

# TRANSPORTATION ADVISORY BOARD

## MEETING OF THE TECHNICAL ADVISORY COMMITTEE

Wednesday | January 5, 2022  
9:00 AM  
Webex

### AGENDA

#### I. CALL TO ORDER

#### II. APPROVAL OF AGENDA

(Agenda is approved without vote unless amended.)

#### III. APPROVAL OF MINUTES

December 1, 2021 meeting of the TAB Technical Advisory Committee

#### IV. TAB REPORT

#### V. COMMITTEE REPORTS

1. Executive Committee (Jon Solberg, Chair)
2. TAC Action Items
  - a. **2022-07**: Streamlined 2022-2025 TIP Amendment for MnDOT: US 61 Bridge Wearing Course Replacement in Hastings (Joe Barbeau, MTS)
3. Planning Committee (Emily Jorgensen, Chair)
  - a. **2022-02**: 2022 Regional Safety Performance Measure Targets
4. Funding & Programming Committee (Michael Thompson, Chair)
  - a. **2022-03**: Scope Change Request for Hennepin County CSAH 158 (Vernon Ave) Bridge Replacement
  - b. **2022-04**: Program Year Extension Request: Blaine 99th Avenue / Baltimore Street Roundabout
  - c. **2022-05**: Scope Change / TIP Amendment Request for Hennepin County CSAH 42 and CSAH 3 Signal Revisions and Pedestrian Improvements

#### VI. INFORMATION ITEMS

1. Transportation Advisory Committee Bylaws (Joe Barbeau, MTS)
2. Update on Regional Bicycle Transportation Network & Regional Bicycle Barrier Comments (Steve Elmer, MTS)
3. Scenario Planning Workshops (Baris Gumus-Dawes and Dan Markel, Community Development)

#### VII. AGENCY REPORTS

#### VIII. OTHER BUSINESS

#### IX. ADJOURNMENT

Please notify the Council at 651-602-1000 or 651-291-0904 (TTY) if you require special accommodations to attend this meeting. Upon request, the Council will provide reasonable accommodations to persons with disabilities.

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*Transportation Advisory Board  
of the Metropolitan Council*

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**Minutes of a Meeting of the  
TECHNICAL ADVISORY COMMITTEE  
Wednesday, December 1, 2021  
9:00 A.M.**

**Members Present:** Jon Solberg, Jack Forslund, Lyndon Robjent, Erin Laberee, Chad Ellos, Brian Isaacson, Lisa Freese, Emily Jorgensen, Elaine Koutsoukos, Steve Peterson, Michael Larson, Adam Harrington, Bridget Rief, Mehjabeen Rahman, Andrew Emanuele, Danny McCullough, Karl Keel, Ken Ashfeld, Charlie Howley, Paul Oehme, Michael Thompson, Marc Culver, Robert Ellis, Jim Kosluchar, Jenifer Hager, Jim Voll, Bill Dermody, Paul Kurtz

**1. Call to Order**

The meeting was called to order by Chair Solberg at 9:03 a.m. Due to the ongoing COVID-19 pandemic, the meeting was held via video conference.

**2. Approval of Agenda**

The Committee approved the agenda with no changes. Therefore, no vote was needed.

**3. Approval of Minutes**

The minutes of the November 3, 2021, meeting was presented to the Committee for consideration. A motion to approve the was made by Ms. Jorgensen and seconded by Mr. Culver. Motion carried.

(Meeting minutes for the March 4, 2020, meeting will be presented for approval at a future committee meeting.)

**4. TAB Report**

TAB Coordinator Ms. Koutsoukos provided a summary of the November 17, 2021, TAB meeting.

**5. Committee Reports**

**1. Executive Committee (Jon Solberg, TAC Chair)**

Chair Solberg reported that the Executive Committee met prior to the TAC meeting. The committee discussed the details of items on the agenda as well as future TAC items. Chair Solberg noted that a draft of an amended TAC Bylaws document will be presented as an information item in January of 2022.

**2. TAC Action Items**

**a. 2021-55: Streamlined 2022-2025 TIP Amendment for MnDOT: MN 55 Intersection and Drainage Repairs in Rosemount**

Joe Barbeau of MTS presented this item, which included both a cost decrease and a slight change in the total mileage of the project.

Mr. Isaacson made a motion to recommend approval of the item. Seconded by Mr. Keel. Motion carried.

**b. 2021-56: Streamlined 2022-2025 TIP Amendment for MnDOT: MN 55 Maintenance**

Mr. Barbeau presented this item, noting that it includes both a cost reduction of approximately \$3 million and a decrease in the length of the project by over a mile. He noted that the project was not a Regional Solicitation project.

Mr. Keel made a motion to recommend approval of the item, seconded by Mr. Oehme. Motion carried.

**c. 2021-57: Streamlined 2022-2025 TIP Amendment for Woodbury: HSIP Project Expansion**

Mr. Barbeau provided a brief overview of the proposed TIP amendment to the committee. He explained that the City of Woodbury was awarded HSIP funds for a four-to-three-lane traffic conversion. Additional maintenance work has been identified for the corridor. The proposed amendment would combine the work under one contract to ease procurement of a contractor to perform the work.

A motion to recommend approval of the item was made by Mr. Culver and seconded by Mr. Isaacson. Motion carried.

**3. Planning Committee (Emily Jorgensen, Chair)**

**a. 2021-54: Metropolitan Airports Commission (MAC) Capital Improvement Program**

TAC Planning Committee Chair Jorgensen introduced this item. The MAC Capital Improvement Program (CIP) is a document that is required to be reviewed by the Council on an annual basis. Council staff check for adequacy of the public participation process and conformance with the region's Transportation Policy Plan. Ms. Rief noted that there are several larger projects within the program's first three years.

A motion to recommend acceptance of the staff analysis of the MAC CIP and forward the comments to the Metropolitan Council was made by Mr. Robjent and seconded by Mr. Ashfeld. Motion carried.

**4. Funding and Programming Committee (Michael Thompson, Chair)**

No items.

**6. Information Items**

**a. Update on the 2020 US Census.**

Todd Graham of the Council's Community Development division provided an update of the status of the 2020 US Census for the region. Mr. Graham outlined the dates on which Census datasets are anticipated to be available for the public and provided the committee with general information on growth patterns within the region. He noted that diversity in the region is increasing and demonstrated the Council's online Census 2020 dashboard. Mr. Graham continued by explaining the criteria that fits the definition of an urbanized area per the Census, which is an important element for delineating MPO boundaries.

Mr. Graham responded to a question on the accuracy of the Council's forecast versus the actual numbers provided by the Census. He noted that the Council's estimates were generally close to the actual count, with some exception in rural communities. Mr. Graham displayed several graphs showing the historical estimates versus the population numbers from the 2020 US Census.

**7. Agency Updates**

Chair Solberg provided an update of the Transportation and Economic Development (TED) funding, noting that the final funding decisions will occur later in December.

Mr. Harrington announced that the Orange Line will have its grand opening on the upcoming Saturday and encouraged all members to participate in the events and ride the line for free.

Mr. Peterson announced the hiring of Charles Carlson as the new Executive Director of MTS. Mr. Carlson will begin his new role on December 13, 2021.

**8. Other Business and Adjournment**

The meeting adjourned at 10:14.

**Prepared by:**

Dave Burns



**ACTION TRANSMITTAL No. 2022-07**

**DATE:** December 29, 2021

**TO:** Technical Advisory Committee

**PREPARED BY:** Joe Barbeau, Senior Planner ([joe.barbeau@metc.state.mn.us](mailto:joe.barbeau@metc.state.mn.us))

**SUBJECT:** Streamlined 2022-2025 TIP amendment for MnDOT: US 61 Bridge Wearing Course Replacement in Hastings

**REQUESTED ACTION:** MnDOT requests an amendment to 2022-2025 TIP to add a new project replacing the wearing course on US 61 Bridge # 19004 over Mississippi River in Hastings (SP # 1913-110).

**RECOMMENDED MOTION:** That the Technical Advisory Committee recommend that the Transportation Advisory Board recommend adoption of an amendment to the 2022-2025 TIP to add a new MnDOT-sponsored project replacing the wearing course on US 61 Bridge # 19004 over Mississippi River in Hastings (SP # 1913-110).

**BACKGROUND AND PURPOSE OF ACTION:** This request is to add a new project on US 61 Bridge #19004 over the Mississippi River in Hastings replacing the wearing course.

This project is to be funded with National Highway Performance Program (NHPP) funds, which are not programmed through the Regional Solicitation.

**RELATIONSHIP TO REGIONAL POLICY:** Federal law requires that all TIP amendments meet the following four tests: fiscal constraint; consistency with the adopted regional transportation plan; air quality conformity; and opportunity for public input. It is the TAB's responsibility to recommend TIP amendments to the Council for adoption, provided these four requirements are met.

The streamlined TIP amendment process allows projects that meet certain conditions to be streamlined, which entails forgoing the TAC Funding & Programming Committee review and results in saving a month of process time.

**STAFF ANALYSIS:** The TIP amendment meets fiscal constraint because the federal and local funds are sufficient to fully fund the project. This amendment is consistent with the Metropolitan Council Transportation Policy Plan, adopted by the Metropolitan Council on November 18, 2020 with FHWA/FTA conformity determination established on December 4, 2020. Public input opportunity for this amendment is provided through the TAB's and the Council's regular meetings. The Minnesota Interagency Air Quality and Transportation Planning Committee determined that the project is exempt from air quality conformity analysis.

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**ROUTING**

<b>TO</b>	<b>ACTION REQUESTED</b>	<b>DATE SCHEDULED / COMPLETED</b>
Technical Advisory Committee	Review & Recommend	1/5/2022
Transportation Advisory Board	Review & Recommend	1/19/2022
Metropolitan Council Transportation Committee	Review & Recommend	1/24/2022
Metropolitan Council	Review & Adopt	1/26/2022

Please amend the 2022-2025 Transportation Improvement Program (TIP) to change this project in program year 2022. This project is being submitted with the following information:

**PROJECT IDENTIFICATION:**

Seq #	State Fiscal Year	ATP / Dist	Route System	Project Number	Agency	Description
TBD	2022	M	US 61	1913-110	MNDOT	MN 61 on BR#19004 Wearing Course Replacement

Miles	Prog	Type of Work	Prop Funds	Total \$	FHWA \$	Other \$
0.0	BR	REHAB	NHPP	4,000,000	3,200,000	800,000

**PROJECT BACKGROUND:**

1. Briefly describe why amendment is needed (e.g., project in previous TIP but not completed; illustrative project and funds now available; discretionary funds received; inadvertently not included in TIP).

This amendment is needed to add a new federally funded project into SFY 2022

2. How is Fiscal Constraint Maintained as required by 23 CFR 450.216 (check all that apply)?

- New Money
- Anticipated Advance Construction
- ATP or MPO or MnDOT Adjustment by deferral of other projects
- Earmark or HPP not affecting fiscal constraint
- Other

X

Federal funds are available from SP 0215-76, following its 12/15/2021 administrative modification that released \$10,760,000 in federal funding. This project will use \$3,200,000. Therefore, fiscal constraint is maintained.

**CONSISTENCY WITH MPO LONG RANGE PLAN:**

This amendment is consistent with the Metropolitan Council Transportation Policy Plan, adopted by the Metropolitan Council on November 18, 2020 with FHWA/FTA conformity determination established on December 4, 2020.

**AIR QUALITY CONFORMITY:**

- Subject to conformity determination
- Exempt from regional level analysis
- N/A (not in a nonattainment or maintenance area)

\*Exempt Project Category S-10—Pavement resurfacing and/or rehabilitation per Section 93.126 of the Conformity Rules.

