	A	5	A	6	A	3	A	8	A	10	B	6	A	6	A	8	A	5	A
Jackson St NE & Mississippi St NE	AM	1	A	7	A	5	A	3	A	6	A	6	A	3	A	6	A	2	A	2	A	2	A	0	A	0	A
Stop Controlled	PM	2	A	6	A	-		3	A	9	A	-		4	A	5	A	3	A	2	A	2	A	0	A	0	A
Van Buren St NE & Mississippi St NE	AM	1	A	6	A	-		3	A	-		-		-		-		0	A	0	A	2	A	0	A	-	
Stop Controlled	PM	1	A	5	A	-		3	A	-		-		-		-		0	A	0	A	3	A	1	A	-	
Able St NE & Mississippi St NE	AM	1	A	6	A	6	A	3	A	6	A	10	B	3	A	-		0	A	0	A	2	A	0	A	0	A
Stop Controlled	PM	0	A	7	A	-		3	A	-		4	A	7	A	-		0	A	0	A	3	A	0	A	0	A
Baker Ave NE & Mississippi St NE	AM	0	A	6	A	-		3	A	-		-		-		-		0	A	0	A	3	A	0	A	-	
Stop Controlled	PM	1	A	12	B	-		3	A	-		-		-		-		0	A	0	A	3	A	0	A	-	
Oakley Dr NE & Mississippi St NE	AM	0	A	-		-		-		7	A	-		3	A	2	A	0	A	-		-		0	A	0	A
Stop Controlled	PM	3	A	-		-		-		10	B	-		4	A	6	A	5	A	-		-		0	A	0	A
Taylor St NE & Mississippi St NE	AM	7	A	15	C	-		24	C	-		-		-		-		13	B	0	A	2	A	0	A	-	
Stop Controlled	PM	39	E	267	F	-		323	F	-		-		-		-		66	F	23	C	5	A	0	A	-	
Brookview Dr NE & Mississippi St NE	AM	29	D	-		-		-		133	F	-		29	D	48	E	54	F	-		-		2	A	1	A
Stop Controlled	PM	27	D	-		-		-		-		-		3	A	73	F	53	F	-		-		2	A	1	A
TH 65 & Mississippi St NE	AM	41	D	111	F	17	B	3	A	142	F	43	D	25	C	40	D	48	D	39	D	108	F	103	F	64	E
Signalized Intersection	PM	108	F	207	F	158	F	132	F	97	F	28	C	7	A	31	C	39	D	22	C	97	F	103	F	91	F
Lucia Ln NE & Mississippi St NE	AM	1	A	-		-		-		5	A	-		3	A	4	A	2	A	-		-		0	A	0	A
Stop Controlled	PM	2	A	-		-		-		8	A	-		4	A	5	A	2	A	-		-		0	A	0	A
Dellwood Dr NE & Mississippi St NE	AM	0	A	7	A	-		3	A	-		-		-		-		0	A	0	A	4	A	0	A	-	
Stop Controlled	PM	0	A	8	A	-		2	A	-		-		-		-		0	A	0	A	2	A	0	A	-	
Pierce St NE SB & Mississippi St NE	AM	0	A	-		-		-		6	A	-		2	A	2	A	0	A	-		-		0	A	0	A
Stop Controlled	PM	0	A	-		-		-		8	A	-		3	A	3	A	0	A	-		-		0	A	0	A
Pierce St NE NB & Mississippi St NE	AM	0	A	5	A	-		3	A	-		-		-		-		0	A	0	A	2	A	0	A	-	
Stop Controlled	PM	0	A	8	A	-		3	A	-		-		-		-		0	A	0	A	2	A	0	A	-	
Channel Rd NE & Mississippi St NE	AM	1	A	-		-		-		6	A	-		3	A	2	A	0	A	-		-		2	A	2	A
Stop Controlled	PM	2	A	-		-		-		7	A	-		3	A	2	A	0	A	-		-		2	A	2	A
Central Ave NE & Mississippi St NE	AM	11	B	11	B	13	B	4	A	8	A	10	B	4	A	17	C	17	C	4	A	6	A	9	A	5	A
All-Way Stop Controlled	PM	15	C	13	B	15	C	5	A	20	C	21	C	6	A	19	C	19	C	5	A	8	A	12	B	5	A
Arthur St NE & Mississippi St NE	AM	2	A	6	A	-		2	A	6	A	6	A	3	A	4	A	3	A	-		-		0	A	0	A
Stop Controlled	PM	2	A	8	A	6	A	-		6	A	-		3	A	5	A	3	A	2	A	-		0	A	0	A
Anoka St NE & Mississippi St NE	AM	0	A	5	A	-		2	A	4	A	5	A	3	A	2	A	0	A	0	A	-		0	A	0	A
Stop Controlled	PM	1	A	6	A	7	A	3	A	6	A	8	A	-		2	A	0	A	0	A	1	A	0	A	0	A
Fridley St NE & Mississippi St NE	AM	1	A	-		-		-		5	A	-		3	A	2	A	0	A	-		-		0	A	0	A
Stop Controlled	PM	0	A	-		-		-		8	A	-		3	A	2	A	0	A	-		-		0	A	0	A
McKinley St NE & Mississippi St NE	AM	0	A	-		-		-		6	A	-		3	A	-		0	A	-		-		0	A	0	A
Stop Controlled	PM	0	A	-		-		-		5	A	-		3	A	2	A	0	A	-		-		0	A	0	A
Stinson Blvd & Mississippi St NE	AM	0	A	-		-		-		5	A	-		3	A	2	A	0	A	-		-		0	A	0	A
Stop Controlled	PM	0	A	-		-		-		8	A	-		2	A	2	A	0	A	-		-		0	A	0	A

In general, intersection delay is currently operating at LOS A for most of the study area with the exception at the three signalized intersections and the AWSC at CSAH 35 (Old Central Ave). Increased delay at Taylor Street and Brookview Drive are a result of the traffic operations at TH 65. Specific traffic operation concerns within the corridor study from west to east along CSAH 6 include:

CSAH 1 (East River Road):

- Intersection delay LOS C and B during the AM and PM peak hours, respectively.
- Eastbound left turn and through movements at LOS E during the AM peak hour.

Anoka County/CSAH 6 Roadway Study

Anoka County, MN

Figure 3: Existing Level of Service

September 2019

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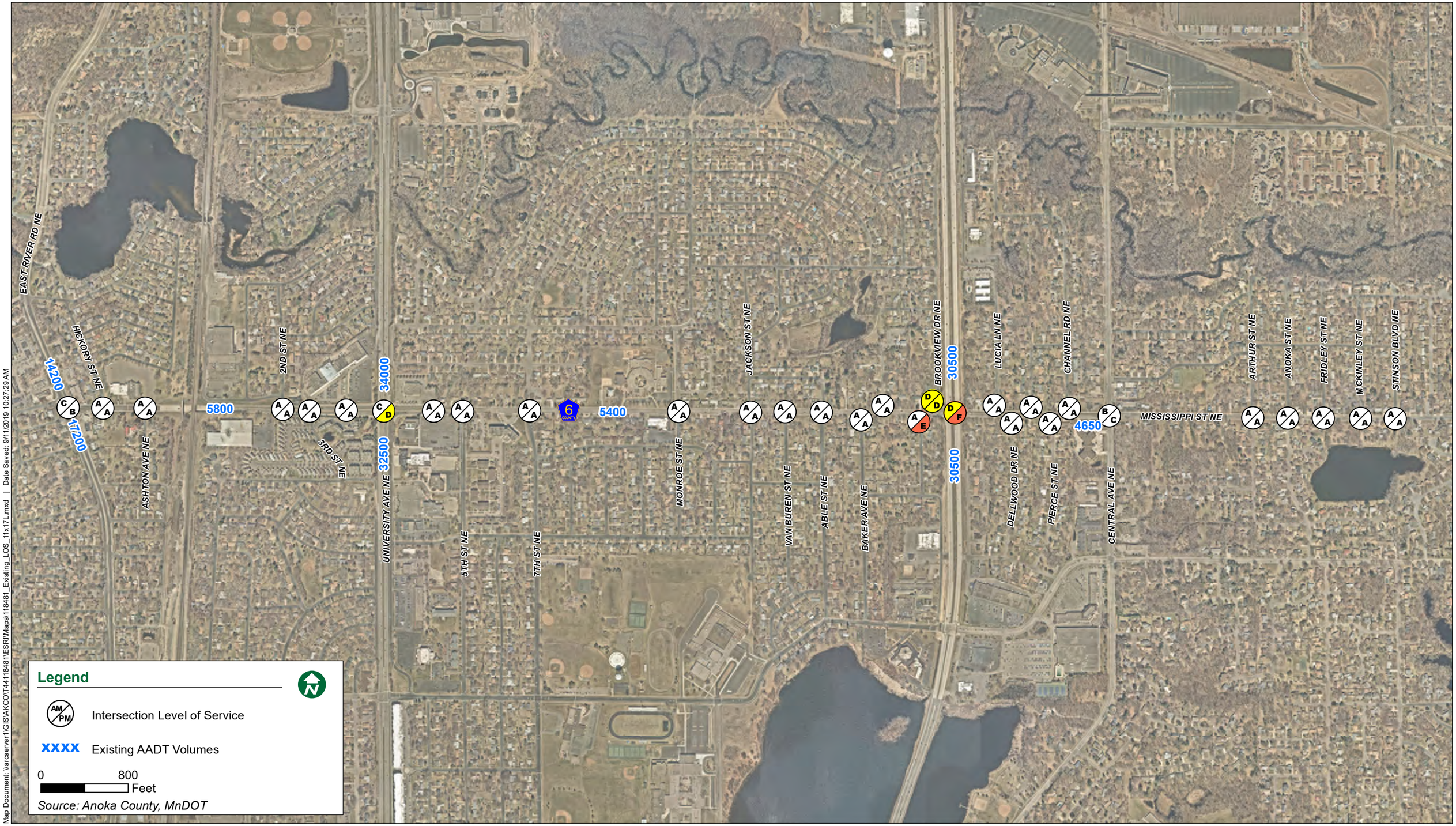


TH 47 (University Avenue):

- Intersection delay LOS C and D during the AM and PM peak hours, respectively.
- Left turn movements in all directions at LOS E or F during the AM and PM peak hours.
- Eastbound and westbound through movements at LOS E or F during the AM and PM peak hours.
- Maximum queue length of northbound and southbound through movements that block access to the right turn lanes during the AM and PM peak hours.
- Maximum queue length exceeds the available storage length for northbound and southbound right turn lanes during the AM and PM peak hours.
- Maximum queue length exceeds available storage length for the westbound left turn lane during the PM peak hour.

TH 65:

- Intersection delay LOS D and F during the AM and PM peak hours, respectively.
- Multiple failing movements for the northbound, westbound, and southbound approaches during the peak hours.
- Eastbound maximum queue length extends through multiple intersections to the west, to the intersection of Oakley Drive, during the AM and PM peak hours.
- Maximum queue length of northbound and southbound through movements that block access to left and right turn lanes during the PM and AM peak hours, respectively.
- Maximum queue length exceeds available storage length for northbound and southbound left and right turn lanes during peak hours.

CSAH 35:

- Intersection delay LOS B and C during the AM and PM peak hours, respectively.
- Maximum queue length exceeds the available storage length for the southbound right turn lane during the PM peak hour.
- Maximum queue length of southbound through movements block access to the right turn lane during the PM peak Hour.

Additional traffic operations details, including average and maximum queue information, can be found in **Appendix C.**

IV. Future Conditions Analysis

A. Traffic Forecasting and Development

Future traffic volumes were developed for the year 2040 based on the forecast volumes obtained from the Anoka County 2040 Transportation Plan. Individual growth rates shown in **Table 4** were used to develop future turning movement counts for the study area. Traffic volumes are anticipated to increase throughout the study area with an expected growth rate ranging from 0.33% to 0.74% with the largest increase anticipated on TH 65. 2040 traffic volume forecasts showed little to no growth on CSAH 6 and TH 47 north of CSAH 6. For this analysis, the traffic volumes were assumed to increase to account for some growth due to regional pattern changes and development/redevelopment in the area Forecast are shown in **Table 4**.

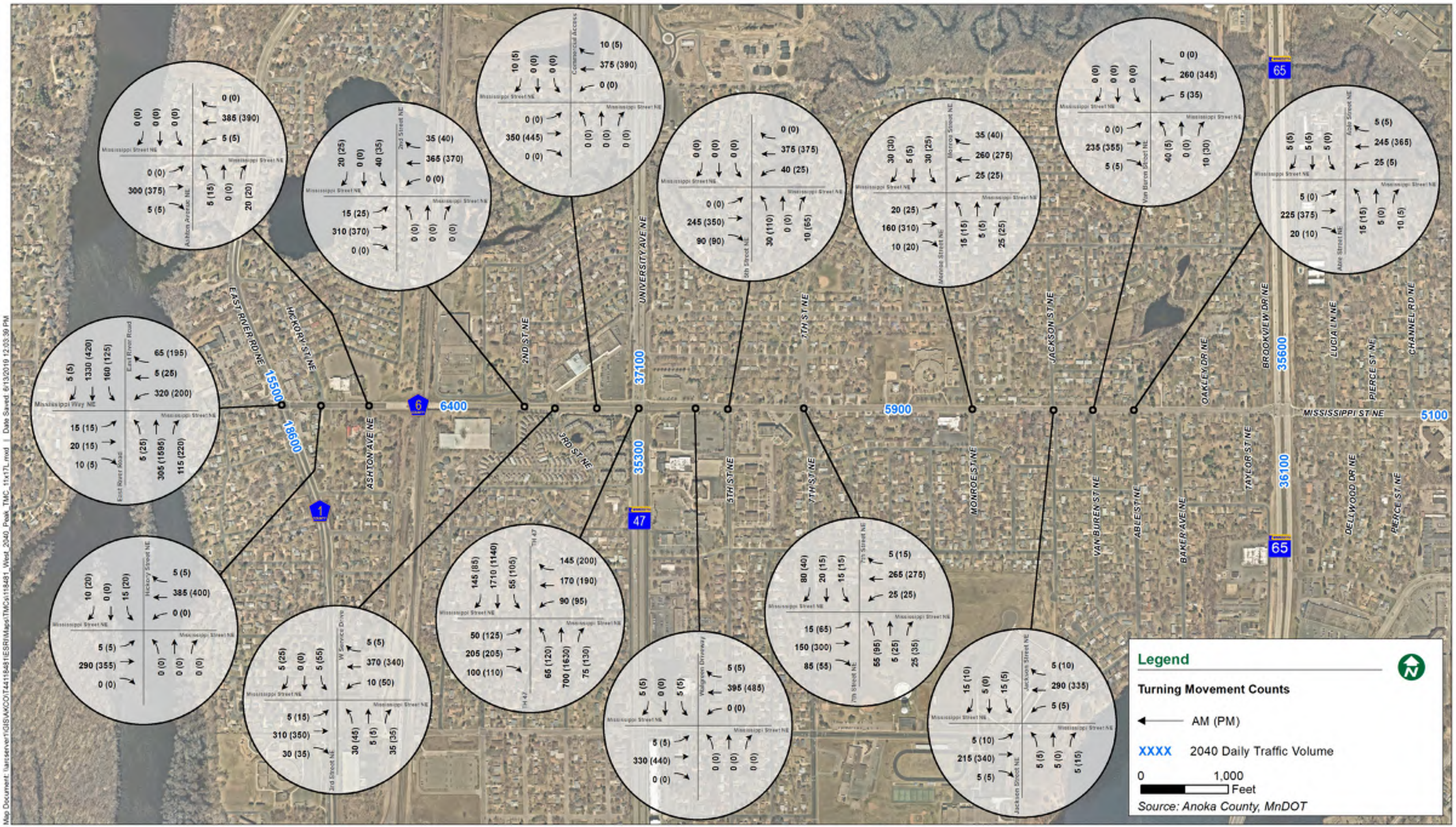
Table 4: Daily Traffic Forecast and Growth Rate

Data Location	MnDOT Most Recent		Forcast		Growth Rate
	AADT	Year	AADT	Year	
East River Rd - North of CSAH 6	14200	2016	15500	2040	0.37%
East River Rd - South of CSAH 6	17200	2016	18600	2040	0.33%
CSAH 6 - East of East River Rd	5800	2016	6400	2040	0.41%
TH 47 - North of CSAH 6	34000	2017	37100	2040	0.38%
TH 47 - South of CSAH 6	32500	2017	35300	2040	0.36%
CSAH 6 - East of TH 47	5400	2016	5940	2040	0.40%
TH 65 - North of CSAH 6	30500	2017	35600	2040	0.67%
TH 65 - South of CSAH 6	30500	2017	36100	2040	0.74%
CSAH 6 - East of TH 65	4650	2016	5150	2040	0.43%
				Average Growth Rate	**0.46%**

AADT (Average Annual Daily Traffic)
ADT (Average Daily Traffic)

Future traffic operations analysis considers the AM and PM peak hours of the day with the forecasted traffic volumes. Future (2040) forecast peak hour turning movements are shown in **Figure 4.**

Figure 4: 2040 Turning Movements - West



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2040 Turning Movements - East

June 2019

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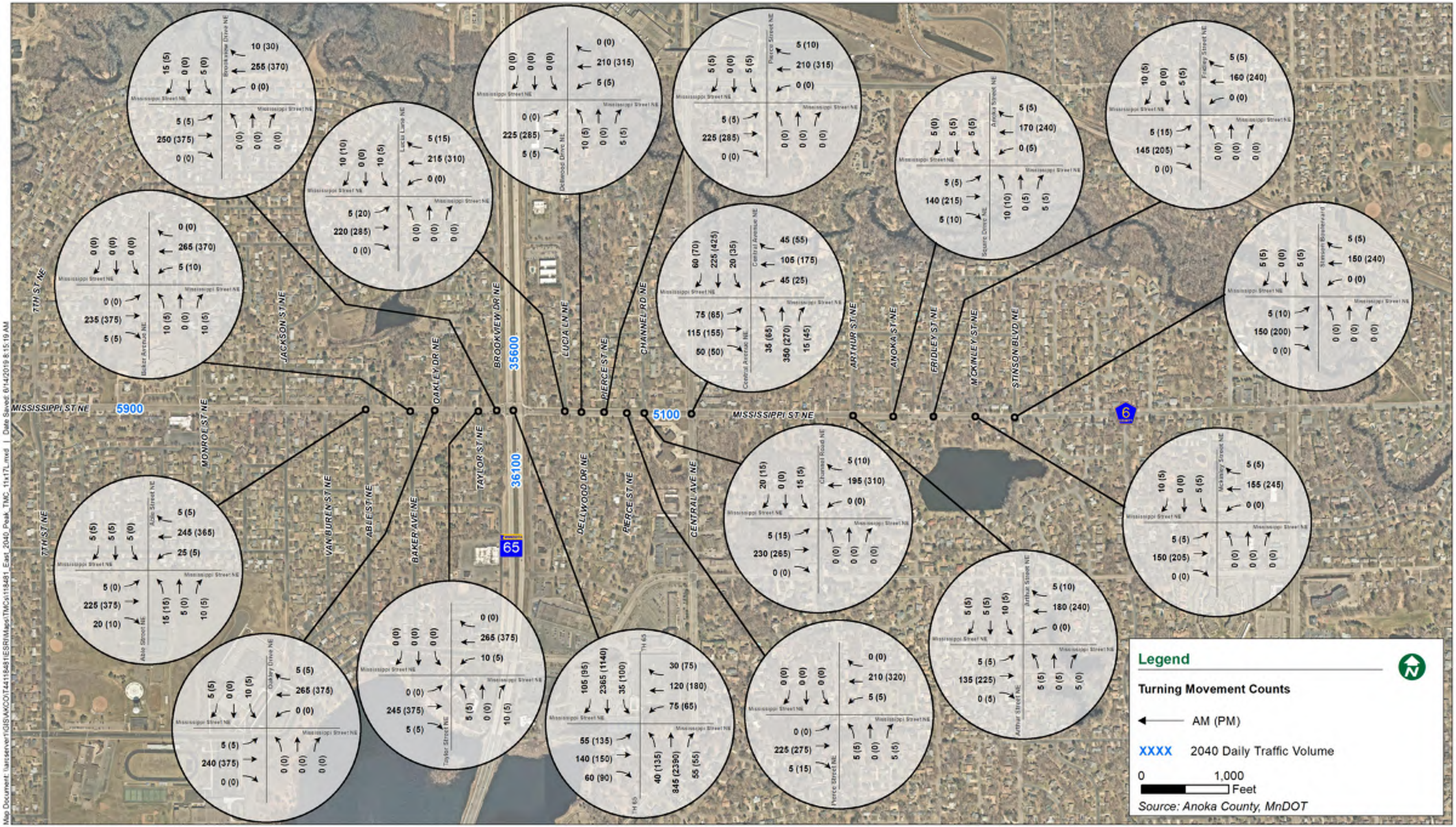

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B. Future 2040 No Build Traffic Operations Analysis

Table 5 and Figure 5 details the future (2040) AM and PM peak hour traffic operations results for the corridor. The intersection delay shown represents the overall average delay of all the vehicles traveling through the intersection.

Table 5: Future (2040) Traffic Operations – No Build

Intersection	Peak Hour	Intersection Delay (sec/veh)		Movement Delay (sec/veh)																											
				NBL		NBT		NBR		SBL		SBT		SBR		EBL		EBT		EBR		WBL		WBT		WBR	
East River Rd & Mississippi Way NE/Mississippi St NE	AM	18	B	30	C	17	B	3	A	16	B	15	B	4	A	43	D	60	E	23	C	37	D	26	C	4	A
Signalized Intersection	PM	21	C	47	D	20	C	7	A	54	D	8	A	3	A	45	D	52	D	13	B	40	D	35	D	25	C
Hickory St NE & Mississippi St NE	AM	3	A	-		-		-		10	B	-		6	A	7	A	3	A	-		-		3	A	0	A
Stop Controlled	PM	3	A	-		-		-		8	A	-		5	A	4	A	4	A	-		-		1	A	0	A
Ashton Ave NE & Mississippi St NE	AM	1	A	6	A	-		3	A	-		-		-		-		0	A	0	A	3	A	1	A	-	
Stop Controlled	PM	1	A	10	B	-		4	A	-		-		-		-		0	A	0	A	4	A	1	A	-	
2nd St NE & Mississippi St NE	AM	1	A	-		-		-		10	B	-		5	A	5	A	1	A	-		-		1	A	0	A
Stop Controlled	PM	1	A	-		-		-		12	B	-		3	A	4	A	1	A	-		-		1	A	1	A
3rd St NE/W Service Dr & Mississippi St NE	AM	1	A	11	B	16	C	2	A	8	A	-		3	A	3	A	0	A	0	A	3	A	0	A	0	A
Stop Controlled	PM	2	A	14	B	14	B	2	A	13	B	-		5	A	2	A	1	A	0	A	3	A	1	A	0	A
Commercial Access & Mississippi St NE	AM	1	A	-		-		-		-		-		3	A	-		1	A	-		-		2	A	1	A
Stop Controlled	PM	1	A	-		-		-		-		-		3	A	-		1	A	-		-		2	A	1	A
TH 47 & Mississippi St NE	AM	28	C	79	E	16	B	5	A	60	E	21	C	9	A	71	E	86	F	28	C	74	E	63	E	7	A
Signalized Intersection	PM	41	D	80	F	31	C	16	B	95	F	29	C	9	A	100	F	78	E	17	B	87	F	83	F	40	D
Walgreen DWY & Mississippi St NE	AM	1	A	-		-		-		8	A	-		3	A	6	A	3	A	-		-		0	A	0	A
Stop Controlled	PM	1	A	-		-		-		12	B	-		3	A	8	A	2	A	-		-		0	A	0	A
5th St NE & Mississippi St NE	AM	3	A	10	B	-		3	A	-		-		-		-		1	A	1	A	6	A	3	A	-	
Stop Controlled	PM	3	A	13	B	-		4	A	-		-		-		-		1	A	1	A	8	A	3	A	-	
7th St NE & Mississippi St NE	AM	8	A	6	A	7	A	3	A	5	A	7	A	3	A	7	A	8	A	5	A	8	A	10	B	5	A
Stop Controlled	PM	9	A	6	A	8	A	3	A	6	A	7	A	4	A	8	A	9	A	6	A	8	A	11	B	6	A
Monroe St NE & Mississippi St NE	AM	7	A	5	A	6	A	3	A	5	A	7	A	4	A	8	A	10	B	6	A	6	A	8	A	4	A
Stop Controlled	PM	8	A	5	A	10	B	3	A	6	A	5	A	4	A	9	A	10	B	6	A	6	A	8	A	4	A
Jackson St NE & Mississippi St NE	AM	2	A	7	A	-		3	A	7	A	9	A	3	A	5	A	2	A	2	A	2	A	0	A	0	A
Stop Controlled	PM	2	A	8	A	11	B	3	A	8	A	-		3	A	5	A	3	A	3	A	2	A	0	A	0	A
Van Buren St NE & Mississippi St NE	AM	1	A	8	A	-		4	A	-		-		-		-		0	A	0	A	2	A	0	A	-	
Stop Controlled	PM	1	A	13	B	-		4	A	-		-		-		-		0	A	0	A	3	A	0	A	-	
Able St NE & Mississippi St NE	AM	1	A	7	A	6	A	3	A	6	A	6	A	2	A	-		0	A	0	A	3	A	0	A	0	A
Stop Controlled	PM	0	A	8	A	-		3	A	-		-		3	A	-		0	A	0	A	3	A	0	A	0	A
Baker Ave NE & Mississippi St NE	AM	0	A	5	A	-		3	A	-		-		-		-		0	A	0	A	3	A	0	A	-	
Stop Controlled	PM	0	A	9	A	-		7	A	-		-		-		-		0	A	0	A	4	A	0	A	-	
Oakley Dr NE & Mississippi St NE	AM	0	A	-		-		-		7	A	-		3	A	2	A	0	A	-		-		0	A	0	A
Stop Controlled	PM	1	A	-		-		-		20	C	-		7	A	3	A	2	A	-		-		0	A	0	A
Taylor St NE & Mississippi St NE	AM	12	B	17	C	-		35	E	-		-		-		-		23	C	8	A	3	A	0	A	-	
Stop Controlled	PM	32	D	178	F	-		231	F	-		-		-		-		56	F	12	B	3	A	0	A	-	
Brookview Dr NE & Mississippi St NE	AM	33	D	-		-		-		160	F	-		7	A	55	F	61	F	-		-		2	A	1	A
Stop Controlled	PM	29	D	-		-		-		-		-		3	A	33	D	55	F	-		-		2	A	1	A
TH 65 & Mississippi St NE	AM	120	F	117	F	18	B	4	A	264	F	168	F	152	F	47	D	42	D	40	D	111	F	108	F	82	F
Signalized Intersection	PM	134	F	250	F	217	F	192	F	102	F	30	C	9	A	31	C	37	D	21	C	92	F	103	F	82	F
Lucia Ln NE & Mississippi St NE	AM	1	A	-		-		-		9	A	-		3	A	4	A	2	A	-		-		0	A	0	A
Stop Controlled	PM	1	A	-		-		-		7	A	-		3	A	5	A	2	A	-		-		0	A	0	A
Dellwood Dr NE & Mississippi St NE	AM	0	A	8	A	-		3	A	-		-		-		-		0	A	0	A	2	A	0	A	-	
Stop Controlled	PM	0	A	6	A	-		3	A	-		-		-		-		0	A	0	A	4	A	0	A	-	
Pierce St NE SB & Mississippi St NE	AM	0	A	-		-		-		6	A	-		3	A	3	A	0	A	-		-		0	A	0	A
Stop Controlled	PM	0	A	-		-		-		8	A	-		3	A	3	A	0	A	-		-		0	A	0	A
Pierce St NE NB & Mississippi St NE	AM	0	A	8	A	-		3	A	-		-		-		-		0	A	0	A	2	A	0	A	-	
Stop Controlled	PM	0	A	5	A	-		3	A	-		-		-		-		0	A	0	A	2	A	0	A	-	
Channel Rd NE & Mississippi St NE	AM	1	A	-		-		-		6	A	-		3	A	2	A	0	A	-		-		2	A	2	A
Stop Controlled	PM	2	A	-		-		-		6	A	-		3	A	3	A	1	A	-		-		2	A	2	A
Central Ave NE & Mississippi St NE	AM	13	B	12	B	15	C	5	A	12	B	12	B	4	A	18	C	19	C	4	A	7	A	11	B	5	A
Stop Controlled	PM	19	C	15	C	17	C	5	A	29	D	29	D	9	A	20	C	22	C	5	A	9	A	13	B	5	A
Arthur St NE & Mississippi St NE	AM	2	A	5	A	-		2	A	6	A	4	A	3	A	4	A	3	A	-		-		0	A	0	A
Stop Controlled	PM	2	A	8	A	10	B	-		5	A	5	A	3	A	3	A	3	A	3	A	-		0	A	0	A
Anoka St NE & Mississippi St NE	AM	0	A	5	A	-		3	A	5	A	-		5	A	1	A	0	A	0	A	-		0	A	-	
Stop Controlled	PM	1	A	8	A	5	A	4	A	6	A	7	A	-		3	A	0	A	0	A	1	A	0	A	0	A
Fridley St NE & Mississippi St NE	AM	0	A	-		-		-		5	A	-		3	A	1	A	0	A	-		-		0	A	0	A
Stop Controlled	PM	0	A	-		-		-		5	A	-		3	A	2	A	0	A	-		-		0	A	0	A
McKinley St NE & Mississippi St NE	AM	0	A	-		-		-		5	A	-		3	A	-		0	A	-		-		0	A	0	A
Stop Controlled	PM	0	A	-		-		-		6	A	-		2	A	2	A	0	A	-		-		0	A	0	A
Stinson Blvd & Mississippi St NE	AM	0	A	-		-		-		6	A	-		3	A	2	A	0	A	-		-		0	A	0	A
Stop Controlled	PM	0	A	-		-		-		7	A	-		3	A	2	A	0	A	-		-		0	A	1	A

The corridor is anticipated to continue to operate at a LOS A for many of the intersections with the exception of the three signalized intersections. The current operational concerns with excessive delays and back-ups at TH 65 are anticipated to continue.

Anoka County/CSAH 6 Roadway Study

Anoka County, MN

Figure 5: 2040 Level of Service

June 2019

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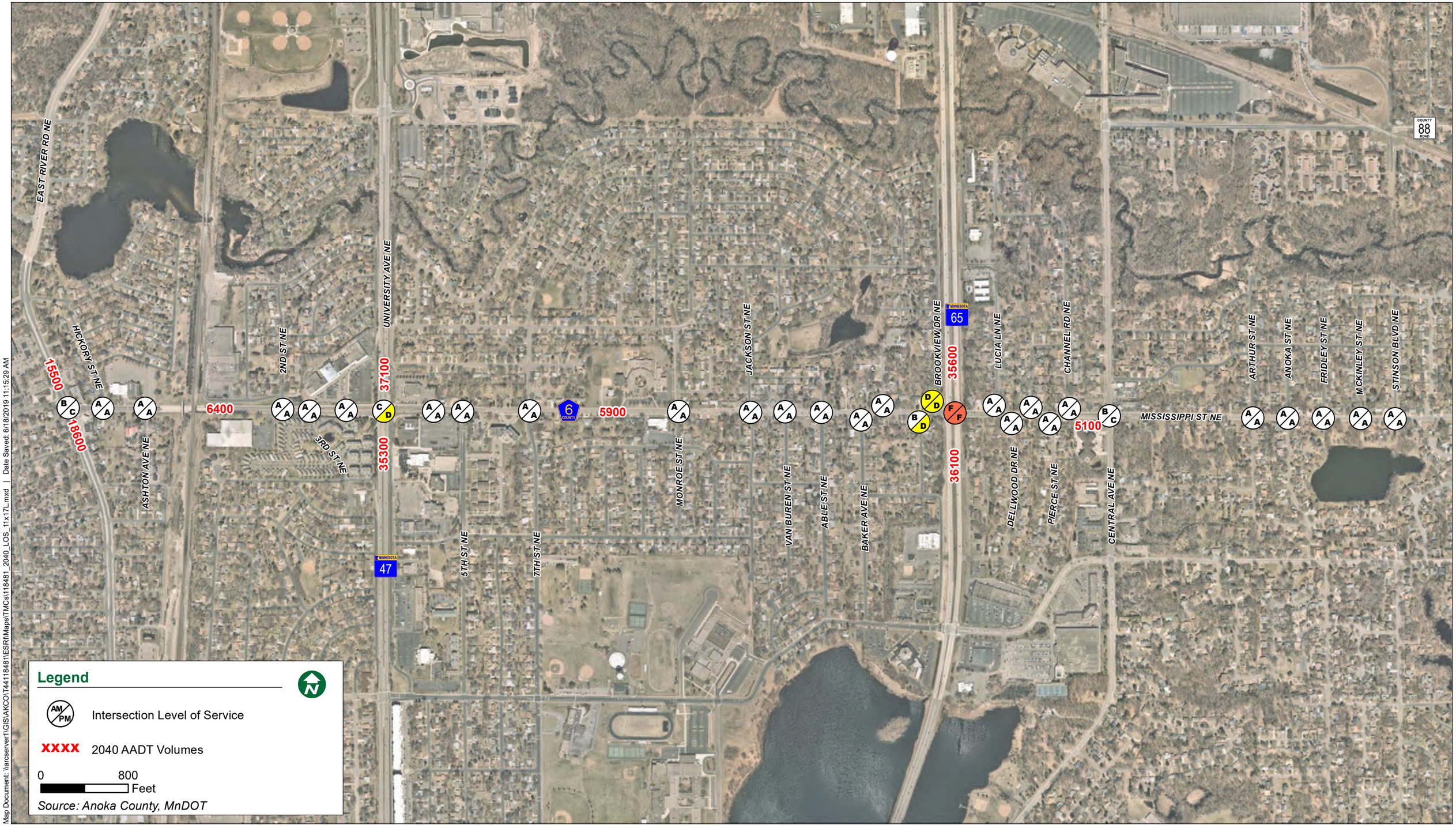

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The following details the future traffic operations concerns within the corridor:

CSAH 1 (East River Road):

- Intersection delay LOS B and C during the AM and PM peak hours, respectively.
- Eastbound through movement at LOS E during the AM peak hour.

TH 47 (University Avenue):

- Intersection delay LOS C and D during the AM and PM peak hours, respectively.
- Left turn movements in all directions at LOS E or F during the AM and PM peak hours.
- Eastbound and westbound through movements at LOS E or F during the AM and PM peak hours.
- Maximum queue length of northbound and southbound through movements block access to right and left turn lanes during the peak hours.
- Maximum queue length exceeds the available storage length for northbound and southbound right turn lanes during the AM and PM peak hours.
- Maximum queue length exceeds available storage length for the westbound and northbound left turn lanes during the PM peak hour.

TH 65:

- Intersection delay LOS F during the AM and PM peak hours.
- Multiple failing movements in the northbound, westbound, and southbound approaches during the peak hours.
- Eastbound maximum queue extends through multiple intersections to the west, to the intersection of Oakley Drive, during the AM and PM Peak hours.
- Maximum queue length of northbound and southbound through movements block access to left and right turn lanes during PM and AM peaks respectively.
- Maximum queue length exceeds available storage length for northbound and southbound left and right turn lanes during peak hours.

CSAH 35:

- Intersection delay LOS B and C during the AM and PM peak hours, respectively.
- Maximum queue length exceeds the available storage length for southbound right turn lane during the PM peak hour.
- Maximum queue length of southbound through movements blocks access to the right turn lane and the intersection of Creek Park Lane during the PM peak hour.

Additional traffic operations details can be found in **Appendix C.**

C. Road Diet Traffic Operations Analysis (Four to Three-Lane Conversion)

Road Diets are identified in Anoka County's Comprehensive plan as a Roadway Design Trend. Generally, a road diet does decrease through movement capacity. By reducing the number of available through lanes from four to two, the number of vehicles that can potentially move along the roadway is reduced. However, if the left most lane is being used as a left turn lane by a large volume of traffic, the through traffic is essentially using only one lane anyway. Future (2040) traffic volumes on CSAH 6 are anticipated to range between 5,100 and 6,400 vehicles per day. CSAH 6 would be anticipated to operate at LOS B or better with one lane in each direction based on the volume compared to the roadway capacity.

In addition, a positive effect of the through lane reduction is that weaving maneuvers are reduced as all vehicles now use one lane and vehicle speeds are reduced as the vehicles can only go as fast as the slowest vehicle in front of them and must slow down for right turning vehicles. On the negative side, travel times may increase due to the slower speeds and delays are generally increased as vehicles cannot maneuver around all turning or slowing down vehicles. Depending on mainline and side street traffic volumes, the reduced lanes can result in shorter or longer delays. Shorter delays as the gaps in traffic do not have to be as large with the shorter crossing distances and fewer lanes to keep track of. Longer delays as the mainline traffic volumes reduce the number of gaps with all through vehicles in one lane in each direction instead of two.