**ACTION TRANSMITTAL – 2022-02**

**DATE:** December 29, 2021

**TO:** Technical Advisory Committee

**FROM:** TAC Planning Committee

**PREPARED BY:** Heidi Schallberg, Planning Analyst  
([Heidi.Schallberg@metc.state.mn.us](mailto:Heidi.Schallberg@metc.state.mn.us))  
Jed Hanson, Planner ([Jed.Hanson@metc.state.mn.us](mailto:Jed.Hanson@metc.state.mn.us))

**SUBJECT:** Proposed 2022 Safety Targets Recommendations

**REQUESTED ACTION:** Staff requests consideration of the recommendations of the Safety Performance Work Group for the 2022 safety performance targets in Table 1 for adoption by the Metropolitan Council.

**RECOMMENDED MOTION:** That the TAC Planning Committee recommend to TAC that the Metropolitan Council adopt the 2022 safety performance targets in Table 1.

**SUMMARY:** This item includes recommendations for the 2022 federally-required safety performance measure targets MPOs must adopt annually. These targets are shown in Table 1 on Page 2. Comparisons of actual numbers to annual targets are shown on Page 4. The desired trend is for the numbers of people killed or seriously injured in traffic crashes to decline, yet actual numbers are increasing significantly in 2021. The Safety Performance Work Group also had three other recommendations for staff actions to improve safety.

**BACKGROUND AND PURPOSE OF ACTION:** All State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) must adopt a program to measure system performance and set performance targets to monitor progress. Targets for the safety performance measures are required annually. Safety is one of five categories for federally-required performance measures.

After DOTs adopt their annual statewide safety targets, MPOs are given an additional 180 days to either support the statewide target or choose an alternative target. MnDOT officially adopted its updated safety performance measures and established statewide targets on August 31, 2021. The Council must adopt updated safety performance targets no later than February 27, 2022.

Federal requirements specify five safety performance measures for both state DOTs and MPOs that must have annual targets:

1. Number of all fatalities
2. Fatalities per 100 million vehicle miles travelled (VMT)
3. Number of all serious injuries
4. Serious injuries per 100 million VMT
5. Number of combined pedestrian and bicycle fatalities and serious injuries

State DOTs are obligated to make significant progress on performance against their state safety targets. There are additional federal requirements for state DOTs in the federal Highway Safety Improvement Program (HSIP) if they fail to make significant progress. The USDOT does not place additional requirements on MPOs if they fail to make progress on their required safety targets.

In previous years, the Council used the same methodology as MnDOT to calculate safety targets for the Council’s metropolitan planning area. Repeating this practice for 2020 would have resulted in an increase in the Council’s adopted targets for fatalities, which was of concern to local partners. As part of the adoption of the 2020 targets, the Council recommended establishing a safety performance work group to recommend a methodology for calculating future targets to address these concerns. This work group convened at the end of 2020 to make a recommendation for setting the 2021 targets.

Also in 2020, MnDOT finalized the 2020-2024 Strategic Highway Safety Plan. This plan is intended for traffic safety partners at every level in Minnesota – state, regional, county, and local levels of government. It acknowledges the long-term goal of zero deaths and serious injuries on roads in the state, and the Plan set a five-year goal to reduce traffic deaths to 225 or fewer statewide and serious injuries to 980 or fewer statewide by 2025, on the way to the long-term goal of zero. The 2040 Transportation Policy Plan supports the long-term goal of zero deaths and serious injuries on roads in our region. Based on average performance from 2015-2019, the region’s share of 2025 statewide goals are:

- 74 fatal injuries,
- 464 serious injuries, and
- 115 pedestrian and bicycle fatal and serious injuries.

***Safety Performance Work Group Recommendations***

For its 2021 targets, the Council adopted the recommendation of the Safety Performance Work Group, which are shown in Table 2. Approved targets relative to crash data is shown in this table for 2019 through 2021.

At their November 19, 2021, meeting, the Safety Performance Work Group reviewed year-to-date crash data and reaffirmed its support for continuing the use of this methodology for 2022, which reduces the targets annually to reach our region’s share of MnDOT’s 2025 Strategic Highway Safety Plan goals.

Using this methodology, 2022 targets would be as shown in bold in Table 1.

Table 1: Recommended Safety Targets for 2022

Year	Number of All Fatalities	Rate of Fatalities Per 100 Million VMT	Number of All Serious Injuries	Rate of Serious Injuries Per 100 Million VMT	Number of Pedestrian/Bicyclist Fatalities & Serious Injuries
<b>2022</b>	<b>98</b>	<b>0.33</b>	<b>669</b>	<b>2.24</b>	<b>164</b>
2023	90	0.30	601	2.00	148
2024	82	0.27	532	1.76	131
2025	74	0.24	464	1.53	115

Later years are shown as illustration of this progress toward the goal. The Council will still be asked to set targets annually. The targets should help the region evaluate how we are doing on these safety goals over the time frame covered by the state safety plan. Under this method, our targets fall annually by approximately 8 fatalities, 69 serious injuries, and 17 pedestrian and bicycle fatal and serious injuries.

***The work group also recommended additional actions*** to work toward reducing the number of people being killed and seriously injured on the region's transportation system. Staff will address these recommendations as part of the regular work plan.

1. Create a policy framework of accountability when we are not meeting our regional targets. Although the USDOT does not review MPO progress with additional requirements for not making progress, the region should hold itself accountable. A similar approach could be used where increased funding from the Regional Solicitation is focused on safety when the region is not meeting its targets.
2. The region needs to discuss the different policy goals, investments, and tradeoffs before the 2050 Transportation Policy Plan to better understand and communicate priorities, including safety. The 2022 Unified Planning Work Program includes a study for TPP goals review, engagement, and update to inform the 2050 TPP that should address this need.
3. A work group should review the Regional Solicitation criteria and weightings and make recommendations for changes to emphasize safety improvements that will help address these safety targets for fatalities and serious injuries. This could be addressed as part of the routine evaluation that follows each solicitation or as a separate process.

**RELATIONSHIP TO REGIONAL POLICY:** The current 2040 Transportation Policy Plan includes performance measures used to monitor and assess system performance. These performance measures support the six over-arching transportation system goals of the TPP. The proposed safety performance measures and targets directly support the Safety and Security goal of the 2040 TPP, while fulfilling the federal requirements of an MPO. Achieving regional safety targets will take coordinated action on resource allocation, policies, and investment decisions from partners at all levels in the region.

**STAFF ANALYSIS:** Overall, the metro tends to represent a lower percentage of the statewide fatalities and serious injuries compared to our share of the population, except for pedestrian and bicyclist fatalities and serious injuries, where the region tends to have a higher share of the statewide numbers. The desired trend is to continue to make progress on reducing deaths and serious injuries for people traveling by all modes within the region.

The work group reviewed crash data for January through October for 2021 compared to the targets set for the year. The following table includes actual numbers compared to targets for 2019 and 2020, along with the year-to-date data for 2021. Measures where targets were not achieved are highlighted in grey. For example, the fatalities target for 2021 was 106, but between January and the end of October, there were 156 fatalities, and this target will not be achieved.

Table 2: Adopted Safety Targets Compared to Results

Measure	2019 Target	2019 Actual	2020 Target	2020 Actual	2021 Target	2021 Actual Jan-Oct
All Fatalities	108	131	106	121	106	156
Fatal Injury Rate per 100m VMT	0.34	0.45	0.34	0.50	0.36	TBD
All Serious Injuries	748	699	738	691	738	703
Serious Injury Rate per 100m VMT	2.37	2.39	2.36	2.86	2.49	TBD
Non-Motorized Fatal and Serious Injuries	190	182	181	157	181	182

Serious injury rate target and performance in 2020 differ in part due to lower actual VMT than estimated when targets were set due to COVID-19. For 2021, YTD numbers are for the seven-county metro region only, not including urbanized portions of Wright and Sherburne counties.

The work group also reviewed year-to-date data compared to the previous year and the three-year average. This table shows the numbers of fatalities and serious injuries only without the rates. Measures where performance significantly worsened are highlighted in grey.

Table 3: Comparison Between Three-Year Averages and Performance for 2020 and 2021

Measure	2017-2019 Average Jan-Oct	2020 Actual Jan-Oct	2021 Actual Jan-Oct	% Difference Between 2021-2020	% Difference Between 2021 & 2017-19 Average
<b>All Fatalities</b>	<b>106</b>	<b>100</b>	<b>156</b>	<b>+56%</b>	<b>+47%</b>
Pedestrian Fatalities	21	15	30	+100%	+41%
Bicyclist Fatalities	4	5	1	-80%	-77%
<b>All Serious Injuries</b>	<b>672</b>	<b>609</b>	<b>703</b>	<b>+15%</b>	<b>+5%</b>
Pedestrian Serious Injuries	99	82	119	+45%	+21%
Bicyclist Serious Injuries	40	31	32	+3%	-21%

Public comments about safety the Council received on the draft 2022-2025 Transportation Improvement Program (TIP), which is required to include the adopted safety targets, are attached to this action transmittal and were provided to the work group for their consideration. Commenters requested either lower targets and/or a Vision Zero approach to safety.

The Council is working on completing a pedestrian safety action plan in the first part of 2022 and will begin a follow up study on other vehicle crashes later in 2022 to help identify trends and potential strategies for the region to decrease the numbers of people killed or seriously injured in traffic crashes.

**COMMITTEE COMMENTS AND ACTION:** In 2020, TAB recommended the creation of a Safety Performance Work Group to evaluate the best methodology for setting the regional targets. Members for this work group were recruited from TAC members, in addition to coordinating with appropriate staff from MnDOT. Work group members included representation from Scott County, Ramsey County, Minneapolis, Saint Paul, and three offices at MnDOT: Metro Planning, Program Management, and Transit; Office of Transportation System Management; and the Office of Traffic Engineering. This group met in December 2020 to review potential methodologies and recommended the one that was adopted for 2021.

On November 19, 2021, the work group reconvened to review performance numbers to date and reaffirmed its support for continuing with the adopted methodology for the 2022 safety targets. The group’s recommendations are described in the Background and Purpose of Action section. Participants in the work group this year included: Bill Dermody from the City of Saint Paul; Ethan Fawley from the City of Minneapolis; Scott Mareck from Ramsey County; Jon Solberg from MnDOT Metro Planning, Program Management, and Transit (also TAC Chair); Steve Misgen from MnDOT Office of Traffic Engineering; Derek Leuer from MnDOT Office of Traffic Engineering; Eric DeVoe from MnDOT Office of Traffic Engineering; and Katriona Molasky from MnDOT Office of Transportation System Management.

The TAC Planning Committee unanimously recommended these targets at their December 9, 2021, meeting.

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**ROUTING**

<b>TO</b>	<b>ACTION REQUESTED</b>	<b>DATE COMPLETED OR EXPECTED</b>
TAC Planning Committee	Review & Recommend	12/9/2021
Technical Advisory Committee	Review & Recommend	1/5/2022
Transportation Advisory Board	Review & Recommend	1/19/2022
Metropolitan Council Transportation Committee	Review & Recommend	1/24/2022
Metropolitan Council	Review & Adopt	2/9/2022



## Safety-Related Public Comments on Draft 2022-2025 TIP

Commenter Number	Commenter Name	Organization	Comment Topic	Full Comment	Source	Response
23.0	Sam Penders		Safety targets	We need a lower target for serious roadway injuries/deaths. 1000 per year is too high. Let's aim for zero and change our streets to achieve that.	Email	Thank you for your comment. The Council agrees that any people dying or being seriously injured from traffic crashes is unacceptable. We will include your comments for consideration in our discussion with our local partners when setting the 2022 annual targets. The Council is currently leading a pedestrian safety action plan to identify strategies to eliminate fatalities and serious injuries for people walking and rolling in the region. The Council will also be expanding its safety planning work to help elevate the need to end traffic deaths and serious injuries in the region through working with our partners across the region, including state and local governments.
24.1	Derek Eicholz		Safety targets	Additionally, I find it abhorrent to just accept the huge amount of people being killed by motorists. Vision Zero is zero for a reason, it's not Vision Hopefully Maybe A Couple Less People Dying If We're Lucky. These lives are in this councils hands, and I can't believe how little they seem to matter. These changes are possible to save lives needlessly lost each year. It simply takes prioritizing those lives instead of the holiness of the automobile and the incorrect assessment that more highways will reduce congestion.	Email	Thank you for your comment. The Council agrees that any people dying or being seriously injured from traffic crashes is unacceptable. We will include your comments for consideration in our discussion with our local partners when setting the 2022 annual targets. The Council is currently leading a pedestrian safety action plan to identify strategies to eliminate fatalities and serious injuries for people walking and rolling in the region. The Council will also be expanding its safety planning work to help elevate the need to end traffic deaths and serious injuries in the region through working with our partners across the region, including state and local governments.
26.0	@lieholepiehole		Safety targets	First up: safety targets (p. 17). The TIP aims for 844 traffic and 108 non-motorized fatalities/serious injuries in 2021. (Non-motorized fatalities/injuries = people not in cars.) <a href="https://safety.fhwa.dot.gov/hship/spm/docs/spm_factsheet.pdf">https://safety.fhwa.dot.gov/hship/spm/docs/spm_factsheet.pdf</a> The plan acknowledges that the Council supports working toward Vision Zero but claims that incremental change is necessary. I don't think this is really acceptable when incremental change allows for nearly 1,000 preventable traffic deaths this year alone. (4/12)	Twitter	Thank you for your comment. The Council agrees that any people dying or being seriously injured from traffic crashes is unacceptable. We will include your comments for consideration in our discussion with our local partners when setting the 2022 annual targets. The Council is currently leading a pedestrian safety action plan to identify strategies to eliminate fatalities and serious injuries for people walking and rolling in the region. The Council will also be expanding its safety planning work to help elevate the need to end traffic deaths and serious injuries in the region through working with our partners across the region, including state and local governments.
115.0	Jesse Lorenz		Vision Zero	The Met Council should be pursuing Vision Zero targets more aggressively - especially for vulnerable road users. Having a goal of 181 pedestrians and bicyclists being killed or seriously injured is appalling, and should be reduced rapidly, not "incrementally".	Email	Thank you for your comment. The Council agrees that any people dying or being seriously injured from traffic crashes is unacceptable. We will include your comments for consideration in our discussion with our local partners when setting the 2022 annual targets. The Council is currently leading a pedestrian safety action plan to identify strategies to eliminate fatalities and serious injuries for people walking and rolling in the region. The Council will also be expanding its safety planning work to help elevate the need to end traffic deaths and serious injuries in the region through working with our partners across the region, including state and local governments.
119.3	Mark Snyder		Vision Zero	I was also disappointed to see the stated objective for safety targets. While Vision Zero is an aspirational goal, surely the Council can do better than "incremental progress" towards that goal. Every traffic fatality is preventable. Every traffic fatality not only cuts that person's life short but destroys the lives of their families and loved ones. We cannot continue to let safety take a back seat to driver convenience. Do more. Do better.	Email	Thank you for your comment. The Council agrees that any people dying or being seriously injured from traffic crashes is unacceptable. We will include your comments for consideration in our discussion with our local partners when setting the 2022 annual targets. The Council is currently leading a pedestrian safety action plan to identify strategies to eliminate fatalities and serious injuries for people walking and rolling in the region. The Council will also be expanding its safety planning work to help elevate the need to end traffic deaths and serious injuries in the region through working with our partners across the region, including state and local governments.
129.1	Aileen Cole		Traffic fatalities and serious injuries targets	<p>Furthermore, given my particular concern for bicyclist, pedestrian, and transit-user safety, I am disappointed and mortified by the targets identified in Table 2 of the Draft TIP (page 17). While it is commendable that, "The Council supports [efforts like Towards Zero Deaths and Vision Zero] and will consistently work towards reducing fatalities and serious injuries," this statement lacks ambition, defers to underwhelming incrementalism, and is inconsistent with other efforts to reduce vehicular injuries and fatalities both nationwide and here in the Twin Cities metropolitan area. Per Table 2, the Council's 2021 "target" 2021 traffic fatality rate is 106, and its "target" number of serious injuries is 738. Comparatively, the Metropolitan Transportation Commission for the Bay Area Association of Governments, a regional metropolitan planning association serving an area nearly thrice as populous as the area served by this Council—has a clearly identified and ambitious goal of eliminating all traffic fatalities and injuries regionwide by 2030.<sup>1</sup> More locally, the Hennepin County 2040 Plan identifies an even more ambitious goal of eliminating such deaths by 2027.<sup>2</sup> Given that Hennepin County is the most populous county within the Council's planning area, and that the Council specifically reviewed the Hennepin County 2040 Plan in 2019, I request that the Final TIP be updated to provide a specific goal date—no later than 2027—by which the Council aims to eliminate vehicular fatalities.</p> <p><sup>1</sup> Metropolitan Transportation Commission. 2021. "Bay Area Vision Zero Working Group." Regional Safety Policy. <a href="https://mtc.ca.gov/about-mtc/what-mtc/mtc-organization/interagency-committees/bay-area-vision-zero-working-group">https://mtc.ca.gov/about-mtc/what-mtc/mtc-organization/interagency-committees/bay-area-vision-zero-working-group</a></p> <p><sup>2</sup> City of Minneapolis. 2019. Minneapolis 2040 Comprehensive Plan. Policy 26. Vision Zero: Eliminate fatalities and severe injuries that are a result of crashes on City streets by 2027. <a href="https://minneapolis2040.com/policies/vision-zero/">https://minneapolis2040.com/policies/vision-zero/</a></p>	Email;#Letter	Thank you for your comment. The Council agrees that any people dying or being seriously injured from traffic crashes is unacceptable. We will include your comments for consideration in our discussion with our local partners when setting the 2022 annual targets. The Council is currently leading a pedestrian safety action plan to identify strategies to eliminate fatalities and serious injuries for people walking and rolling in the region. The Council will also be expanding its safety planning work to help elevate the need to end traffic deaths and serious injuries in the region through working with our partners across the region, including state and local governments.

Commenter Number	Commenter Name	Organization	Comment Topic	Full Comment	Source	Response
132.3	Alicia Valenti		Vision Zero	I am also disappointed by the safety goals--while I know this is a federal standard, as someone who typically walks, bikes, and takes transit to get around, it is hard to accept that the plan allows for more than 100 deaths (caused by drivers) for people walking and biking, particularly given that people of color are disproportionately injured and killed by cars while walking/biking. The plan should be updated to more aggressively work toward Vision Zero by encouraging/requiring street design that slows traffic and improves sightlines as much as possible.	Email	Thank you for your comment. The Council agrees that any people dying or being seriously injured from traffic crashes is unacceptable. We will include your comments for consideration in our discussion with our local partners when setting the 2022 annual targets. The Council is currently leading a pedestrian safety action plan to identify strategies to eliminate fatalities and serious injuries for people walking and rolling in the region. The Council will also be expanding its safety planning work to help elevate the need to end traffic deaths and serious injuries in the region through working with our partners across the region, including state and local governments.
136.0	Serafina Scheel		Safety targets	1. Traffic deaths and injuries are rising in our state. The current goals of allowing 1000 preventable deaths are not acceptable. Drivers and roads are becoming less safe. We need to reverse that trend by thinking how we can better engineer for safety. We've learned in the past year that congestion and slower traffic, although they may be minor annoyances, make transportation safer.	Email	Thank you for your comment. The Council agrees that any people dying or being seriously injured from traffic crashes is unacceptable. We will include your comments for consideration in our discussion with our local partners when setting the 2022 annual targets from this year's target of no more than 106 fatalities. The Council is currently leading a pedestrian safety action plan to identify strategies to eliminate fatalities and serious injuries for people walking and rolling in the region. The Council will also be expanding its safety planning work to help elevate the need to end traffic deaths and serious injuries in the region through working with our partners across the region, including state and local governments.
139.1	Kathryn Murray	St. Anthony Park Community Council/District 12	Safety targets	In keeping with the St. Anthony Park Community Council's 10-year plan, SAPCC finds that while the Transportation Improvement Program's nod toward Vision Zero is good, a goal as high as almost 1,000 deaths in 2021 is too high, and indicates a lack of underlying strategies in the plan to lower the number of deaths.	Email;#Letter	Thank you for your comment. The Council agrees that any people dying or being seriously injured from traffic crashes is unacceptable. We will include your comments for consideration in our discussion with our local partners when setting the 2022 annual targets from this year's target of no more than 106 fatalities. The Council is currently leading a pedestrian safety action plan to identify strategies to eliminate fatalities and serious injuries for people walking and rolling in the region. The Council will also be expanding its safety planning work to help elevate the need to end traffic deaths and serious injuries in the region through working with our partners across the region, including state and local governments.



Application

10356 - 2018 Bridges

10676 - CSAH 158 (Vernon Ave) Bridge Replacement Project

Regional Solicitation - Roadways Including Multimodal Elements

Status: Submitted  
Submitted Date: 07/13/2018 2:13 PM

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## Primary Contact

**Name:**\* Chad Ellos  
Salutation First Name Middle Name Last Name

**Title:** Transportation Planning Division Manager

**Department:**

**Email:** Chad.Ellos@hennepin.us

**Address:** Hennepin County Public Works  
1600 Prairie Drive

**\*** Medina Minnesota 55340  
City State/Province Postal Code/Zip

**Phone:**\* 612-596-0395  
Phone Ext.

**Fax:**

**What Grant Programs are you most interested in?** Regional Solicitation - Roadways Including Multimodal Elements

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## Organization Information

**Name:** HENNEPIN COUNTY

Jurisdictional Agency (if different):

Organization Type:

County Government

Organization Website:

Address:

DPT OF PUBLIC WORKS  
1600 PRAIRIE DR

\*

MEDINA

Minnesota

55340

City

State/Province

Postal Code/Zip

County:

Hennepin

Phone:\*

763-745-7600

Ext.

Fax:

PeopleSoft Vendor Number

0000028004A9

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## Project Information

Project Name

CSAH 158 (Vernon Ave) Bridge Replacement Project

Primary County where the Project is Located

Hennepin

Cities or Townships where the Project is Located:

Edina

Jurisdictional Agency (If Different than the Applicant):

The project includes the replacement of the CSAH 158 (Vernon Ave) Bridge at Canadian Pacific (CP) rail located in the City of Edina. CSAH 158 (Vernon Ave) is classified as an A-Minor Arterial roadway that functions as a reliever. Attachment 2 provides an illustration of the project location.

CSAH 158 (Vernon Ave) is a significant regional corridor, providing access to users to TH 62 (Crosstown) and TH 100. Additionally, this roadway serves as the main connection through the Grandview District that includes primarily commercial land uses. Closure of this bridge would impact the 20,000 daily users significantly.

The current CSAH 158 (Vernon Ave) bridge design consists of a concrete slab that is experiencing advanced deterioration, spalling, and cracking. The substructure (columns and pier caps) include exposed rebar with rust spots. Additionally, bridge maintenance activities (patching and crack sealing) are no longer effective treatments to extend the service life of the bridge. This bridge is classified as structurally deficient and was assigned a sufficiency rating of 24.0. Photos depicting the bridge's current condition are included in Attachment 3.