Table 6 details the future (2040) AM and PM peak hour traffic operations results for the corridor with the implementation of a four to three-lane conversion. The existing turn lanes and through lanes at TH 47 and TH 65 were maintained to provide adequate capacity at the intersection; lane configuration options at TH 65 are detailed later in this report. The intersection delay shown represents the overall average delay of all the vehicles traveling through the intersection.

Table 6: Future (2040) Traffic Operations – Road Diet

Intersection	Peak Hour	Intersection Delay (sec/veh)		Movement Delay (sec/veh)																											
				NBL		NBT		NBR		SBL		SBT		SBR		EBL		EBT		EBR		WBL		WBT		WBR	
East River Rd & Mississippi Way NE/Mississippi St NE	AM	18	B	15	B	15	B	3	A	15	B	15	B	3	A	43	D	55	E	25	C	40	D	28	C	5	A
Signalized Intersection	PM	23	C	47	D	24	C	8	A	54	D	8	A	3	A	51	D	55	E	8	A	40	D	34	C	25	C
Hickory St NE & Mississippi St NE	AM	3	A	-		-		-		10	B	-		10	B	8	A	5	A	-		-		2	A	0	A
Stop Controlled	PM	3	A	-		-		-		10	B	-		5	A	7	A	5	A	-		-		1	A	0	A
Ashton Ave NE & Mississippi St NE	AM	1	A	6	A	-		3	A	-		-		-		-		0	A	0	A	3	A	1	A	-	
Stop Controlled	PM	1	A	8	A	-		4	A	-		-		-		-		1	A	0	A	3	A	1	A	-	
2nd St NE & Mississippi St NE	AM	1	A	-		-		-		9	A	-		3	A	3	A	0	A	-		-		0	A	0	A
Stop Controlled	PM	1	A	-		-		-		11	B	-		3	A	5	A	0	A	-		-		1	A	0	A
3rd St NE/W Service Dr & Mississippi St NE	AM	1	A	11	B	-		2	A	8	A	-		3	A	3	A	0	A	0	A	3	A	1	A	0	A
Stop Controlled	PM	3	A	14	B	11	B	2	A	14	B	-		4	A	4	A	0	A	0	A	4	A	1	A	0	A
Commercial Access & Mississippi St NE	AM	2	A	-		-		-		-		-		2	A	-		1	A	-		-		2	A	1	A
Stop Controlled	PM	2	A	-		-		-		-		-		2	A	-		1	A	-		-		3	A	1	A
TH 47 & Mississippi St NE	AM	30	C	83	F	16	B	5	A	61	E	21	C	9	A	74	E	96	F	31	C	83	F	71	E	7	A
Signalized Intersection	PM	42	D	75	E	31	C	15	B	91	F	29	C	8	A	111	F	91	F	17	B	91	F	84	F	47	D
Walgreen DWY & Mississippi St NE	AM	1	A	-		-		-		11	B	-		3	A	6	A	3	A	-		-		0	A	0	A
Stop Controlled	PM	2	A	-		-		-		9	A	-		3	A	6	A	3	A	-		-		0	A	0	A
5th St NE & Mississippi St NE	AM	2	A	11	B	-		3	A	-		-		-		-		0	A	1	A	6	A	2	A	-	
Stop Controlled	PM	4	A	16	C	-		5	A	-		-		-		-		1	A	1	A	8	A	3	A	-	
7th St NE & Mississippi St NE	AM	9	A	6	A	7	A	3	A	6	A	7	A	5	A	6	A	11	B	7	A	8	A	11	B	7	A
Stop Controlled	PM	11	B	7	A	8	A	4	A	6	A	8	A	5	A	8	A	13	B	9	A	9	A	13	B	9	A
Monroe St NE & Mississippi St NE	AM	8	A	5	A	-		3	A	5	A	6	A	3	A	8	A	10	B	7	A	6	A	10	B	6	A
Stop Controlled	PM	10	B	5	A	8	A	3	A	5	A	8	A	3	A	8	A	11	B	7	A	6	A	11	B	7	A
Jackson St NE & Mississippi St NE	AM	2	A	11	B	5	A	3	A	9	A	7	A	4	A	4	A	3	A	3	A	2	A	0	A	0	A
Stop Controlled	PM	2	A	26	D	-		4	A	11	B	-		5	A	5	A	3	A	2	A	3	A	1	A	0	A
Van Buren St NE & Mississippi St NE	AM	1	A	7	A	-		4	A	-		-		-		-		0	A	0	A	2	A	0	A	-	
Stop Controlled	PM	1	A	6	A	-		4	A	-		-		-		-		0	A	0	A	3	A	1	A	-	
Able St NE & Mississippi St NE	AM	1	A	7	A	9	A	3	A	5	A	7	A	3	A	2	A	0	A	0	A	2	A	0	A	0	A
Stop Controlled	PM	1	A	9	A	-		4	A	-		-		3	A	-		0	A	0	A	2	A	1	A	0	A
Baker Ave NE & Mississippi St NE	AM	1	A	7	A	-		3	A	-		-		-		-		0	A	0	A	2	A	0	A	-	
Stop Controlled	PM	1	A	16	C	-		4	A	-		-		-		-		0	A	0	A	4	A	0	A	-	
Oakley Dr NE & Mississippi St NE	AM	1	A	-		-		-		7	A	-		4	A	4	A	0	A	-		-		0	A	0	A
Stop Controlled	PM	0	A	-		-		-		10	B	-		3	A	3	A	0	A	-		-		0	A	0	A
Taylor St NE & Mississippi St NE	AM	15	C	102	F	-		122	F	-		-		-		-		24	C	22	C	6	A	1	A	-	
Stop Controlled	PM	3	A	16	C	-		11	B	-		-		-		-		4	A	2	A	12	B	1	A	-	
Brookview Dr NE & Mississippi St NE	AM	42	E	-		-		-		505	F	-		287	F	58	F	59	F	-		-		3	A	1	A
Stop Controlled	PM	12	B	-		-		-		-		-		2	A	29	D	23	C	-		-		2	A	1	A
TH 65 & Mississippi St NE	AM	137	F	131	F	17	B	5	A	278	F	188	F	175	F	94	F	117	F	84	F	133	F	126	F	84	F
Signalized Intersection	PM	148	F	267	F	235	F	212	F	101	F	35	D	8	A	59	E	65	E	50	D	162	F	150	F	102	F
Lucia Ln NE & Mississippi St NE	AM	2	A	-		-		-		7	A	-		4	A	5	A	3	A	-		-		1	A	0	A
Stop Controlled	PM	5	A	-		-		-		30	D	-		24	C	10	B	5	A	-		-		5	A	4	A
Dellwood Dr NE & Mississippi St NE	AM	1	A	7	A	-		4	A	-		-		-		-		0	A	0	A	3	A	0	A	-	
Stop Controlled	PM	2	A	20	C	-		3	A	-		-		-		-		1	A	0	A	7	A	4	A	-	
Pierce St NE SB & Mississippi St NE	AM	0	A	-		-		-		7	A	-		3	A	2	A	0	A	-		-		0	A	0	A
Stop Controlled	PM	1	A	-		-		-		8	A	-		4	A	3	A	1	A	-		-		2	A	0	A
Pierce St NE NB & Mississippi St NE	AM	0	A	7	A	-		4	A	-		-		-		-		0	A	0	A	3	A	0	A	-	
Stop Controlled	PM	1	A	13	B	-		3	A	-		-		-		-		1	A	0	A	3	A	1	A	-	
Channel Rd NE & Mississippi St NE	AM	1	A	-		-		-		6	A	-		3	A	3	A	0	A	-		-		2	A	2	A
Stop Controlled	PM	2	A	-		-		-		8	A	-		5	A	3	A	1	A	-		-		3	A	2	A
Central Ave NE & Mississippi St NE	AM	10	B	10	B	13	B	5	A	9	A	11	B	4	A	8	A	12	B	8	A	7	A	10	B	6	A
Stop Controlled	PM	16	C	16	C	16	C	6	A	22	C	21	C	8	A	10	B	17	C	12	B	8	A	13	B	8	A
Arthur St NE & Mississippi St NE	AM	2	A	7	A	-		3	A	6	A	8	A	3	A	4	A	3	A	-		-		0	A	0	A
Stop Controlled	PM	2	A	7	A	8	A	-		7	A	8	A	4	A	5	A	3	A	3	A	-		0	A	0	A
Anoka St NE & Mississippi St NE	AM	0	A	6	A	-		3	A	6	A	6	A	3	A	2	A	0	A	0	A	-		0	A	0	A
Stop Controlled	PM	1	A	6	A	6	A	4	A	8	A	5	A	-		2	A	0	A	0	A	1	A	0	A	0	A
Fridley St NE & Mississippi St NE	AM	0	A	-		-		-		5	A	-		3	A	2	A	0	A	-		-		0	A	0	A
Stop Controlled	PM	0	A	-		-		-		6	A	-		3	A	2	A	0	A	-		-		0	A	0	A
McKinley St NE & Mississippi St NE	AM	0	A	-		-		-		6	A	-		3	A	-		0	A	-		-		0	A	0	A
Stop Controlled	PM	0	A	-		-		-		6	A	-		3	A	2	A	0	A	-		-		0	A	0	A
Stinson Blvd & Mississippi St NE	AM	0	A	-		-		-		6	A	-		3	A	2	A	0	A	-		-		0	A	0	A
Stop Controlled	PM	0	A	-		-		-		5	A	-		3	A	2	A	0	A	-		-		0	A	0	A

The corridor is anticipated to operate at a LOS C or better for many of the intersections with the exceptions of the signalized intersections at TH 47 and TH 65. The reduction in through lanes is anticipated to increase traffic delay at all intersections that operate under all-way stop control (AWSC) or signal control. The AWSC intersections of 7th Street, Monroe Street, and CSAH 35 (Old Central Avenue) are anticipated to experience increased delay compared to the no build conditions, however, overall traffic operations are anticipated to be LOS C or better for each of these intersections.

Traffic queues on CSAH 6 at the TH 65 signal are anticipated to extend through Taylor Street and Dellwood Drive to the west and east, respectively. The failing side street approaches at these intersections are a result of excessive queueing at TH 65.

The majority of the corridor is anticipated to have acceptable operations with the Road Diet,

however, additional capacity may be needed at TH 47 and TH 65.

D. TH 47 (University Ave) Traffic Operations Analysis

The existing and future (2040) traffic operations analysis indicates that the intersection of TH 47 (University Ave) operates at acceptable overall intersection LOS. However, all left turn movements and the eastbound and westbound through movements operate at LOS E or F during the peak hours. Traffic volumes on TH 47 are anticipated to exceed 35,000 vehicles per day at CSAH 6 in 2040. This is compared to approximately 5,900 to 6,400 vehicles per day on CSAH 6 in 2040. As a result, TH 47 requires the majority of the available green time at the signalized intersections. Traffic queue results indicate that there is enough storage capacity at the intersection to handle the anticipated traffic volumes.

Recommendation:

Geometric or control changes are not needed or recommended at TH 47 and CSAH 6. Signal timings should be monitored at this intersection.

E. TH 65 Alternative Traffic Operations Analysis

The existing and future (2040) traffic operations analysis indicates that the intersection of TH 65 and CSAH 6 does not operate at acceptable LOS with the inplace geometry and traffic control. Traffic volumes on TH 65 are anticipated to exceed 35,000 vehicles per day at CSAH 6 in 2040. This is compared to approximately 5,100 to 5,900 vehicles per day on CSAH 6 in 2040. As a result, TH 65 requires the majority of the available green time at the signalized intersection. In addition, the current lane configuration on CSAH 6 requires split timing to facilitate the shared through and turn lanes in each direction.

Initial analysis considered a high-level approach using a capacity analysis tool developed by the Federal Highway Administration (FHWA). CAP-X (Capacity Analysis for Planning Junctions) is a planning level tool that is used as a first step to determine what could work and how an intersection alternative would be expected to function from a volume to capacity standpoint. The result of the CAP-X analysis can be found in **Appendix D.** In summary, large scale improvements would be required to achieve acceptable capacity for the expected traffic volumes on TH 65. These intersection improvements were determined to be out of the scope of the CSAH 6 (Mississippi St) Roadway Study and were not investigated further.

Additional analysis was completed to investigate traffic operations with alternative geometry for the eastbound and westbound approaches on CSAH 6 at TH 65. This analysis assumed the lane configuration and traffic control on TH 65 did not change. The alternatives include converting the existing four-lane approach to:

1. Exclusive left turn lane and a shared through/right lane
2. Exclusive left and right turn lanes and one through lane

Eastbound and westbound split phase signal timing was removed for both alternatives and left turns were provided a protected/permitted phase in the analysis. Left turns from CSAH 6 would likely require lead/lag phasing due to the intersection geometry. Signal timing was optimized for each analysis.

Table 7 details the future (2040) AM and PM peak hour traffic operations results for the two alternative lane configurations of CSAH 6 at TH 65. The longest eastbound and westbound average and maximum queues are shown in **Figures 6-8** for each alternative, respectively.

Table 7: TH 65 Future (2040) Alternative Lane Configuration Analysis

Alternative	Peak Hour	Intersection Delay (Sec/Veh)		Movement Delay (Sec/Veh)																					
				NBL		NBT		NBR		SBL		SBT		SBR		EBL		EBT		EBR		WBL		WBT		WBR	
No Build (existing 4-Lane)	AM	107	F	106	F	17	B	4	A	225	F	140	F	129	F	112	F	104	F	96	F	115	F	114	F	69	E
	PM	125	F	227	F	187	F	172	F	104	F	31	C	7	A	78	E	62	E	56	E	122	F	141	F	101	F
1	AM	110	F	109	F	17	B	5	A	222	F	142	F	134	F	128	F	128	F	126	F	119	F	104	F	69	E
	PM	134	F	232	F	200	F	182	F	109	F	30	C	10	B	115	F	69	E	66	E	85	F	161	F	136	F
2	AM	73	E	116	F	15	B	4	A	163	F	88	F	75	E	126	F	93	F	69	E	106	F	106	F	7	A
	PM	129	F	244	F	203	F	181	F	102	F	31	C	9	A	127	F	53	D	17	B	131	F	85	F	39	D

No Build (Existing Four-Lane):

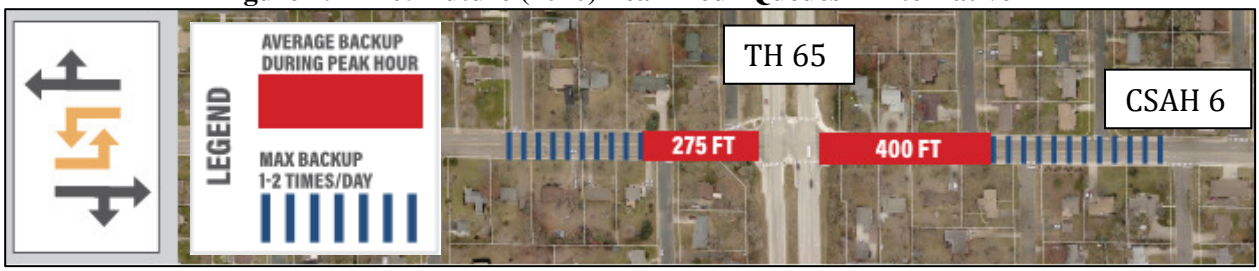
- Operations are detailed in the Future 2040 No Build Operations Analysis (Section IV.B).
- Future (2040) No Build peak hour queues are shown in **Figure 6.**

Figure 6: TH 65 Future (2040) Peak Hour Queues – No Build

Alternative 1 (Left and Through/Right Lanes):

- Intersection delay LOS F during the AM and PM peak hours.
- Multiple failing movements in all directions during the peak hours.
- Eastbound maximum queue extends through multiple intersections to the west, to the intersection of Oakley Drive, during AM peak hour and to the intersection of Taylor Street during the PM peak hour.
- Future (2040) Alternative 1 peak hour queues are shown in **Figure 7.**

Figure 7: TH 65 Future (2040) Peak Hour Queues – Alternative 1



Alternative 2 (Left, Through, and Right Lanes):

- Intersection delay LOS E and F during the AM and PM peak hours, respectively.
- Multiple failing movements in all directions during the peak hours.
- Eastbound maximum queue extends through multiple intersections to Taylor Street during the AM and PM peak hour.

- Future (2040) Alternative 2 peak hour queues are shown in **Figure 8.**

Figure 8: TH 65 Future (2040) Peak Hour Queues – Alternative 2

Without geometric changes to TH 65, the overall LOS at the intersection is not anticipated to be acceptable with either alternative. Although an exclusive left turn lane at the intersection would allow for protect/permitted phasing, the reduction in available storage for eastbound and westbound traffic results in longer queues, as seen in **Figure 7**. Including an exclusive right turn lane (Alternative 2) is anticipated to offer similar queues as the No Build condition. Additional traffic operations details can be found in **Appendix C.**

Recommendation:

The existing lane configuration should remain in place until further study of TH 65 is completed. Large scale intersection improvements may be needed at the intersection of TH 65 and CSAH 6 to provide acceptable LOS. Alternative 2 should be considered in the future to remove the eastbound and westbound split phasing as well as removing turning traffic from the through lane. Alternative 2 will likely require right-of-way in order to construct both the eastbound and westbound right and left turn lanes.

F. School Area (7th Street and Monroe Street) Traffic Operations Analysis

Existing and future (2040) traffic operations analysis indicate the intersections of 7th Street Monroe Street operate at acceptable services levels. However, the intersections do not satisfy all-way stop control warrants and the intersection of 7th Street and CSAH 6 is considered statistically unsafe based on analysis of recent crashes. Furthermore, the two intersections are located near Hayes Elementary School and have high daily pedestrian usage when school is in session.

Additional analysis was completed to investigate traffic operations with alternative geometry and traffic control at the two intersections. The following alternatives were considered at the intersections of 7th Street and Monroe Street:

1. Existing Geometry and AWSC
2. Three-Lane Conversion on CSAH 6 and AWSC
3. Three-Lane Conversion on CSAH 6 and Two-Way Stop Control (TWSC)
4. Three-Lane Conversion on CSAH 6 and a single-lane compact roundabout

7th Street:

Table 8 details the future (2040) AM and PM peak hour traffic operation results for each alternative at 7th Street. The longest average and maximum queues are shown in **Figures 9-11** for each alternative, respectively. Traffic operations results for the single lane compact roundabout were calculated using the HCM 6th Edition equations as part of Synchro.

Additional traffic operations details can be found in **Appendix C.**

Table 8: 7th Street Future (2040) Intersection Alternatives Analysis

(Alternative) Geometry Control	App.	AM Peak Hour				PM Peak Hour			
		Approach Delay (Sec/Veh)	Ave. Queue (Feet)	Max Queue (Feet)	Intersection Delay (Sec/Veh)	Approach Delay (Sec/Veh)	Ave. Queue (Feet)	Max Queue (Feet)	Intersection Delay (Sec/Veh)
(1) Exisiting AWSC	NB	5	25	64	8	6	32	67	9
	WB	9	34	76		10	38	80	
	SB	4	27	69		5	33	82	
	EB	8	49	98		9	59	132	
(2) Three-Lane AWSC	NB	5	23	54	9	6	32	70	12
	WB	11	45	97		13	60	130	
	SB	5	29	61		5	31	61	
	EB	9	70	152		13	108	215	
(3) Three-Lane TWSC	NB	7	24	60	2	13	38	112	4
	WB	2	5	34		2	13	54	
	SB	6	29	75		7	32	75	
	EB	1	4	37		2	14	66	
(4) Single Lane Roundabout	NB	4	-	25	5	6	-	25	7
	WB	6	-	25		8	-	50	
	SB	5	-	25		6	-	25	
	EB	5	-	25		7	-	50	

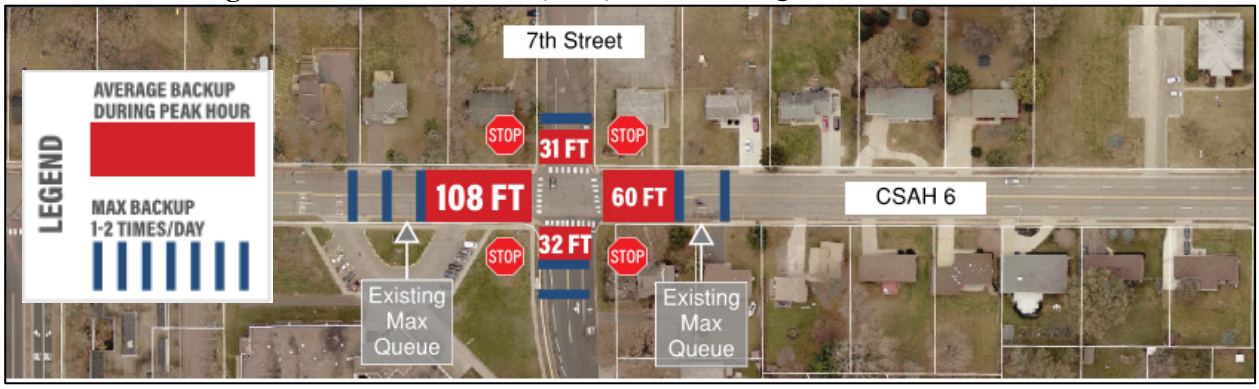
Alternative 1 – Existing Geometry and AWSC:

- Intersection delay LOS A during the AM and PM peak hours.

Alternative 2 – Three-Lane Conversion and AWSC:

- Intersection delay LOS A and B during the AM and PM peak hours, respectively.
- Eastbound and westbound queue lengths are anticipated to increase with the reduction in through lanes on CSAH 6.
- Future (2040) Alternative 2 peak hour queues are shown in **Figure 9.**

Figure 9: 7th Street Future (2040) Peak Hour Queues – Alternative 2

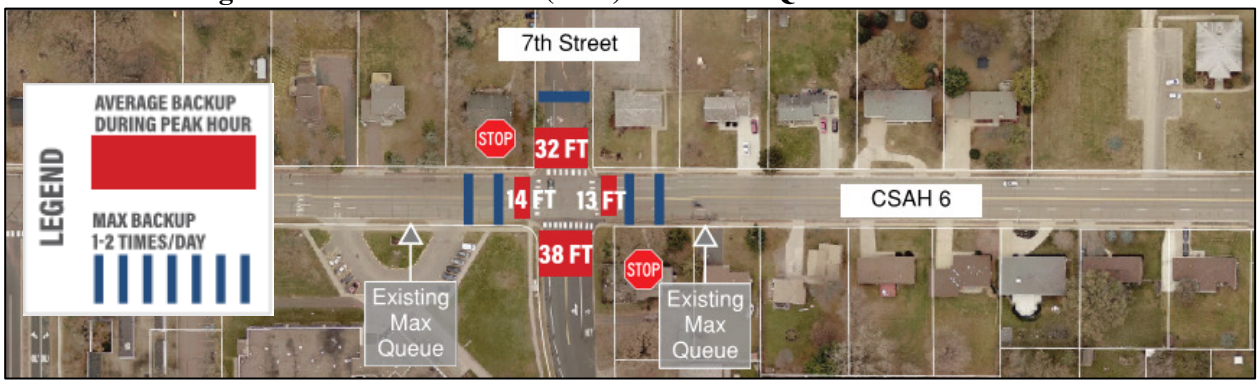


Alternative 3 – Three-Lane Conversion and TWSC:

- Intersection delay LOS A during the AM and PM peak hours.
- Eastbound and westbound queue lengths are anticipated to decrease.

- Future (2040) Alternative 3 peak hour queues are shown in **Figure 10.**

Figure 10: 7th Street Future (2040) Peak Hour Queues – Alternative 3



Alternative 4 – Three-Lane Conversion and Single Lane Roundabout:

- Intersection delay LOS A during the AM and PM peak hours.
- Eastbound and westbound queue lengths are anticipated to decrease.
- Future (2040) Alternative 4 peak hour queues are shown in **Figure 11.**

Figure 11: 7th Street Future (2040) Peak Hour Queues – Alternative 4

All alternatives are anticipated to provide acceptable LOS and queues at the intersection. Additionally, all the alternatives are not anticipated to impact the northbound and southbound operations. Alternative two is expected to increase the eastbound and westbound queue on CSAH 6 as a result of reducing the number of through lanes available at the intersection. Alternatives three and four are anticipated to reduce the queues because of the change in traffic control.

Recommendation:

A roundabout, specifically a compact roundabout, is recommended at the intersection of 7th Street and CSAH 6. The roundabout is anticipated to result in acceptable LOS and reduce the queues during the peak hours. Maintaining the AWSC with the three-lane section is anticipated to increase queues on CSAH 6. Since the AWSC is not warranted, the removal of the stop signs on CSAH 6 (alternative 3) should not occur without significant enhancements to the pedestrian crossings.

Monroe Street:

Table 9 details the future (2040) AM and PM peak hour traffic operation results for each

alternative at Monroe Street. The longest average and maximum queues are shown in **Figures 12-14** for each alternative, respectively.

Table 9: Monroe Street Future (2040) Intersection Alternatives Analysis

(Alternative) Geometry Control	App.	AM Peak Hour				PM Peak Hour			
		Approach Delay (Sec/Veh)	Ave. Queue (Feet)	Max Queue (Feet)	Intersection Delay (Sec/Veh)	Approach Delay (Sec/Veh)	Ave. Queue (Feet)	Max Queue (Feet)	Intersection Delay (Sec/Veh)
(1) Exisiting AWSC	NB	4	22	68	7	4	22	59	8
	WB	7	44	84		8	43	78	
	SB	5	39	72		4	38	71	
	EB	9	38	76		10	42	82	
(2) Three-Lane AWSC	NB	5	23	60	8	5	22	58	10
	WB	9	62	143		10	76	157	
	SB	5	39	72		5	36	70	
	EB	10	45	81		11	53	92	
(3) Three-Lane TWSC	NB	6	22	55	3	7	21	61	3
	WB	2	2	31		2	4	30	
	SB	6	40	81		7	40	86	
	EB	2	9	48		2	8	43	
(4) Single Lane Roundabout	NB	4	-	25	5	5	-	25	6
	WB	6	-	25		6	-	50	
	SB	5	-	25		6	-	25	
	EB	5	-	25		6	-	50	

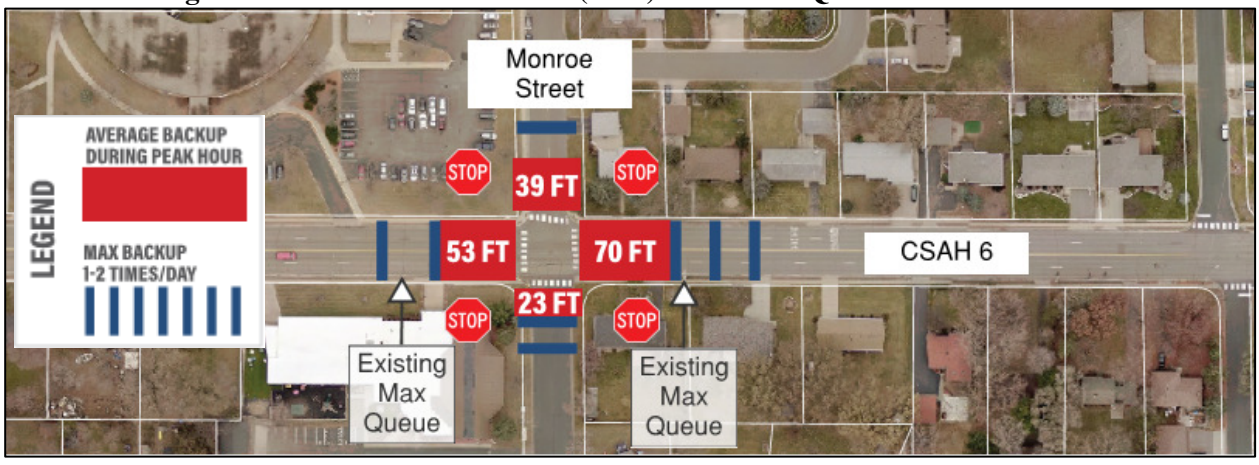
Alternative 1 – Existing Geometry and AWSC:

- Intersection delay LOS A during the AM and PM peak hours.

Alternative 2 – Three-Lane Conversion and AWSC:

- Intersection delay LOS A and B during the AM and PM peak hours, respectively.
- Eastbound and westbound queue lengths are anticipated to increase with the reduction in through lanes on CSAH 6.
- Future (2040) Alternative 2 peak hour queues are shown in **Figure 12.**

Figure 12: Monroe Street Future (2040) Peak Hour Queues – Alternative 2

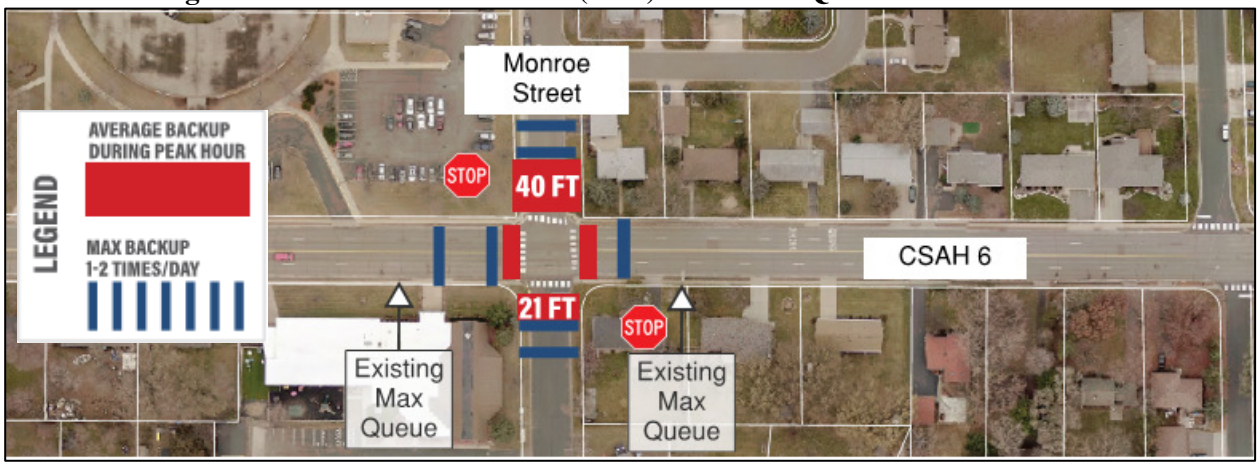


Alternative 3 – Three-Lane Conversion and TWSC:

- Intersection delay LOS A during the AM and PM peak hours.
- Eastbound and westbound queue lengths are anticipated to decrease.

- Future (2040) Alternative 3 peak hour queues are shown in **Figure 13.**

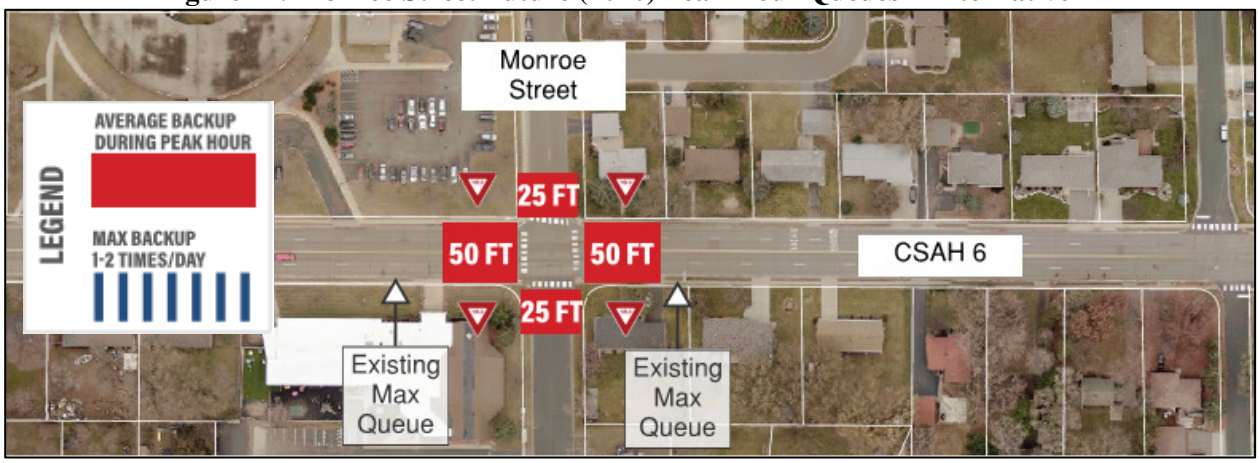
Figure 13: Monroe Street Future (2040) Peak Hour Queues – Alternative 3



Alternative 4 – Three-Lane Conversion and Single Lane Roundabout:

- Intersection delay LOS A during the AM and PM peak hours.
- Eastbound and westbound queue lengths are anticipated to decrease.
- Future (2040) Alternative 4 peak hour queues are shown in **Figure 14.**

Figure 14: Monroe Street Future (2040) Peak Hour Queues – Alternative 4



All alternatives are anticipated to provide acceptable LOS and queues at the intersection. Additionally, all the alternatives are not expected to impact the northbound and southbound approaches significantly. Alternative two is expected to increase the eastbound and westbound queue on CSAH 6 as a result of reducing the amount of through lanes available at the intersection. Alternatives three and four are anticipated to reduce the queues because of the change in traffic control.

Recommendation:

A roundabout, specifically a compact roundabout, is recommended at the intersection of Monroe Street and CSAH 6. The roundabout is anticipated to operate with acceptable LOS and reduce queues during the peak hours. Maintaining the AWSC with the three-lane section is anticipated to increase queues on CSAH 6. Since the AWSC is not warranted, the removal of the stop signs on CSAH 6 (alternative 3) should not occur without significant enhancements to the pedestrian crossings.

G. CSAH 35 (Old Central Avenue) Traffic Operations Analysis

Existing and future (2040) traffic operations analysis indicate the intersections of CSAH 35 (Old Central Avenue) operates at an acceptable service level. However, the intersection does not satisfy all-way stop control warrants and is considered statistically unsafe based on analysis of recent crashes.

Additional analysis was completed to investigate traffic operations with alternative geometry and traffic control at the intersection. The following alternatives were considered at the intersection of CSAH 35 (Old Central Avenue):

1. Existing Geometry and AWSC
2. Three-Lane Conversion on CSAH 6 and AWSC
3. Three-Lane Conversion on CSAH 6 and Two-Way Stop Control (TWSC)
4. Three-Lane Conversion on CSAH 6 and a single-lane compact roundabout

Table 10 details the future (2040) AM and PM peak hour traffic operation results for each alternative at CSAH 35 (Old Central Avenue). The longest average and maximum queues are shown in **Figures 15-17** for each alternative, respectively. Traffic operations results for the single lane compact roundabout were calculated using the HCM 6th Edition equations as part of Synchro. Additional traffic operations details can be found in **Appendix C.**

Table 10: CSAH 35 (Old Central Ave) Future (2040) Intersection Alternatives Analysis

(Alternative) Geometry Control	App.	AM Peak Hour				PM Peak Hour			
		Approach Delay (Sec/Veh)	Ave. Queue (Feet)	Max Queue (Feet)	Intersection Delay (Sec/Veh)	Approach Delay (Sec/Veh)	Ave. Queue (Feet)	Max Queue (Feet)	Intersection Delay (Sec/Veh)
(1) Exisiting AWSC	NB	15	90	200	13	14	86	190	18
	WB	8	36	79		11	50	98	
	SB	10	56	121		25	157	366	
	EB	17	84	222		19	99	228	
(2) Three-Lane AWSC	NB	13	79	159	11	14	85	183	17
	WB	8	39	87		12	64	134	
	SB	9	59	114		22	138	299	
	EB	13	67	170		16	87	215	
(3) Three-Lane TWSC	NB	18	106	270	10	17	97	210	25
	WB	2	7	35		2	7	41	
	SB	13	70	144		54	284	685	
	EB	2	13	64		2	16	56	
(4) Single Lane Roundabout	NB	9	-	50	8	9	-	75	11
	WB	8	-	25		9	-	50	
	SB	7	-	25		14	-	125	
	EB	7	-	25		11	-	50	

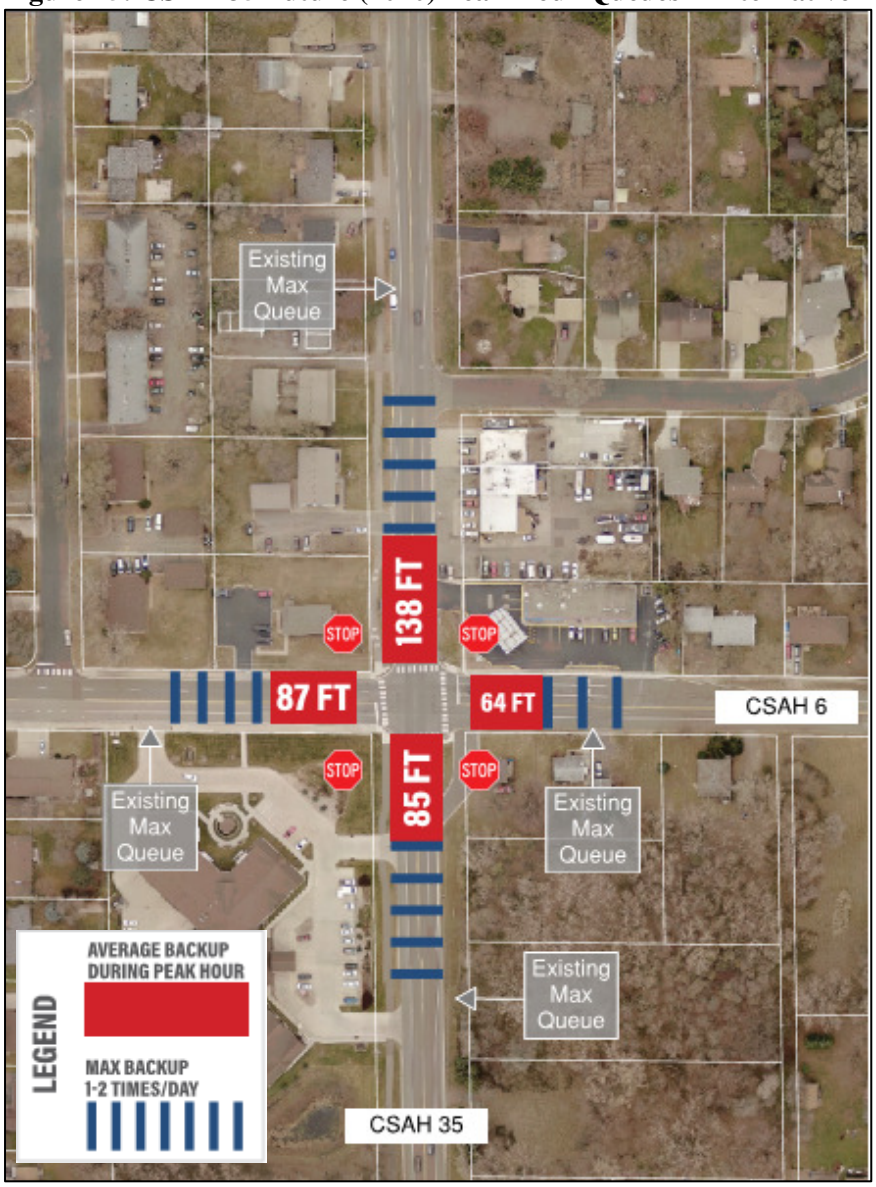
Alternative 1 – Existing Geometry and AWSC:

- Intersection delay LOS B and C during the AM and PM peak hours, respectively.
- Maximum queue length of southbound through movements blocks access to the right turn lane and the intersection of Creek Park Lane during the PM peak hour.