The project includes a full replacement of the bridge. The current width of the bridge is approximately 64' that provides two vehicle lanes in each direction, narrow median (approximately 4' wide), and a narrow raised walking area (approximately 4' wide) on both sides. It is anticipated that a wider bridge will be constructed to better accommodate user needs along the corridor. The proposed bridge will include a wider section on the west side when compared to the east side. This design will allow for the introduction

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

of dedicated turn lanes at Interlachen Blvd, provide improved off-road facilities, and minimize property impacts on the east side. The proposed typical sections and concept for the CSAH 158 (Vernon Ave) Bridge Replacement Project are included in Attachments 4 and 5, respectively. It is anticipated that the new bridge would be designed for a 75-year (or greater) service life.

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

**TIP Description Guidance (will be used in TIP if the project is selected for funding)**

CSAH 158 (Vernon Ave) over CP Rail in Edina

**Project Length (Miles)**

0.1

*to the nearest one-tenth of a mile*

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## Project Funding

**Are you applying for competitive funds from another source(s) to implement this project?** No

**If yes, please identify the source(s)**

**Federal Amount** \$7,000,000.00

**Match Amount** \$2,150,000.00

*Minimum of 20% of project total*

**Project Total** \$9,150,000.00

**Match Percentage** 23.5%

*Minimum of 20%*

*Compute the match percentage by dividing the match amount by the project total*

**Source of Match Funds** Hennepin County

*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:** 2023

*Select 2020 or 2021 for TDM projects only. For all other applications, select 2022 or 2023.*

## Additional Program Years:

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

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## Project Information-Roadways

**County, City, or Lead Agency**

Hennepin County

**Functional Class of Road**

A-Minor Arterial (Reliever)

<b>Road System</b>	CSAH
<i>TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET</i>	
<b>Road/Route No.</b>	158
<i>i.e., 53 for CSAH 53</i>	
<b>Name of Road</b>	Vernon Ave
<i>Example; 1st ST., MAIN AVE</i>	
<b>Zip Code where Majority of Work is Being Performed</b>	55436
<b>(Approximate) Begin Construction Date</b>	04/03/2023
<b>(Approximate) End Construction Date</b>	11/17/2023
<b>TERMINI:(Termini listed must be within 0.3 miles of any work)</b>	
<b>From:</b> <b>(Intersection or Address)</b>	Interlachen Blvd
<b>To:</b> <b>(Intersection or Address)</b>	Arcadia Ave
<i>DO NOT INCLUDE LEGAL DESCRIPTION</i>	
<b>Or At</b>	
<b>Primary Types of Work</b>	Bridge Replacement, Sidewalk, Trail, ADA, traffic signal, roadway approaches
<i>Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER, STORM SEWER, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, BRIDGE, PARK AND RIDE, ETC.</i>	
<b>BRIDGE/CULVERT PROJECTS (IF APPLICABLE)</b>	
<b>Old Bridge/Culvert No.:</b>	4510
<b>New Bridge/Culvert No.:</b>	TBD
<b>Structure is Over/Under</b> <b>(Bridge or culvert name):</b>	Canadian Pacific Rail

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## 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 (2015), the 2040 Regional Parks Policy Plan (2015), 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.

A) Transportation System Stewardship (P 2.17-2.19)

Hennepin County's annual bridge inspection program ensures planned preservation and maintenance of our bridge assets. This project will replace a structurally deficient and weight restricted bridge that serves 20,400 vehicles daily. Bridge construction activities will be staged and/or accelerated to minimize impacts to roadway users; especially emergency and commercial vehicles.

B) Safety/Security (P 2.20-2.23)

This project will address structural safety issues for this deficient bridge. Further deterioration may lead to its closure to traffic which would significantly impact the traveling public. This is especially important since CSAH 158 (Vernon Ave) provides access between TH 100 and the Grandview District in this commercial area of Edina.

List the goals, objectives, strategies, and associated pages:

C) Access to Destinations (P 2.24-2.37)

CSAH 158 (Vernon Ave) is the only roadway that provides full access to TH 100 for a distance of over two miles between Benton Ave and CSAH 3 (Excelsior Blvd). The Grandview District includes various retail and convenience store destinations. Additionally, this project will provide significantly better facilities for non-motorized users to support walking and biking in the area.

D) Competitive Economy (P 2.38-2.41)

This project promotes diverse activities along the corridor by accommodating the distribution of goods and services, maintaining a high level of



attractiveness, and providing safe facilities for all modes. Future closure of this bridge would impact delivery services to local businesses.

E) Healthy Environment (P 2.42-2.45)

This project presents an opportunity to provide significantly improved bicycle and pedestrian facilities to promote walking and biking in the area, and thus, reducing vehicle emissions. Additionally, CSAH 158 (Vernon Ave) serves six transit routes that rely on this bridge to access TH 100.

F) Leveraging Transportation Investments to Guide Land Use (P 2.46-2.55)

The proposed bridge project aligns with recommendations included in the City of Edina's Grandview District Transportation Study completed in 2016. CSAH 158 (Vernon Ave) is critical to ensuring adequate circulation of all modes in the area that offers a balance between mobility and access.

*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.*

Hennepin County Board Resolution - 2017  
Operating and Capital Budgets (Attachment 6)

**List the applicable documents and pages:**

Hennepin County Board Resolution - 2018  
Regional Solicitation (Attachment 7)

*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.*

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

5. Applicants that are not 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 elements in more than one funding application 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.

Roadway Expansion: \$1,000,000 to \$7,000,000

Roadway Reconstruction/ Modernization Modernization and Spot Mobility: \$1,000,000 to \$7,000,000

Traffic Management Technologies (Roadway System Management): \$250,000 to \$7,000,000

Bridges Rehabilitation/ Replacement: \$1,000,000 to \$7,000,000

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, or be substantially working towards, completing 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 applicant is a public agency that employs 50 or more people and has an adopted ADA transition plan that covers the public right of way/transportation.

Date plan adopted by governing body

The applicant is a public agency that employs 50 or more people and is currently working towards completing an ADA transition plan that covers the public rights of way/transportation. Yes

05/02/2011

04/06/2020

Date process started

Date of anticipated plan completion/adoption

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

Date self-evaluation completed

The applicant is a public agency that employs fewer than 50 people and is working towards completing an ADA self-evaluation that covers the public rights of way/transportation.

Date process started

Date of anticipated plan completion/adoption

(TDM Applicants Only) The applicant is not a public agency subject to the self-evaluation requirements in Title II of the ADA.

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, per FHWA direction established 8/27/2008 and updated 6/27/2017.

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

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## Roadways Including Multimodal Elements

1. All roadway and bridge projects must be identified as a principal arterial (non-freeway facilities only) or A-minor arterial as shown on the latest TAB approved roadway functional classification map.

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

### Roadway Expansion and Reconstruction/Modernization and Spot Mobility projects only:

2. The project must be designed to meet 10-ton load limit standards.

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

### Bridge Rehabilitation/Replacement projects only:

3. Projects requiring a grade-separated crossing of a principal arterial freeway must be limited to the federal share of those project costs identified as local (non-MnDOT) cost responsibility using MnDOT's Cost Participation for Cooperative Construction Projects and Maintenance Responsibilities manual. In the case of a federally funded trunk highway project, the policy guidelines should be read as if the funded trunk highway route is under local jurisdiction.

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

4. The bridge must carry vehicular traffic. Bridges can carry traffic from multiple modes. However, bridges that are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are ineligible for funding.

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

5. The length of the bridge must equal or exceed 20 feet.

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

6. The bridge must have a sufficiency rating less than 80 for rehabilitation projects and less than 50 for replacement projects. Additionally, the bridge must also be classified as structurally deficient or functionally obsolete.

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

### Roadway Expansion, Reconstruction/Modernization and Spot Mobility, and Bridge Rehabilitation/Replacement projects only:

7. All roadway projects that involve the construction of a new/expanded interchange or new interchange ramps must have approval by the Metropolitan Council/MnDOT Interchange Planning Review Committee prior to application submittal. Please contact Michael Corbett at MnDOT (Michael.J.Corbett@state.mn.us or 651-234-7793) to determine whether your project needs to go through this process.

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

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## Requirements - Roadways Including Multimodal Elements

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## Specific Roadway Elements

<b>CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>	<b>Cost</b>
Mobilization (approx. 5% of total cost)	\$690,000.00
Removals (approx. 5% of total cost)	\$480,000.00
Roadway (grading, borrow, etc.)	\$60,000.00
Roadway (aggregates and paving)	\$230,000.00
Subgrade Correction (muck)	\$50,000.00
Storm Sewer	\$110,000.00
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$45,000.00
Traffic Control	\$170,000.00
Striping	\$15,000.00
Signing	\$5,000.00
Lighting	\$0.00
Turf - Erosion & Landscaping	\$60,000.00
Bridge	\$5,200,000.00
Retaining Walls	\$375,000.00
Noise Wall (not calculated in cost effectiveness measure)	\$200,000.00
Traffic Signals	\$325,000.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$840,000.00
Other Roadway Elements	\$0.00
<b>Totals</b>	<b>\$8,855,000.00</b>

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## Specific Bicycle and Pedestrian Elements

<b>CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>	<b>Cost</b>
Path/Trail Construction	\$50,000.00
Sidewalk Construction	\$50,000.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$55,000.00

Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	\$20,000.00
Pedestrian-scale Lighting	\$50,000.00
Streetscaping	\$0.00
Wayfinding	\$0.00
Bicycle and Pedestrian Contingencies	\$70,000.00
Other Bicycle and Pedestrian Elements	\$0.00
<b>Totals</b>	<b>\$295,000.00</b>

## Specific Transit and TDM Elements

<b>CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>	<b>Cost</b>
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
<b>Totals</b>	<b>\$0.00</b>

## 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

## Totals

Total Cost	\$9,150,000.00
Construction Cost Total	\$9,150,000.00
Transit Operating Cost Total	\$0.00

## Measure A: Distance to the nearest parallel bridge

*RESPONSE:*

**Location of nearest parallel bridge crossing:** 1.14 mi (CSAH 3 - Excelsior Blvd)

**Distance from one end of proposed project to nearest parallel crossing (that is an A-minor arterial or principal arterial) and then back to the other side of the proposed project (calculated by Council Staff):** 0

Staff identified CSAH 3 (Excelsior Blvd) as the closest parallel A-Minor Arterial roadway that provides similar access and mobility across the Canadian Pacific Rail.

**Explanation:**

There are nearby local streets that offer similar access across the rail line, however, none of them are identified on the A-Minor Arterial system. Staff will work with the City of Edina to manage traffic diversion on local streets; specifically, commercial, freight, and transit vehicles to ensure that local residents aren't impacted negatively.

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

---

## Measure B: Project Location Relative to Jobs, Manufacturing, and Education

**Existing Employment within 1 Mile:** 8442

**Existing Manufacturing/Distribution-Related Employment within 1 Mile:** 999

**Existing Post-Secondary Students within 1 Mile:** 0

**Upload Map**

1530977891748\_2018 RS Map 02 - CSAH 158 (Vernon Ave) Bridge Replacement Project - Regional Economy.pdf

*Please upload attachment in PDF form.*

---

## Measure C: Regional Truck Corridor Tiers

*RESPONSE (Select one for your project, based on the Regional Truck Corridor Study):*

**The project is located on either a Tier 1, Tier 2, or Tier 3 corridor:**

*(65 Points)*

**The project provides a direct and immediate connection (i.e., intersects) with either a Tier 1, Tier 2, or Tier 3 corridor:**

*(10 Points)*

**The project is not located on a Tier 1, Tier 2, or Tier 3 corridor:** Yes

*(0 Points)*

---

## Measure A: Current Daily Person Throughput

Location	East of Interlachen Blvd
Current AADT Volume	20400.0
Existing Transit Routes on the Project:	46 , 146, 587, 588, 589, 600
Upload "Transit Connections" map	1530978136873_2018 RS Map 04 - CSAH 158 (Vernon Ave) Bridge Replacement Project - Transit Connections.pdf

*Please upload attachment in PDF form.*

---

## Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	1891.0
Current Daily Person Throughput	28411.0

---

## Measure B: 2040 Forecast ADT

Use Metropolitan Council model to determine forecast (2040) ADT volume	Yes
If checked, METC Staff will provide Forecast (2040) ADT volume	22800

OR

Identify the approved county or city travel demand model to determine forecast (2040) ADT volume

Forecast (2040) ADT volume

---

## Measure A: Connection to disadvantaged populations and projects benefits, impacts, and mitigation

Select one:

Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):

*(up to 100% of maximum score)*

Project located in Area of Concentrated Poverty:

*(up to 80% of maximum score )*

Projects census tracts are above the regional average for population in poverty or population of color:

*(up to 60% of maximum score )*

Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly: Yes

*(up to 40% of maximum score )*

1.(0 to 3 points) A successful project is one that has actively engaged low-income populations, people of color, children, persons with disabilities, and the elderly during the project's development with the intent to limit negative impacts on them and, at the same time, provide the most benefits.

Describe how the project has encouraged or will engage the full cross-section of community in decision-making. Identify the communities to be engaged and where in the project development process engagement has occurred or will occur. Elements of quality engagement include: outreach to specific communities and populations that are likely to be directly impacted by the project; techniques to reach out to populations traditionally not involved in the community engagement related to transportation projects; residents or users identifying potential positive and negative elements of the project; and surveys, study recommendations, or plans that provide feedback from populations that may be impacted by the proposed project. If relevant, describe how NEPA or Title VI regulations will guide engagement activities.

Hennepin County will engage each of the project stakeholders, including: local residents (especially members of the Grandview and Todd Park neighborhood communities), business owners, City of Edina, and Metro Transit during the planning and design stages of the project. The main goals of the engagement include the following:

- Listen respectfully to public questions and concerns
- Deliver clear project updates across all communication streams
- Maintain formal relationships with critical stakeholders, mainly nearby business owners (such as Davanni's, Starbucks, and Holiday), to ensure project impacts are known and understood
- Coordinate with local partners to avoid conflicts with other planned projects or initiatives

**Response:**

Hennepin County will ensure the project outcome aligns with the goals and recommendations included in Edina's Grandview District Study (Attachment 9). The study included a diverse set of engagement techniques; including: site visits, formal public meetings, and charrettes. Furthermore, a set of evaluation metrics were identified to guide the decision making process in the future.



*(Limit 1,400 characters; approximately 200 words)*

*2.(0 to 7 points) Describe the projects benefits to low-income populations, people of color, children, people with disabilities, and the elderly. Benefits could relate to safety; public health; access to destinations; travel time; gap closure; leveraging of other beneficial projects and investments; and/or community cohesion. Note that this is not an exhaustive list.*

The existing bridge lacks adequate facilities for bicylists and pedestrians as the current off-road facilities are 4' wide and are located immediately adjacent to vehicle lanes. It is anticipated that the new bridge will include a multi-use facility (approximately 8' wide) on the north side of the bridge and a pedestrian facility (approximately 6' wide) on the south side of the bridge. These facilities are critical to ensuring user comfort and safety across the bridge.

**Response:**

The proposed bridge project is expected to impact the Interlachen Blvd intersection given its close proximity to the bridge structure. This presents an opportunity to make accessibility, mobility, and safety improvements at the existing signalized intersection. The proposed concept includes dedicated westbound right-turn and left-run lanes on the east approach to provide significant mobility improvements along CSAH 158 (Vernon Ave) that serves over 20,000 vehicles daily. A high percentage of westbound vehicles desire to turn right onto Interlachen Blvd, therefore, users will experience reduced delay. ADA improvements (pedestrian ramps and APS) will be incorporated at the intersection to ensure accessibility for all. Furthermore, the project will include signal updates to offer more flexible and adaptive signal operations. The installation of Flashing Yellow Arrows will allow staff to implement more intelligent timing plans that eliminate conflicts between left-turning vehicles and pedestrians. These ADA and signal improvements are especially critical as there are currently transit stops located at the Interlachen Blvd intersection, requiring users to cross CSAH 158 (Vernon Ave) on a regular basis.

The introduction of a multi-use trail will offer bicyclists an alternative option to riding in the

vehicle lane which is typically only done by experienced bicyclists.

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

*3. (-3 to 0 points) Describe any negative externalities created by the project along with measures that will be taken to mitigate them. Negative externalities can result in a reduction in points, but mitigation of externalities can offset reductions.*

*Below is a list of negative impacts. Note that this is not an exhaustive list.*

*Increased difficulty in street crossing caused by increased roadway width, increased traffic speed, wider turning radii, or other elements that negatively impact pedestrian access.*

*Increased noise.*

*Decreased pedestrian access through sidewalk removal / narrowing, placement of barriers along the walking path, increase in auto-oriented curb cuts, etc.*

*Project elements that are detrimental to location-based air quality by increasing stop/start activity at intersections, creating vehicle idling areas, directing an increased number of vehicles to a particular point, 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.*

*Displacement of residents and businesses.*

*Construction/implementation impacts such as dust; noise; reduced access for travelers and to businesses; disruption of utilities; and eliminated street crossings. These tend to be temporary.*

*Other*

Further investigation is necessary to confirm if land acquisition is required based on the proposed concept given the existing constraints in the area. Attachment 10 illustrates the existing right of way challenges in the area that include a private parking lot located within public right of way, a noise wall recently constructed by MnDOT, and a current development under construction. The proposed bridge design includes a wider structure than the existing bridge in an effort to better accommodate users. It's anticipated that the bridge width will be different on either end of the structure to minimize impacts to local property owners.

**Response:**

Staff will work with the City of Edina and MnDOT to manage traffic diversion (especially freight, commercial, and transit) during construction activities to minimize impacts to local residents. All modes will be provided with accessible routes throughout the entire duration of the project. Proper signage, pavement markings, and other treatments (such as jersey barriers, temporary accessibility ramps, etc.) will be implemented to ensure that users are directed along their intended route in a safe manner. Mobility improvements as a result of construction activities will mainly be related to user comfort levels.

It is anticipated that the east approach at the Vernon Ave/Interlachen Blvd intersection will include a longer pedestrian crossing distance. However, other countermeasures (such as raised medians and curb extensions) will be considered to improve the crossing experience. Additionally, planned ADA improvements will offer significantly better accessibility accommodations that currently include relatively poor designs in all four quadrants.

Hennepin County has a specialized communications team for its Public Works business line who are responsible for responding to various inquiries during the planing, design, and construction phases of a project. This team will be critical in accommodating the needs of those who are most impacted by the project (nearby residents and business owners). This effort centralizes correspondence related to the project, provides clarity on who to contact, and delivers a consistent message.

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

**Upload Map**

1530982711655\_2018 RS Map 03 - CSAH 158 (Vernon Ave) Bridge Replacement Project - Socio Economic Conditions.pdf

## Measure B: Affordable Housing

City	Segment Length (For stand-alone projects, enter population from Regional Economy map) within each City/Township	Segment Length/Total Project Length	Score	Housing Score Multiplied by Segment percent
Edina	17745.0	0.82	91.0	74.216
Hopkins	1069.0	0.05	90.0	4.422
St. Louis Park	2944.0	0.14	96.0	12.989

## Total Project Length

Total Project Length (as entered in the "Project Information" form)

## Affordable Housing Scoring

Total Project Length (Miles) or Population

Total Housing Score

## Affordable Housing Scoring

---

## Measure A: Bridge Condition

Bridge Sufficiency Rating

24.0

Upload Structure Inventory Report

1530982781811\_Attachment 11 - 2018 MN Structure Inventory  
& Bridge Inspection Report.pdf

*Please upload attachment in PDF form.*

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## Measure B: Load-Posting

Load Posted (Check box if the bridge is load-posted):

Yes

---

## Measure A: Multimodal Elements and Existing Connections

The CSAH 158 (Vernon Ave) Bridge Replacement Project will provide an opportunity to widen the bridge structure and offer space to allocate towards each transportation mode. The following are specific improvements for non-motorized users:

#### Bicycle Improvements:

The City of Edina has identified this section of CSAH 158 (Vernon Ave) as a secondary route (Attachment 12). Additionally, Metropolitan Council has identified this area as Tier 2 corridor in the Regional Bicycle Transportation Network. It is anticipated that a multi-use facility (approximately 8' wide) will be introduced on the north side of the bridge. This facility will offer bicyclists an off-road option to avoid riding with traffic which typically leads to rider discomfort, especially those new to biking, due to high traffic volumes and vehicle speeds. This multi-use facility will provide a direct connection to Interlachen Blvd (which currently includes on-road bike lanes) and fills a gap in the bikeway network along CSAH 158 (Vernon Ave) where bike accommodations currently terminate at 53rd St.

**Response:**

#### Pedestrian Improvements

The existing CSAH 158 (Vernon Ave) bridge includes narrow (approximately 4' wide) walkways on both sides of the bridge adjacent to the roadway, leading to a feeling of discomfort for pedestrians. It is anticipated that a multi-use facility will be constructed on the north side and a sidewalk (approximately 6' wide) will be provided on the south side to provide users with facilities on both sides to eliminate the need for unnecessary pedestrian crossings. Additionally, improvements are planned at the Interlachen Blvd intersection,

given its location in relation to the bridge. ADA upgrades (pedestrian ramps and APS) will be included and designed to better serve persons with limited mobility. The intersection geometry will be investigated in the design process to determine the feasibility of constructing curb extensions and raised medians to offer traffic calming elements.

### Transit Improvements

CSAH 158 (Vernon Ave) currently serves six Metro Transit bus routes and includes stops in the northeast and southwest quadrants at the Interlachen Blvd intersection. These stops lack adequate waiting areas and require transit users to stand/sit immediately adjacent to the roadway. This project presents an opportunity to expand waiting areas to improve transit experience and user comfort. Additionally, users who rely on transit will be provided with significantly better ADA accommodations to ensure that transit riders with limited mobility can access the stops from all directions. These improvements are key to maintaining consistent transit ridership in an area that offers retail and leisure destinations.

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

---

## 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)Layout (30 Percent of Points)

*Layout should include proposed geometrics and existing and proposed right-of-way boundaries.*



Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties that the project goes through or agencies that maintain the roadway(s)). A PDF of the layout must be attached along with letters from each jurisdiction to receive points.

100%

**Attach Layout**

Please upload attachment in PDF form.

Layout completed but not approved by all jurisdictions. A PDF of the layout must be attached to receive points. Yes

50%

**Attach Layout**

1531058377654\_Attachment 05 - Proposed Concept.pdf

Please upload attachment in PDF form.