Alternative 2 – Three-Lane Conversion and AWSC:

- Intersection delay LOS B and C during the AM and PM peak hours, respectively.
- Maximum queue length exceeds available storage length for the northbound right turn lane during the PM peak hour.
- Future (2040) Alternative 2 peak hour queues are shown in **Figure 15.**

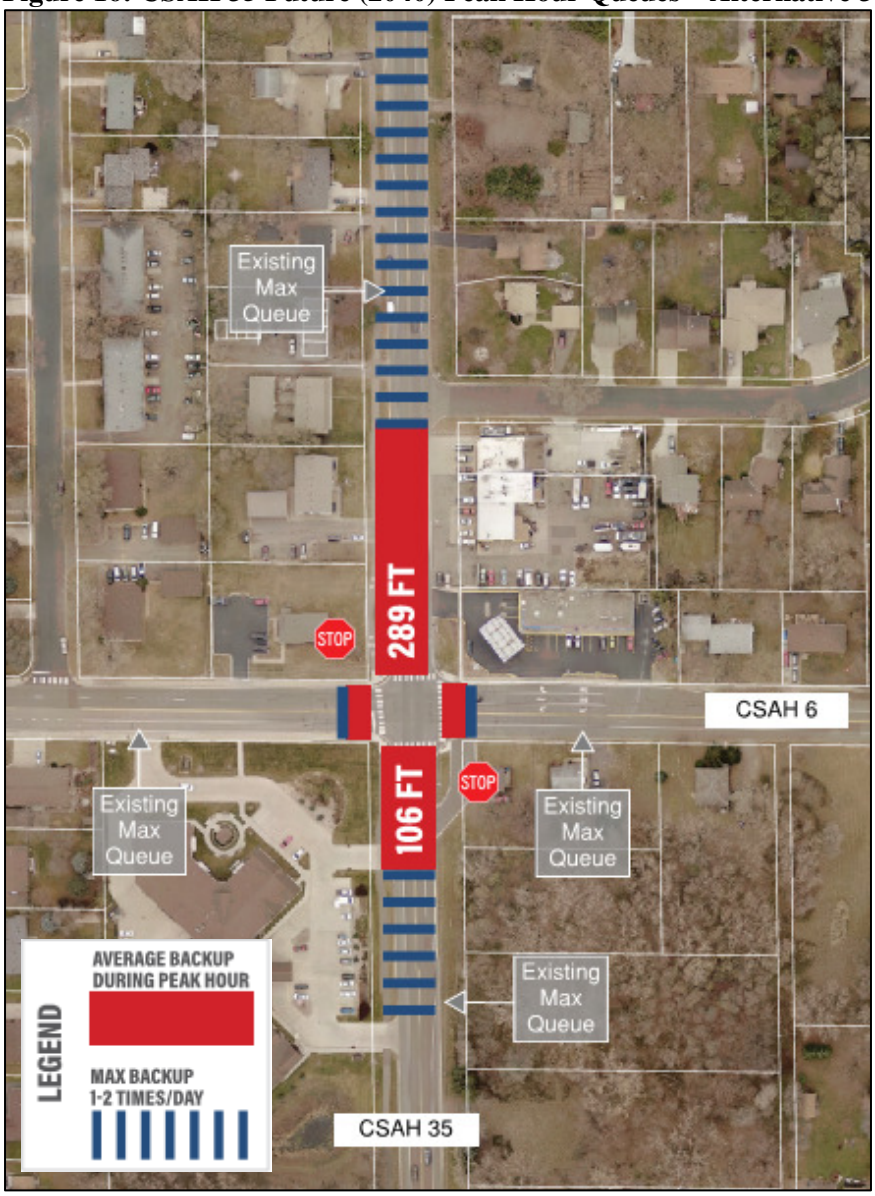
Figure 15: CSAH 35 Future (2040) Peak Hour Queues – Alternative 2



Alternative 3 – Three-Lane Conversion and TWSC:

- Intersection delay LOS A and C during the AM and PM peak hours, respectively.
- Average queue length of southbound through movements blocks access to the right turn lane during the PM peak hour.
- Maximum queue length of southbound through movements blocks access to the intersection of Creek Park Lane during the PM peak hour.
- Future (2040) Alternative 3 peak hour queues are shown in **Figure 16.**

Figure 16: CSAH 35 Future (2040) Peak Hour Queues – Alternative 3



Alternative 4 – Three-Lane Conversion and Single Lane Roundabout:

- Intersection delay LOS A and B during the AM and PM peak hours, respectively.
- Future (2040) Alternative 7 peak hour queues are shown in **Figure 17.**

Figure 17: CSAH 35 Future (2040) Peak Hour Queues – Alternative 4

All alternatives are anticipated to provide acceptable LOS at the intersection. Alternative one and two, have similar operations with the AWSC. Alternative three, changing the traffic control to TWSC, results in very little or no eastbound and westbound queue but the southbound queues would be anticipated to block adjacent intersections. Alternatives four, the single lane compact roundabout, is anticipated to reduce delay and queues for all approaches.

Recommendation:

A roundabout, specifically a compact roundabout, is recommended at the intersection of

CSAH 35 (Old Central Avenue) and CSAH 6. The roundabout is anticipated to have acceptable LOS and reduce queues during the peak hours. Maintaining the AWSC with the three-lane section is anticipated to operate similarly to the no build alternative. Finally, removing the stop signs on CSAH 6 (alternative 3) is not recommended considering anticipated northbound and southbound traffic operations at the intersection.

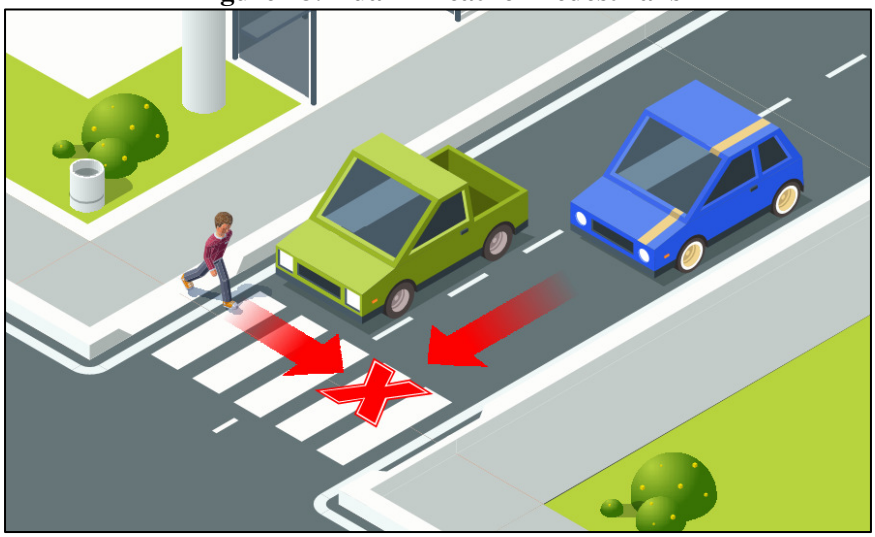
H. Future Safety Considerations

1. Road Diet

Generally, a road diet reduces crashes, most significantly by reducing opposing left turn crashes, sideswipe crashes, and rear end crashes by providing a dedicated left turn lane and removing the turning vehicles from the through vehicle traffic stream. Opposing direction sideswipe and head-on crashes are generally reduced since the through traffic lanes are now separated by the two-way-left-turn-lane. Same direction sideswipe and rear-end crashes are generally reduced since left turning vehicles now have a separate lane to wait for a gap in traffic and traffic following behind a vehicle making a left turn does not have to swerve to get around a left turning vehicle. Additionally, right-angle crashes are generally reduced with the shorter crossing distance and the reduced number of through traffic lanes to watch and cross, two instead of four.

The shoulder space that is formed during the conversion can also have a positive effect on pedestrians and bicyclists. The shoulder space provides more room for a bicyclist that prefers to ride along the street and increases the distance between pedestrians and vehicles traffic. Furthermore, converting the roadway from four through lanes to two through lanes eliminates the "dual threat" for pedestrians crossing the roadway. The "dual threat" occurs when one vehicle stops for a crossing pedestrian but a vehicle in the adjacent lane does not stop, since the stopped vehicle locks the sight line to the pedestrian. This situation is shown in **Figure 18**.

Figure 18: Dual Threat for Pedestrians



2. Compact Roundabouts

Roundabouts have become more prevalent in Minnesota in recent years. They are

effective in moving traffic through an intersection since traffic only needs to yield to circulating vehicles. Some of the main benefits of roundabouts are listed below:

- Efficient traffic operations in the correct application
- Low severity crashes due to eliminating dangerous crossing maneuvers
- Naturally reduce speeds due to approach curvature
- Provides the least amount of conflict points when compared with a traditional intersection with signal or stop control
- Safely handles u-turns
- May provide shorter crossing distance for pedestrians

Compact roundabouts are recommended along CSAH 6. These roundabouts can be used in constrained locations in place of stop-controlled intersections or signals. Generally, a compact roundabout is small enough to be constructed within the existing intersection footprint. In addition to slowing vehicles, the approach medians would create a two-staged crossing for pedestrians only requiring users to navigate one direction of vehicles at a time. The design of Compact Roundabouts provides clear sight lines around and across the intersection, unlike typical roundabouts that may obscure a driver's view across the intersection. However, the final design of the pedestrian crossings at the Compact Roundabouts should maximize the sight lines of pedestrians given the expected high use by children near Hayes Elementary School.

V. Alternative Evaluation

Alternative evaluation was separated into three categories based on the results of the corridor study: Corridor Alternatives, TH 65 Alternatives, and All-Way Stop Controlled Intersection Alternatives. The evaluations considered operational and mobility considerations, potential for safety improvement, potential access changes, right-of-way impacts, and construction cost. Each alternative considered was assigned a rating based on the following:

- \- Poor or Gets Worse
- o Moderate or No Change
- \+ Best or Improves

The following detail the alternatives evaluated for each of the three categories. Detailed evaluation matrices can be found in **Appendix E.**

Corridor Alternatives:

The corridor alternatives aim to establish a general typical section for the corridor. The following detail the four corridor alternatives evaluated:

1. No Build
2. Restripe Existing (3-Lane Striping)
3. Alternative A (3-Lane with Sidewalks)
4. Alternative B (3-Lane with Trail on One Side)

Recommendation:

Alternative B is the recommended corridor alternative. The three-lane section with a trail on the south side and a sidewalk on the north side of CSAH 6 scored highest amongst the alternatives.

This alternative provides the most improvement for all modes of transportation regarding operations and safety. In general, access restrictions are unchanged with this alternative. However, Alternative B, as well as Alternative A, will have the highest construction cost.

TH 65 Alternatives

The CSAH 6 intersection with TH 65 experiences poor vehicle operations. Alternative geometric approaches on CSAH 6 were evaluated at the intersection. The following detail the CSAH 6 lane geometrics evaluated:

1. Existing (No Build)
2. Left Turn Lane with Shared Thru & Right Lane
3. Left Turn Lane, Thru Lane, Right Turn Lane

Recommendation:

The Existing (No Build) alternative is the recommend alternative for the intersection of CSAH 6 and TH 65. However, this alternative did not score the highest among the alternatives evaluated. The alternative lane geometries would be expected to improve the safety of the intersection; but traffic operations are expected to get worse with alternative 2 and right-of-way would be required for alternative 3. Decreasing the traffic operations and acquiring right-of-way are not recommended at this intersection at this time. Changes at this intersection should be coordinate with future projects conducted by MnDOT on TH 65.

All-Way Stop Controlled Intersections

The existing AWSC intersections of 7th Street, Monroe Street and CSAH 35 were evaluated for alternative traffic control with the three-lane conversion of CSAH 6. The following detail the intersection alternatives evaluated:

1. Existing 4-Lane with All-Way Stop Control
2. 3-Lane Conversion with All-Way Stop Control
3. 3-Lane Conversion with Two-Way Stop Control
4. 3-Lane Conversion with Compact Roundabout

Recommendation:

Three-lane conversion with the compact roundabout is the recommended intersection alternative at 7th Street, Monroe Street, and CSAH 35. Traffic operations are maintained or improved compared to the other alternatives with the compact roundabouts. Compact roundabouts provide less conflict points compared to stop-controlled intersections. This typically leads to less severe crashes at the intersections. The roundabouts would be anticipated to increase the pedestrian safety at the intersection with the center island medians reducing the crossing distance, the slower speed of vehicles approaching the intersection, and the improved sight lines. Compacts roundabouts will have additional right-of-way needs and higher construction cost compared to the other alternatives.

Detailed evaluation matrices can be found in **Appendix E.**

VI. Additional Considerations

The following sections detail the additional analysis completed as part of the CSAH 6 Corridor Study.

A. Typical Section Review

In general, the CSAH 6 corridor has a 66-foot right-of-way section that includes two travel lanes in each direction, varying boulevard widths and varying sidewalk widths. West of TH 47, the sidewalk is adjacent to the back of curb. Between TH 47 and CSAH 35, a four-foot sidewalk is separated by a three-foot boulevard that includes utility poles and street signs. The undivided roadway does not provide turn lanes at intersections, with the exception being TH 47, where additional right-of-way is available, and the roadway is expanded to a divided roadway section with full turn lanes.

Multiple typical sections were reviewed for the CSAH 6 Corridor. An initial screening of typical section alternatives was completed by the PMT including the existing section, divided and undivided three-lane sections, and four-lane divided sections. Typical section figures are shown in **Appendix F.**

The current traffic volumes (5,800 vehicles per day) and anticipated future traffic volumes (6,400 vehicles per day) on CSAH 6, in addition to the traffic operations analysis, do not indicate that additional lanes are necessary for this corridor. Additionally, acquiring right-of-way to widen the typical section would have significant impacts to private property. Therefore, expanding to a wider three-lane divided section or a four-lane divided section were not considered further for evaluation.

Multiple three-lane sections were considered for the corridor. These typical sections included varying boulevard and pedestrian facility width, including trail versus sidewalk options. All typical sections considered for evaluation fit within the typical 66-foot right-of-way.

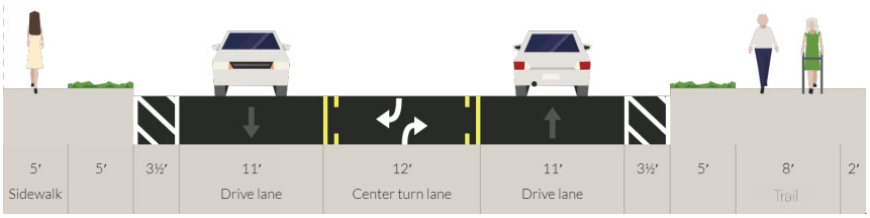
For the majority of the CSAH 6 corridor, a three-lane typical section with a center two-way left turn lane is appropriate to provide an exclusive turn lane for the many private and public accesses. However, west of 2nd Street and east of CSAH 35 have less access points and/or less traffic. Through these segments the center two-way left turn lane is not considered to be necessary, and two-lane typical sections were evaluated.

Typical sections reviewed, including general right-of-way impacts, are shown in **Appendix F.**

Recommendation:

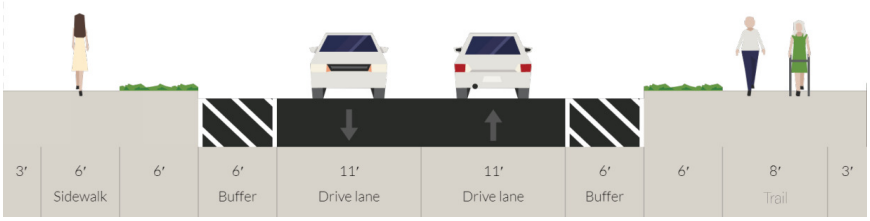
The recommended typical section is shown in **Figure 19.** The three-lane section includes three and a half foot shoulders on each side of the roadway and five-foot boulevards between the curbs and the pedestrian facilities. An eight-foot trail and a five-foot sidewalk are recommended on the south and north sides of CSAH 6, respectively.

Figure 19: Three-Lane Typical Section



The three-lane section is not needed for the segment of CSAH 6 that goes under the railroad. Between CSAH 1 and 2nd Street, the two-lane typical section shown in **Figure 20** is recommended. The segment of CSAH 6 can increase the sidewalk and boulevard widths from five feet to six feet, as well as increase the space behind the pedestrian facilities. Additionally, the shoulder width should be increased to six feet.

Figure 20: Railroad Underpass (CSAH 1 to 2nd Street)



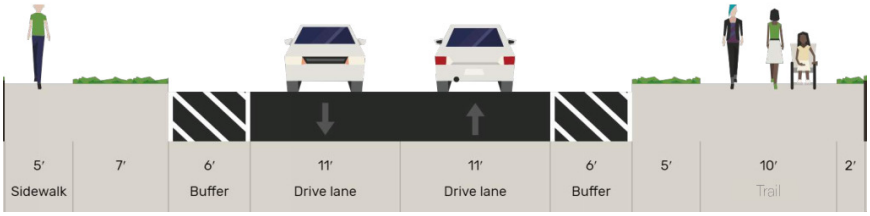
B. East of CSAH 35 (Old Central)

Recommendation:

East of CSAH 35, CSAH 6 transitions to a two-lane section with sidewalk on the north side. Currently, traffic operations and safety are not of a concern through this segment of the corridor study due to the low traffic volume. As a result, it is recommended that this segment of CSAH 6 be maintained and/or restriped to included additional on street trail on the south side of the road. Further investigation may be completed to include a trail on the available right-of-way on the south side of CSAH 6. Options may remove some or all of the parking.

A long-term typical section option for CSAH 6 east of CSAH 35 is shown in **Figure 21.** This option would remove parking along the county highway and add a trail to the south side of the roadway.

Figure 21: CSAH 6 East of CSAH 35 Alternative



VII. Public Involvement

The PMT administered two public open house meetings to share study information, collect input from the public and present the recommended improvements. The open houses were advertised via newspaper, social media blast, online publications, and notifications on the city and county webpages. Attendees were asked to sign in upon arrival and encouraged to provided comments on the material presented. In addition, online input was available via the City of Fridley's My Social Pin Point.

Open House 1 was held on September 24, 2019 at the Fridley City Hall. Seventy-six (76) people signed-in at this meeting, however, many couples in attendance only had one person sign-in. The purpose of Open House 1 was to provide background information, learn from the community on their concerns, provide additional information on the potential improvements, and present a project schedule. The project goals, existing conditions, and potential alternatives were shared with the public. The public was asked to provide input on current issues and suggestions for the corridor. Public Open House material, including a summary of comments received, is included in **Appendix G.** There were many issues and suggestions identified by attendees, the following were the most popular:

- Issue - Speeding concerns
- Issue - Pedestrian safety concerns
- Issue - Need for separate or dedicated bike lanes
- Suggestion - Make sidewalks and crossing more pedestrian friendly
- Suggestion – add roundabout for traffic control
- Suggestion – add public art

Open House 2 was held on February 18, 2020 at the Fridley City Hall. Forty-nine (49) people signed-in at the second open house. The purpose of Open House 2 was to share the comments received at the first open house and provide the recommended alternatives for the corridor. A concept layout was available for review that presented the recommended concept with alternative options. The public was asked to provide input on the concept and the alternatives still being considered. Public Open House material, including a summary of comments received, is included in **Appendix G.** The most popular comments are shown below:

- Issue - Speeding concerns
- Issue – Student safety
- Issue – Traffic signal timings
- Suggestion - Make sidewalks and crossing more pedestrian friendly
- Suggestion – Support for roundabout
- Suggestion – add public art

In addition, general information on road diets and compact roundabouts was provided including video of compact roundabouts in operation in Minnesota cities.

Project updates were held for the Fridley City Council and Anoka County Transportation Committee. The Fridley City Council was briefed on the project on two occasions: September 9, 2019 and January 27, 2020. The Anoka County Transportation Committee was briefed on February 2, 2020. These two groups were presented the same material shared at the two public open houses with additional traffic operation and safety information evaluated as part of the study and detailed in this report.

Appendix A

(Crash Data)

Intersection Safety Screening

Intersection: CSAH 1 (East River Road)

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	2
Possible Injury	4
Property Damage	9
Total Crashes	15

Intersection Characteristics	
Entering Volume	21,500
Traffic Control	Signals
Environment	Urban
Speed Limit	40 mph

Annual crash cost = $246,800

Statewide Comparison

Signals: high volume, low speed

Total Crash Rate	
Observed	0.64
Statewide Average	0.72
Critical Rate	1.19
Critical Index	**0.54**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.78
Critical Rate	5.23
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.64 per MEV; this is 46% below the critical rate. Based on similar statewide intersections, an additional 14 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: Hickory St.

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	0
Property Damage	2
Total Crashes	2

Intersection Characteristics	
Entering Volume	5,800
Traffic Control	Thru / stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $5,067

Statewide Comparison *Urban Thru / Stop*

Total Crash Rate	
Observed	0.31
Statewide Average	0.19
Critical Rate	0.71
Critical Index	**0.44**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.36
Critical Rate	11.26
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.31 per MEV; this is 56% below the critical rate. Based on similar statewide intersections, an additional 3 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: Ashton Ave

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	0
Property Damage	3
Total Crashes	3

Intersection Characteristics	
Entering Volume	5,800
Traffic Control	Thru / stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $7,600

Statewide Comparison *Urban Thru / Stop*

Total Crash Rate	
Observed	0.47
Statewide Average	0.19
Critical Rate	0.71
Critical Index	**0.66**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.36
Critical Rate	11.26
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.47 per MEV; this is 34% below the critical rate. Based on similar statewide intersections, an additional 2 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: Main St

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	0
Property Damage	1
Total Crashes	1

Intersection Characteristics	
Entering Volume	5,800
Traffic Control	Thru / stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $2,533

Statewide Comparison *Urban Thru / Stop*

Total Crash Rate	
Observed	0.16
Statewide Average	0.19
Critical Rate	0.71
Critical Index	**0.23**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.36
Critical Rate	11.26
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.16 per MEV; this is 77% below the critical rate. Based on similar statewide intersections, an additional 4 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: 2nd St

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	0
Property Damage	1
Total Crashes	1

Intersection Characteristics	
Entering Volume	5,800
Traffic Control	Thru / stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $2,533

Statewide Comparison *Urban Thru / Stop*

Total Crash Rate	
Observed	0.16
Statewide Average	0.19
Critical Rate	0.71
Critical Index	**0.23**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.36
Critical Rate	11.26
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.16 per MEV; this is 77% below the critical rate. Based on similar statewide intersections, an additional 4 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: E Greenleaf Drive

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	1
Property Damage	2
Total Crashes	3

Intersection Characteristics	
Entering Volume	5,800
Traffic Control	Thru / stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $32,733

Statewide Comparison *Urban Thru / Stop*

Total Crash Rate	
Observed	0.47
Statewide Average	0.19
Critical Rate	0.71
Critical Index	**0.66**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.36
Critical Rate	11.26
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.47 per MEV; this is 34% below the critical rate. Based on similar statewide intersections, an additional 2 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: TH 47 (University Ave NE)

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	1
Possible Injury	7
Property Damage	39
Total Crashes	47

Intersection Characteristics	
Entering Volume	38,850
Traffic Control	Signals
Environment	Urban
Speed Limit	55 mph

Annual crash cost = $349,133

Statewide Comparison

Signals: high volume, high speed

Total Crash Rate	
Observed	1.10
Statewide Average	0.47
Critical Rate	0.75
Critical Index	**1.47**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.53
Critical Rate	3.13
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 1.10 per MEV; this is 1.5 times the critical rate. If crashes were reduced by 15 over three years, this intersection would perform within normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: 5th St

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	0
Property Damage	1
Total Crashes	1

Intersection Characteristics	
Entering Volume	5,600
Traffic Control	Thru / stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $2,533

Statewide Comparison *Urban Thru / Stop*

Total Crash Rate	
Observed	0.16
Statewide Average	0.19
Critical Rate	0.72
Critical Index	**0.22**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.36
Critical Rate	11.59
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.16 per MEV; this is 78% below the critical rate. Based on similar statewide intersections, an additional 4 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: 7th St

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	2
Property Damage	7
Total Crashes	9

Intersection Characteristics	
Entering Volume	5,600
Traffic Control	All stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $73,067

Statewide Comparison *All Way Stop*

Total Crash Rate	
Observed	1.47
Statewide Average	0.34
Critical Rate	1.04
Critical Index	**1.41**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.72
Critical Rate	13.24
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 1.47 per MEV; this is 1.4 times the critical rate. If crashes were reduced by 2 over three years, this intersection would perform within normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: 611 Mississippi (Historical Center)

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	0
Property Damage	2
Total Crashes	2

Intersection Characteristics	
Entering Volume	5,600
Traffic Control	Thru / stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $5,067

Statewide Comparison *Urban Thru / Stop*

Total Crash Rate	
Observed	0.33
Statewide Average	0.19
Critical Rate	0.72
Critical Index	**0.46**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.36
Critical Rate	11.59
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.33 per MEV; this is 54% below the critical rate. Based on similar statewide intersections, an additional 3 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: Monroe St

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	0
Property Damage	1
Total Crashes	1

Intersection Characteristics	
Entering Volume	5,025
Traffic Control	All stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $2,533

Statewide Comparison *All Way Stop*

Total Crash Rate	
Observed	0.18
Statewide Average	0.34
Critical Rate	1.08
Critical Index	**0.17**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.72
Critical Rate	14.42
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.18 per MEV; this is 83% below the critical rate. Based on similar statewide intersections, an additional 5 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: Jackson St

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	0
Property Damage	1
Total Crashes	1

Intersection Characteristics	
Entering Volume	5,025
Traffic Control	Thru / stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $2,533

Statewide Comparison *Urban Thru / Stop*

Total Crash Rate	
Observed	0.18
Statewide Average	0.19
Critical Rate	0.75
Critical Index	**0.24**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.36
Critical Rate	12.69
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.18 per MEV; this is 76% below the critical rate. Based on similar statewide intersections, an additional 4 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: Taylor St

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	0
Property Damage	4
Total Crashes	4

Intersection Characteristics	
Entering Volume	5,025
Traffic Control	Thru / stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $10,133

Statewide Comparison *Urban Thru / Stop*

Total Crash Rate	
Observed	0.73
Statewide Average	0.19
Critical Rate	0.75
Critical Index	**0.97**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.36
Critical Rate	12.69
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.73 per MEV; this is 3% below the critical rate. Based on similar statewide intersections, an additional 1 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: Brookview Dr.

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	0
Property Damage	1
Total Crashes	1

Intersection Characteristics	
Entering Volume	5,400
Traffic Control	Thru / stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $2,533

Statewide Comparison *Urban Thru / Stop*

Total Crash Rate	
Observed	0.17
Statewide Average	0.19
Critical Rate	0.73
Critical Index	**0.23**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.36
Critical Rate	11.95
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.17 per MEV; this is 77% below the critical rate. Based on similar statewide intersections, an additional 4 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: TH65

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	6
Property Damage	27
Total Crashes	33

Intersection Characteristics	
Entering Volume	35,525
Traffic Control	Signals
Environment	Urban
Speed Limit	55 mph

Annual crash cost = $234,400

Statewide Comparison

Signals: low volume, high speed

Total Crash Rate	
Observed	0.85
Statewide Average	0.40
Critical Rate	0.68
Critical Index	**1.25**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.31
Critical Rate	2.73
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.85 per MEV; this is 1.3 times the critical rate. If crashes were reduced by 6 over three years, this intersection would perform within normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: Lucia Ln

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	1
Property Damage	1
Total Crashes	2

Intersection Characteristics	
Entering Volume	5,025
Traffic Control	Thru / stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $30,200

Statewide Comparison *Urban Thru / Stop*

Total Crash Rate	
Observed	0.36
Statewide Average	0.19
Critical Rate	0.75
Critical Index	**0.48**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.36
Critical Rate	12.69
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.36 per MEV; this is 52% below the critical rate. Based on similar statewide intersections, an additional 3 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: Dellwood Dr

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	1
Property Damage	0
Total Crashes	1

Intersection Characteristics	
Entering Volume	5,025
Traffic Control	Thru / stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $27,667

Statewide Comparison *Urban Thru / Stop*

Total Crash Rate	
Observed	0.18
Statewide Average	0.19
Critical Rate	0.75
Critical Index	**0.24**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.36
Critical Rate	12.69
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.18 per MEV; this is 76% below the critical rate. Based on similar statewide intersections, an additional 4 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: Channel Rd

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	0
Property Damage	1
Total Crashes	1

Intersection Characteristics	
Entering Volume	5,025
Traffic Control	Thru / stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $2,533

Statewide Comparison *Urban Thru / Stop*

Total Crash Rate	
Observed	0.18
Statewide Average	0.19
Critical Rate	0.75
Critical Index	**0.24**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.36
Critical Rate	12.69
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.18 per MEV; this is 76% below the critical rate. Based on similar statewide intersections, an additional 4 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: CSAH 35 (Old Central Ave)

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	3
Property Damage	7
Total Crashes	10

Intersection Characteristics	
Entering Volume	5,025
Traffic Control	All stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $100,733

Statewide Comparison *All Way Stop*

Total Crash Rate	
Observed	1.82
Statewide Average	0.34
Critical Rate	1.08
Critical Index	**1.69**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.72
Critical Rate	14.42
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 1.82 per MEV; this is 1.7 times the critical rate. If crashes were reduced by 4 over three years, this intersection would perform within normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: Arthur St

Crash Data, 2016-2018.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	0
Possible Injury	0
Property Damage	1
Total Crashes	1

Intersection Characteristics	
Entering Volume	4,650
Traffic Control	Thru / stop
Environment	Urban
Speed Limit	35 mph

Annual crash cost = $2,533

Statewide Comparison *Urban Thru / Stop*

Total Crash Rate	
Observed	0.20
Statewide Average	0.19
Critical Rate	0.78
Critical Index	**0.26**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	0.36
Critical Rate	13.56
Critical Index	**0.00**

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference.

The observed total crash rate for this period is 0.20 per MEV; this is 74% below the critical rate. Based on similar statewide intersections, an additional 3 crashes over the three years would indicate this intersection operaters outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

CSAH 6 (Mississippi Stree) Crash Data Summary (2016-2018) - Intersections Rates

Intersection	Traffic Control	Total Crashes (3 Years)	# of years	ADT	Crash Rate			
					Observed	*Statewide Average*	*Critical Rate*	Crash Index
CSAH 1 (East River Road)	Signal	15	3	21,500	0.64	*0.72*	*1.19*	**0.54**
Hickory St.	Thru / Stop	2	3	5,800	0.31	*0.19*	*0.71*	**0.44**
Ashton Ave.	Thru / Stop	3	3	5,800	0.47	*0.19*	*0.71*	**0.66**
Main St.	Thru / Stop	1	3	5,800	0.16	*0.19*	*0.71*	**0.23**
2nd St.	Thru / Stop	1	3	5,800	0.16	*0.19*	*0.71*	**0.23**
3rd St.	Thru / Stop	3	3	5,800	0.47	*0.19*	*0.71*	**0.66**
TH 47 (University Ave NE)	Signal	47	3	38,850	1.10	*0.47*	*0.75*	**1.47**
5th St	Thru / Stop	1	3	5,600	0.16	*0.19*	*0.72*	**0.22**
7th St.	All Stop	9	3	5,600	1.47	*0.34*	*1.04*	**1.41**
611 Mississippi (Historical Center)	Thru / Stop	2	3	5,600	0.33	*0.19*	*0.72*	**0.46**
Monroe St.	All Stop	1	3	5,025	0.18	*0.34*	*1.08*	**0.17**
Jackson St.	Thru / Stop	1	3	5,025	0.18	*0.19*	*0.75*	**0.24**
Van Buren St.	Thru / Stop	0	3	5,025	0.00	*0.19*	*0.75*	**0.00**
Able St.	Thru / Stop	0	3	5,025	0.00	*0.19*	*0.75*	**0.00**
Baker Ave.	Thru / Stop	0	3	5,025	0.00	*0.19*	*0.75*	**0.00**
Oakley Dr.	Thru / Stop	0	3	5,025	0.00	*0.19*	*0.75*	**0.00**
Taylor St.	Thru / Stop	4	3	5,025	0.73	*0.19*	*0.75*	**0.97**
Brookview Dr.	Thru / Stop	1	3	5,400	0.17	*0.19*	*0.73*	**0.23**
TH 65	Signal	33	3	35,525	0.85	*0.40*	*0.68*	**1.25**
Lucia Ln.	Thru / Stop	2	3	5,025	0.36	*0.19*	*0.75*	**0.48**
Dellwood Dr.	Thru / Stop	1	3	5,025	0.18	*0.19*	*0.75*	**0.24**
Pierce St.	Thru / Stop	0	3	5,025	0.00	*0.19*	*0.75*	**0.00**
Channel Rd.	Thru / Stop	1	3	5,025	0.18	*0.19*	*0.75*	**0.24**
CSAH 35 (Old Central Ave)	All Stop	10	3	5,025	1.82	*0.34*	*1.08*	**1.69**
Arthur St.	Thru / Stop	1	3	4,650	0.20	*0.19*	*0.78*	**0.26**
Squire Dr.	Thru / Stop	0	3	4,650	0.00	*0.19*	*0.78*	**0.00**
Anoka St.	Thru / Stop	0	3	4,650	0.00	*0.19*	*0.78*	**0.00**
Fridley St.	Thru / Stop	0	3	4,650	0.00	*0.19*	*0.78*	**0.00**
Mckinley St.	Thru / Stop	0	3	4,650	0.00	*0.19*	*0.78*	**0.00**
Stinson Blvd.	Thru / Stop	0	3	4,650	0.00	*0.19*	*0.78*	**0.00**

CSAH 6 (Mississippi Stree) Crash Data Summary (2016-2018) - Crash Severity and Type

Intersection	Crash Severity					Crash Type							
	F	A	B	C	PDO	Right Angle Crashes	Left Turn Crashes	Rear End Crashes	Sideswipe passing	Ran Off Road	Deer	Pedestrian	Other
CSAH 1 (East River Road)	0	0	2	4	9		4	6	1	2		2	
Hickory St.	0	0	0	0	2		2						
Ashton Ave.	0	0	0	0	3	1		2					
Main St.	0	0	0	0	1					1			
2nd St.	0	0	0	0	1					1			
3rd St.	0	0	0	1	2	2	1						
TH 47 (University Ave NE)	0	0	1	7	39	4	3	25	5	4		1	5
5th St	0	0	0	0	1				1				
7th St.	0	0	0	2	7	5	1	3					
611 Mississippi (Historical Center)	0	0	0	0	2	1				1			
Monroe St.	0	0	0	0	1	1							
Jackson St.	0	0	0	0	1								1
Van Buren St.	0	0	0	0	0								
Able St.	0	0	0	0	0								
Baker Ave.	0	0	0	0	0								
Oakley Dr.	0	0	0	0	0								
Taylor St.	0	0	0	0	4		2		1		1		
Brookview Dr.	0	0	0	0	1	1							
TH 65	0	0	0	6	27	1	2	21	2	6			1
Lucia Ln.	0	0	0	1	1		1	1					
Dellwood Dr.	0	0	0	1	0			1					
Pierce St.	0	0	0	0	0								
Channel Rd.	0	0	0	0	1	1							
CSAH 35 (Old Central Ave)	0	0	0	3	7	10							
Arthur St.	0	0	0	0	1								1
Squire Dr.	0	0	0	0	0								
Anoka St.	0	0	0	0	0								
Fridley St.	0	0	0	0	0								
Mckinley St.	0	0	0	0	0								
Stinson Blvd.	0	0	0	0	0								

Trunk Highway Section Summary

Section: CSAH 6 (Mississppi St) from CSAH 1 to Stinson Blvd

Crash Data, 2016-2018. Includes crashes at junctions.