**Layout has not been started**

0%

**Anticipated date or date of completion**

**2)Review of Section 106 Historic Resources (20 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**

**3)Right-of-Way (30 Percent of Points)**

Right-of-way, permanent or temporary easements either not required or all have been acquired Yes

100%

Right-of-way, permanent or temporary easements required, plat, legal descriptions, or official map complete

50%

Right-of-way, permanent or temporary easements required, parcels identified

25%

Right-of-way, permanent or temporary easements required, parcels not all identified

0%

Anticipated date or date of acquisition

#### 4)Railroad Involvement (20 Percent of Points)

No railroad involvement on project or railroad Right-of-Way agreement is executed (include signature page, if applicable)

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. Yes

0%

Anticipated date or date of executed Agreement 12/30/2022

---

### Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form):	\$9,150,000.00
Enter Amount of the Noise Walls:	\$200,000.00
Total Project Cost subtract the amount of the noise walls:	\$8,950,000.00
Points Awarded in Previous Criteria	
Cost Effectiveness	\$0.00

---

### Other Attachments

<b>File Name</b>	<b>Description</b>	<b>File Size</b>
Attachment 00 - List of Attachments.pdf	List of Attachments	47 KB
Attachment 01 - Project Narrative.pdf	Project Narrative	708 KB
Attachment 02 - Project Location Map.pdf	Project Location Map	347 KB
Attachment 03 - Existing Bridge Deficiencies.pdf	Existing Bridge Deficiencies	812 KB
Attachment 04 - Proposed Typical Sections.pdf	Proposed Typical Sections	721 KB
Attachment 05 - Proposed Concept.pdf	Proposed Concept	428 KB
Attachment 06 - Hennepin County Board Resolution - 2017 Operating & Capital Budgets.pdf	Hennepin County Board Resolution - 2017 Operating and Capital Budgets	1.2 MB
Attachment 07 - Hennepin County Board Resolution - 2018 Regional Solicitation.pdf	Hennepin County Board Resolution - 2018 Regional Solicitation	668 KB
Attachment 08 - MnDOT 50 Series Map.pdf	MnDOT 50 Series Map	1.7 MB
Attachment 09 - City of Edina Grandview District Transportation Study.pdf	City of Edina Grandview Transportation Study	1.6 MB
Attachment 10 - Hennepin County Property Map.pdf	Hennepin County Property Map	760 KB
Attachment 11 - 2018 MN Structure Inventory & Bridge Inspection Report.pdf	2018 MN Structure Inventory & Bridge Inspection Report	683 KB
Attachment 12 - City of Edina Existing and Planned Bicycle Facilities.pdf	City of Edina Existing and Planned Bicycle Facilities	947 KB
Attachment 13 - City of Edina Letter of Support.pdf	City of Edina Support Letter	881 KB

# Regional Economy

Bridges Project: CSAH 158 (Vernon Ave) Bridge Replacement Project | Map ID: 1528304447248

## Results

**WITHIN ONE MI of project:**  
Postsecondary Students: 0

Totals by City:

### Edina

Population: 17745  
Employment: 6814  
Mfg and Dist Employment: 275

### Hopkins





Population: 1069  
Employment: 877  
Mfg and Dist Employment: 702

### St. Louis Park

Population: 2944  
Employment: 751  
Mfg and Dist Employment: 22



NCompass Technologies

-  Project Points
-  Project
-  Manufacturing/Distribution Centers
-  Job Concentration Centers



Created: 6/6/2018  
LandscapeRSA5



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



# Transit Connections

Bridges Project: CSAH 158 (Vernon Ave) Bridge Replacement Project | Map ID: 1528304447248


## Results

Transit with a Direct Connection to project:  
146 46 587 588 589 600

*\*indicates Planned Alignments*



NCompass Technologies

-  Project Points
-  Active Stop
-  Project
-  Transit Routes



Created: 6/6/2018  
LandscapeRSA3



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

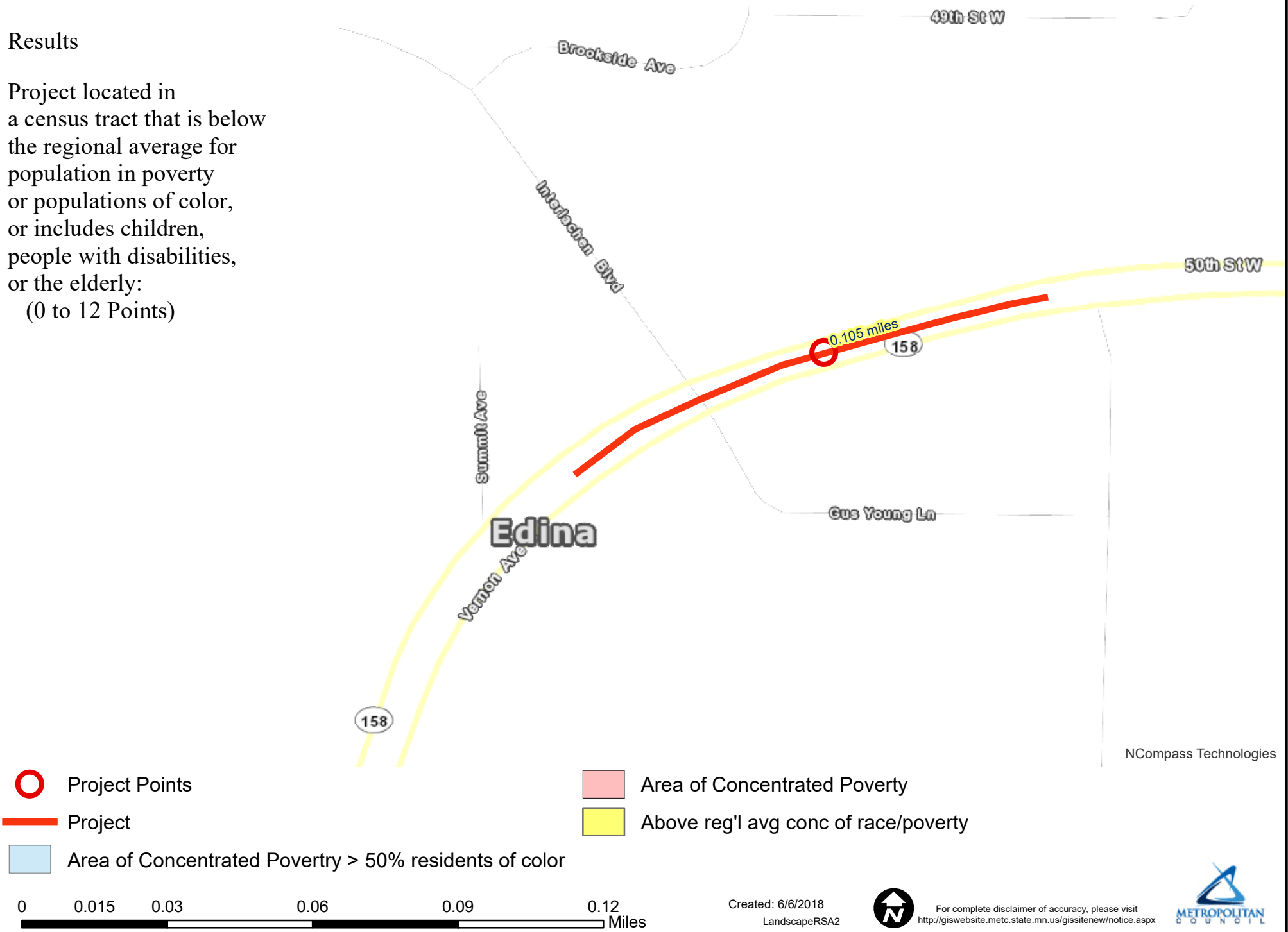


# Socio-Economic Conditions

Bridges Project: CSAH 158 (Vernon Ave) Bridge Replacement Project | Map ID: 1528304447248

## Results

Project located in a census tract that is below the regional average for population in poverty or populations of color, or includes children, people with disabilities, or the elderly:  
(0 to 12 Points)



# MINNESOTA STRUCTURE INVENTORY REPORT

**Bridge ID: 4510      CSAH 158(VERNON A) over CP RAIL**

Date: 06/14/2018

+ GENERAL +	+ ROADWAY +	+ INSPECTION +
<b>Agency Br. No.</b> <b>District</b> METRO <b>Maint. Area</b> <b>County</b> 27 - HENNEPIN <b>City</b> EDINA <b>Township</b> <b>Desc. Loc.</b> 0.1 MI E OF JCT CSAH 20 <b>Sect., Twp., Range</b> 28 - 117N - 21W <b>Latitude</b> 44d 54m 44.34s <b>Longitude</b> 93d 21m 12.81s <b>Custodian</b> COUNTY <b>Owner</b> COUNTY <b>Inspection By</b> HENNEPIN COUNTY <b>Year Built</b> 1927 <b>MN Year Remodeled</b> 1966 <b>FHWA Year Reconstructed</b> <b>Bridge Plan Location</b> COUNTY <b>Potential ABC</b> N.A.	<b>Bridge Match ID (TIS)</b> 1 <b>Roadway O/U Key</b> 1-ON <b>Route Sys/Nbr</b> CSAH 158 <b>Road Name</b> CSAH 158 <b>National Highway System</b> N <b>Roadway Function</b> MAINLINE <b>Roadway Type</b> 2 WAY TRAF <b>Control Section (TH Only)</b> <b>Ref. Point</b> <b>Date Opened to Traffic</b> 10-01-1966 <b>Detour Length</b> 1 mi. <b>Lanes</b> 4 Lanes ON Bridge <b>ADT (YEAR)</b> 20,400 (2014) <b>HCADT</b> <b>Functional Class.</b> URB/MINOR ART <b>+ RDWY DIMENSIONS +</b> <b>If Divided</b> <b>NB-EB</b> <b>SB-WE</b> <b>Roadway Width</b> 25.0 ft   25.0 ft <b>Vertical Clearance</b> <b>Max. Vert. Clear.</b> <b>Horizontal Clear.</b> 53.9 ft <b>Lateral Clr. - Lt/Rt</b> <b>Appr. Surface Width</b> 54.0 ft <b>Bridge Roadway Width</b> 50.0 ft <b>Median Width on Bridge</b> 4.0 ft <b>+ MISC. BRIDGE DATA +</b> <b>Structure Flared</b> NO <b>Parallel Structure</b> NONE <b>Field Conn. ID</b> <b>Cantilever ID</b> <b>Foundations</b> <b>Abut.</b> CONC - SPRD SOIL <b>Pier</b> CONC - SPRD SOIL <b>Historic Status</b> NOT ELIGIBLE <b>On - Off System</b> ON <b>+ PAINT +</b> <b>Year Painted</b> <b>Pct. Unsound</b> <b>Painted Area</b> <b>Primer Type</b> <b>Finish Type</b> <b>+ BRIDGE SIGNS +</b> <b>Posted Load</b> VEHICLE & SEMI <b>Traffic</b> NOT REQUIRED <b>Horizontal</b> NOT REQUIRED <b>Vertical</b> NOT APPLICABLE	<b>Deficient Status</b> S.D. <b>Sufficiency Rating</b> 24.0 <b>Last Inspection Date</b> 10-11-2017 <b>Inspection Frequency</b> 12 <b>Inspector Name</b> HENNEPIN COUNTY <b>Status</b> P-LOAD POSTED <b>+ NBI CONDITION RATINGS +</b> <b>Deck</b> 4 <b>Superstructure</b> 4 <b>Substructure</b> 5 <b>Channel</b> N <b>Culvert</b> N <b>+ NBI APPRAISAL RATINGS +</b> <b>Structure Evaluation</b> 4 <b>Deck Geometry</b> 3 <b>Underclearances</b> 4 <b>Waterway Adequacy</b> N <b>Approach Alignment</b> 7 <b>+ SAFETY FEATURES +</b> <b>Bridge Railing</b> 0-SUBSTANDARD <b>GR Transition</b> 0-SUBSTANDARD <b>Appr. Guardrail</b> 1-MEETS STANDARDS <b>GR Termini</b> 1-MEETS STANDARDS <b>+ IN DEPTH INSP. +</b> <b>Frac. Critical</b> N <b>Underwater</b> N <b>Pinned Asbly.</b> N <b>+ WATERWAY +</b> <b>Drainage Area</b> <b>Waterway Opening</b> <b>Navigation Control</b> NOT APPL <b>Pier Protection</b> <b>Nav. Vert./Horz. Clr.</b> <b>Nav. Vert. Lift Bridge Clear.</b> <b>MN Scour Code</b> A-NON WATERWAY <b>Scour Evaluation Year</b> 1991 <b>+ CAPACITY RATINGS +</b> <b>Design Load</b> UNKN <b>Operating Rating</b> HS 19.40 <b>Inventory Rating</b> HS 11.60 <b>Posting</b> VEH: 24 SEMI: 40 DBL: 40 <b>Rating Date</b> 10-29-2013 <b>Overweight Permit Codes</b> A: N    B: N    C: N
+ STRUCTURE +		
<b>Service On</b> HWY;PED <b>Service Under</b> RAILROAD <b>Main Span Type</b> CONC SLAB SPAN <b>Main Span Detail</b> <b>Appr. Span Type</b> <b>Appr. Span Detail</b> <b>Skew</b> 17R <b>Culvert Type</b> <b>Barrel Length</b> <b>Number of Spans</b> MAIN: 5    APPR: 0    TOTAL: 5 <b>Main Span Length</b> 23.0 ft <b>Structure Length</b> 115.0 ft <b>Deck Width</b> 64.3 ft <b>Deck Material</b> C-I-P CONCRETE <b>Wear Surf Type</b> LOW SLUMP CONC <b>Wear Surf Install Year</b> 1985 <b>Wear Course/Fill Depth</b> 0.42 ft <b>Deck Membrane</b> NONE <b>Deck Rebars</b> NONE <b>Deck Rebars Install Year</b> <b>Structure Area</b> 7,395 sq ft <b>Roadway Area</b> 5,748 sq ft <b>Sidewalk Width - L/R</b> 4.0 ft   4.0 ft <b>Curb Height - L/R</b> 0.83 ft   0.83 ft <b>Rail Codes - L/R</b> 16    16		

06/14/2018

# MINNESOTA BRIDGE INSPECTION REPORT

Inspected by: HENNEPIN COUNTY

## BRIDGE 4510 CSAH 158(VERNON A) OVER CP RAIL

INSP. DATE: 10-11-2017

County: HENNEPIN

Location: 0.1 MI E OF JCT CSAH 20

Length: 115.0 ft

City: EDINA

Route: CSAH 158 Ref. Pt.: 002+00.610

Deck Width: 64.3 ft

Township:

Control Section: Maint. Area:

Rdwy. Area / Pct. Unsnd: 5,748 sq ft

Section: 28 Township: 117N Range: 21W

Local Agency Bridge Nbr:

Paint Area / Pct. Unsnd:

Span Type: CONC SLAB SPAN

Culvert : N/A

NBI Deck: 4 Super: 4 Sub: 5 Chan: N Culv: N

Open, Posted, Closed: LOAD POSTED Postings: 24 - 40 - 40

Appraisal Ratings - Approach: 7 Waterway: N

MN Scour Code: A-NON WATERWAY Def. Stat: S.D. Suff. Rate: 24.0

Required Bridge Signs - Load Posting: VEHICLE &amp; SEMI

Traffic: NOT REQUIRED

Horizontal: NOT REQUIRED

Vertical: NOT APPLICABLE

ELEM NBR	ELEMENT NAME	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
800	CRITICAL DEFS OR SAFETY HAZARDS	10-11-2017	1 EA	1	0	0	0
		10-04-2016	1 EA	1	0	0	0
Notes: 800. No critical structural deficiencies or serious safety hazards are present on this structure.							
38	REINFORCED CONCRETE SLAB	10-11-2017	7,395 SF	7,096	237	62	0
		10-04-2016	7,395 SF	7,209	124	62	0
Notes: 38. Some large long cracks w/ efflor and rust spots in all spans. Spall w/ rebar exp @ center of bridge and @ several places on E side of E pier. Coping spalled w/ rebar exp. 2' delam @ E abut in S corner. Spall w/ rebar exp in NE corner @ strip seal. Deck widening joint under both gutters has numerous spalls and delams. Patch in SW corner of deck and coping - patch is deteriorated and hollow sounding w/ rebar exp. Coping spalled w/ rebar exp @ joint over both piers. Coping spalled w/ rebar exp in many places along S side of E span. Patch over S end of E pier spalled. 1' X 1' spall w/ rebar exp @ N 1/2 of E abut. '13-rain at time of inspection. Moisture coming thru deck in many areas. Delams @ some of the cracks w/ efflor & rust. '14-340' of mod long cracks w/ efflor. Some also have rust stains. 1 SF spall w/ rebar exp in SE. Other areas of minor spalling in E span. '15-5 full span long cracks w/ efflor in W span; 6 in center span & 5 in E. '16-rust stains from chairs. '17-minor map cracks w/ mod density in 2 E spans.							
510	WEARING SURFACE	10-11-2017	5,748 SF	5,534	190	23	1
		10-04-2016	5,748 SF	5,461	0	287	0
Notes: 510. Numerous unsealed long, diagonal and trans cracks. Weathered, worn and scaled. Signal loop detectors sawed in WBL @ W end. Left WBL is spalled adjacent to loop detectors. '13-many of the cracks are now large w/ spalls. Few small conc patches. Large spall @ poured joint over W pier in EBL. '14-cracks & spalls, some partially filled w/ bit in NE. Left WBL has severe crack the whole span length w/ spalling @ patches. Left EBL has a severe long crack the entire length w/ spalling. '15-bit patches in each right lane @ poured joints. Crack in left EBL is +1" deep. '16-minor cracks have been sealed. Large cracks w/ spalls unsealed. Many minor unsealed spalls throughout. '17-large cracks w/ spalls sealed. Patch in WBL @ P2 has failed. Most cracks sealed w/ bit hot pour. Few minor unsealed cracks, some losing sealant. Spalls @ large cracks (up to 2" wide) sealed but patch material has settled, creating ponding.							
810	CONC WEAR SURF-CRACKING SEALING	10-11-2017	2,780 LF	2,478	288	14	0
		10-04-2016	2,780 LF	2,550	0	0	230
Notes: 810. '13-cracks are large, some over 1" wide. Density >5'. '14-'15-no change. '16-2320' of sealed cracks in roadway; 230' of large unsealed cracks. 230' of sealed cracks in walks. '17-most cracks sealed, some minor cracks unsealed. Few mod cracks in walks & apps. Sealant deteriorated in some areas in deck & median. Seal failed on a few in WB walk.							
300	STRIP SEAL DECK JOINT	10-11-2017	135 LF	0	132	3	0
		10-04-2016	135 LF	113	20	0	2
Notes: 300. Abutments. 1.5' of strip seal gland out of extrusion in SW. Some sand in joints. '13-2' of gland is out in SW. '14-no change. '15-qty changed to match in place. 1' partially out in NW. '16-most have debris. 20' partially pulled out of joints. '17-EAST-WBL=1-5/8"; EBL=1-1/2". WEST-WBL=1-1/4"; EBL=1-1/2". All 4 are filled w/ debris. 3' of gland is out in SW.							
301	POURED SEAL JOINT	10-11-2017	340 LF	165	135	36	4
		10-04-2016	200 LF	129	61	0	10
Notes: 301. Piers & end of slab 24' behind E abut. Many conc patches along joints. Some deterioration of patches and filler. '13-large spall in rt EBL @ W pier. Areas w/ no joint material. '14-deck adj to joints is spalled in areas. '15-moved most of qty in CS 3 to CS 2 because partially not adhered & missing material should be same CS. '16-multiple areas of bit patching over joint. '17-apps have 35' of long poured joints. Most missing in EBL. Few areas w/ large spalls around joints.							
330	METAL BRIDGE RAILING	10-11-2017	230 LF	202	28	0	0
		10-04-2016	230 LF	228	2	0	0
Notes: 330. '16-few areas of rust on rail. '17-areas of minor surface rust on S side of top rail of S.							



	515 STEEL PROTECTIVE COATING	10-11-2017	575 SF	0	340	230	5
		10-04-2016	575 SF	0	340	230	5
	Notes: 515. Galvanized rail painted black. '13-paint is faded on rail. '14, '15-no change. '16-paint faded, some areas w/ galv exposed. Few areas of rust. '17-no change.						
331	REINFORCED CONC BRIDGE RAILING	10-11-2017	230 LF	52	153	25	0
		10-04-2016	230 LF	98	130	2	0
	Notes: 331. NORTH-Numerous random cracks, some spalls and delams in rail have been sealed. '13-cracks becoming more mod in size. '14-small spall(<.5 SF) over tracks. 6' horiz cracks in top @ E end. '15-horiz cracks are minor to mod in size. Several minor spalls in base @ walk. '16-few areas on rail sealed, most unsealed. '17-some cracks becoming large (1/8").						
	SOUTH- 8" X 18" spall in rail in SW corner. 4' crack between the W strip seal and the poured joint just to the E. '13-cracks becoming more mod in size. '14-8' of unsealed horiz cracks. 12' of mod horiz cracks. '15-no change. '16-few areas on rail sealed, most unsealed. '17-2 large horiz cracks towards W end.						
321	CONCRETE APPROACH SLAB	10-11-2017	1,750 SF	1,686	6	56	2
		10-04-2016	1,080 SF	1,030	0	50	0
	Notes: 321. East panel. Conc is spalled. Numerous unsealed long & trans cracks. '13-bit patches in spalls @ conc app roadway. Large(+1") cracks in SE. '14-some spalls filled w/ bit. Spalls & cracks @ MH in SE. '15-patches, spalling, some cracks filled w/ bit. '16-no change. '17-EBL right lane is spalled up to 5" deep @ long poured jt. Bit patches are deteriorating.						
822	BITUMINOUS APPROACH ROADWAY	10-11-2017	1 EA	0	0	1	0
		10-04-2016	1 EA	0	0	1	0
	Notes: 822. West approach. Some sealed trans and diagonal cracks. '13-bit app roadway broken up & ramped because of settlement. in WBL. Large long cracks w/ spalls in EBL & WBL. '14-bit in NW corner is deteriorated and spalled Water is collecting in joint. bit adj to conc panel is severely deter entire width of deck. Large cracks have developed in spalls & potholes. '15-changed from #320-conc w/ bit O/L. Patch repairs in NW & SW. '16-no change. '17-EB map cracking is partially sealed.						
205	REINFORCED CONCRETE COLUMN	10-11-2017	10 EA	2	3	4	1
		10-04-2016	10 EA	3	4	3	0
	Notes: 205. Spalling and rebars exp on several columns. Delam on W and E face of S column of E pier. Spall w/ rebar exp on NE corner of S column of E pier. Scaled conc on E face of S column of E pier. '13-spall w/ rebar exp on W face of N column @ W pier. Spall w/ rebar exp in NE corner of 2nd column from N @ E pier. '14-spall w/ rebar exp @ 2nd from N @ E pier corner has expanded in size to 4 SF. '15-columns recently painted to cover graffiti. '16-no change. '17-large vert crack in S column of E pier; spall in this column is 4" deep.						
215	REINFORCED CONCRETE ABUTMENT	10-11-2017	227 LF	98	65	58	6
		10-04-2016	227 LF	98	65	58	6
	Notes: 215. EAST-Vert cracks, stain and leakage @ top between abut and slab. Vert crack w/ delam on NE and SE corners. Vert cracks from top to bottom. Large patch w/ spalls, delam and rebar exp in SE. Delam in SE @ deck joint. '13-no change. '14-4 vert full height cracks. '15-4 SF delam in SE corner. '16-rust stains. '17-conc patch in top of NE corner.						
	WEST-Vert cracks, stain and leakage @ top between abut and slab. Spalling in SW w/ water running down. Massive delam in SW. Large vert spall w/ rebar exp in SW. Spalling and rebar exposed in NW. Vert cracks from top to bottom. Vert cracks and delam in NW. Spall in haunch of W abut, 1/3 way in from N end. '13-massive delam in SW is now a spall. Large cracks, some over 1/16" wide. '14-5 full height cracks. '15-21 SF total of spalls in SW. '16-rust stains. '17-no change.						
	Wingwall notes: Horiz cracks and diagonal crack @ top of all walls. A few rebars exp in NE. '13-no change. '14-minor full height vert crack in SW. '15, '16-no change. '17-rebar exp in NW.						
234	REINFORCED CONCRETE PIER CAP	10-11-2017	121 LF	0	77	40	4
		10-04-2016	121 LF	0	82	36	3
	Notes: 234. Vert cracks w/ efflor from bottom of slab to top of cap arch. Vert crack w/ efflor @ N end of W cap. Conc spalled w/ rebar exp, loss of section and large vert crack @ S end of W cap. Conc delam'd and rebar exp @ N end of E pier. N end of W cap is starting to delam. S end of W cap was patched and now sounds hollow. S end E cap also patched and is OK. Vert cracks on S end of E pier. '13-no change. '14-vert cracks on S end of E pier have efflor. S end of W cap has 1" vert cracks and is hollow sounding-exp rebar is corroded & hook bar measures 3/4"-orig diam = 1". '15-vert cracks present in all archways. Patch on S end of W pier is fully deteriorated. '16-spall on S end of W pier is deep w/ rebar exp & surface rust. many areas of efflor @ both. '17-rust stain on bottom of 2nd arch from S @ E pier.						
883	CONCRETE SHEAR CRACKING	10-11-2017	1 EA	1	0	0	0
		10-04-2016	1 EA	1	0	0	0
	Notes: 883.						
890	LOAD PST OR VERTICAL CLR SIGNING	10-11-2017	1 EA	1	0	0	0
		10-04-2016	1 EA	0	1	0	0
	Notes: 890. '14-load posting signs for 20T;40T;40T @ approaches & advance warning from all directions except NB 100 to WB Vernon Ave. Called sign shop to look into placing one there. '15-WBL load posting sign @ bridge is slightly obscured						