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	0
Non-incapacitating Injury	3
Possible Injury	25
Property Damage	111
Total Crashes	139

Section Characteristics	
Length	2.300 miles
Volume (ADT)	5,283
Environment	Urban
Median Type	Undivided / No median
Number of Lanes	4

Annual crash cost per mile = $496,899

Statewide Comparison *Urban 4-lane Undivided*

Total Crash Rate	
Observed	10.44
Statewide Average	3.87
Critical Rate	5.30
Critical Index	**1.97**

Fatal & Serious Injury Crash Rate	
Observed	0.00
Statewide Average	3.52
Critical Rate	13.87
Critical Index	**0.00**

Appendix B

(AWSC Warrant Analysis)

ALL WAY STOP WARRANT

LOCATION: Fridley, MN
COUNTY: Anoka
REF. POINT:
DATE: 6/3/2019
OPERATOR: CSS

Speed	Approach Description	Lanes
35	Major App1: WB Mississippi Street NE	2
35	Major App3: EB Mississippi Street NE	2
30	Minor App2: SB 7th Street	2
30	Minor App4: NB 7th Street	2

0.70 FACTOR USED? No

					300	200	
HOUR	MAJOR APP. 1	MAJOR APP. 3	MINOR APP. 2	MINOR APP. 4	MAJOR TOTAL Σ (APP. 1 & APP. 3)	MINOR TOTAL APP. 2 + APP. 4	WARRANT MET
0:00 - 1:00							
1:00 - 2:00							
2:00 - 3:00							
3:00 - 4:00							
4:00 - 5:00							
5:00 - 6:00							
6:00 - 7:00	125	81	16	21	206	37	/
7:00 - 8:00	247	204	31	43	451	74	X/
8:00 - 9:00	206	187	31	41	393	72	X/
9:00 - 10:00	179	143	32	33	322	65	X/
10:00 - 11:00	125	140	19	37	265	56	/
11:00 - 12:00	146	185	12	43	331	55	X/
12:00 - 13:00	160	201	29	49	361	78	X/
13:00 - 14:00	152	165	13	48	317	61	X/
14:00 - 15:00	185	261	23	52	446	75	X/
15:00 - 16:00	292	293	26	75	585	101	X/
16:00 - 17:00	298	374	23	106	672	129	X/
17:00 - 18:00	244	302	24	95	546	119	X/
18:00 - 19:00	160	210	22	55	370	77	X/
19:00 - 20:00							
20:00 - 21:00							
21:00 - 22:00							
22:00 - 23:00							
23:00 - 24:00							

	Met (Hr)	Required (Hr)	
Allway Stop Warrant:	0	8	Not satisfied

REMARKS:

ALL WAY STOP WARRANT

LOCATION: Fridley, MN
COUNTY: Anoka
REF. POINT:
DATE: 6/3/2019
OPERATOR: CSS

Speed	Approach Description	Lanes
35	Major App1: WB Mississippi Street NE	2
35	Major App3: EB Mississippi Street NE	2
30	Minor App2: SB Monroe Street NE	2
30	Minor App4: NB Monroe Street NE	2

0.70 FACTOR USED? No

					300	200	
HOUR	MAJOR APP. 1	MAJOR APP. 3	MINOR APP. 2	MINOR APP. 4	MAJOR TOTAL Σ (APP. 1 & APP. 3)	MINOR TOTAL APP. 2 + APP. 4	WARRANT MET
0:00 - 1:00							
1:00 - 2:00							
2:00 - 3:00							
3:00 - 4:00							
4:00 - 5:00							
5:00 - 6:00							
6:00 - 7:00	112	68	23	8	180	31	/
7:00 - 8:00	257	152	35	15	409	50	X/
8:00 - 9:00	216	146	31	25	362	56	X/
9:00 - 10:00	148	125	34	9	273	43	/
10:00 - 11:00	124	114	20	2	238	22	/
11:00 - 12:00	139	133	17	12	272	29	/
12:00 - 13:00	157	150	26	4	307	30	X/
13:00 - 14:00	152	136	19	2	288	21	/
14:00 - 15:00	197	194	18	7	391	25	X/
15:00 - 16:00	320	218	42	17	538	59	X/
16:00 - 17:00	324	316	34	12	640	46	X/
17:00 - 18:00	254	241	30	14	495	44	X/
18:00 - 19:00	171	165	21	6	336	27	X/
19:00 - 20:00							
20:00 - 21:00							
21:00 - 22:00							
22:00 - 23:00							
23:00 - 24:00							

	Met (Hr)	Required (Hr)	
Allway Stop Warrant:	0	8	Not satisfied

REMARKS:

ALL WAY STOP WARRANT

LOCATION: Fridley, MN
COUNTY: Anoka
REF. POINT:
DATE: 6/3/2019
OPERATOR: CSS

Speed	Approach Description	Lanes
35	Major App1: SB Central Avenue NE	2
35	Major App3: NB Central Avenue NE	2
35	Minor App2: WB Mississippi Street NE	2
35	Minor App4: EB Mississippi Street NE	2

0.70 FACTOR USED? No

					300	200	
HOUR	MAJOR APP. 1	MAJOR APP. 3	MINOR APP. 2	MINOR APP. 4	MAJOR TOTAL Σ (APP. 1 & APP. 3)	MINOR TOTAL APP. 2 + APP. 4	WARRANT MET
0:00 - 1:00							
1:00 - 2:00							
2:00 - 3:00							
3:00 - 4:00							
4:00 - 5:00							
5:00 - 6:00							
6:00 - 7:00	104	125	73	91	229	229	/X
7:00 - 8:00	208	307	171	205	515	515	X/X
8:00 - 9:00	173	275	147	150	448	448	X/X
9:00 - 10:00	130	180	98	134	310	310	X/X
10:00 - 11:00	139	139	94	112	278	278	/X
11:00 - 12:00	174	139	98	129	313	313	X/X
12:00 - 13:00	164	179	103	121	343	343	X/X
13:00 - 14:00	123	154	117	137	277	277	/X
14:00 - 15:00	177	222	141	177	399	399	X/X
15:00 - 16:00	316	244	232	230	560	560	X/X
16:00 - 17:00	382	303	242	262	685	685	X/X
17:00 - 18:00	338	271	215	251	609	609	X/X
18:00 - 19:00	174	179	141	156	353	353	X/X
19:00 - 20:00							
20:00 - 21:00							
21:00 - 22:00							
22:00 - 23:00							
23:00 - 24:00							

	Met (Hr)	Required (Hr)	
Allway Stop Warrant:	**10**	8	**Satisfied**

REMARKS:

Appendix C

(Traffic Queuing Details)

Table 3 Continued - Existing Traffic Queues

CSAH 6 Roadway Study - Traffic Queue Operations - Existing Conditions

Intersection	Peak Hour	Queue Lengths																																																								
		EBL		EBL/T		EBL/T/R		EBT 1		EBT 2		EBT/R		EBR		WBL		WBL/T		WBL/T/R		WBT 1		WBT 2		WBT/R		WBR		NBL		NBL/R		NBL/T		NBL/T/R		NBT 1		NBT 2		NBR		SBL		SBL/R		SBL/T		SBL/T/R		SBT 1		SBT 2		SBT/R		SBR	
		Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
East River Rd & Mississippi Way NE/Mississippi St NE	AM	25	75	-	-	-	-	-	-	-	-	50	100	-	-	200	250	-	-	-	-	-	-	-	-	50	75	-	-	25	25	-	-	-	-	-	-	75	175	50	150	-	-	100	200	-	-	-	-	-	-	175	375	175	375	-	-	-	-
Signalized Intersection	PM	25	75	-	-	-	-	-	-	-	-	25	100	-	-	125	225	-	-	-	-	-	-	-	-	125	225	-	-	25	75	-	-	-	-	-	-	200	325	175	325	25	75	50	125	-	-	-	-	-	-	50	150	50	125	-	-	-	-
Hickory St NE & Mississippi St NE	AM	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-
Ashton Ave NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2nd St NE & Mississippi St NE	AM	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-	-	-	-	-
3rd St NE/W Service Dr & Mississippi St NE	AM	25	25	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	25	50
Stop Controlled	PM	25	25	-	-	-	-	-	-	-	-	0	0	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-	25	75
Commercial Access & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25
Stop Controlled	PM	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25
TH 47 & Mississippi St NE	AM	50	125	-	-	-	-	75	175	100	200	-	-	50	175	100	175	-	-	-	-	75	150	75	125	-	-	50	100	75	150	-	-	-	-	-	-	125	225	100	225	25	175	50	200	-	-	-	-	-	-	250	400	250	375	-	-	75	300
Signalized Intersection	PM	125	225	-	-	-	-	100	225	125	200	-	-	50	125	100	200	-	-	-	-	100	175	100	200	-	-	100	225	125	325	-	-	-	-	-	-	325	550	325	550	75	225	125	300	-	-	-	-	-	-	275	425	250	425	-	-	75	300
Walgreen DWY & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	25	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
5th St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	25	25	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	0	25	-	-	25	25	-	-	-	-	25	100	-	-	-	-	-	-	-	-	-	-	50	150	-	-	-	-	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7th St NE & Mississippi St NE	AM	-	-	50	75	-	-	-	-	-	-	50	100	-	-	-	-	50	100	-	-	-	-	-	-	50	75	-	-	-	-	-	-	25	75	-	-	-	-	-	-	25	75	25	50	-	-	-	-	-	-	-	-	-	-	50	100	-	-
Stop Controlled	PM	-	-	75	150	-	-	-	-	-	-	75	150	-	-	-	-	50	75	-	-	-	-	-	-	50	100	-	-	-	-	-	-	50	100	-	-	-	-	-	-	25	50	25	50	-	-	-	-	-	-	-	-	-	-	50	75	-	-
Monroe St NE & Mississippi St NE	AM	-	-	50	75	-	-	-	-	-	-	50	75	-	-	-	-	50	100	-	-	-	-	-	-	50	100	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	50	100	-	-	-	-	-	-	50	100	-	-	-	-	50	100	-	-	-	-	-	-	50	100	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-
Jackson St NE & Mississippi St NE	AM	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
Van Buren St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	0	25	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Able St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
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Baker Ave NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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Oakley Dr NE & Mississippi St NE	AM	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	50	125	-	-	25	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Taylor St NE & Mississippi St NE	AM	-	-	-	-	-	-	50	200	-	-	25	125	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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Brookview Dr NE & Mississippi St NE	AM	-	-	100	150	-	-	75	125	-	-	-	-	-	-	-	-	-	-	-	-	0	25	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	100	-	-	-	-	-	-	-	-	-	-	-	-
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TH 65 & Mississippi St NE	AM	-	-	50	50	-	-	-	-	-	-	50	50	-	-	-	-	125	225	-	-	-	-	-	-	125	225	-	-	50	150	-	-	-	-	-	-	150	275	125	275	25	50	75	375	-	-	-	-	-	-	550	###	550	###	-	-	100	375
Signalized Intersection	PM	-	-	50	75	-	-	-	-	-	-	50	75	-	-	-	-	175	300	-	-	-	-	-	-	175	300	-	-	200	350	-	-	-	-	-	-	###	###	###	###	75	350	125	275	-	-	-	-	-	-	250	400	250	400	-	-	50	275
Lucia Ln NE & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
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Dellwood Dr NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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Pierce St NE SB & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
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Pierce St NE NB & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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Channel Rd NE & Mississippi St NE	AM	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-
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Central Ave NE & Mississippi St NE	AM	-	-	75	250	-	-	-	-	-	-	-	-	25	75	25	75	-	-	-	-	50	75	-	-	-	-	25	50	-	-	-	-	75	175	-	-	-	-	-	-	25	50	-	-	-	-	75	125	-	-	-	-	-	-	-	-	25	75
Stop Controlled	PM	-	-	100	200	-	-	-	-	-	-	-	-	25	75	25	50	-	-	-	-	50	125	-	-	-	-	25	75	-	-	-	-	100	200	-	-	-	-	-	-	25	75	-	-	-	-	125	300	-	-	-	-	-	-	-	-	50	150
Arthur St NE & Mississippi St NE	AM	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
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Anoka St NE & Mississippi St NE	AM	-	-	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
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Fridley St NE & Mississippi St NE	AM	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
McKinley St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stinson Blvd & Mississippi St NE	AM	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-

Table 5 Continued - 2040 No Build Traffic Queues

CSAH 6 Roadway Study - Traffic Queue Operations - 2040 Conditions

Intersection	Peak Hour	Queue Lengths																																																					
		EBL		EBL/T		EBL/T/R		EBT 1		EBT 2		EBT/R		EBR		WBL		WBL/T		WBT 1		WBT 2		WBT/R		WBR		NBL		NBL/R		NBL/T		NBL/T/R		NBT 1		NBT 2		NBR		SBL		SBL/R		SBL/T		SBL/T/R		SBT 1		SBT 2		SBT/R		SBR	
		Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
East River Rd & Mississippi Way NE/Mississippi St NE	AM	25	75	-	-	-	-	-	-	-	-	50	100	-	-	200	250	-	-	-	-	-	-	50	75	-	-	25	25	-	-	-	-	-	-	100	175	50	150	-	-	75	175	-	-	-	-	-	-	200	375	200	350	-	-	-	-
Signalized Intersection	PM	25	50	-	-	-	-	-	-	-	-	25	100	-	-	150	250	-	-	-	-	-	-	125	250	-	-	25	75	-	-	-	-	-	-	250	450	250	450	25	200	100	200	-	-	-	-	-	-	75	125	50	125	-	-	-	-
Hickory St NE & Mississippi St NE	AM	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-
Ashton Ave NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	25	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2nd St NE & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	25	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-	-	-	-	-
3rd St NE/W Service Dr & Mississippi St NE	AM	25	25	-	-	-	-	-	-	-	-	0	0	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	25	50
Stop Controlled	PM	25	25	-	-	-	-	-	-	-	-	0	0	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	100	-	-	-	-	-	-	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-	25	75
Commercial Access & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25
Stop Controlled	PM	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25
TH 47 & Mississippi St NE	AM	50	150	-	-	-	-	100	200	125	200	-	-	50	125	100	175	-	-	75	150	75	150	-	-	50	100	75	175	-	-	-	-	-	-	150	250	125	250	25	125	75	225	-	-	-	-	-	-	300	525	300	525	-	-	100	300
Signalized Intersection	PM	150	250	-	-	-	-	125	225	125	225	-	-	50	100	100	200	-	-	100	200	100	175	-	-	125	250	175	450	-	-	-	-	-	-	375	625	375	625	75	225	125	325	-	-	-	-	-	-	300	450	275	475	-	-	100	300
Walgreen DWY & Mississippi St NE	AM	-	-	25	50	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
5th St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	25	25	-	-	-	-	25	75	-	-	-	-	-	-	-	-	50	100	-	-	-	-	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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7th St NE & Mississippi St NE	AM	-	-	50	75	-	-	-	-	-	-	50	100	-	-	-	-	50	100	-	-	-	-	50	75	-	-	-	-	-	-	25	75	-	-	-	-	-	-	25	75	25	50	-	-	-	-	-	-	-	-	-	-	50	75	-	-
Stop Controlled	PM	-	-	75	125	-	-	-	-	-	-	75	150	-	-	-	-	50	100	-	-	-	-	50	100	-	-	-	-	-	-	50	75	-	-	-	-	-	-	25	50	25	50	-	-	-	-	-	-	-	-	-	-	50	100	-	-
Monroe St NE & Mississippi St NE	AM	-	-	50	100	-	-	-	-	-	-	50	75	-	-	-	-	50	100	-	-	-	-	50	100	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	50	100	-	-	-	-	-	-	50	100	-	-	-	-	50	100	-	-	-	-	50	100	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-
Jackson St NE & Mississippi St NE	AM	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	0	25	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
Van Buren St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	25	-	-	-	-	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	0	25	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Able St NE & Mississippi St NE	AM	-	-	0	25	-	-	-	-	-	-	0	25	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-
Baker Ave NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	0	25	-	-	0	25	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oakley Dr NE & Mississippi St NE	AM	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	100	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Taylor St NE & Mississippi St NE	AM	-	-	-	-	-	-	75	200	-	-	50	175	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	175	300	-	-	125	300	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	25	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brookview Dr NE & Mississippi St NE	AM	-	-	100	150	-	-	100	125	-	-	-	-	-	-	-	-	-	-	0	25	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	125	150	-	-	100	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
TH 65 & Mississippi St NE	AM	-	-	50	75	-	-	-	-	-	-	50	50	-	-	-	-	150	300	-	-	-	-	150	275	-	-	75	200	-	-	-	-	-	-	175	375	150	350	25	125	75	375	-	-	-	-	-	-	2100	2475	2100	2475	-	-	125	375
Signalized Intersection	PM	-	-	50	75	-	-	-	-	-	-	50	75	-	-	-	-	175	275	-	-	-	-	175	300	-	-	150	350	-	-	-	-	-	-	2275	2325	2275	2325	50	350	150	375	-	-	-	-	-	-	300	550	300	550	-	-	75	375
Lucia Ln NE & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	25	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Dellwood Dr NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	25	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pierce St NE SB & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Pierce St NE NB & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel Rd NE & Mississippi St NE	AM	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Central Ave NE & Mississippi St NE	AM	-	-	100	225	-	-	-	-	-	-	-	-	25	75	25	75	-	-	50	100	-	-	-	-	25	75	-	-	-	-	100	200	-	-	-	-	-	-	25	75	-	-	-	-	75	175	-	-	-	-	-	-	-	-	50	100
Stop Controlled	PM	-	-	100	250	-	-	-	-	-	-	-	-	25	75	25	75	-	-	75	125	-	-	-	-	25	75	-	-	-	-	100	200	-	-	-	-	-	-	25	75	-	-	-	-	175	400	-	-	-	-	-	-	-	-	75	225
Arthur St NE & Mississippi St NE	AM	-	-	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
Anoka St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
Fridley St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
McKinley St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stinson Blvd & Mississippi St NE	AM	-	-	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-

Table 6 Continued - 2040 Road Diet Traffic Queues

CSAH 6 Roadway Study - Traffic Queue Operations - 2040 Road Diet

Queue Lengths — Eastbound

Intersection	Peak Hour	EBL		EBL/T		EBL/T/R		EBT 1		EBT 2		EBT/R		EBR	
		Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
East River Rd & Mississippi Way NE/Mississippi St NE	AM	25	75	-	-	-	-	-	-	-	-	50	100	-	-
Signalized Intersection	PM	25	75	-	-	-	-	-	-	-	-	25	75	-	-
Hickory St NE & Mississippi St NE	AM	25	25	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	25	25	-	-	-	-	-	-	-	-	-	-	-	-
Ashton Ave NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2nd St NE & Mississippi St NE	AM	-	-	25	75	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	75	-	-	-	-	-	-	-	-	-	-
3rd St NE/W Service Dr & Mississippi St NE	AM	25	25	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	25	25	-	-	-	-	-	-	-	-	0	25	-	-
Commercial Access & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	25	25	-	-	-	-	-	-
TH 47 & Mississippi St NE	AM	75	200	-	-	-	-	150	250	100	225	-	-	75	175
Signalized Intersection	PM	175	250	-	-	-	-	175	300	125	275	-	-	75	200
Walgreen DWY & Mississippi St NE	AM	-	-	25	100	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-
5th St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	0	25
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	0	25
7th St NE & Mississippi St NE	AM	25	75	-	-	-	-	-	-	-	-	75	175	-	-
Stop Controlled	PM	50	100	-	-	-	-	-	-	-	-	100	200	-	-
Monroe St NE & Mississippi St NE	AM	25	50	-	-	-	-	-	-	-	-	50	100	-	-
Stop Controlled	PM	25	50	-	-	-	-	-	-	-	-	75	100	-	-
Jackson St NE & Mississippi St NE	AM	0	25	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	25	25	-	-	-	-	-	-	-	-	-	-	-	-
Van Buren St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	0	25	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Able St NE & Mississippi St NE	AM	0	25	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Baker Ave NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oakley Dr NE & Mississippi St NE	AM	25	25	-	-	-	-	0	25	-	-	-	-	-	-
Stop Controlled	PM	25	25	-	-	-	-	0	25	-	-	-	-	-	-
Taylor St NE & Mississippi St NE	AM	-	-	-	-	-	-	50	175	-	-	50	150	-	-
Stop Controlled	PM	-	-	-	-	-	-	25	175	-	-	25	125	-	-
Brookview Dr NE & Mississippi St NE	AM	-	-	100	175	-	-	100	175	-	-	-	-	-	-
Stop Controlled	PM	-	-	100	200	-	-	75	175	-	-	-	-	-	-
TH 65 & Mississippi St NE	AM	-	-	100	150	-	-	-	-	-	-	100	150	-	-
Signalized Intersection	PM	-	-	100	125	-	-	-	-	-	-	100	150	-	-
Lucia Ln NE & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	175	-	-	-	-	-	-	-	-	-	-
Dellwood Dr NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pierce St NE SB & Mississippi St NE	AM	25	25	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	25	25	-	-	-	-	-	-	-	-	-	-	-	-
Pierce St NE NB & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel Rd NE & Mississippi St NE	AM	0	25	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	25	50	-	-	-	-	25	25	-	-	-	-	-	-
Central Ave NE & Mississippi St NE	AM	50	100	-	-	-	-	-	-	-	-	75	150	-	-
Stop Controlled	PM	50	75	-	-	-	-	-	-	-	-	100	225	-	-
Arthur St NE & Mississippi St NE	AM	-	-	-	-	0	25	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	0	25	-	-	-	-	-	-	-	-
Anoka St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	0	25	-	-	-	-	-	-	-	-
Fridley St NE & Mississippi St NE	AM	-	-	25	25	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-
McKinley St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	25	-	-	-	-	-	-	-	-	-	-
Stinson Blvd & Mississippi St NE	AM	-	-	0	25	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-

Queue Lengths — Westbound

Intersection	Peak Hour	WBL		WBL/T		WBL/T/R		WBT 1		WBT 2		WBT/R		WBR	
		Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
East River Rd & Mississippi Way NE/Mississippi St NE	AM	200	250	-	-	-	-	-	-	-	-	50	100	-	-
Signalized Intersection	PM	150	250	-	-	-	-	-	-	-	-	125	250	-	-
Hickory St NE & Mississippi St NE	AM	-	-	-	-	-	-	25	125	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	25	25	-	-	25	50	-	-
Ashton Ave NE & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-
2nd St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	0	25	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3rd St NE/W Service Dr & Mississippi St NE	AM	25	25	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	25	75	-	-	-	-	-	-	-	-	-	-	-	-
Commercial Access & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TH 47 & Mississippi St NE	AM	100	200	-	-	-	-	100	200	75	150	-	-	50	100
Signalized Intersection	PM	100	200	-	-	-	-	125	200	100	175	-	-	150	300
Walgreen DWY & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5th St NE & Mississippi St NE	AM	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	25	50	-	-	-	-	-	-	-	-	-	-	-	-
7th St NE & Mississippi St NE	AM	25	50	-	-	-	-	-	-	-	-	50	100	-	-
Stop Controlled	PM	25	50	-	-	-	-	-	-	-	-	50	125	-	-
Monroe St NE & Mississippi St NE	AM	25	75	-	-	-	-	-	-	-	-	75	150	-	-
Stop Controlled	PM	25	75	-	-	-	-	-	-	-	-	75	200	-	-
Jackson St NE & Mississippi St NE	AM	0	25	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	25	25	-	-	-	-	-	-	-	-	-	-	-	-
Van Buren St NE & Mississippi St NE	AM	0	25	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Able St NE & Mississippi St NE	AM	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	25	25	-	-	-	-	-	-	-	-	-	-	-	-
Baker Ave NE & Mississippi St NE	AM	0	25	-	-	-	-	0	25	-	-	-	-	-	-
Stop Controlled	PM	25	50	-	-	-	-	0	25	-	-	-	-	-	-
Oakley Dr NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	0	25	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	0	25	-	-
Taylor St NE & Mississippi St NE	AM	-	-	25	75	-	-	0	25	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	75	-	-	25	25	-	-	-	-	-	-
Brookview Dr NE & Mississippi St NE	AM	-	-	-	-	-	-	25	50	-	-	25	25	-	-
Stop Controlled	PM	-	-	-	-	-	-	25	75	-	-	25	50	-	-
TH 65 & Mississippi St NE	AM	-	-	200	325	-	-	-	-	-	-	150	300	-	-
Signalized Intersection	PM	-	-	250	350	-	-	-	-	-	-	225	350	-	-
Lucia Ln NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	25	25	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	25	100	-	-
Dellwood Dr NE & Mississippi St NE	AM	25	25	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	25	50	-	-	-	-	25	100	-	-	-	-	-	-
Pierce St NE SB & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	25	75	-	-
Pierce St NE NB & Mississippi St NE	AM	25	25	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	25	25	-	-	-	-	25	25	-	-	-	-	-	-
Channel Rd NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	25	50	-	-
Central Ave NE & Mississippi St NE	AM	25	75	-	-	-	-	-	-	-	-	50	125	-	-
Stop Controlled	PM	25	50	-	-	-	-	-	-	-	-	75	125	-	-
Arthur St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anoka St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	0	25	-	-	-	-	-	-	-	-
Fridley St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McKinley St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stinson Blvd & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Queue Lengths — Northbound

Intersection	Peak Hour	NBL		NBL/R		NBL/T		NBL/T/R		NBT 1		NBT 2		NBR	
		Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
East River Rd & Mississippi Way NE/Mississippi St NE	AM	25	25	-	-	-	-	-	-	75	150	50	125	-	-
Signalized Intersection	PM	25	75	-	-	-	-	-	-	300	550	275	550	75	325
Hickory St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ashton Ave NE & Mississippi St NE	AM	-	-	25	75	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	75	-	-	-	-	-	-	-	-	-	-
2nd St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3rd St NE/W Service Dr & Mississippi St NE	AM	-	-	-	-	25	75	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	50	75	-	-	-	-	-	-	-	-
Commercial Access & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TH 47 & Mississippi St NE	AM	75	200	-	-	-	-	-	-	150	250	125	225	25	100
Signalized Intersection	PM	175	450	-	-	-	-	-	-	400	625	400	650	75	225
Walgreen DWY & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5th St NE & Mississippi St NE	AM	25	75	-	-	-	-	-	-	-	-	-	-	25	50
Stop Controlled	PM	75	150	-	-	-	-	-	-	-	-	-	-	50	75
7th St NE & Mississippi St NE	AM	-	-	-	-	50	75	-	-	-	-	-	-	25	50
Stop Controlled	PM	-	-	-	-	50	75	-	-	-	-	-	-	25	75
Monroe St NE & Mississippi St NE	AM	-	-	-	-	-	-	50	75	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	25	75	-	-	-	-	-	-
Jackson St NE & Mississippi St NE	AM	-	-	-	-	-	-	25	50	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	25	75	-	-	-	-	-	-
Van Buren St NE & Mississippi St NE	AM	-	-	50	75	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	75	-	-	-	-	-	-	-	-	-	-
Able St NE & Mississippi St NE	AM	-	-	-	-	-	-	25	50	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	25	75	-	-	-	-	-	-
Baker Ave NE & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-
Oakley Dr NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taylor St NE & Mississippi St NE	AM	-	-	25	75	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-
Brookview Dr NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TH 65 & Mississippi St NE	AM	75	150	-	-	-	-	-	-	150	325	150	325	25	125
Signalized Intersection	PM	150	350	-	-	-	-	-	-	2275	2325	2275	2325	75	350
Lucia Ln NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dellwood Dr NE & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-
Pierce St NE SB & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pierce St NE NB & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-
Channel Rd NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Central Ave NE & Mississippi St NE	AM	-	-	-	-	100	175	-	-	-	-	-	-	25	75
Stop Controlled	PM	-	-	-	-	100	225	-	-	-	-	-	-	50	75
Arthur St NE & Mississippi St NE	AM	-	-	-	-	-	-	25	50	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	25	25	-	-	-	-	-	-
Anoka St NE & Mississippi St NE	AM	-	-	-	-	-	-	25	50	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	25	50	-	-	-	-	-	-
Fridley St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McKinley St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stinson Blvd & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Queue Lengths — Southbound

Intersection	Peak Hour	SBL		SBL/R		SBL/T		SBL/T/R		SBT 1		SBT 2		SBT/R		SBR	
		Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
East River Rd & Mississippi Way NE/Mississippi St NE	AM	75	200	-	-	-	-	-	-	200	375	200	375	-	-	-	-
Signalized Intersection	PM	100	175	-	-	-	-	-	-	75	125	50	125	-	-	-	-
Hickory St NE & Mississippi St NE	AM	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	50	75	-	-	-	-	-	-	-	-	-	-	-	-
Ashton Ave NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2nd St NE & Mississippi St NE	AM	-	-	50	100	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	50	75	-	-	-	-	-	-	-	-	-	-	-	-
3rd St NE/W Service Dr & Mississippi St NE	AM	-	-	-	-	25	50	-	-	-	-	-	-	-	-	25	75
Stop Controlled	PM	-	-	-	-	50	125	-	-	-	-	-	-	-	-	25	75
Commercial Access & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25
TH 47 & Mississippi St NE	AM	75	150	-	-	-	-	-	-	300	475	300	475	-	-	100	300
Signalized Intersection	PM	150	325	-	-	-	-	-	-	300	475	300	475	-	-	75	300
Walgreen DWY & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
5th St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7th St NE & Mississippi St NE	AM	25	50	-	-	-	-	-	-	-	-	-	-	50	100	-	-
Stop Controlled	PM	25	50	-	-	-	-	-	-	-	-	-	-	50	75	-	-
Monroe St NE & Mississippi St NE	AM	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	50	75	-	-	-	-	-	-	-	-
Jackson St NE & Mississippi St NE	AM	-	-	-	-	-	-	25	75	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
Van Buren St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Able St NE & Mississippi St NE	AM	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
Baker Ave NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oakley Dr NE & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Taylor St NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brookview Dr NE & Mississippi St NE	AM	-	-	75	225	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
TH 65 & Mississippi St NE	AM	75	375	-	-	-	-	-	-	2300	2475	2300	2475	-	-	100	375
Signalized Intersection	PM	175	350	-	-	-	-	-	-	325	525	325	525	-	-	75	375
Lucia Ln NE & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Dellwood Dr NE & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pierce St NE SB & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Pierce St NE NB & Mississippi St NE	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel Rd NE & Mississippi St NE	AM	-	-	25	75	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Central Ave NE & Mississippi St NE	AM	-	-	-	-	75	125	-	-	-	-	-	-	-	-	50	75
Stop Controlled	PM	-	-	-	-	125	275	-	-	-	-	-	-	-	-	50	125
Arthur St NE & Mississippi St NE	AM	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
Anoka St NE & Mississippi St NE	AM	-	-	-	-	-	-	25	50	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	-	-	-	-	25	25	-	-	-	-	-	-	-	-
Fridley St NE & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
McKinley St NE & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stinson Blvd & Mississippi St NE	AM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-
Stop Controlled	PM	-	-	25	50	-	-	-	-	-	-	-	-	-	-	-	-

Table 7 Continued - TH 65 Lane Alternatives Traffic Queues

TH 65 - Intersection Lane Configuration Alternatives - Queing by Movement

Alternative	Peak Hour	Movement Queue (Feet)											
		EBT/L		EBT/R		-		WBT/L		WBT/R		-	
		Ave	Max	Ave	Max	Ave	Max	Ave	Max	Ave	Max	Ave	Max
No Build (existing 4-Lane)	AM	150	275	150	275			175	300	150	275		
	PM	175	350	175	300			200	450	225	450		
1	AM	75	200	275	575			125	275	200	400		
	PM	200	425	200	450			100	425	400	775		
2	AM	75	175	175	375	75	150	100	225	150	350	25	75
	PM	175	375	125	250	50	125	100	200	200	325	50	150

Appendix D

(CAP X Results – TH 65)

U.S.Department of Transportation

Federal Highway Administration

Capacity Analysis for Planning of Junctions

CAP-X

Version 2.0
June 2014

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Steps in using this tool:

Step 1: Go to the Input worksheet and fill in the required information located in the "Yellow" boxes.
Step 2: Go through each design sheet and adjust the number of lanes for each approach. The lanes are located in the "Yellow" boxes on the second page of each design sheet.
Step 3: Go to the Results sheet and review the consolidated output.

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Capacity Analysis for Planning of Junctions

Abbreviation	Definition
CLV	Critical Lane Volume
Ctr	Center
DCD	Double Crossover Diamond
DLT	Displaced Left Turn
DLTI	Displaced Left Turn Intersection
EB	Eastbound
EQ	Equivalent
E-W	East-West
ICD	Inscribed Circle Diameter
MUT	Median U-Turn
PCEPH	Per Car Equivalent Per Hour
PCE	Per Car Equivalent
PCL	Partial Cloverleaf
PMUT	Partial Median U-Turn
RCUT	Restricted Crossing U-Turn
LT	Left Turn
Lt Eq	Left Turn Equivalent
Lt Mrg	Left Merge
NB	Northbound
N-E	North-East
N-S	North-South
N-W	North-West
PCE	Per Car Equivalent
PCEPH	Per Car Equivalent Per Hour
PEPCH	Per Car Equivalent Per Hour
Qr	Quadrant Road
Rt Ln	Right Lane
Rt Lt	Right Left
Rt Mrg	Right merge
SB	Southbound
S-E	South-East
S-W	South-West
SPI	Single point interchange
TVE	Through Vehicle Equivalent
V/C	Volume/Capacity
Veh/hr	Vehicles per hour
WB	Westbound

Capacity Analysis for Planning of Junctions

Input Worksheet

Project Name:	*CSAH 6 & TH 65 - 2040 PM Peak Hour*
Project Number:	*CSAH 6 Corridor Study*
Location	*Anoka County, Fridley, MN*
Date	July 1, 2019

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Truck	Volume Growth
Eastbound	0	137	148	89	4.00%	0.00%
Westbound	0	64	178	76	4.00%	0.00%
Southbound	0	101	1141	93	4.00%	0.00%
Northbound	0	133	2388	57	4.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor	**Suggested = 2.00**	2.00
Critical Lane Volume	1600	

Equivalent Pasenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	142	154	93
Westbound	0	67	185	79
Southbound	0	105	1187	97
Northbound	0	138	2484	59

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Input Worksheet

Project Name:	*CSAH 6 & TH 65 - 2040 PM Peak Hour*
Project Number:	*CSAH 6 Corridor Study*
Location	*Anoka County, Fridley, MN*
Date	July 1, 2019

Critical Lane Volume Sum

Acceptable Configurations			
< 1200	1200 - 1399	1400 - 1599	≥ 1600
8	0	13	11

Results for Intersections

#	TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Ranking
			CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
1	Conventional	FULL									1693	1.06	1.06	14
2	Conventional Shared RT LN	CSRL									1651	1.03	1.03	13
3.1	Quadrant Roadway	S-W			1421	0.89			347	0.22	1372	0.86	0.89	1
3.2		N-E	1502	0.94			353	0.22			1473	0.92	0.94	6
3.3		S-E			1423	0.89	1423	0.89			1404	0.88	0.89	2
3.4		N-W	1431	0.89					369	0.23	1437	0.90	0.90	4
4.1	Partial Displaced Left Turn	N-S	1424	0.89	1399	0.87					1484	0.93	0.93	5
4.2		E-W					200	0.13	311	0.19	1502	0.94	0.94	9
5	Displaced Left Turn	FULL	1424	0.89	772	0.48	330	0.21	472	0.30	1427	0.89	0.89	3
6.1	Restricted Crossing U-Turn	N-S	852	0.53	1526	0.95	1508	0.94	1085	0.68			0.95	11
6.2		E-W	2323	1.45	3083	1.93	1804	1.13	1002	0.63			1.93	15
7.1	Median U-Turn	N-S	823	0.51	1495	0.93					1587	0.99	0.99	12
7.2		E-W					341	0.21	302	0.19	1502	0.94	0.94	9
8.1	Partial Median U-Turn	N-S	867	0.54	1472	0.92					1502	0.94	0.94	6
8.2		E-W					254	0.16	236	0.15	1502	0.94	0.94	6

Capacity Analysis for Planning of Junctions

Input Worksheet

Results for Roundabouts

#	TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Ranking
		Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3		
9.1	50 ICD	2.15			-1.17			4.14			-0.18			4.14	6
9.2	75 ICD	2.04			-1.70			3.90			-0.21			3.90	5
9.3	1 X 1	1.82			1.34			3.54			4.65			4.65	7
9.4	1 X 2	1.62			0.75	0.59		3.14			2.24	2.41		3.14	4
9.5	2 X 1	0.91	0.90		0.89			1.82	1.72		2.03			2.03	3
9.6	2 X 2	0.83	0.80		1.12	1.05		1.65	1.52		0.54	0.39		1.65	1
9.7	3 X 3	0.07	0.80	0.80	0.24	0.50	0.48	0.09	1.63	1.52	0.48	1.78	1.83	1.83	2

Results for Interchanges

#	TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Ranking
			CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
10.1	Diamond	N-S					1091	0.68	1134	0.71					0.71	8
10.2		E-W					273	0.17	252	0.16					0.17	2
11.1	Partial Cloverleaf	N-S					576	0.36	985	0.62					0.62	6
11.2		E-W					264	0.94	233	0.15					0.16	1
13.1	Displaced Left Turn	N-S	1424	0.89			1380	0.86	1384	0.87			772	0.48	0.89	9
13.2		E-W	311	0.19			272	0.17	275	0.17			200	0.13	0.19	4
14.1	Double Crossover Diamond	N-S	1396	0.87	717	0.45	1959	1.22	1938	1.21	1460	0.91	725	0.45	1.22	10
14.2		E-W	276	0.17	310	0.19	259	0.16	271	0.17	256	0.16	199	0.12	0.19	3
15.1	Single Point	N-S	968	0.61			1048	0.66					527	0.33	0.66	7
15.2		E-W	276	0.17			387	0.24					156	0.10	0.24	5

Appendix E

(Evaluation Matrices)

Mississippi Street (CSAH 6) Evaluation Matrix
Corridor Alternatives

Alternative	Mobility Levels of Service				Safety		Maintains or Improves Corridor Access	Minimize Additional ROW Needs	Minimizes Construction Cost
	Vehicles	Pedestrian	Bicycle	Bus	Vehicles	Pedestrians & Bicyclists			
No Build	+	-	-	-	-	-	+	o	+
Restripe Existing (3-Lane Striping)	+	-	o	-	o	-	+	o	o
Alternative A (3-Lane w/ Sidewalks)	+	+	o	-	+	+	+	o	-
Alternative B (3-Lane w/ Trail)	+	+	+	-	+	+	+	o	-
Notes + = best/improved o = moderate/no change - = poor/gets worse	Considers traffic operations Analysis results	Considers size and condition of pedestrian facility	Considers available space designate for Bikers	Bus Routes and Frequency are not expected to change	Considers Vehicle Conflict Points	Considers space between pedestrians and vehicles	Access restrictions do not change	Considers needed impacts outside the existing ROW	Considers the cost for construction

Mississippi Street (CSAH 6) Evaluation Matrix

All-Way Stop Control Alternatives - 7th Street | Monroe Street | Old Central Avenue

Alternative	Intersection Traffic Control	Provides Acceptable Level of Service	Capacity Available to Handle Traffic Fluctuations	Minimizes Back-ups on Mississippi Street	Minimizes Back-ups on Cross Street	Corridor Travel Time Decrease	Potential Decrease in Crashes	Potential Pedestrian Safety Increase	Maintains or Improves Corridor Access	Minimize Additional ROW Needs	Minimizes Construction Cost
Existing 4-Lane	All-Way Stop Control*	+	+	o	o	o	-	-	o	+	+
3-Lane Conversion	All-Way Stop Control*	+	+	o	o	o	o	+	o	+	+
3-Lane Conversion	Two-Way Stop Control	+	-	+	-	+	o	-	o	+	+
3-Lane Conversion	Compact Roundabout	+	+	o	+	+	+	+	o	-	-
Notes + = Best/improved o = moderate/no change - = worst/gets worse	TWSC would stop Northbound and Southbound traffic	Considers traffic operations Analysis results	Considers traffic operations Analysis results	Considers traffic operations Analysis results	Considers traffic operations Analysis results	Considers traffic operations Analysis results	Considers Vehicle Conflict Points and Change in traffic control	Considers Pedestrian Crossing Distance	Access restrictions do not change	Considers needed impacts outside the existing ROW	Considers the cost for construction

*All-Way Stop Control does not meet traffic volume warrants at 7th Street or Monroe Street. All-Way Stop Control warrants are satisfied at Old Central Avenue

Mississippi Street (CSAH 6) Evaluation Matrix
TH 65 Alternatives

Alternative	Intersection Traffic Control	Provides Acceptable Level of Service	Capacity Available to Handle Traffic Fluctuations	Minimizes Back-ups on Mississippi Street	Minimizes Back-ups on Cross Street	Corridor Travel Time Decrease	Potential Decrease in Crashes	Potential Pedestrian Safety Increase	Maintains or Improves Corridor Access	Minimize Additional ROW Needs	Minimizes Construction Cost
Existing (No Build)	Signal	o	-	o	o	o	-	-	+	o	+
Left Turn Lane | Thru & Right Lane	Signal	o	o	-	o	o	+	+	+	+	o
Left Turn Lane | Thru Lane | Right Turn Lane	Signal	o	o	o	o	o	+	o	+	-	o
Notes + = Best/improved o = moderate/no change - = worst/gets worse		Considers traffic operations Analysis results	Considers traffic operations Analysis results	Considers traffic operations Analysis results	Considers traffic operations Analysis results	Considers traffic operations Analysis results	Considers Vehicle Conflict Points and Change in geometry	Considers Pedestrian Crossing Distance	Access restrictions do not change	Considers needed impacts outside the existing ROW	Considers the cost for construction

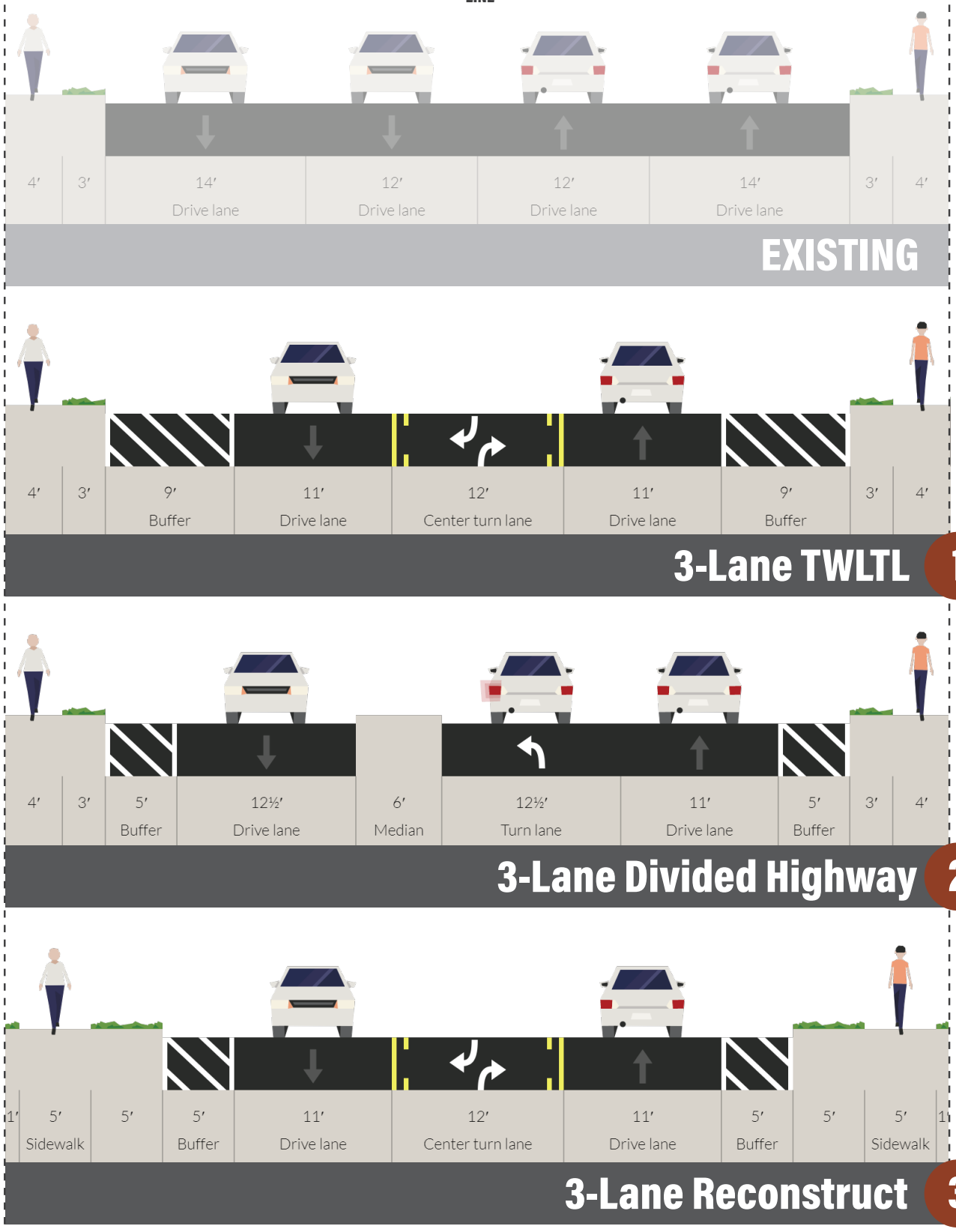
Appendix F

(Typical Section Screening)

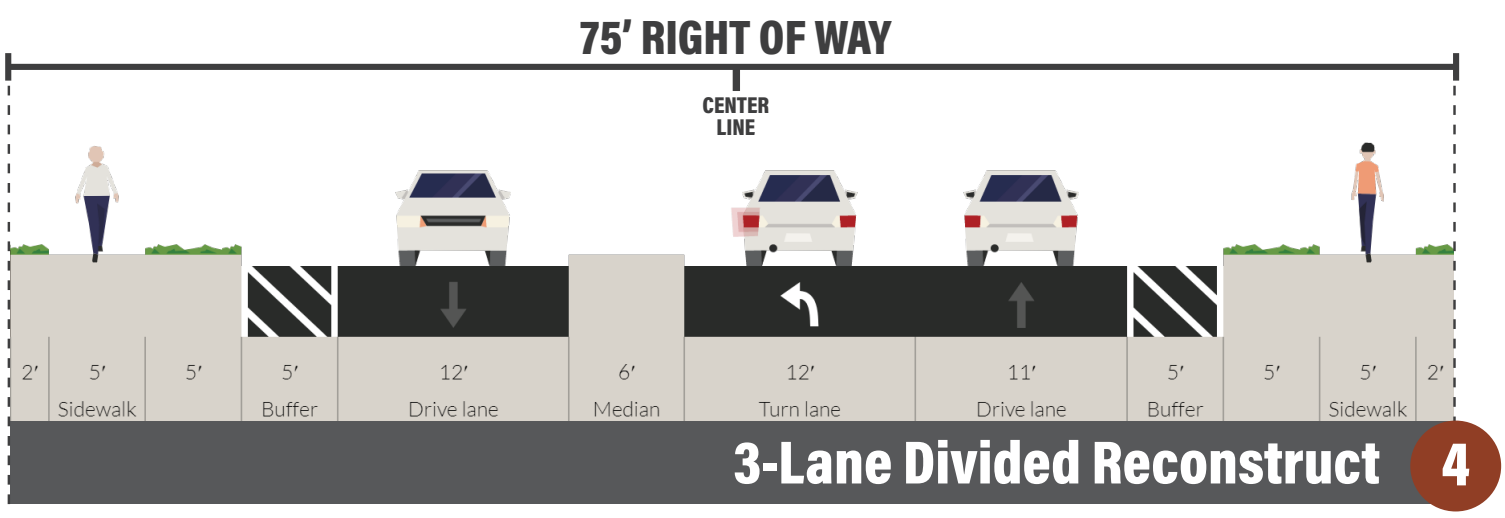
COUNTY ROAD 6 IMPROVEMENTS

WHAT COULD THE STREET LOOK LIKE?

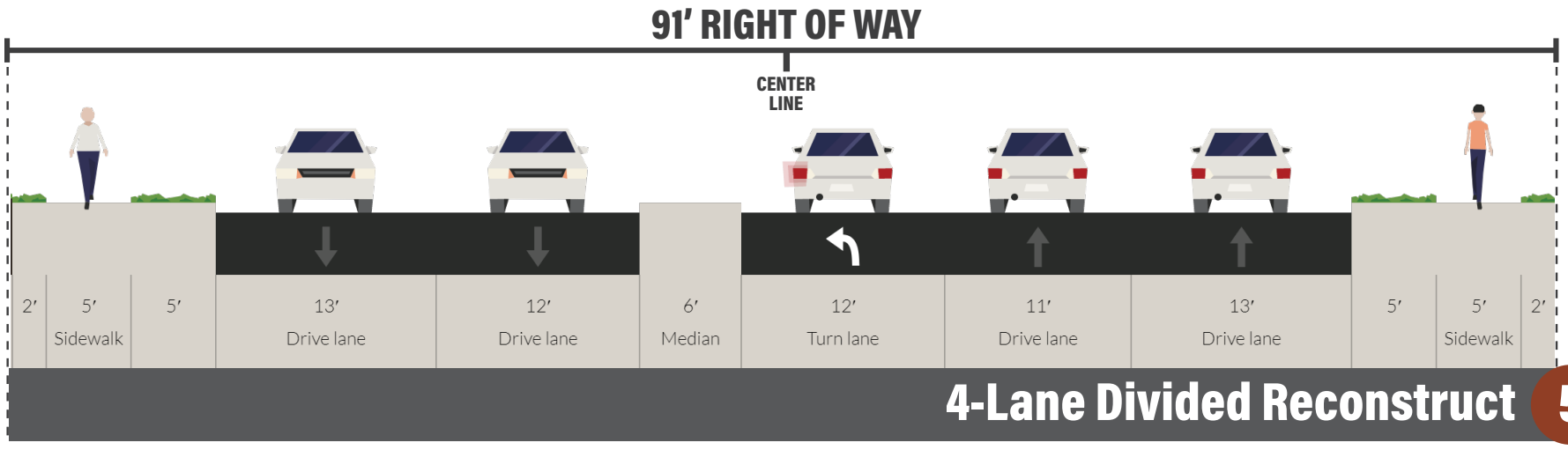
66′ RIGHT OF WAY



75′ RIGHT OF WAY



91′ RIGHT OF WAY



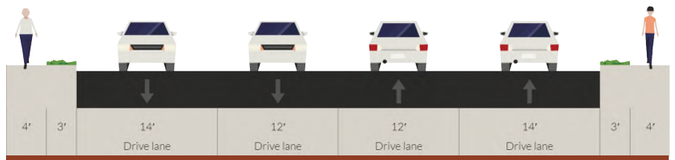
MISSISSIPPI STREET IMPROVEMENTS

POTENTIAL RIGHT OF WAY IMPACTS

What would the impacts of street widening be?

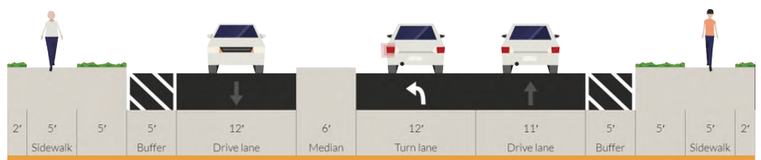
Any design that widens the roadway requires additional right-of-way. Acquiring ROW is not desired for the Mississippi Street Improvement Project. As shown below, widened options were considered, but determined to be unnecessary given the roadway needs and the anticipated impacts to private property.

66' RIGHT OF WAY



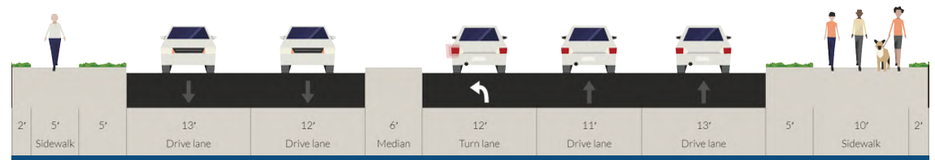
EXISTING

75' RIGHT OF WAY

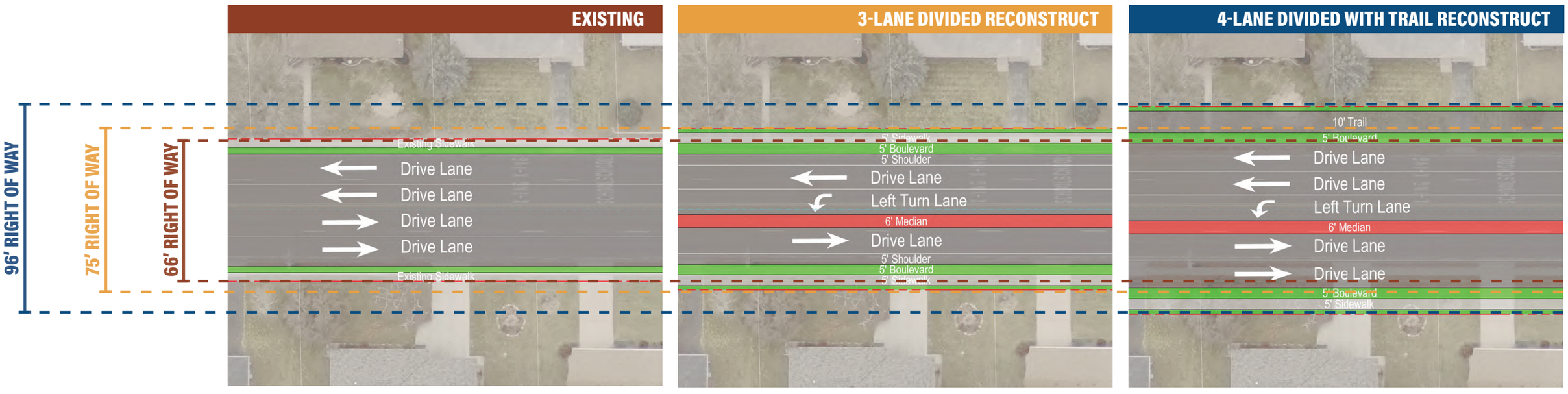


3-LANE DIVIDED RECONSTRUCT

96' RIGHT OF WAY



4-LANE DIVIDED WITH TRAIL RECONSTRUCT



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Appendix G

(Open House Material)

Open House #1

MISSISSIPPI STREET IMPROVEMENTS

OPEN HOUSE ANNOUNCEMENT

The City of Fridley and Anoka County are conducting a comprehensive evaluation of roadway alternatives for CSAH 6 (Mississippi Street). The main goals of this study are to identify necessary roadway improvements that are compatible with local and regional needs, and to provide safe, efficient, and reliable mobility for all users of the roadway. An open house will be held to provide additional information on the potential improvements and project schedule. The project team will be present to answer any project-related questions and to receive feedback from residents.

Date: September 24, 4:30PM-6:30PM

Location: Fridley City Hall - 7071 University Ave, N.E.

Can't make the meeting? Leave your comments at cityoffridley.mysocialpinpoint.com/roadprojects or email any of the contacts below.

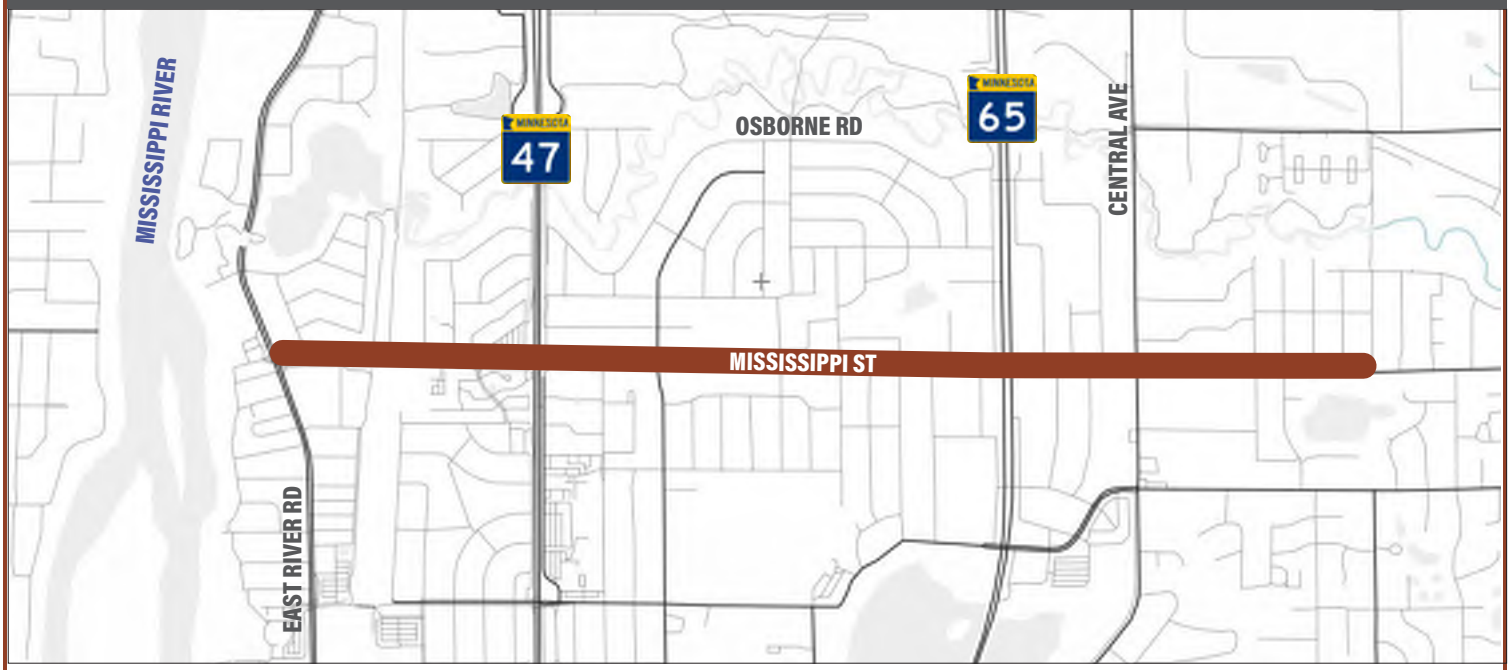
Contacts: Jack Forslund
Transportation Planner (Anoka County)
(763) 324-3179 – jack.forslund@co.anoka.us

Joe MacPherson
Assistant County Engineer (Anoka County)
(763) 324-3199 – joe.macpherson@co.anoka.us

Jim Kosluchar
Public Works Director (City of Fridley)
(763) 572-3550 – jim.kosluchar@fridleymn.gov

Bryan Nemeth
Project Manager (Bolton & Menk, Inc.)
(612) 802-9538 – bryan.nemeth@bolton-menk.com

PROJECT AREA



AUG - SEPT — **GATHER FEEDBACK**

OCT - NOV — **ALTERNATIVES**

NOV - DEC — **FINAL CONCEPT**

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OPEN HOUSE #1 COMMENTS SUMMARY

EVENT SUMMARY

DATE: September 24, 2019
LOCATION: Fridley City Hall

76
attendees signed in to the open house.

MOST POPULAR ISSUES

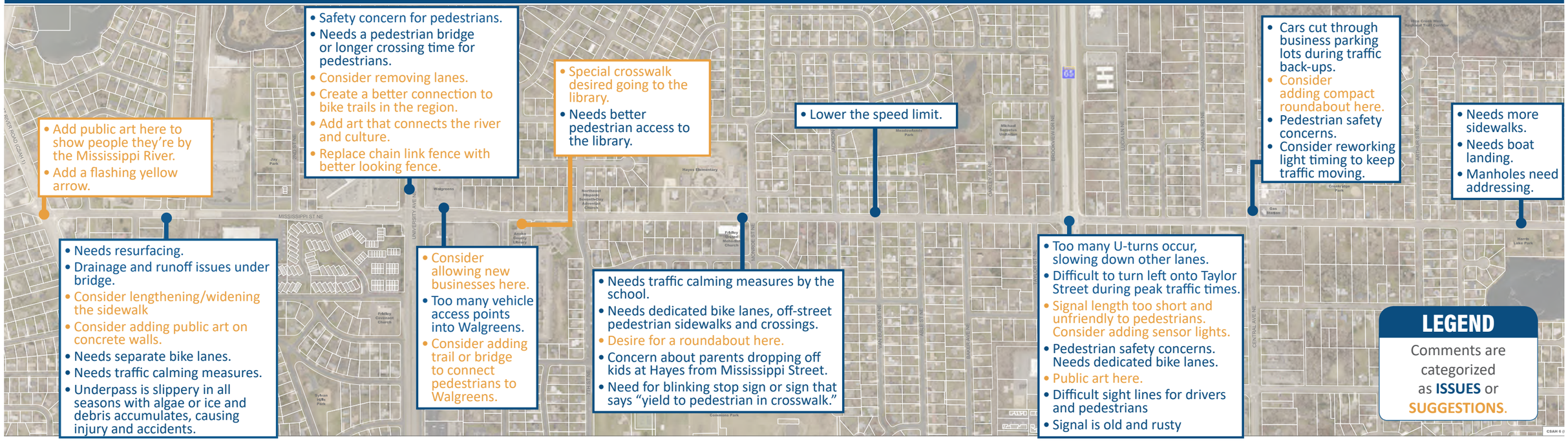
- SPEEDING CONCERNS
- PEDESTRIAN SAFETY CONCERNS
- NEED FOR SEPARATE/ DEDICATED BIKE LANES

MOST POPULAR SUGGESTIONS

- MAKE SIDEWALKS AND CROSSINGS MORE PEDESTRIAN FRIENDLY
- ADD ROUNDABOUT FOR TRAFFIC CONTROL
- ADD PUBLIC ART

COMMENT SUMMARY

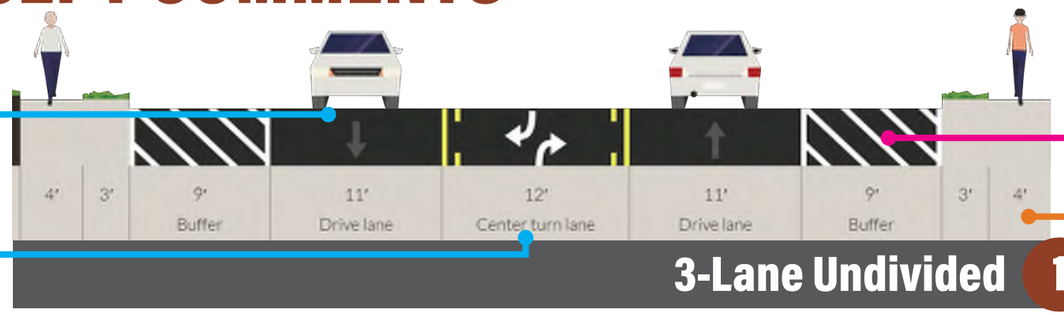
Check out the comments received at the kickoff open house!



MISSISSIPPI STREET IMPROVEMENTS

OPEN HOUSE #1 CONCEPT COMMENTS

General/Overall | **Parking** | **Buffer/Sidewalk** | **Bike Lane/Trail**



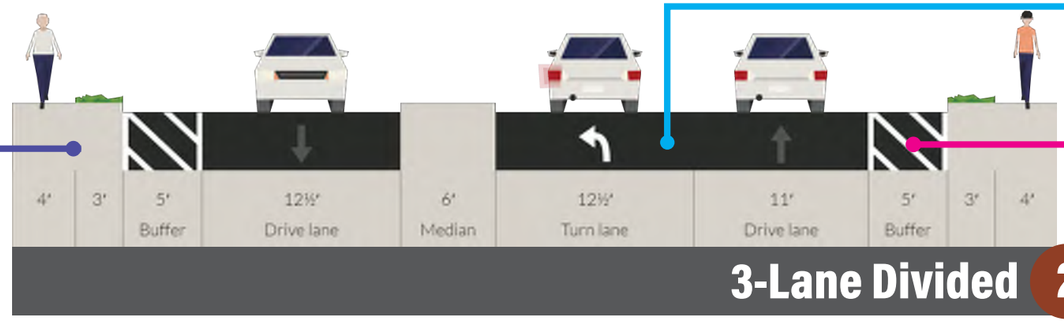
3-Lane Undivided 1

- Suggest 10' lanes to slow down traffic.
- 4 lanes seem unnecessary and encourage higher speeds.

- Center turn lane keeps people out of the way.
- Don't like center turn lane, will accumulate trash and is too stark.
- 3-lane undivided from East River Road to Old Central.

- Allow parking on shoulder.
- Really like the buffer concept.
- 9' buffer is too big especially with center turn lane.

- Less buffer more sidewalk.
- Needs marked bike lanes, not just a sidewalk.

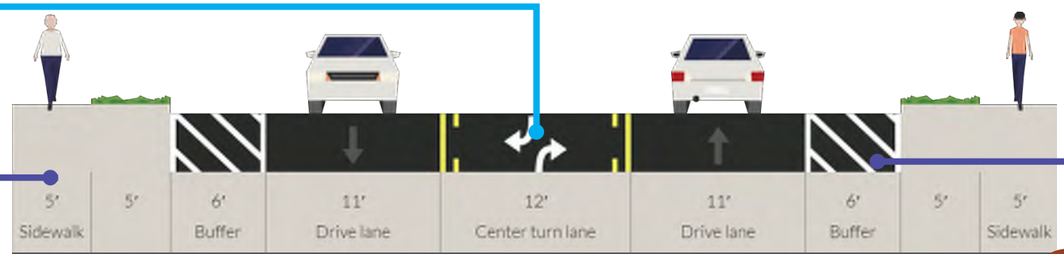


3-Lane Divided 2

- Really like the left turn lane idea.

- Maximize sidewalk space and minimize boulevard.

- 4 or 5 foot buffer.
- Possible pull off for parking at school.
- Allow parking on at least one side.
- Widen north side of the shoulder by Hayes Elementary School and allow parking.

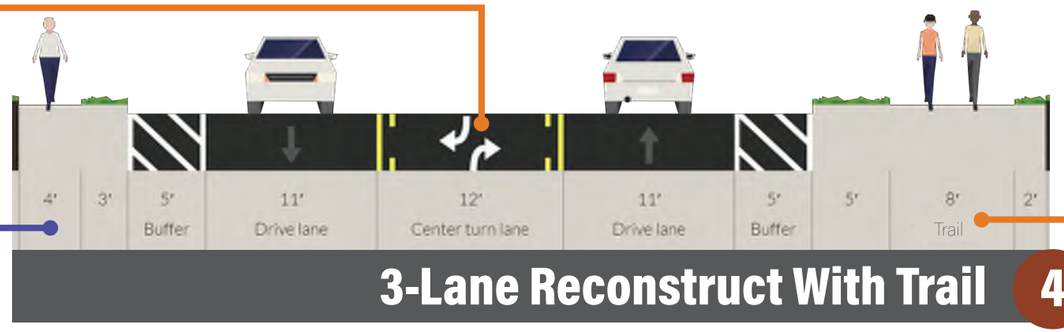


3-Lane Reconstruct 3

- Lower the speed limit.

- Less buffer more sidewalk.
- Need wider sidewalk.

- Could the wider buffer be marked as bicycle lanes?
- Reduce shoulders. More boulevard space.
- Snow storage



3-Lane Reconstruct With Trail 4

- Mississippi Street feels unsafe as a biker.
- Add protected bike paths along it to River Road.
- Reduce Mississippi Street to 2 lanes with center L/R turn lane and bike path.

- Sidewalks are narrow and deteriorated. Widen the north sidewalk to a full shared-use bike path from E River Road to Old Central.
- Need bike path.
- It's difficult to walk on the sidewalk with two kids at a time or with a wheelchair, because the sidewalk is too narrow.

- Trail on one side and definitely need the buffer on that side.
- Need bike facilities.
- Put the trail on the southside.
- I support the trail. It's very tight right now and doesn't feel comfortable. Put the trail on the south side for Village Green and the library. It'd be nice to have a trail on both sides.
- Make the trail 10'.

MISSISSIPPI STREET IMPROVEMENTS

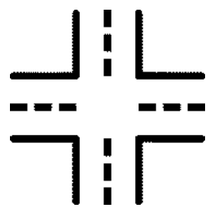
PROJECT OVERVIEW

Identify the necessary roadway configuration that is compatible with local and regional needs.

Provide efficient, reliable, and safe mobility for all users of the corridor.

Prioritize the safety of pedestrian and bicycle use along the corridor and at major crossing locations

Support future redevelopment as identified in the City's Comprehensive plan



Provide for the future through access control management

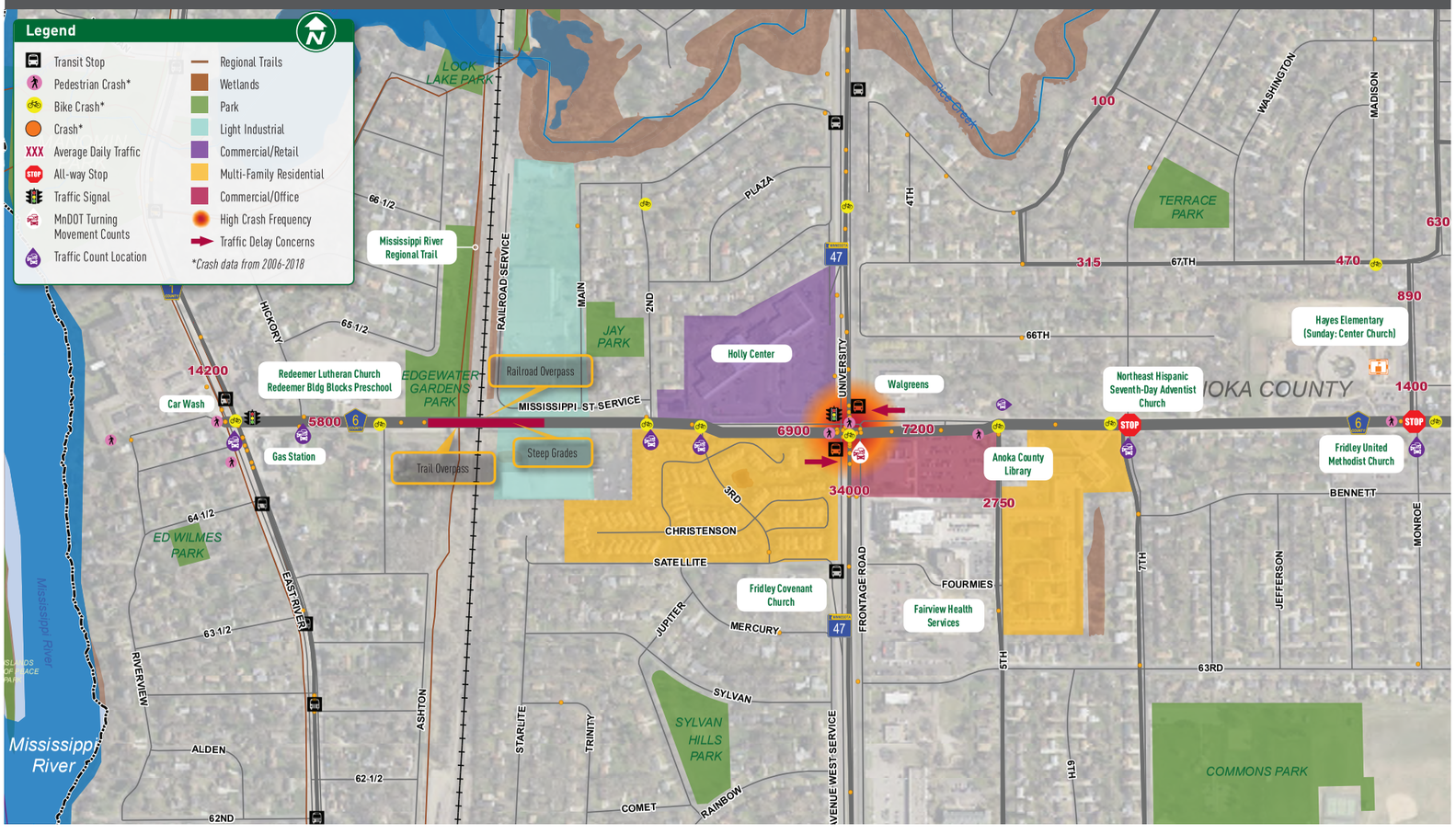
Support Safe Routes to School Plan for Hayes Elementary School

AUGUST - SEPTEMBER	OCTOBER - JANUARY	FEBRUARY - MARCH
GATHER FEEDBACK	ALTERNATIVES	FINAL CONCEPT

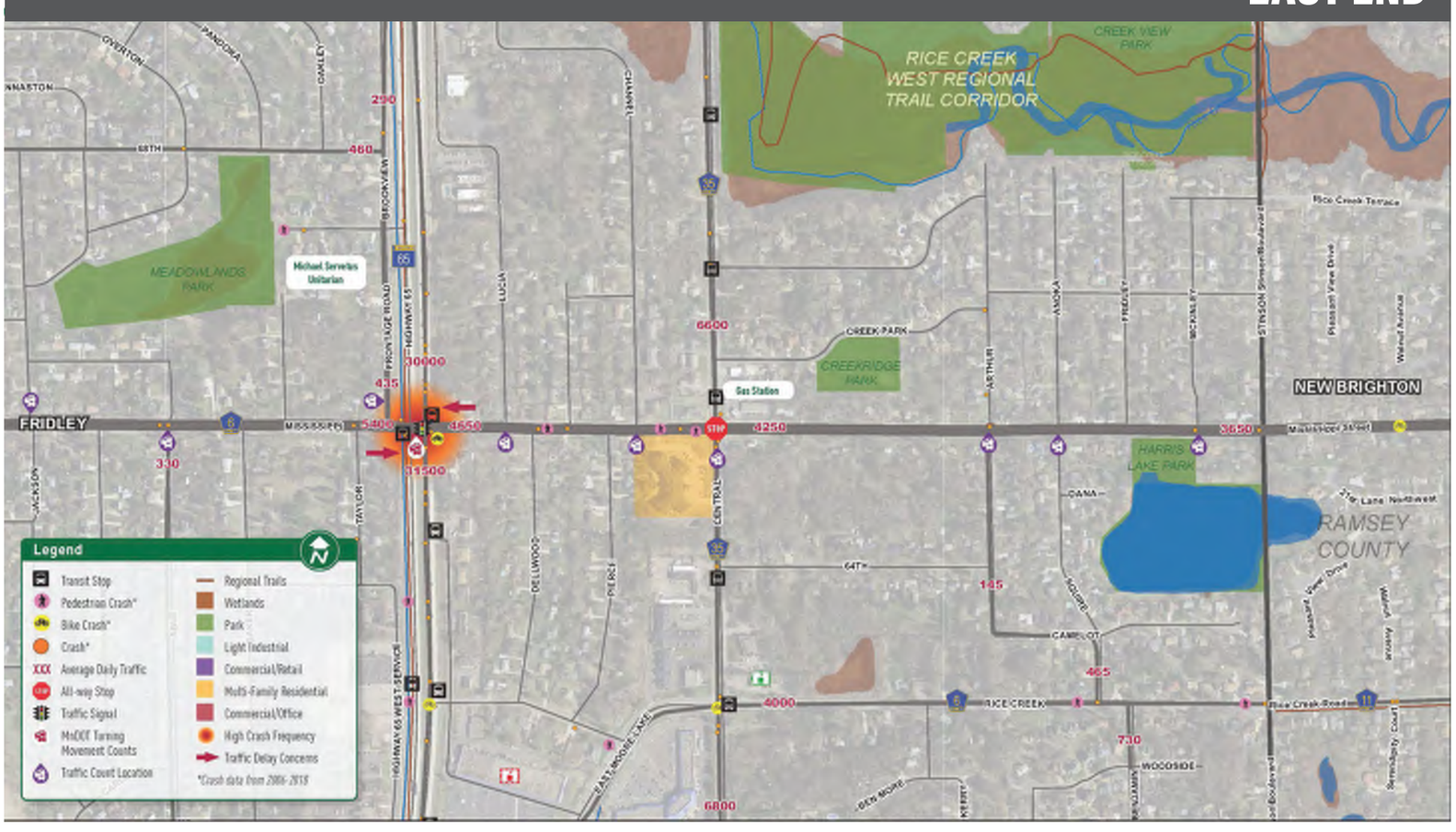
MISSISSIPPI STREET IMPROVEMENTS

EXISTING CONDITIONS

WEST END



EAST END



MISSISSIPPI STREET IMPROVEMENTS

CORRIDOR PERFORMANCE

LEVEL OF SERVICE GRADING

EXISTING CORRIDOR EVALUATION

VEHICLE

- Steady flow of traffic on Mississippi St
- Low connecting street traffic volumes

BICYCLE

- No designated bike facilities
- Bikers must use drive lane

GOOD — FAIR — POOR

PEDESTRIAN

- 4 ft sidewalk
- 3 ft away from drive lane

BUS

- 2-4 buses per hour
- No route along Mississippi Street

BIKE LEVEL OF TRAFFIC STRESS

1

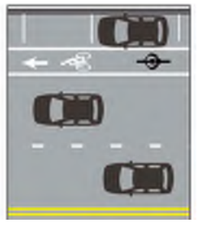
Strong separation from all except low speed, low volume traffic. Simple crossings. Suitable for children.

2

Separate lane limits traffic interaction to crossings easy for adults to negotiate. Tolerated by "interested but concerned" bicyclists.

3

Narrow bicycle lane. Interaction with moderate speed or mutli-lane traffic and parked vehicles. Tolerated by "enthused & confident" bicyclists.



4

No bicycle lane on a busy street with higher speed traffic. Direct interaction with multi-lane traffic. Tolerated by "strong & fearless" bicyclists.

MISSISSIPPI STREET STRESS LEVEL

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MISSISSIPPI STREET IMPROVEMENTS

INTERSECTION PERFORMANCE

WHAT IS LEVEL OF SERVICE?
Level of Service is an A-F grading system that describes the traffic performance at an intersection.

HOW ARE GRADES DETERMINED?
Vehicle grades are calculated by the average delay of all the vehicles using the intersection.

WHAT ARE THE GRADES?

A/B
UNDER CAPACITY
No delay, relatively free flowing

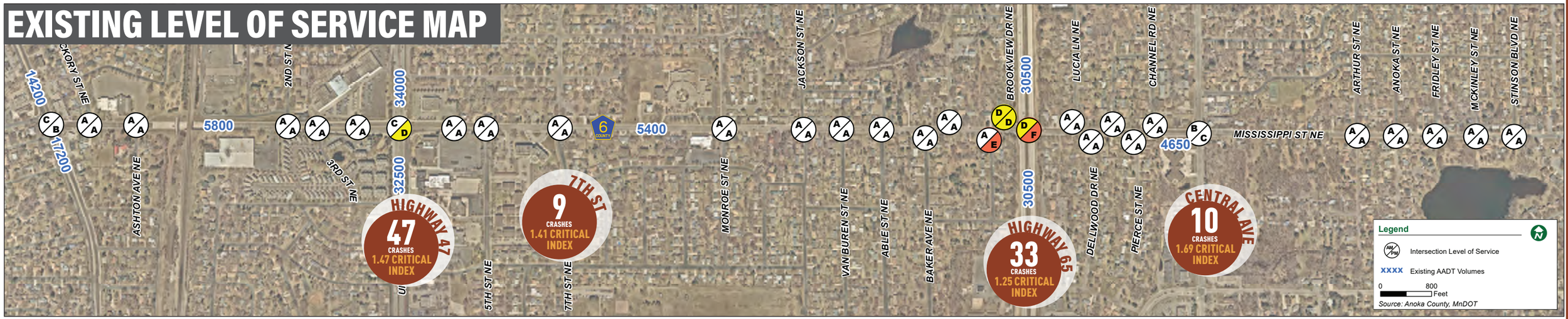
C/D
APPROACHING CAPACITY
Minimal delay, increasing unpredictability

E/F
OVER CAPACITY
Unacceptable delay, unstable flow of traffic

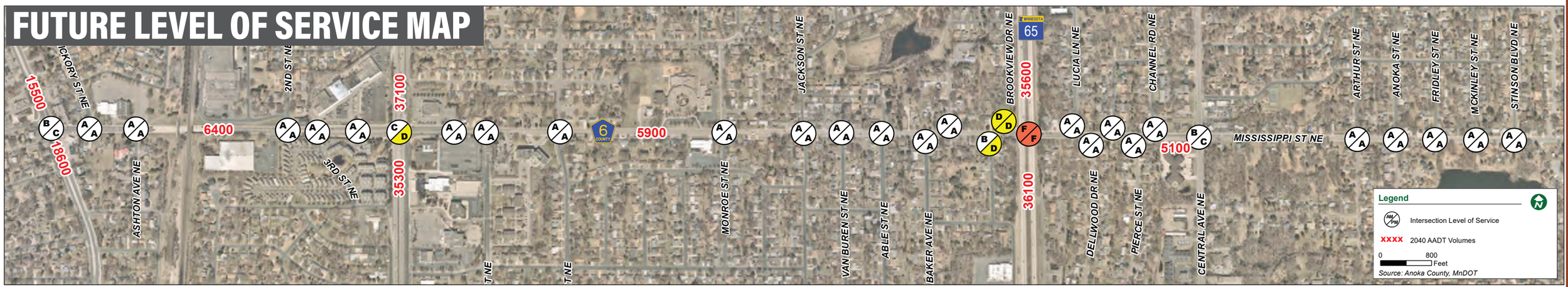
WHAT IS CRITICAL INDEX?
9 CRASHES 1.41 CRITICAL INDEX

A Crash Index greater than 1.0 indicates the intersection is statistically unsafe when compared to similar intersections.

EXISTING LEVEL OF SERVICE MAP



FUTURE LEVEL OF SERVICE MAP



*Crash data from 2016-2018

All other intersections have a critical index <1.0"

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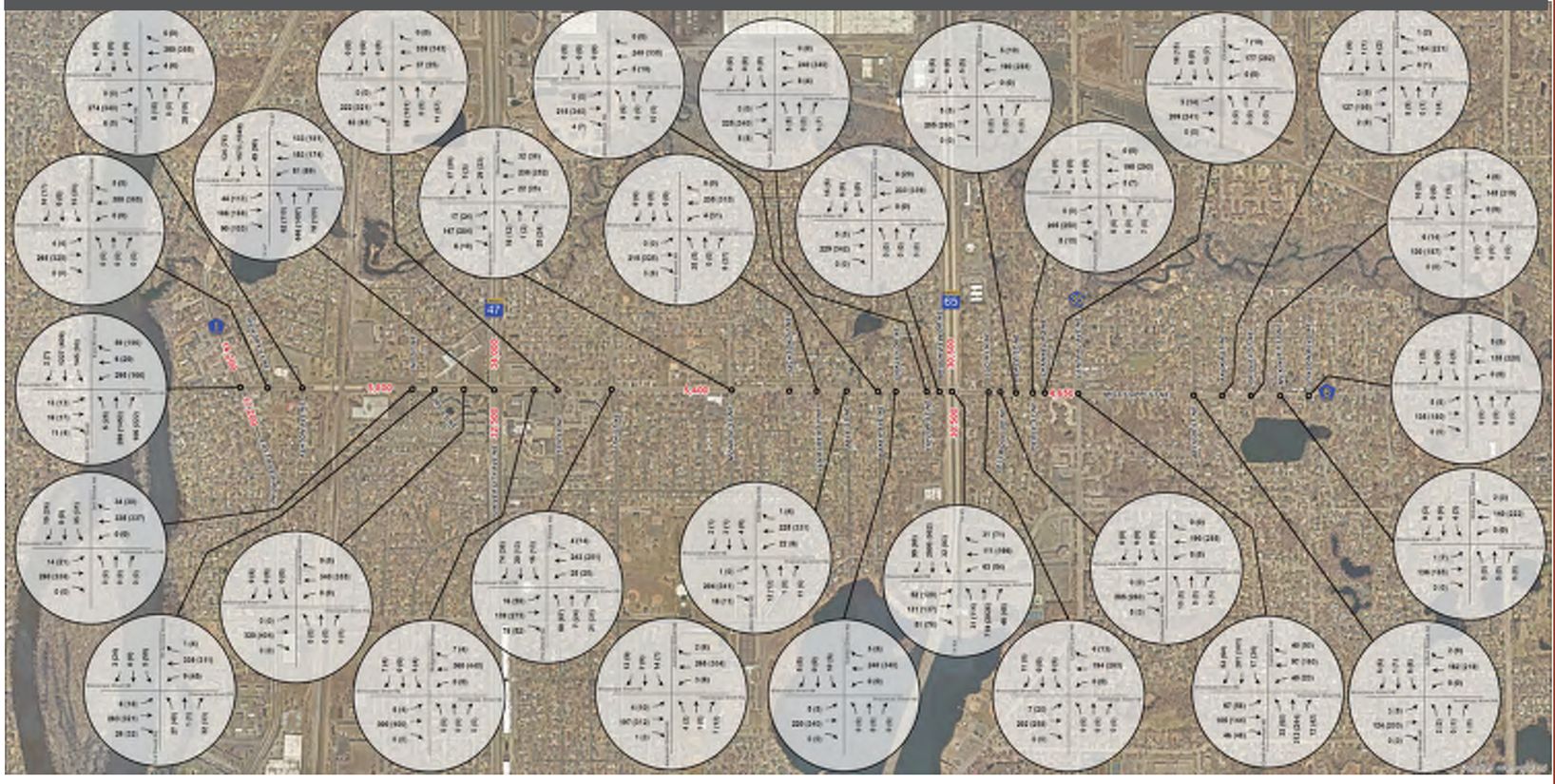
MISSISSIPPI STREET IMPROVEMENTS

TRAFFIC TURNING MOVEMENT VOLUMES

EXISTING DATA



2040 PROJECTIONS

Legend

Turning Movement Counts

AM (PM)

**Traffic data from April and May 2019*

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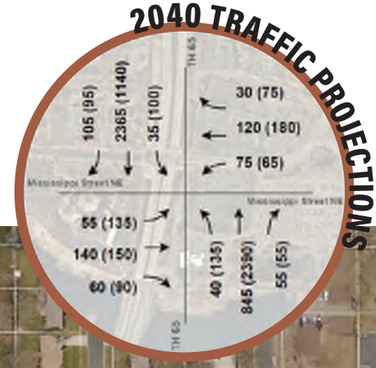
MISSISSIPPI STREET IMPROVEMENTS

HIGHWAY 65 FUTURE OPERATIONS

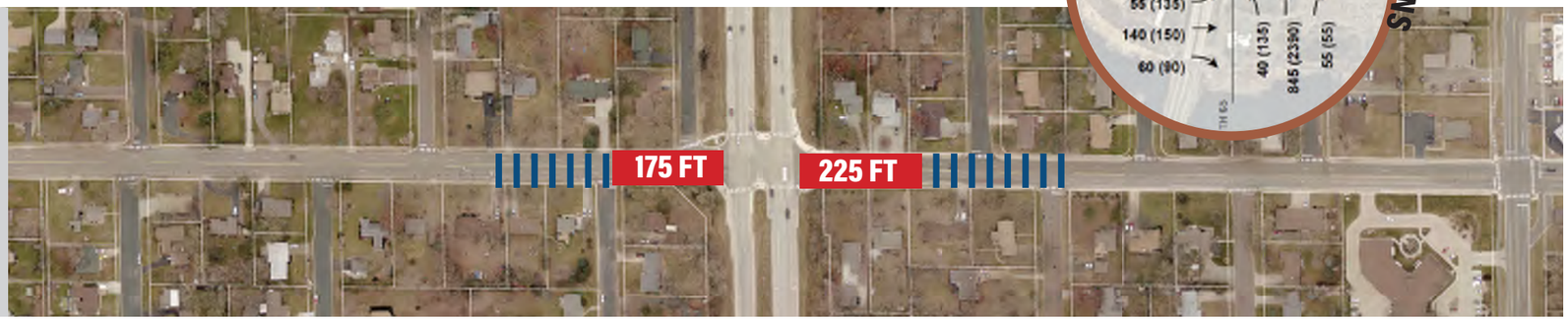
Did you know
70-75% of green time is for Highway 65 traffic? This can be up to **3 minutes!**



EXISTING 175 FT 175 FT

LEGEND
- AVERAGE BACKUP DURING PEAK HOUR
- MAX BACKUP 1-2 TIMES/DAY

2040 NO BUILD



TRAFFIC CLEARS IN ONE GREEN LIGHT

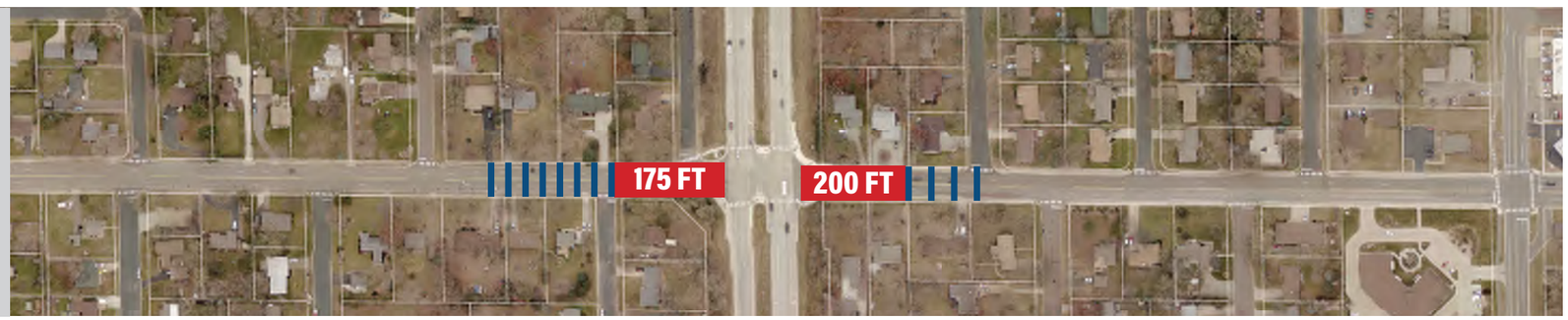
ALTERNATIVE 1

LEFT TURN LANE, SINGLE THRU LANE
- Added safety benefits
- Longer queues

TRAFFIC WILL CLEAR IN ONE GREEN LIGHT

ALTERNATIVE 2

RIGHT & LEFT TURN LANES
- Added safety benefits
- Right of way Impacts



TRAFFIC WILL CLEAR IN ONE GREEN LIGHT

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MISSISSIPPI STREET IMPROVEMENTS

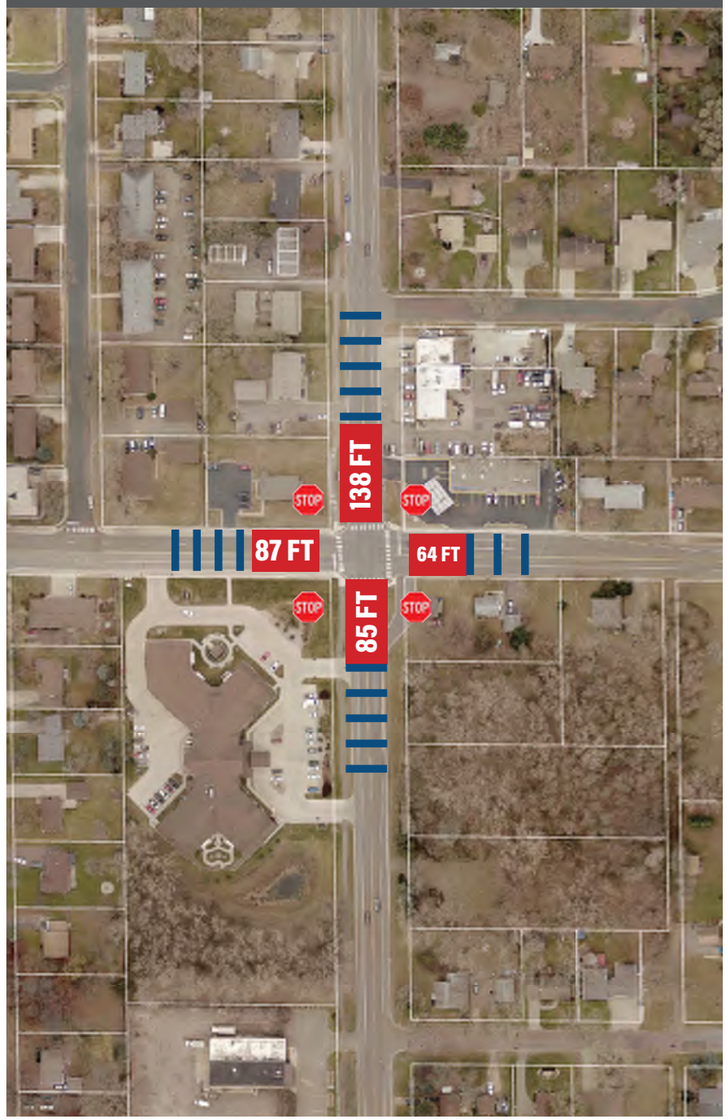
OLD CENTRAL AVE FUTURE OPERATIONS

LEGEND

AVERAGE BACKUP DURING PEAK HOUR

MAX BACKUP 1-2 TIMES/DAY

ALL-WAY STOP CONTROL



TWO-WAY STOP CONTROL

COMPACT ROUNDABOUT

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MISSISSIPPI STREET IMPROVEMENTS

SCHOOL ZONE TRAFFIC OPERATION

LEGEND

AVERAGE BACKUP DURING PEAK HOUR

MAX BACKUP 1-2 TIMES/DAY

ALL-WAY STOP CONTROL

TWO-WAY STOP CONTROL

COMPACT ROUNDABOUTS

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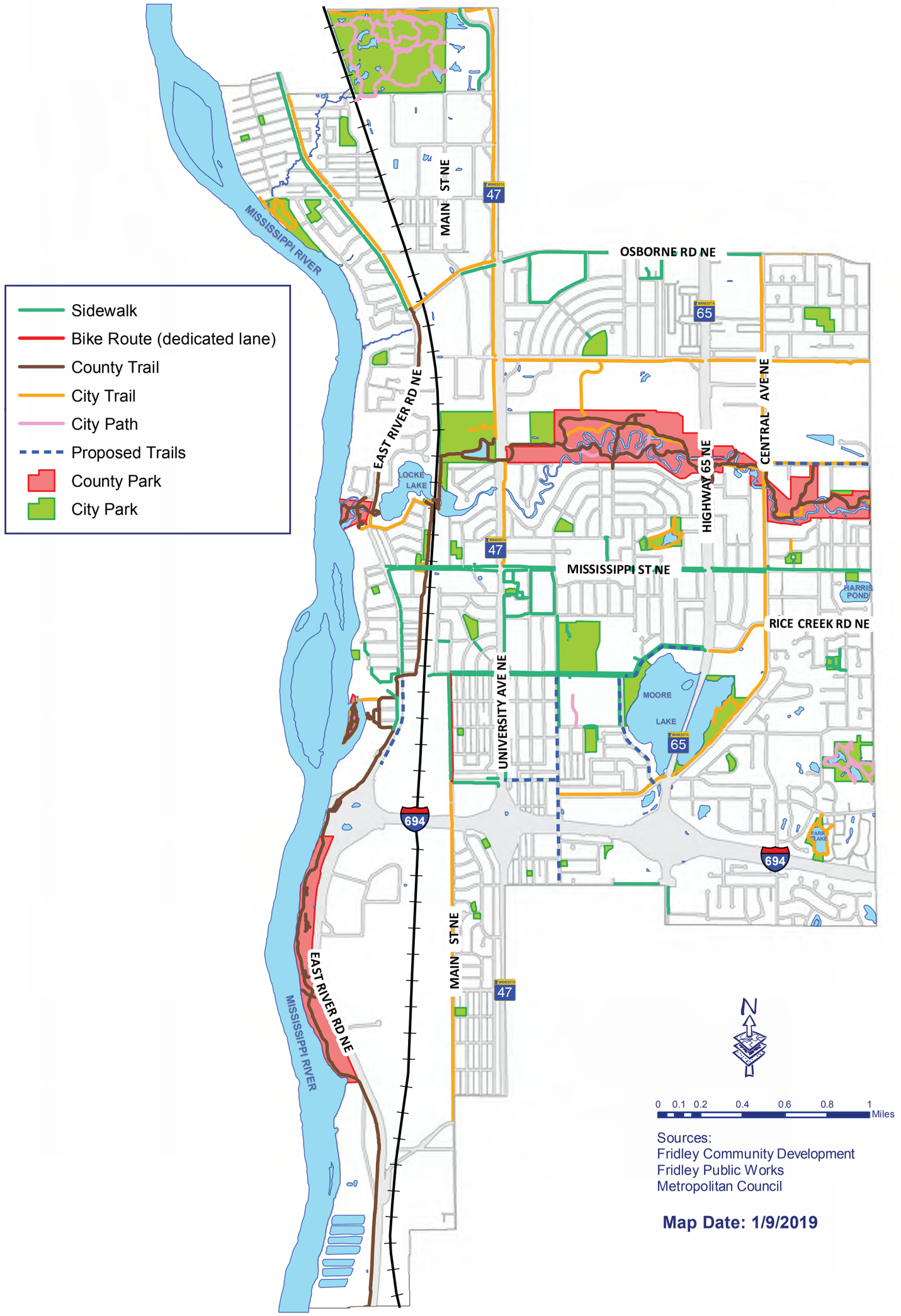
MISSISSIPPI STREET IMPROVEMENTS

PEDESTRIAN AND TRAIL NETWORK



Sources:
Fridley Community Development
Fridley Public Works
Metropolitan Council

Map Date: 1/9/2019

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MISSISSIPPI STREET IMPROVEMENTS

PEDESTRIANS CROSSING MISSISSIPPI ST

MID-BLOCK CROSSING

- Pedestrians along Mississippi Street range throughout the corridor with the higest concentration of approximately 70 users near University (TH 47) and Hayes Elementary. This includes both sides of the road.
- 75 pedestrians cross university (TH 47) and Hayes Elementary. This includes both sides of the road.
- 35 pedestrians cross TH 65 at Mississippi Street.

*Daily Traffic Volume from April & May 2019

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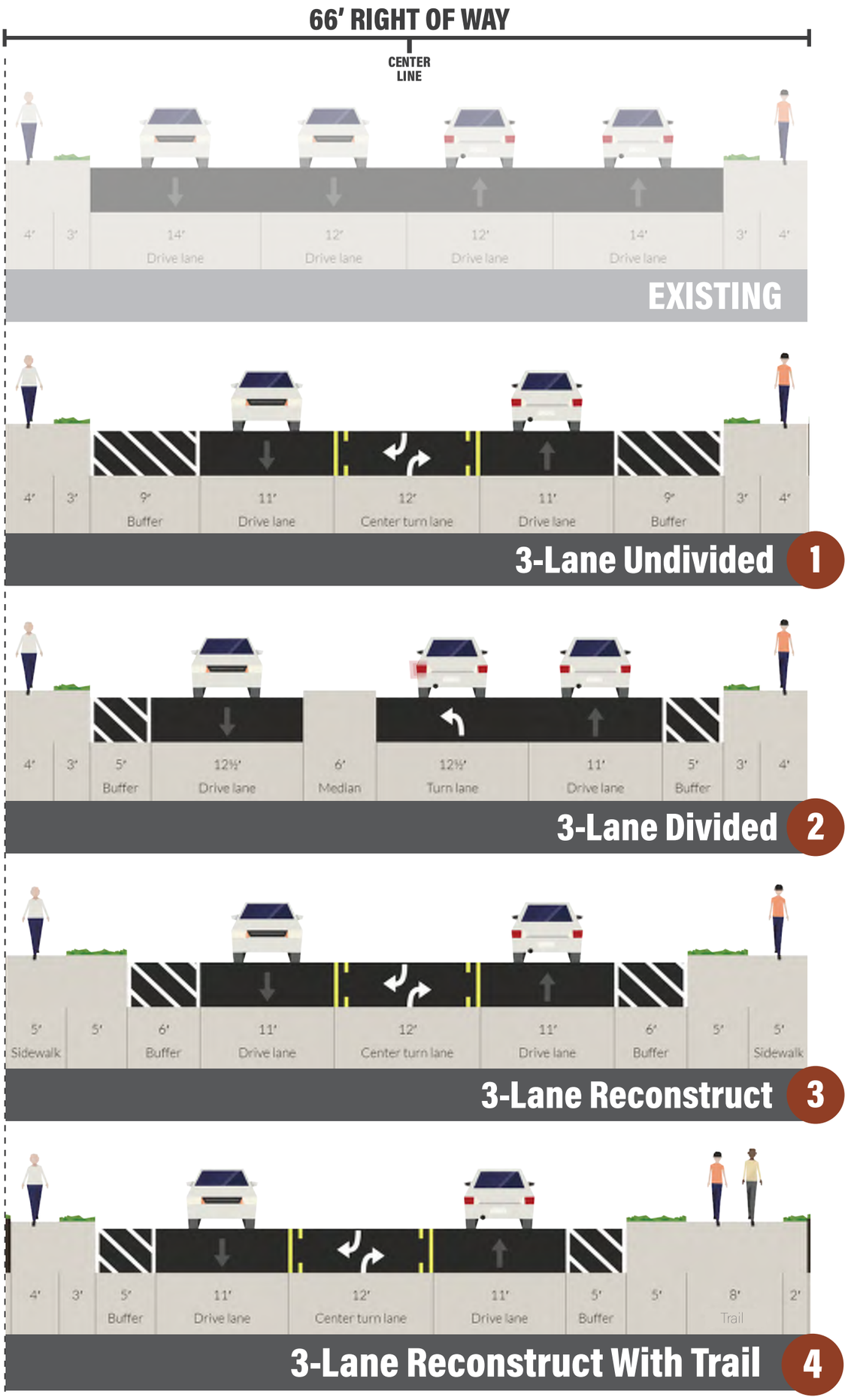
HOW SHOULD THE STREET LOOK?



MISSISSIPPI STREET IMPROVEMENTS

POTENTIAL RIGHT OF WAY IMPACTS

What would the impacts of street widening be?

Any design that widens the roadway requires additional right-of-way. Acquiring ROW is not desired for the Mississippi Street Improvement Project. As shown below, widened options were considered, but determined to be unnecessary given the roadway needs and the anticipated impacts to private property.

66' RIGHT OF WAY

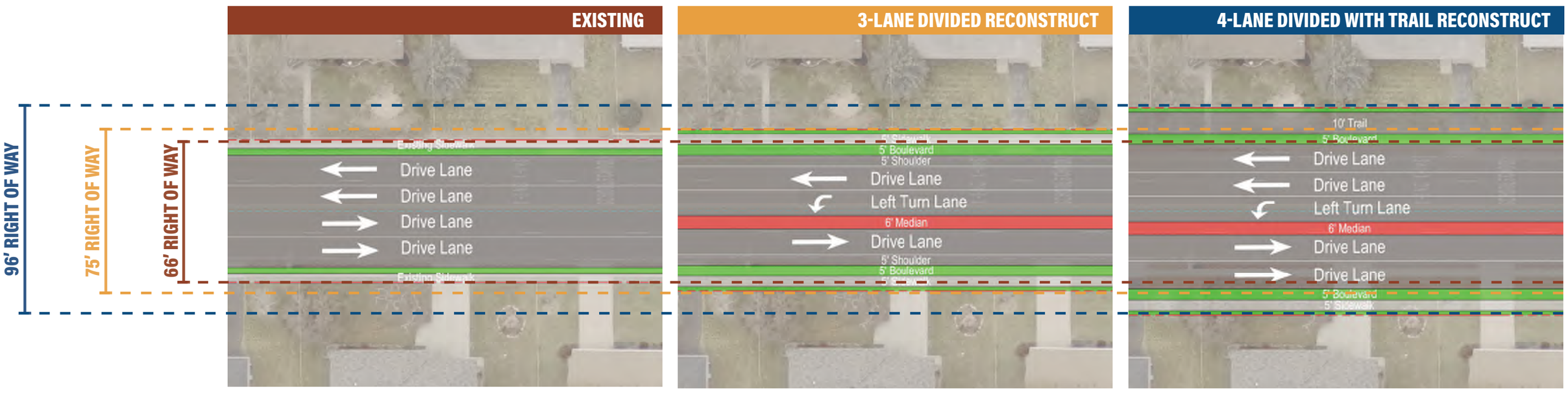
EXISTING

75' RIGHT OF WAY

3-LANE DIVIDED RECONSTRUCT

96' RIGHT OF WAY

4-LANE DIVIDED WITH TRAIL RECONSTRUCT



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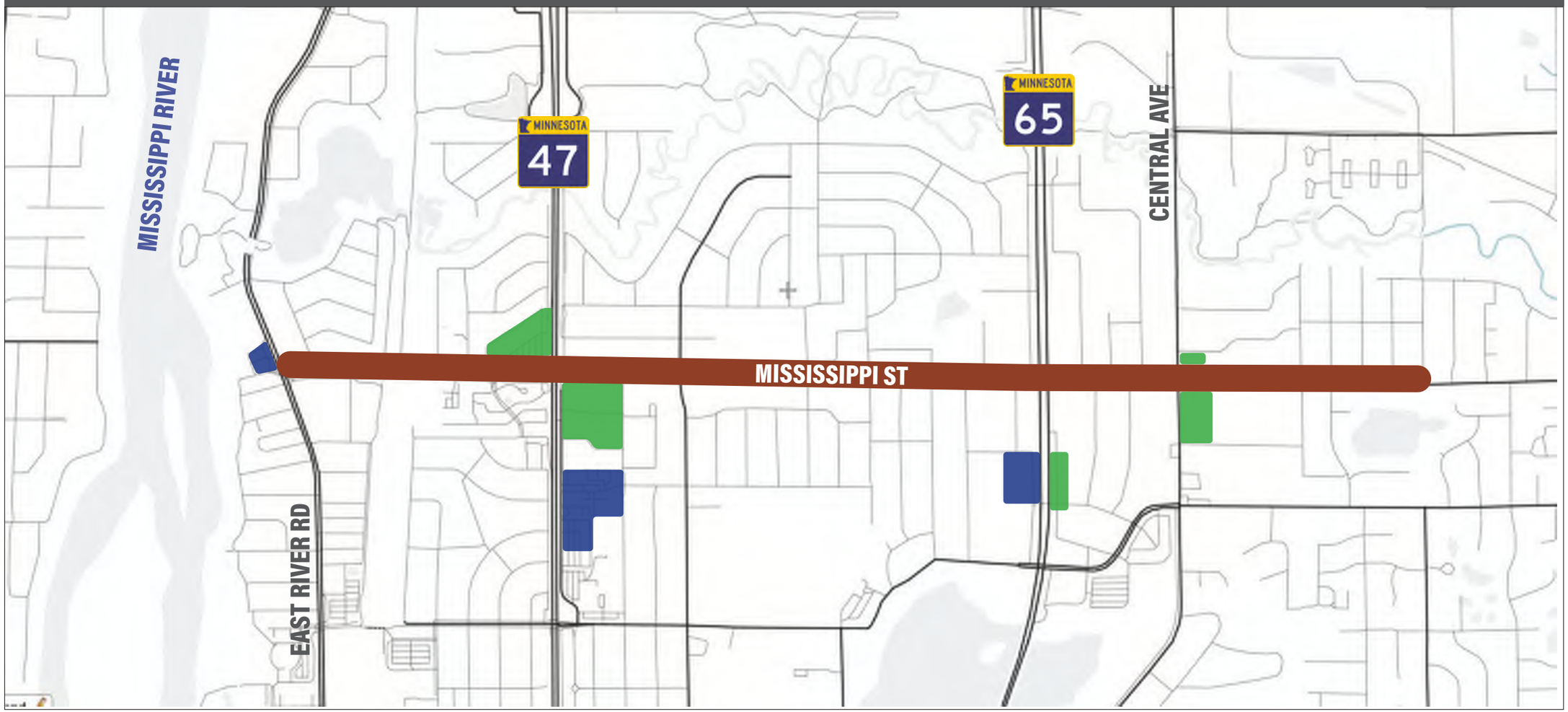
PLANNING FOR GROWTH

POTENTIAL REDEVELOPMENT AREAS



MIXED USE

COMMERCIAL

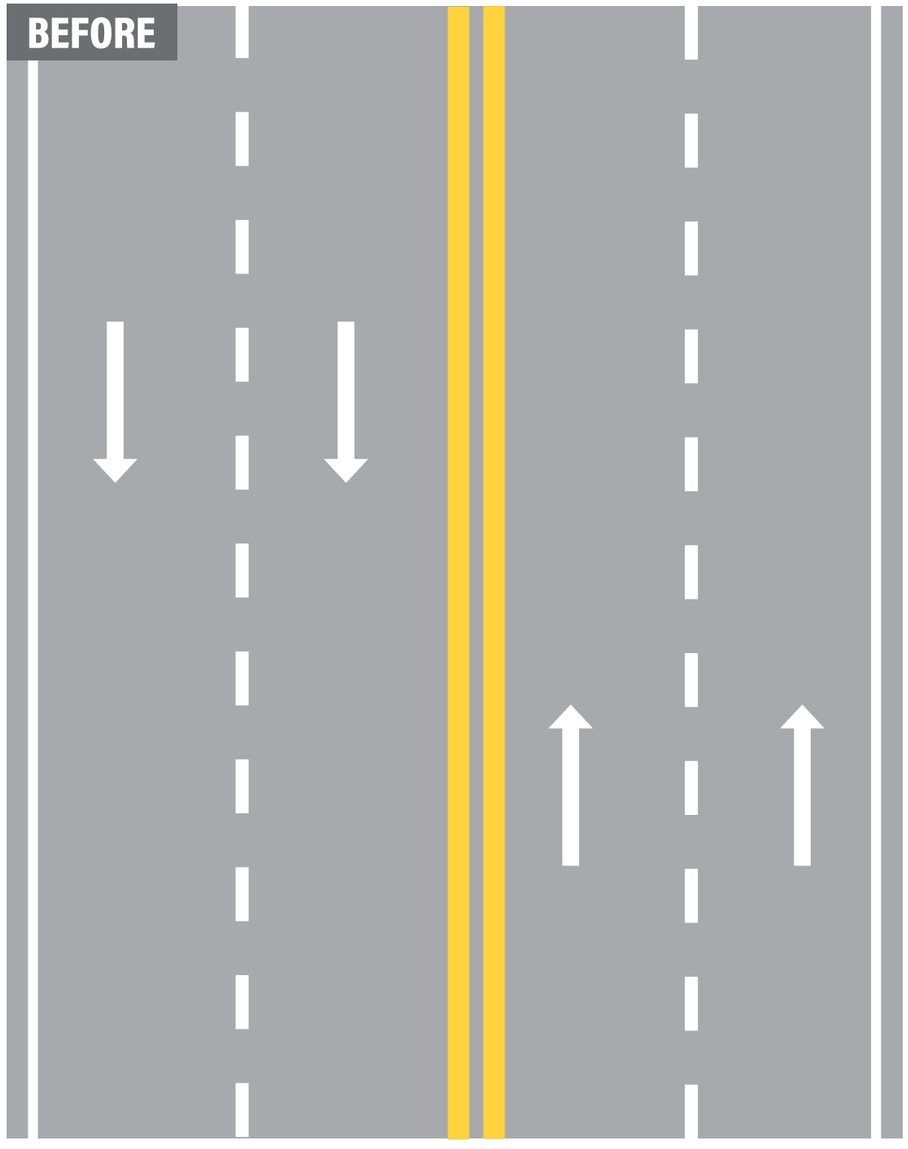
*Development identified in the City of Fridley 2040 comprehensive plan

MISSISSIPPI STREET IMPROVEMENTS

4 to 3 LANE CONVERSION

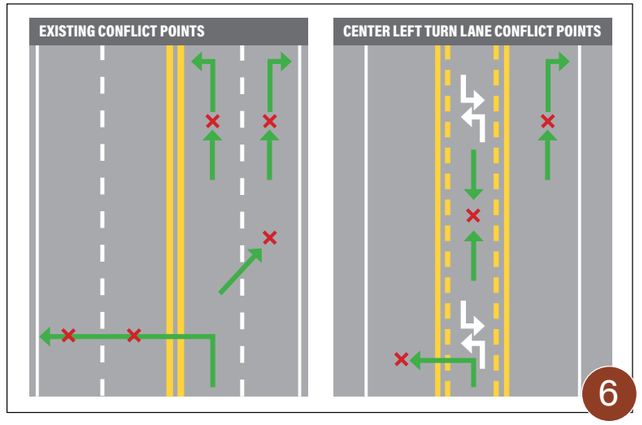
A **4 to 3 lane** conversion consists of reducing the number of lanes on a roadway. to better utilize the space available

BEFORE

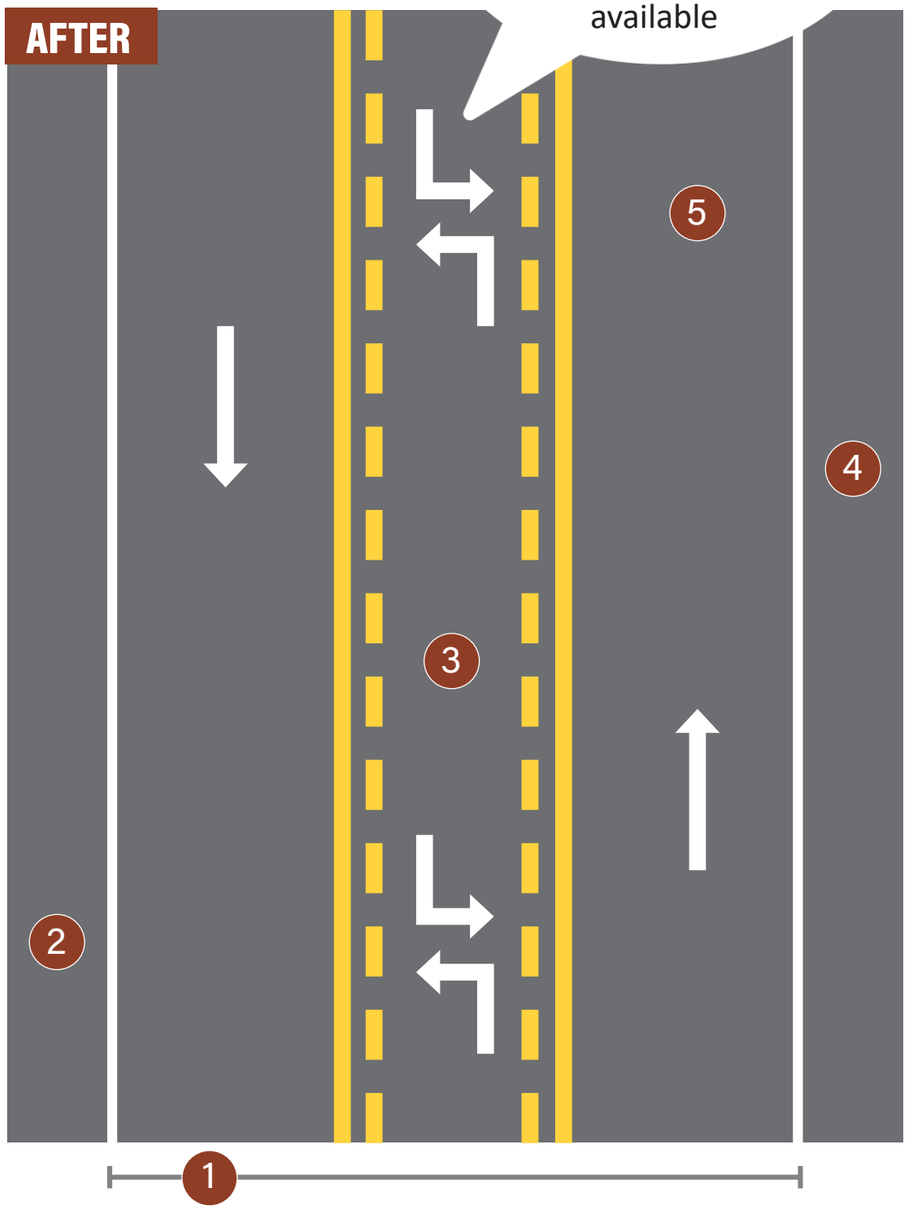


Benefits

1. Shorter pedestrian crossing distance
2. Additional space for bicycles and emergency pull off
3. Protected left turns
4. Buffer zone between moving vehicles and pedestrians
5. Allows left turns to not impede through traffic
6. Increases safety and reduces conflict points



AFTER



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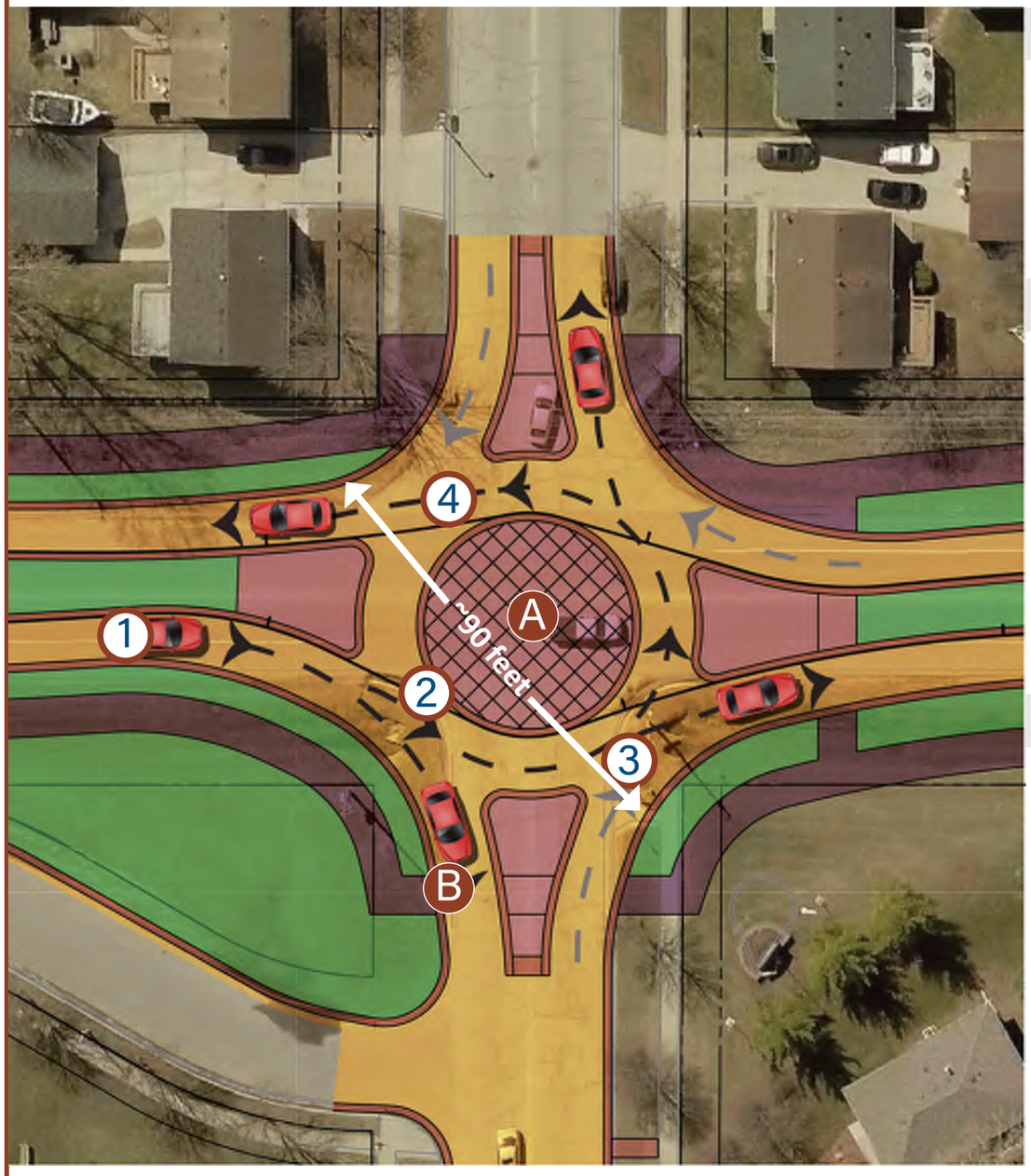
MISSISSIPPI STREET IMPROVEMENTS

COMPACT ROUNDABOUT



What is a compact roundabout?

A compact roundabout is a type of intersection that can be used in constrained locations in place of stop-controlled or signalized intersections to help improve safety and reduce delays. Generally, a compact roundabout is small enough to be constructed within the existing intersection.

How do you navigate a compact roundabout?

1. **Approach:** Slow down and stop for pedestrians in the crosswalk.
2. **Enter:** Yield to vehicles approaching from the left, yield to all large vehicles including trucks, buses and emergency vehicles.
3. **Proceed:** Continue through the roundabout until you reach your street. Never stop for other cars while in the roundabout.
4. **Exit:** When exiting the roundabout, stop for pedestrians in the crosswalk.

Key characteristics

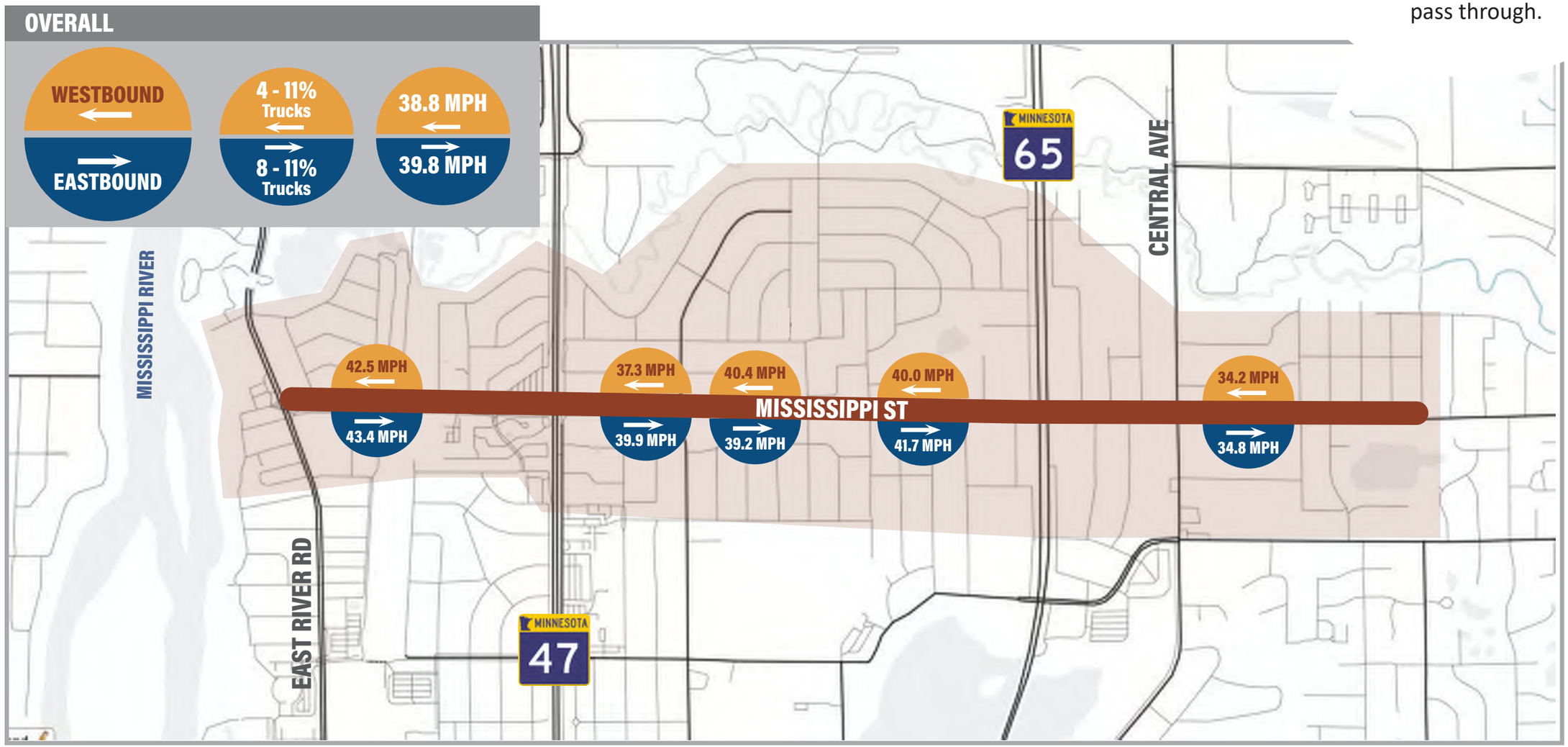
A. **Center Island:** Center apron that can be driven over by larger vehicles. If a larger vehicle is on another approach with their turn signal on, do not enter the roundabout. Larger vehicles will use the entire intersection to complete their movement.

B. **Crosswalk:** Reduces number of conflict points for pedestrians crossing. Pedestrians should always look in the direction of approaching traffic to make sure cars stop before crossing. Cross one lane at a time.

A **compact roundabout** may be considered as an alternative intersection type along the corridor.

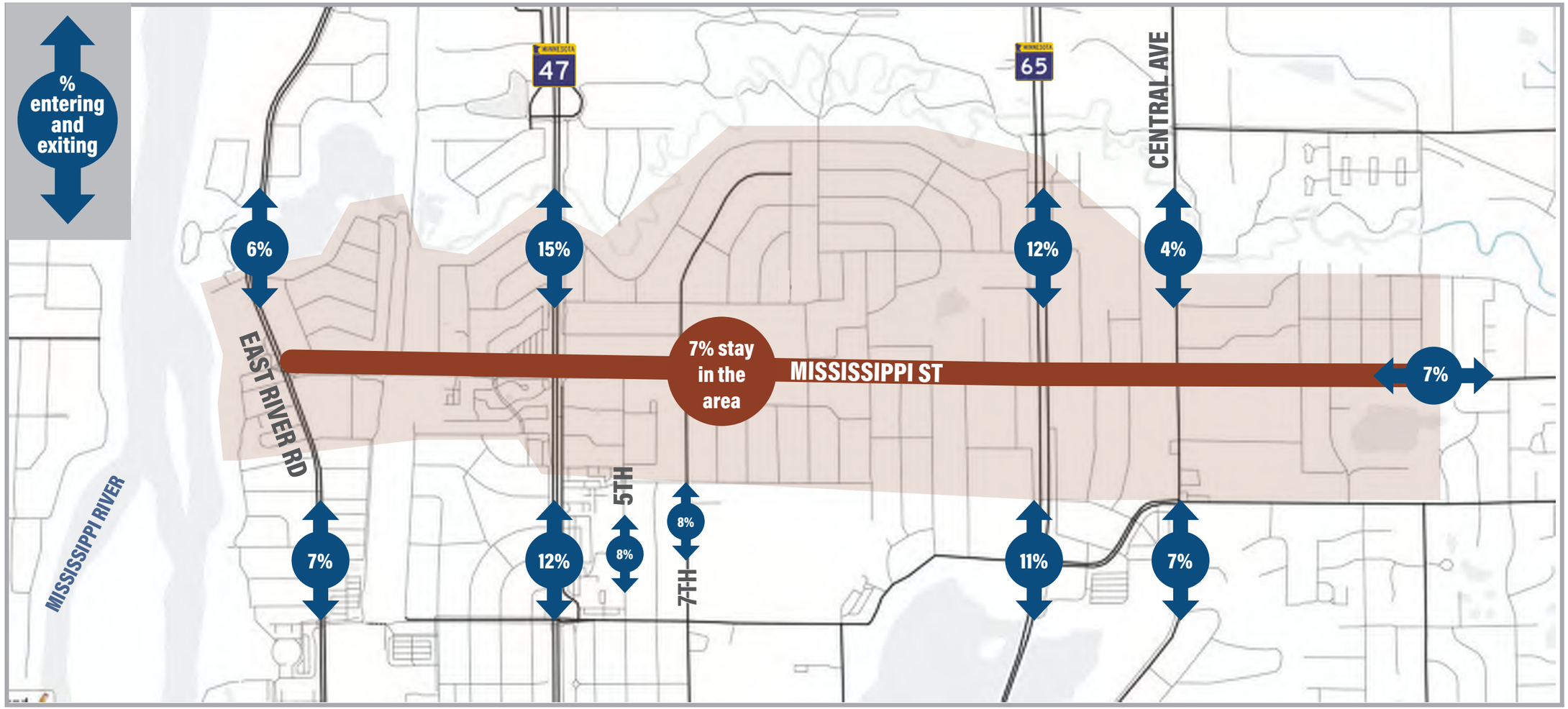
EXISTING TRAFFIC DATA

15% of vehicles start or end their trip within the corridor area, and **85%** pass through.



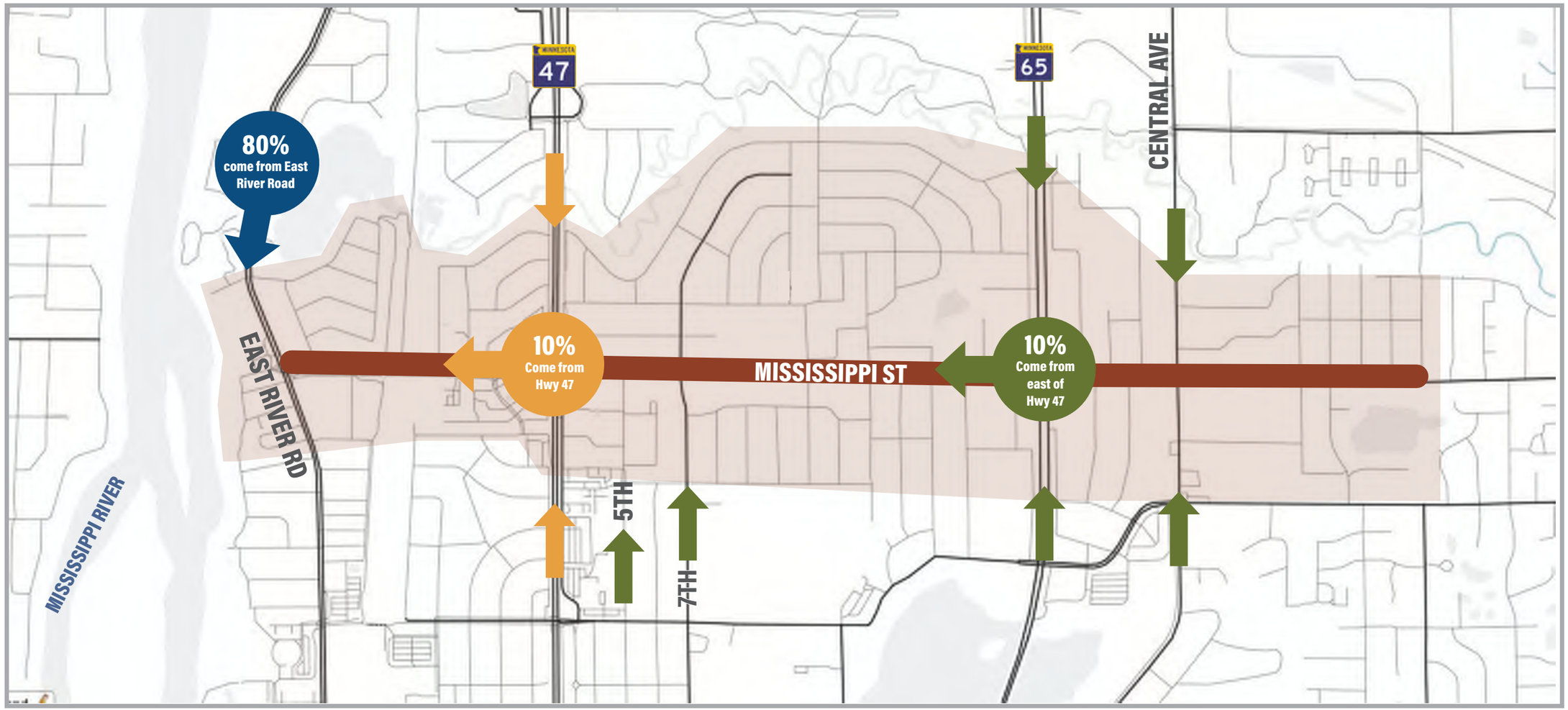
- *Traffic Data from April and May of 2019*
- *MPH shown is 85th percentile speed*

WHAT STREETS ARE PEOPLE USING?



Weekday traffic (M-Th) from 12a.m.-12 p.m.

DIVERTED TRIPS TO EAST RIVER ROAD



Weekday traffic (M-Th) from 12a.m.-12 p.m.

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BOLTON & MENK
Real People. Real Solutions.

OPEN HOUSE SIGN-IN SHEET

Project: CSAH 6 (Mississippi St) | **Meeting Date:** September 24, 2019

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Tanya Kelly	6746 Jefferson St NE	763-300-8830	tja1276@hotmail.com
David Schueller	592 Rice Creek Terrace NE	7634581302	ddschuell@yahoo.com
Tom Tillberry	700 Mississippi St NE	612-716-5879	
Stephen Eggert	1090 Hathaway	763-486-6465	Stephen.Joseph.Eggert@gmail.com
Patti Kowalczyk	732 Miss St NE	763 571 3287	
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Laura Moore	1001 67th Av NE		lamoore@gmail.com
Terrie Mau	6890 Channel Rd	763-574-1606	molerbarberschool@hotmail.com

CSAH 6 (MISSISSIPPI ST.) OPEN HOUSE

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Irene Swan	194 67½ way NE	763-571-2951	
Jeremy & Michelle Vhay	5501 4th St NE	651-472-3659	JeremyhVhay@q.com
Terry & Kent Pierce	8020 Redwood St. N.E.	763-786-3111	allpierces@hotmail.com
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LeeAnn & John Vardas	6546 Lucia Ln	612-327-4171	jvardas@earthlink.net
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Roger & Gwen Nawrocki	7310 Jackson St. NE	763-786-4244	RGNawrocki@gmail.com
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Gary Hutton	6424 Taylor ST NE	612-964-5364	
MANDY MEISNER			
Janete Zimmer			
Justin Foell	6905 Gardena Cir	612-720-3122	justin@foell.org
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Ann Poston	5801 W MOORE LAKE	952-406-3737	annjposton@gmail.com
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Ronda Berube	550 66th Ave NE	763-571-1271	ronda@g.com
AUDREY & GARY STOCKWELL	549 RICE CREEK TERR NE	763 442 7227	STOCKWELL.AUDREY@GMAIL.COM

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Heidi Ferris	75 Rice Creek Way	763 516 3513	Heidi@growinggreenhearts.com
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Tim Wolfe	6576 Arolcas NE		
Zara Wolfe	6576 Arolcas NE		zara.wolfe93@gmail.com

NAME	Address	Phone	E-mail
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Kevin & Jennifer Makie	200 Rice Creek Terrace	763-571-6711	
Dennis Coppess	6740 OVERTON DR.		

MISSISSIPPI STREET IMPROVEMENTS

Open House #2

OPEN HOUSE ANNOUNCEMENT

The City of Fridley and Anoka County are conducting a comprehensive evaluation of roadway alternatives for CSAH 6 (Mississippi Street). The main goals of this study are to identify necessary roadway improvements that are compatible with local and regional needs, and to provide safe, efficient, and reliable mobility for all users of the roadway. An open house will be held to provide additional information on the potential improvement alternatives. The project team will be present to answer any project-related questions and to receive feedback from residents.

Date: February 18, 4PM-6PM

Location: Fridley City Hall Fireside Room
7071 University Ave, N.E.

Can't make the meeting? Leave your comments at cityoffridley.mysocialpinpoint.com/roadprojects or email any of the contacts below.

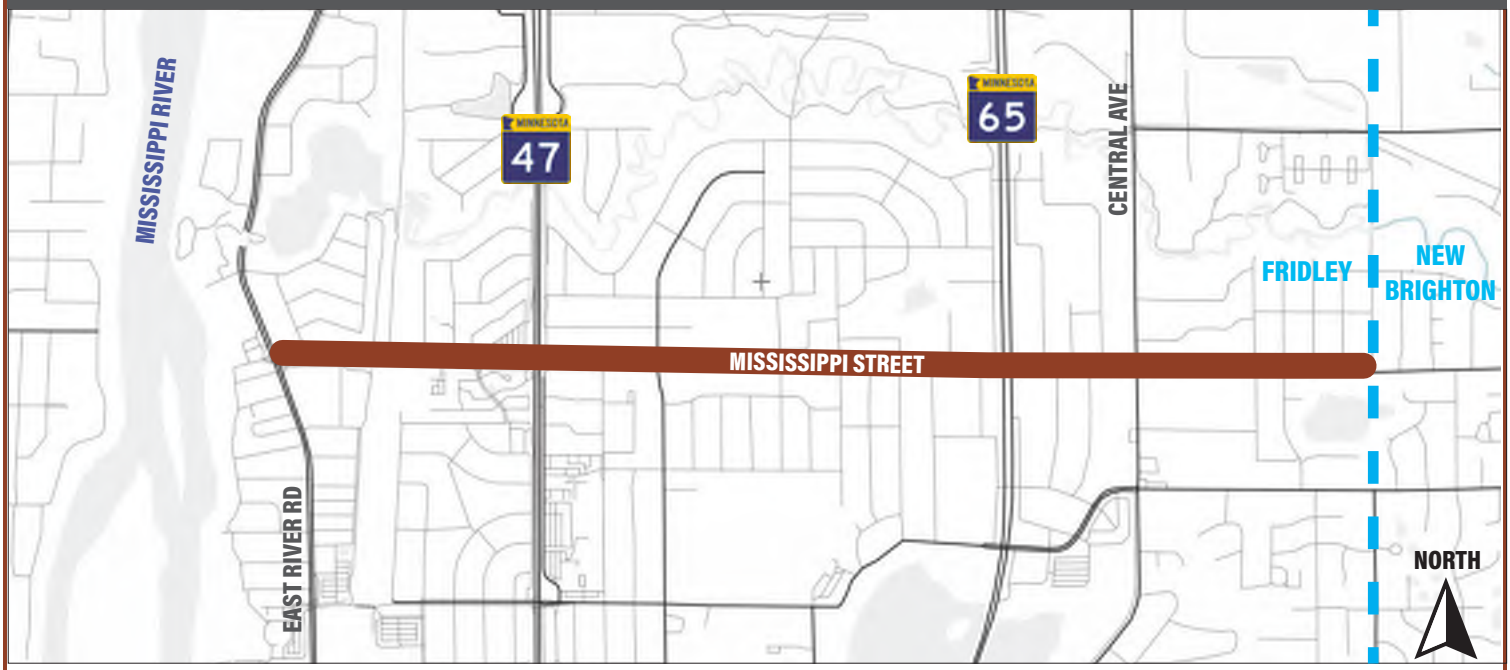
Contacts: Jack Forslund
Transportation Planner (Anoka County)
(763) 324-3179 – Jack.Forslund@co.anoka.mn.us

Joe MacPherson
County Engineer (Anoka County)
(763) 324-3199 – Joe.MacPherson@co.anoka.mn.us

Jim Kosluchar
Public Works Director (City of Fridley)
(763) 572-3550 – Jim.Kosluchar@fridleymn.gov

Bryan Nemeth
Project Manager (Bolton & Menk, Inc.)
(612) 802-9538 – Bryan.Nemeth@bolton-menk.com

PROJECT AREA



AUG 2019 - SEPT 2019
GATHER FEEDBACK

OCT 2019 - JAN 2020
ALTERNATIVES

We are here!

FEB 2020 - MAR 2020
FINAL CONCEPT

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MISSISSIPPI STREET IMPROVEMENTS

OPEN HOUSE #2 COMMENTS SUMMARY

EVENT SUMMARY

DATE: February 18, 2020
LOCATION: Fridley City Hall

49
attendees signed in to the open house.

MOST POPULAR ISSUES

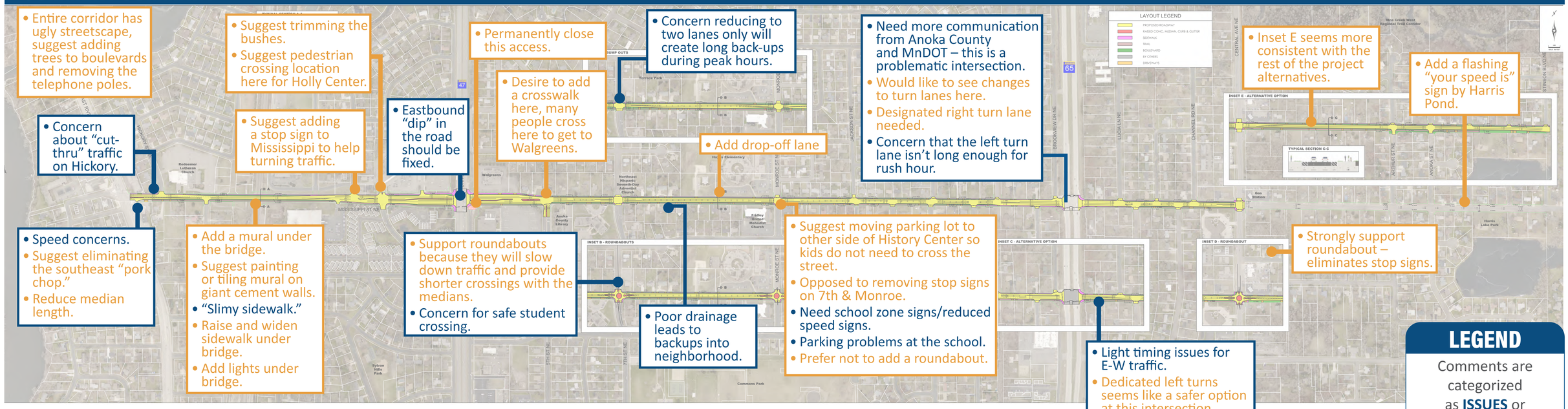
- SPEEDING CONCERNS
- STUDENT SAFETY
- LIGHT TIMING CONCERNS

MOST POPULAR SUGGESTIONS

- MAKE SIDEWALKS AND CROSSINGS MORE PEDESTRIAN FRIENDLY
- SUPPORT FOR ROUNDABOUTS
- ADD PUBLIC ART

COMMENT SUMMARY

Check out the comments received at the second open house!



LEGEND

Comments are categorized as **ISSUES** or **SUGGESTIONS**.

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MISSISSIPPI STREET IMPROVEMENTS

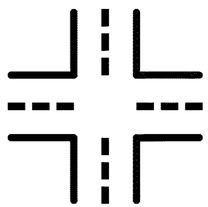
PROJECT OVERVIEW

Identify the necessary roadway configuration that is compatible with local and regional needs.

Provide efficient, reliable, and safe mobility for all users of the corridor.

Prioritize the safety of pedestrian and bicycle use along the corridor and at major crossing locations

Support future redevelopment as identified in the City's Comprehensive plan



Provide for the future through access control management

Support Safe Routes to School Plan for Hayes Elementary School

AUGUST - SEPTEMBER	OCTOBER - JANUARY	FEBRUARY - MARCH
GATHER FEEDBACK	ALTERNATIVES	FINAL CONCEPT

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MISSISSIPPI STREET IMPROVEMENTS

OPEN HOUSE #1 COMMENTS SUMMARY

EVENT SUMMARY

DATE: September 24, 2019
LOCATION: Fridley City Hall

76
attendees signed in to the open house.

MOST POPULAR ISSUES

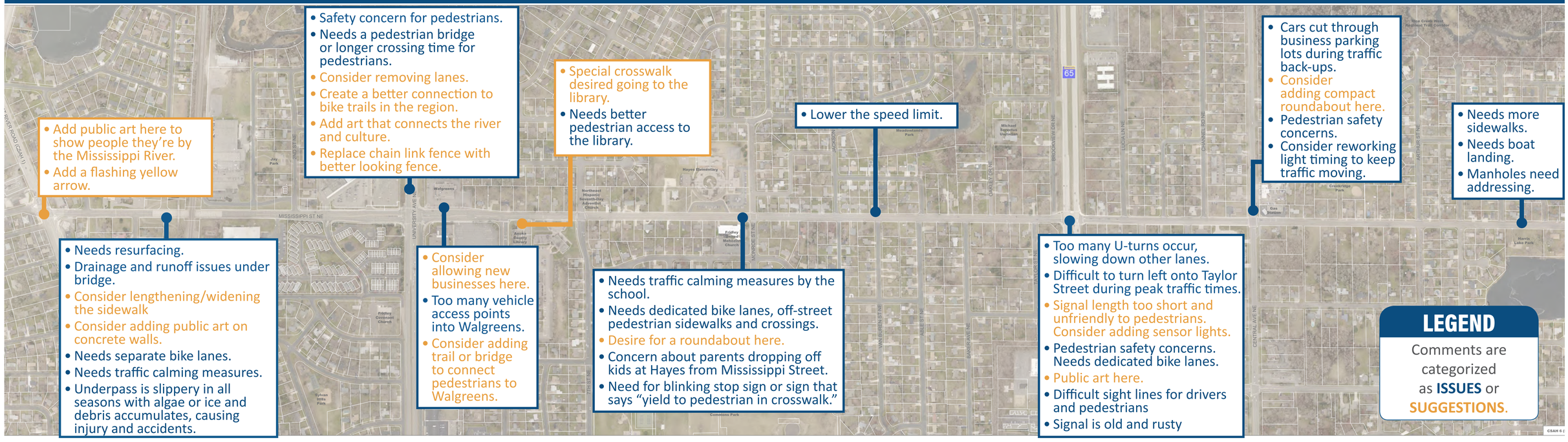
- SPEEDING CONCERNS
- PEDESTRIAN SAFETY CONCERNS
- NEED FOR SEPARATE/ DEDICATED BIKE LANES

MOST POPULAR SUGGESTIONS

- MAKE SIDEWALKS AND CROSSINGS MORE PEDESTRIAN FRIENDLY
- ADD ROUNDABOUT FOR TRAFFIC CONTROL
- ADD PUBLIC ART

COMMENT SUMMARY

Check out the comments received at the kickoff open house!



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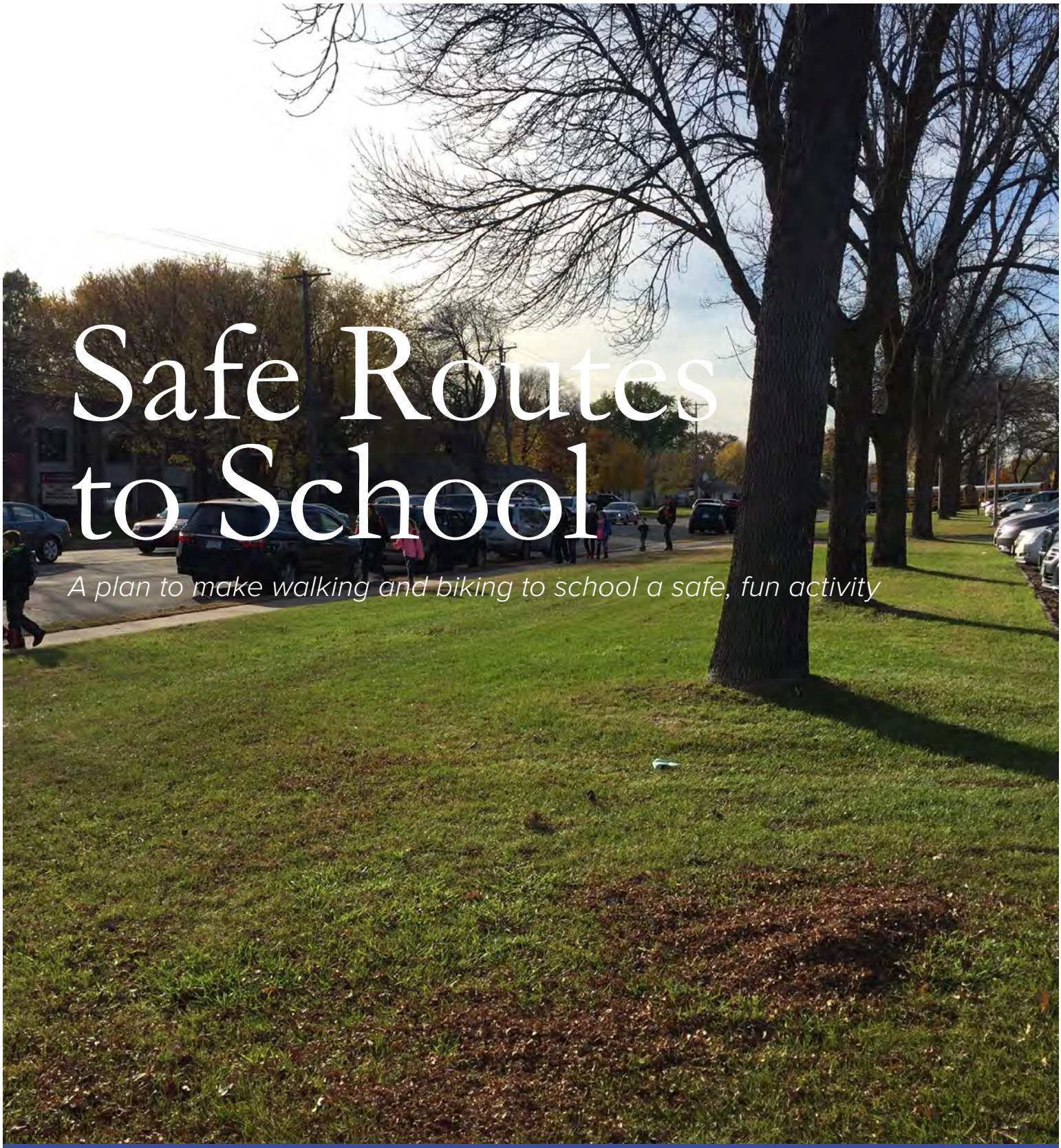


Safe Routes to School

A plan to make walking and biking to school a safe, fun activity

HAYES ELEMENTARY

Fridley Public Schools, Fridley, MN

JUNE 2017

DEPARTMENT OF TRANSPORTATION

MINNESOTA SAFE ROUTES TO SCHOOL

ACKNOWLEDGMENTS

The following key people/entities participated in the Safe Routes to School (SRTS) plan efforts for Fridley Public Schools. Their creativity, energy, and commitment were critical to the success of this effort.

JULIE JONES
City of Fridley

CINDY MCKAY
Fridley Public Schools

JIM KOSLUCHAR
City of Fridley

DENNIS CRAFT
Fridley Public Schools

KAY QUALLEY
City of Fridley

JACK FORSLUND
Anoka County

GRETCHEN ETZLER
Anoka County

BRANDON BRODHAG
City of Fridley

MATTHEW BOUCHER
Fridley Public Schools

MARK MICKELSON
Fridley Public Schools/
Fridley Police Department

BEN RICHARDS
Fridley Public Schools

JOHN PIOTRASCHKE
Fridley Public Schools

MINNESOTA SAFE ROUTES TO SCHOOL

DEPARTMENT OF TRANSPORTATION

alta PLANNING + DESIGN

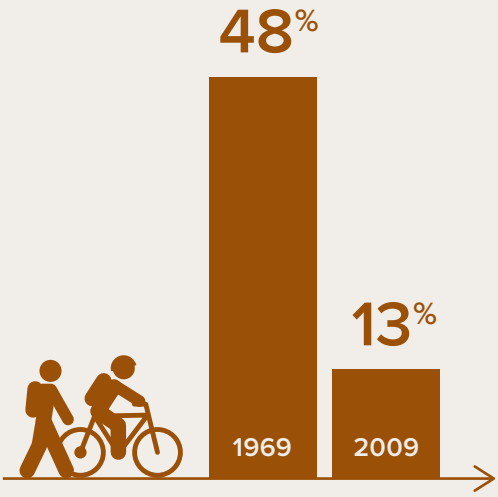
community design group

Contents

01

INTRODUCTION + CONTEXT

Why Safe Routes to School?



THE PERCENTAGE OF CHILDREN WALKING OR BIKING TO SCHOOL HAS DROPPED PRECIPITOUSLY WITHIN ONE GENERATION

MOST KIDS ARE NOT GETTING ENOUGH PHYSICAL ACTIVITY

ROADS NEAR SCHOOLS ARE CONGESTED, DECREASING SAFETY AND AIR QUALITY FOR CHILDREN

KIDS WHO WALK OR BIKE TO SCHOOL:

- Arrive alert and able to focus on school
- Are more likely to be a healthy body weight
- Are less likely to suffer from depression and anxiety
- Get most of the recommended 60 minutes of daily physical activity during the trip to and from school
- Demonstrate improved test scores and better school performance*

THE VICIOUS CYCLE OF INCREASED TRAFFIC LEADING TO REDUCED WALKING AND BICYCLING:

- Fewer students walking & biking to school
- More parents driving children to school
- Increased traffic at and around school
- Rising concern about safety of walking & biking

*More information, including primary sources, can be found at http://guide.saferoutesinfo.org

The Six Es

Safe Routes to School programs use a variety of strategies to make it easy, fun and safe for children to walk and bike to school. These strategies are often called the “Six Es.”

Education
Programs designed to teach children about traffic safety, bicycle and pedestrian skills, and traffic decision-making.

Encouragement
Programs that make it fun for kids to walk and bike, including incentive programs, regular events or classroom activities.

Engineering
Physical projects that are built to improve walking and bicycling conditions.

Enforcement
Law enforcement strategies aimed at improving driver behavior near schools and ensuring safe roads for all users.

Evaluation
Strategies to help understand program effectiveness, identify improvements, and ensure program sustainability.

Equity
Is an overarching concept that applies to all of the E’s, ensuring that all residents have access to and can take advantage of the resources provided through the program.

Navigating this Plan

Below is a roadmap for navigating the way through this plan. Use it to find all the information you need for helping students be safer and more active!

Programs

Getting kids to walk and bike to school requires fun and engaging programs for schools and families. Turn to this section for recommended events, activities, and strategies that will get students moving.

Infrastructure

Ensuring the safety of students on their trips to and from school means upgrading the streets. See this section for suggestions to improve the safety, comfort and convenience of walking and biking, including paint, signage, and signals.

How to get involved

The more people who are involved with a local Safe Routes to School process, the more successful it will be! Use this section to find out how you can be a part of this important initiative.

Appendices

There is more information available than could fit in this plan. For additional resources, turn to this section.

ADDITIONAL SRTS PLANNING IN THE AREA

FURTHER READING

Fridley and Columbia Heights have engaged in SRTS planning over the past few years. In 2013, SRTS plans were completed for Columbia Academy Middle School, Highland Elementary School, and Valley View Elementary School in Columbia Heights. Additionally, a plan was completed for North Park Elementary School in Fridley.

The Vision

In the spring of 2016, Fridley Public Schools (ISD 14) was awarded a Minnesota Department of Transportation (MnDOT) Safe Routes to School (SRTS) planning assistance grant to develop an SRTS Plan. In addition to Hayes Elementary, R.L. Stevenson Elementary and Fridley Middle School were selected to receive this planning assistance.

This plan was made possible by support from MnDOT and developed in coordination with the city and the school district. It is the product of several meetings and visits to Fridley, plus discussions with city employees, teachers, school staff, students, and community members. The plan offers recommendations on how to make it easy, fun and safe for children to walk and bike to school.

The following pages offer both program and infrastructure suggestions - all of which fall under the 6 E's model described on page 6. All recommendations are intended to be on an approximate five-year timeline. While not all of these recommendations can be implemented immediately, it is important to achieve shorter-term successes while laying the groundwork for progress toward some of the larger and more complex projects.

APPENDIX

FURTHER READING

The main body of this plan is intended to be concise in an effort to provide the most pertinent information to the reader. There are several resources in the appendix section for those interested in learning more about SRTS, including specific roles for implementing SRTS, the SRTS planning process at a glance, existing conditions, and talking points to effectively communicate messages related to SRTS.

Hayes Elementary in Context

Hayes Elementary sits approximately in the center of Fridley along Mississippi Street NE, a key west-east artery through town. University Avenue NE runs to the west of campus and Highway 65 NE runs to the east of campus, both of which serve as north-south thoroughfares. During the 2016-2017 school year, there were 571 students enrolled. The school draws students from within the City of Fridley as well as students who reside within the Northwest Suburban Integration School District who may choose to open enroll within the eight district consortium (about 40% open enroll overall; see maps in the Appendix L).

Based on 2016 surveys, the majority of parents report their children traveling to and from school by family vehicle (52.3%) or school bus (36.4%), while a significant portion walk (11.4%) and none bike. These percentages vary by distance from school. No students living within a half mile of school report biking to school, 34.6% walk to school, and 65.4% report receiving a ride in a family vehicle. As the distance from school increases to one mile or greater, the share of walking and family vehicle (48.3%) trips decreases, and school bus trips increase (50%). See the appendix for in-person observations about student travel modes.

Mississippi Street NE is a significant barrier to walking and biking to Hayes Elementary. Between 2006 and 2015, four crashes involving vehicles and a bicyclist or pedestrian occurred on Mississippi Street NE; one directly south of school, one at 7th Street NE, and two at 5th Street NE. Another crash occurred at Madison Street NE directly north of school. Sixty-five percent of parents reported distance and 59% reported the safety of intersections and crossings affected their decision to allow their children to walk or bike to school.

APPENDIX

FURTHER READING

The summary on this page takes information from a more detailed existing conditions report found in the appendix. There you'll find a report that talks about how students and parents report traveling to and from school, a map showing pedestrian and bicyclist-involved crashes, and a map of residences of students who attend Hayes Elementary. This information helped planners and community stakeholders develop the best strategies for increasing safety and comfort for students walking and biking to school.

02

PROGRAMS

Introduction to Programs

The Safe Routes to School movement acknowledges that infrastructure changes are a necessary but insufficient condition for shifting school travel behavior. Programs are a necessary component of any successful SRTS plan.

While engineering improvements such as sidewalks, crosswalks, and bikeways are important, equally important are **education** programs to give children and families basic safety skills, **encouragement** programs to highlight walking and bicycling to school as fun and normal, **enforcement** against unsafe and illegal motorist behavior, and **evaluation** of the impact of investments and non-infrastructure efforts. Often, programs that help to get more kids walking and biking lead to increased public support for infrastructure projects - they can be an important first step towards building out the physical elements that make walking and biking safer and more comfortable. And relative to certain infrastructure projects, most programs are very low cost.

Existing Programs

The City of Fridley, Fridley Public Schools, and Hayes Elementary have actively been working towards providing safe and inviting spaces around the city and the school campus for students. This foundation of encouraging student travel safety is valuable for expanding programs to encourage more students to walk and bike. Here are a few programs and services that already exist in Fridley and at Hayes Elementary:

- Police Department provides a bike helmet clinic and sells bike helmets at a discount
- Wellness programs and encouragement from school staff
- Staggered departure times and separated by grade
- Summer safety camp with police and fire departments
- Partnership with Allina Health and Free Bikes 4 Kidz for bike giveaways
- Partnership with Allina Health and Bikes4Kids (Ham Lake) to donate repaired, used bikes
- Targeted enforcement by Fridley Police Department
- Crossing guards
- Safety communication sent home to parents (see www.fridley.k12.mn.us/page.cfm?p=2799)
- City prioritizes snow maintenance on sidewalks near schools
- Bike Rodeo for seniors (not at the school)

Program Recommendations

The following programs were identified as priority programs by the local SRTS team for Hayes Elementary during the SRTS planning process. These programs were selected to meet the interest and needs of the school community in the near term (one to five years).

Each recommended program shows the “E” it falls under, plus suggested lead, support, and priority.

APPENDIX

FURTHER READING

For a complete list of all potential programs and descriptions, see http://mnd-otsrts.altaprojects.net/

Recommended Programs List

PROGRAM	WHICH "E"?	PROGRAM LEADER	PROGRAM SUPPORT	PRIORITY
Bus Drop and Walk/Park and Walk[1]	Encouragement	Fridley Public Schools	School staff	Short term
Walk to School Day	Encouragement	Fridley Public Schools	Parents, school staff	
Law Enforcement[2]	Enforcement	Fridley Police Department	City of Fridley	
Bike Rodeo[3]	Education	Fridley Community Education	Fridley Police Department	
Walking route maps	Education/ Encouragement	Fridley Planning Department	Fridley Public Schools	Medium term
Walking School Bus	Encouragement	Fridley Public Schools	Parents, school staff	
Walk! Bike! Fun! Curriculum	Education	Fridley Public Schools	School staff	

REFERENCES AND NOTES

1 Identified as a priority by School District transportation director

2 Work with officers to do observations and enforcement, and provide a consistent, visible presence over several weeks at a time; recommended to do observations and enforcement on Mississippi St in particular; evaluate before and after infrastructure improvements to compare driver behavior (coordinate with City of Fridley)

3 A program similar to a student bike rodeo is currently offered to seniors in the city

EVALUATION

PARENT SURVEYS AND STUDENT TRAVEL TALLIES

There are two great tools to evaluate all the SRTS work in your community:

Parent Surveys: Recommended to be done once every 2-3 years. A hard copy survey or link to the survey can be sent to parents which asks their perceptions of walking and biking to school.

Student Travel Tally: Recommended to be done fall and spring of every year. These in-class tallies ask students how they travel to and from school.

More information on both the parent survey and the student travel tally can be found at http://guide.saferoutesinfo.org/evaluation/

Program Descriptions

The following descriptions provide more information about the recommended programs found in the table on the previous page.

Bus Drop and Walk/Park and Walk

This program is designed to give those who ride the bus or commute with a parent a chance to get physical exercise before school. School administration should choose a location a quarter to half mile away from school where drop off from buses and parent vehicles can occur on a single day. Not all students are able to walk or bike the whole distance to school; they may live too far away or their route may include hazardous traffic situations. This program allows students who are unable to walk or bike to school a chance to participate in Safe Routes to School programs.

Additional Resources
National Safe Routes to School Guide: http://guide.saferoutesinfo.org/encouragement/park_and_walk.cfm

Walk/Bike to School Day

Walk and Bike to School Day is an international event that attracts millions of participants in over 30 countries in the fall. The event encourages students and their families to try walking or bicycling to school. Parents and other adults accompany students, and staging areas can be designated along the route to school where groups can gather and walk or bike together. These events are often promoted through press releases, backpack/folder/electronic mail, newsletter articles, and posters. Students can earn incentives for participating or there is a celebration at school following the morning event. These events can be held for more than a day,

Additional Resources
MnDOT Walk and Bike to School Day: http://www.dot.state.mn.us/mnsaferoutes/programs/walk_to_school_day.html

Bike Rodeo

Bicycle Rodeos are events that offer bicycle skills and safety stations for children - and sometimes parents - to visit (e.g., obstacle course, bicycle safety check, helmet fitting, instruction about the rules of the road, etc.). Bicycles rodeos can be held as part of a larger event or on their own, and either during the school day or outside of school. Adult volunteers can administer rodeos, or they may be offered through the local police or fire department.

Additional Resources
An Organizer's Guide to Bicycle Rodeos: http://www.bike.cornell.edu/pdfs/Bike_Rodeo_404.2.pdf

Walking Route Maps

Route maps show signs, signals, crosswalks, sidewalks, paths, crossing guard locations, and hazardous locations around a school. They identify the best way to walk or bike to school. Liability concerns are sometimes cited as reasons not to publish maps; while no route will be completely free of safety concerns, a well-defined route should provide the greatest physical separation between students and traffic, expose students to the lowest traffic speeds, and use the fewest and safest crossings.

Additional Resources
National Safe Routes to School Guide: http://guide.saferoutesinfo.org/engineering/school_route_maps.cfm

Walking School Bus

A Walking School Bus is a group of children walking to school with one or more adults. Parents can take turns leading the bus, which follows the same route every time and picks up children from their homes or designated bus stops at designated times. Ideally, buses run every day or on a regular schedule so families can count on it, but they often begin as a one-time pilot event. A Walking School Bus can be as informal as a few parents alternating to walk their children to school, but often it is a well-organized, PTA-led effort to encourage walking to school.

Additional Resources
http://www.saferoutespartnership.org/sites/default/files/resource_files/step-by-step-walking-school-bus.pdf

Walk! Bike! Fun! Curriculum

Pedestrian safety education aims to ensure that every child understands basic traffic laws and safety rules. It teaches students basic traffic safety, sign identification, and decision-making tools. Training is typically recommended for first- and second-graders and teaches lessons such as “look left, right, and left again”. Curriculum often includes three parts: in-class lessons, mock street scenarios, and on-street practice. Walk! Bike! Fun! includes lessons for both safe walking and biking, although the latter is recommended for students in fifth grade and older. This curriculum was developed by The Bicycle Alliance of Minnesota with support from the Minnesota Department of Transportation and Blue Cross Blue Shield of Minnesota. It teaches safe traffic behavior through classroom activities and on-the-streets skills practice.

Additional Resources
Minnesota Walk! Bike! Fun!: http://www.dot.state.mn.us/saferoutes/pdf/toolkit/walk-bike-fun-curriculum.pdf

03

INFRASTRUCTURE

Introduction to Infrastructure

In addition to program recommendations, changes to the streetscape are essential to making walking and biking to school safer and more comfortable.

The initial field review and subsequent meetings yielded specific recommendations to address the key identified barriers to walking and bicycling at Hayes Elementary.

This plan does not represent a comprehensive list of every project that could improve conditions for walking and cycling in the neighborhood, but rather the key conflict points and highest priority infrastructure improvements to improve walking and cycling access to the school. The recommendations range from simple striping changes and school signing to more significant changes to the streets, intersections and school infrastructure.

All engineering recommendations are shown on the Recommended Infrastructure Improvements Map on page 19 and described in the table on page 20. It should be noted that funding is limited and all recommendations made are planning-level concepts only. Additional engineering studies will be needed to confirm feasibility and final costs for projects.

APPENDIX

FURTHER READING

For a complete list of infrastructure to increase bicyclist and pedestrian safety and comfort, turn to Appendix H. The toolkit found here will help you brainstorm additional improvements for Fridley.

WINTER MAINTENANCE

FURTHER READING

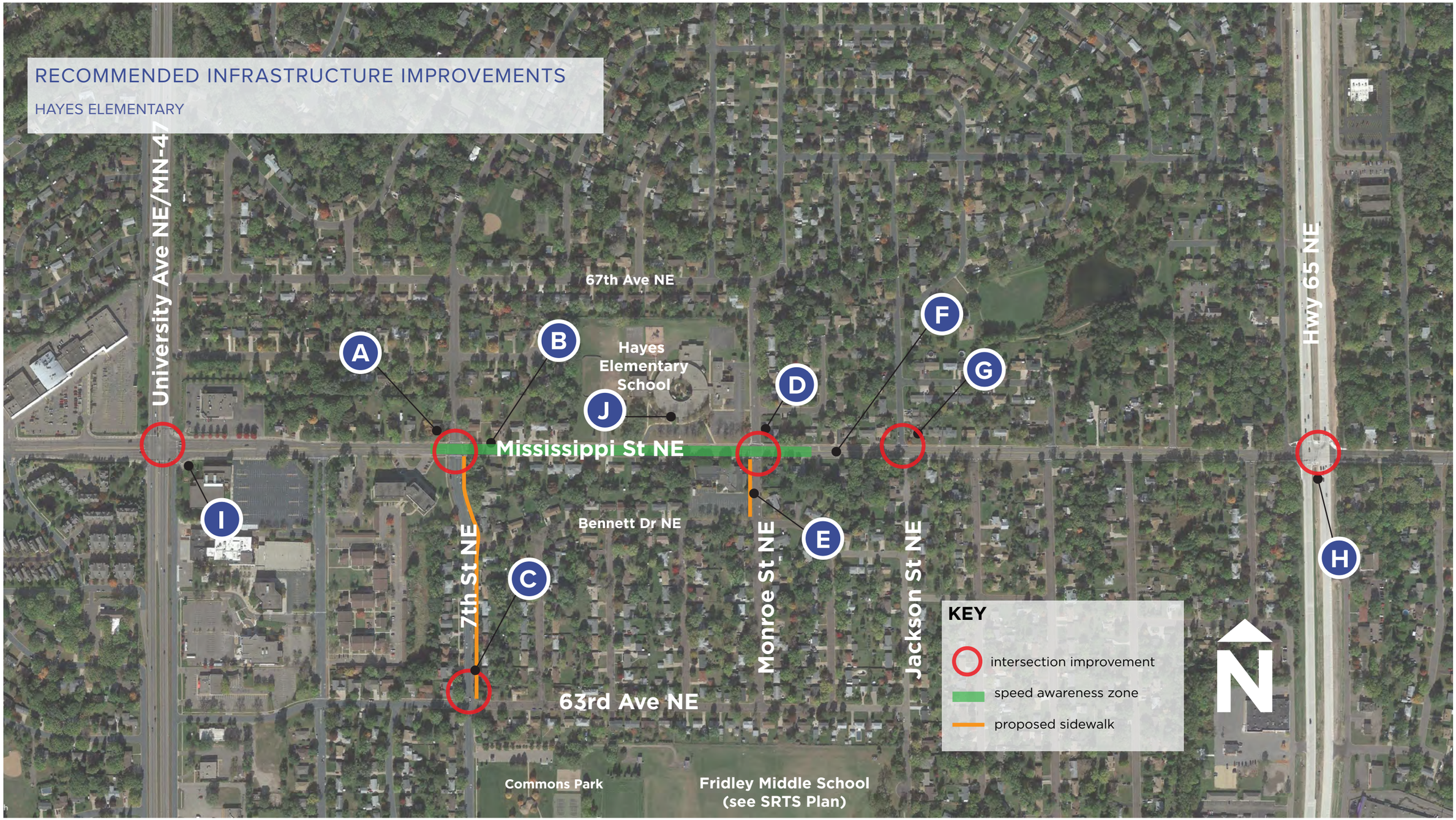
In colder climates, it is important to consider how winter can affect the safety and comfort for youth walking and biking to school. See Appendix J for information related to winter maintenance that will allow kids to stay active and healthy year round.

View of Mississippi St NE, looking west from Monroe St. Four lanes of traffic makes crossing for children unsafe and uncomfortable.

Looking west on the sidewalk adjacent to Mississippi St NE. Private vehicles are not allowed in the Hayes Elementary parking lot during arrival and dismissal.

RECOMMENDED INFRASTRUCTURE IMPROVEMENTS

HAYES ELEMENTARY

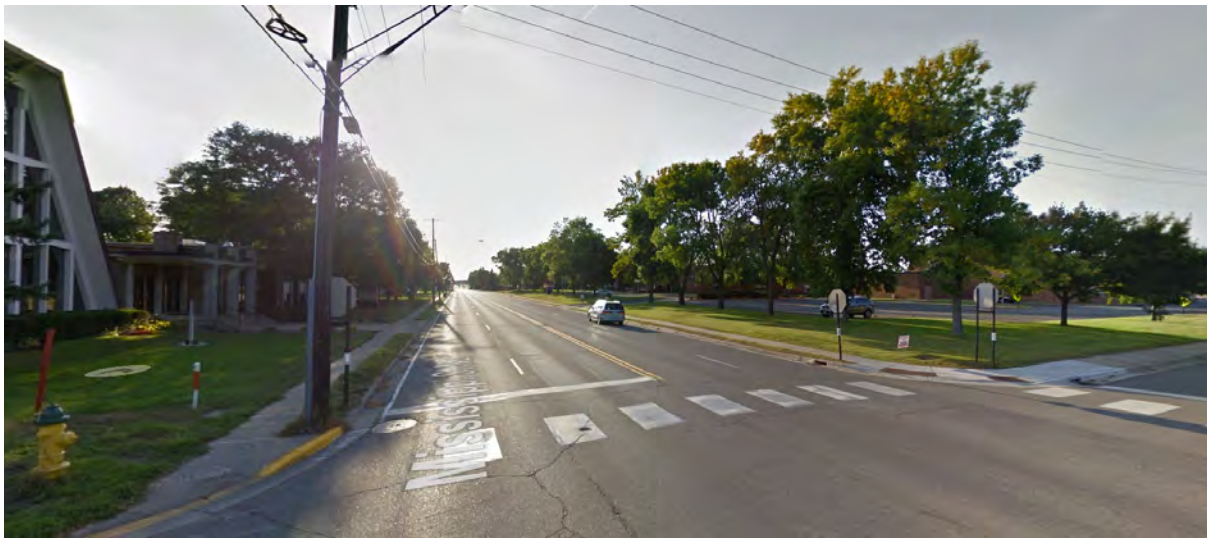


Infrastructure Recommendations

	LOCATION	PROBLEM/ISSUE	POTENTIAL SOLUTION/ RECOMMENDATION	ANTICIPATED OUTCOME	LEAD	PRIORITY
A	Mississippi St NE and 7th St NE	Long crossing distances, inadequate pedestrian landing areas	Install curb extensions to shorten crossing distance of Mississippi; construct ADA compliant curb ramps where not present	Increased safety, comfort, and visibility of pedestrians crossing; help to guide pedestrians and encourage more people to walk	Anoka County with City of Fridley	High
B	Mississippi St NE between 7th St NE and Monroe St NE	Drivers are traveling at high speeds adjacent to school	Create a speed awareness zone through increased enforcement, speed feedback signs, traffic calming, and posted decreased speed limits	Increased awareness of school zone, decreased vehicle speeds, safer and more comfortable environment for people walking and biking	Anoka County	High
C	7th St NE and 63rd Ave NE	Missing sidewalk connections north to Mississippi, no landing areas at corners	Construct ADA compliant curb ramps; install landings and high visibility crosswalks to cross 63rd and to connect to existing sidewalk network on 7th; install sidewalk on the east side of 7th between 63rd and Mississippi	More comfortable and legible intersection crossing	City of Fridley	Low
D	Mississippi St NE and Monroe St NE	Long crossing distances	Install curb extensions	Increased safety, comfort, and visibility for people crossing Mississippi St	Anoka County with City of Fridley	High
E	Monroe St, between Mississippi St NE and Bennett Dr	Missing sidewalks on Monroe St	Install sidewalk on west side of Monroe St between Mississippi St and Bennett Dr	Help to guide pedestrians and encourage more people to walk south of Mississippi St	City of Fridley	Low
F	Mississippi St NE from Hwy 65 to University Ave NE	Drivers are traveling at high speeds and introduce “hidden threat” situations at crossings	Reconfigure street from four lanes to three lanes; install traffic calming; install bicycle facilities	Increased safety and comfort for people walking and bicycling	Anoka County	High
G	Mississippi St NE and Jackson St NE	Drivers not accustomed to pedestrians crossing; not looking for pedestrians in crosswalk	Install curb extensions, RRFB, high visibility crosswalk on Mississippi	Increased visibility of pedestrians; slower vehicle speeds; increased safety and comfort for people walking	Anoka County with City of Fridley	Medium
H	Mississippi St NE and Hwy 65	Long crossing distances; little separation between motor vehicles and people crossing; drivers not accustomed to pedestrians crossing; high motor vehicle speeds	Reconfigure intersection to reduce corner radii; install advance stop bars; install leading pedestrian interval (LPI)	Safer and more comfortable roadway crossing	MnDOT with Anoka County	Medium
I	Mississippi St NE and University Ave NE	Long crossing distances; little separation between motor vehicles and people crossing; drivers not accustomed to pedestrians crossing; multiple motor vehicle access points; high motor vehicle speeds	Reconfigure intersection to install protected median crossing islands; eliminate vehicle access to frontage road; reduce corner radii; install advance stop bars; install leading pedestrian interval (LPI)	Safer and more comfortable roadway crossing	MnDOT with Anoka County	High
J	Hayes Elementary campus, near primary entrance/exit on Mississippi St NE	Current bike parking is hidden, unsecure, and on an unpaved area; design of current racks does not meet best practice; more parking capacity needed	Install bicycle parking that meets the guidance shown in Appendix I.	More people bicycling to school	Fridley Public Schools	High

RECOMMENDED IMPROVEMENTS

Concept illustrations of selected improvement areas



Recommendations D & F. *Mississippi St NE at Monroe St NE. Current (top) and recommended (bottom). High visibility cross-walks, curb extensions and a four to three lane conversion of Mississippi St. Coordinate with County plans to implement a road diet on this corridor.*

04

HOW TO GET INVOLVED

Using this Plan

At the heart of every successful Safe Routes to School comprehensive program is a coordinated effort by parent volunteers, school staff, local agency staff, law enforcement and community advocates, such as public health.

This plan provides an overview of Safe Routes to School with specific recommendations for a 6 E's approach to improve the safety and the health and wellness of students. The specific recommendations in this plan are intended to support improvements and programs over the next 5 years. These recommendations include both long- and short-term infrastructure improvements as well as programmatic recommendations.

It should be noted that not all of these projects and programs need to be implemented right away to improve the environment for walking and bicycling to school. The recommended projects and programs listed in this plan should be reviewed as part of the overall and ongoing Safe Routes to School strategy. Some projects will require more time, support, and funding than others. It is important to achieve shorter-term successes while laying the groundwork for progress toward some of the larger and more complex projects.

Who are You?

Successful programs are achieved through the coordinated efforts of parent volunteers, school staff, local agency staff, law enforcement and community advocates, such as public health. Each partner has a key role to play in contributing to a plan's success. The following paragraphs highlight the unique contributions of key partners in Safe Routes to School.

I AM A PARENT

Parents can use this report to understand the conditions at their children's school and to become familiar with the ways an SRTS program can work to make walking and bicycling safer. Concerned parents or city residents have a very important role in the Safe Routes to School process. Parent groups, both formal and informal, have the ability and the responsibility to help implement many of the educational and encouragement programs suggested in this plan. Parent groups can also be key to ongoing success by helping to fundraise for smaller projects and programs.

I AM A COMMUNITY MEMBER

Community residents, even if they don't currently have children enrolled in school, can play an important role in supporting implementation of the plan. They can use this report to better understand where there may be opportunities to participate in programming initiatives and infrastructure improvements. Community members, including seniors or retirees who may have more flexible schedules than parents with school-aged children, may volunteer in established programs or work with school staff or community partners to start new programs recommended in this plan.

I WORK FOR THE SCHOOL DISTRICT

School district staff can use this report to prioritize improvements identified on District property and develop programs that educate and encourage students and parents to seek alternatives to single family commutes to school.

District officials are perhaps the most stable of the stakeholders for a Safe Routes to School program and are in the best position to keep the program active over time. District staff can work with multiple schools, sharing information and bringing efficiencies to programs at each school working on Safe Routes.

I AM A SCHOOL ADMINISTRATOR

School administrators have an important role in implementing the recommendations contained within this SRTS plan. For a plan to succeed, the impetus for change and improvement must be supported by the leadership of the school.

School administrators can help with making policy and procedural changes to projects that are within school grounds and by distributing informational materials to parents within school publications. Please read the SRTS Facts for School Communication in Appendix B.

I WORK FOR THE CITY OR COUNTY

City and County staff can use this report to identify citywide issues and opportunities related to walking and bicycling and to prioritize infrastructure improvements. City staff can also use this report to support Safe Routes to School funding and support opportunities such as:

- MnDOT Safe Routes to School (SRTS) grants
- Federal Safe Routes to School (SRTS) grants
- Statewide Health Improvement Program (SHIP)

For all infrastructure recommendations, a traffic study and more detailed engineering may be necessary to evaluate project feasibility, and additional public outreach should be conducted before final design and construction. For recommendations within the public right-of-way, the responsible agency will determine how (and if) to incorporate suggestions into local improvement plans and prioritize funding to best meet the needs of each school community.

I WORK FOR THE POLICE DEPARTMENT

Police department staff can use this report to understand issues related to walking and bicycling to school and to plan for and prioritize enforcement activities that may make it easier and safer for students to walk and bike to school. The Police Department will be instrumental to the success of the enforcement programs and policies recommended in this plan. The Police Department will also have a key role in working with school administrations in providing officers and assistance to some of the proposed education and encouragement programs.

I WORK IN PUBLIC HEALTH

Public health staff can use this report to identify specific opportunities to collaborate with schools and local governments to support safety improvements and encourage healthy behaviors in school children and their families.

HousingLink

Streams

Return to main site

Property Detail

About Streams

Village Green Apts Of Fridley

Multiple addresses listed at bottom of page

Funding Categories

Project-Based Subsidy
Tax Credit (LIHTC 4%)
Tax Credit (LIHTC 9%)

Property Information

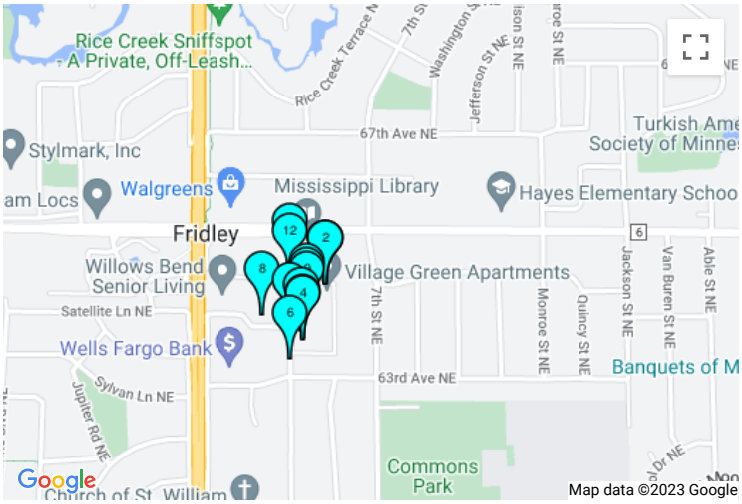
Year Built:
Building Type: Apartment
Groups Served: Elderly
Total Units: 196
Affordable Units: 196

Affordable Units by Bedroom

1 BR: 143
2 BR: 41
3 BR: 12

Units by Area Median Income

60%: 196



Housing+Transit Cost Walk Score®: 47 Report a problem

Listing Summary

BR Size	1st Listing	Last Listing	Low Rent	High Rent	Last Rent
1	10/03/2016	05/11/2018	Subsidized	Subsidized	Subsidized
3	06/08/2017	06/08/2017	Subsidized	Subsidized	Subsidized

Known Property Addresses

1	460 Mississippi St NE	Fridley
2	460 Mississippi St NE	Minneapolis
3	6371 5th St NE	Fridley
4	6311 5th St NE	Fridley
5	6321 5th St NE	Fridley
6	6330 5th St NE	Fridley
7	6351 5th St NE	Fridley
8	6401 5th St NE	Fridley
9	6411 5th St NE	Fridley
10	6431 5th St NE	Fridley
11	6441 5th St NE	Fridley
12	6451 5th St NE	Fridley
13	6461 5th St NE	Fridley

Funding Dates & Programs

First known closing: 1/1/2018
Most recent closing: 10/1/2018
Earliest expiration: 9/30/2038
Last Activity: Preservation

HUD: Section 8 (PBA)
Close Date: 10/1/2018
Expiration: 9/30/2038

MHFA: Housing Tax Credits 9%
Close Date: 1/1/2018
Estimated Expiration: 1/1/2048

MHFA: Housing Tax Credits 4%
Close Date: 1/1/2018
Estimated Expiration: 1/1/2048

Known Property Identifiers