because of trees. '16-no change. '17-foliage has been removed & WBL sign is visible.

891	OTHER BRIDGE SIGNING	10-11-2017	1 EA	1	0	0	0
		10-04-2016	1 EA	1	0	0	0
Notes: 891. '16-Do Not Enter & Keep Right @ W median.							
892	SLOPES & SLOPE PROTECTION	10-11-2017	1 EA	0	1	0	0
		10-04-2016	1 EA	0	1	0	0
Notes: 892. Minor erosion of dirt slopes. '13-erosion of slopes more moderate. Part of slopes @ wings are paved. '14-'17, annually-no change.							
893	GUARDRAIL	10-11-2017	1 EA	1	0	0	0
		10-04-2016	1 EA	0	0	1	0
Notes: 893. Guardrail is not attached to rail @ SW corner, it is perpendicular to rail. Guardrail attached and turned down @ NE corner. '13-3 spacer blocks missing in NE. '14-no change. '15-50 LF of rail in NE is not attached to posts. '16-no change. '17-new guardrail w/ crashworthy end treatment in NE.							
894	DECK & APPROACH DRAINAGE	10-11-2017	1 EA	0	1	0	0
		10-04-2016	1 EA	0	1	0	0
Notes: 894. Minor erosion in NE and NW corner along wingwalls. CB in NE approach roadway. '14, '15-no change. '16-ponding in deck @ potholes. '17-no change.							
895	SIDEWALK, CURB, & MEDIAN	10-11-2017	1 EA	0	0	1	0
		10-04-2016	1 EA	0	0	1	0
Notes: 895. Curbs are spalled. Crack and spall repaired @ NE corner. Trans cracks in median. Numerous popouts in N walk. SW walk and curb settled and broken. Walk on SE and NW corner settled. Median off W and E approach settled. '13-SE & NW walk ramped w/ bit. Spalled & deteriorated curb in SW disrupts runoff. '14-WB curb @ W end is spalled @ joint. Metal plate in WB walk just W of tracks. '15-top of both curbs spalled & scraped. SW curb patched w/ bit. '16-cracks in walk sealed. '17-concrete patches in curbs & walks.							
899	MISCELLANEOUS ITEMS	10-11-2017	1 EA	0	0	1	0
		10-04-2016	1 EA	1	0	0	0
Notes: 899. AT&T cables buried on S side. Fiber optic cable buried in NE corner. Graffiti on NW wall. '17-noise wall constructed behind new guardrail in NE. Comp joints at E approaches are deteriorated-EBL has 10' of metal bracket & gland that is gone and large, deep spall.							
900	PROTECTED SPECIES	10-11-2017	1 EA	0	1	0	0
		10-04-2016	1 EA	1	0	0	0
Notes: 900. 16, 17-none noted.							

General \*Bridge 4510 CSAH 158 (Vernon Ave)/CP Rail 10/11/17 PTH and TSM.

Notes: Plans show 5 spans. Only middle 3 spans are accessible. West & East abutments on plan are what you would consider the abutments in the field during inspection. For this reason any reference to spans will be for the 3 we can see; West, main span over the tracks, and East.

#### Recommended Repairs:

- 205. Repair spalls in columns.
- 215. Repair delams @ SE and SW abuts.
- 234. Repair large spall and cracks @ pier caps.
- 321. Reseal cracks in approach slab. Fill spalls & large cracks w/ hot pour.
- 810. Reseal numerous cracks in O/L. Fill spalls & large cracks w/ hot pour.
- 899. Remove graffiti on wing walls.
- 899. Replace joint @ end of E approaches. Remove joint materials & replace w/ bit.

Deck: [4] Many unsealed, large cracks w/ spalls in O/L. Leakage & efflor, spalls & deteriorated patches in underdeck. Deteriorated bituminous patches.

Transitions: [0] '17-new rail in NE. Concrete railing end post is <18" thick.

Appr Guardrail [1] '17-new crashworthy end treatment in NE.  
Terminal :

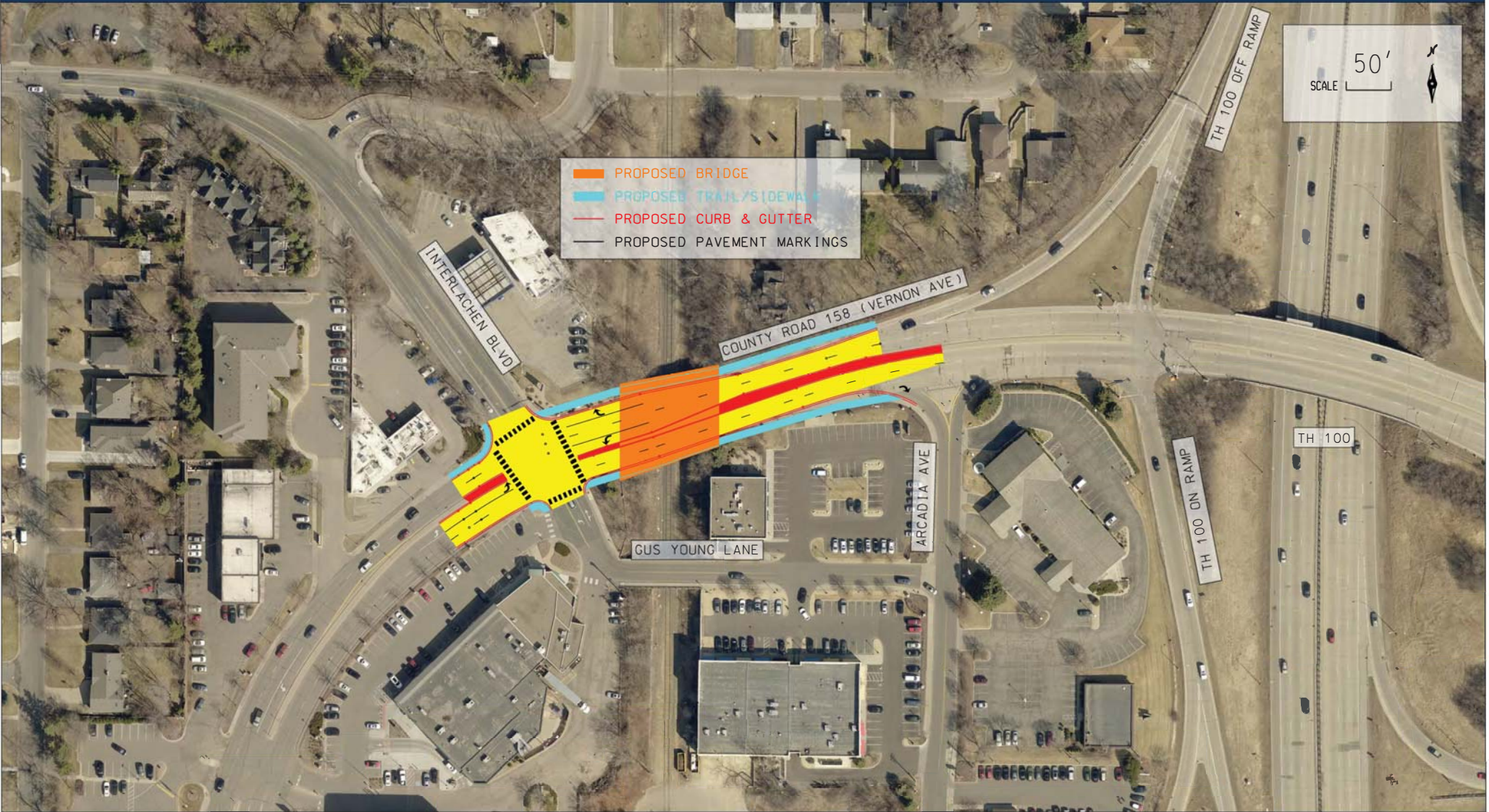
Superstructure: [4] Concrete deck slab and superstructure rating are the same.

Substructure: [5] Large spalls w/ rebar exposed on caps and columns.

# CSAH 158 (Vernon Ave) Bridge Replacement Project

Attachment 5 | Project Concept

HENNEPIN COUNTY  
MINNESOTA



**Disclaimer:** This map (i) is furnished "AS IS" with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this map.

Publication date: 7/6/2018 PWV802 L:\TTPDIR\Regional Solicitation\2018 Regional Solicitation\_CSAH 158 - CP 1766 (Bridge)\Layouts\20180620-CSAH158-VernonAveBridge.dgn



# CSAH 158 (Vernon Ave) Bridge Replacement Project

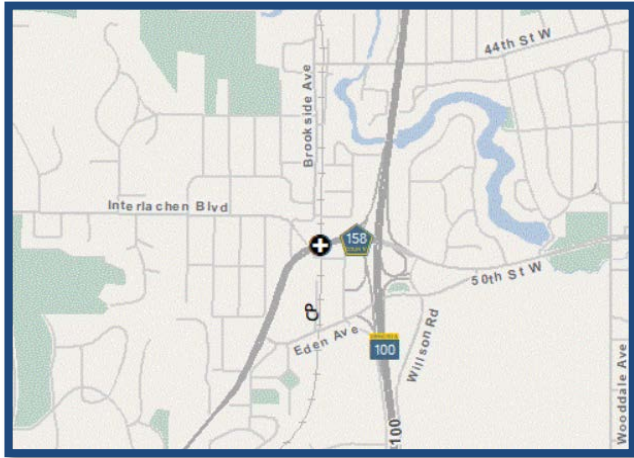
## List of Attachments

1. Project Narrative
2. Project Location Map
3. Existing Bridge Deficiencies
4. Proposed Typical Section
5. Proposed Concept
6. Hennepin County Board Resolution – 2017 Operating and Capital Budgets
7. Hennepin County Board Resolution – 2018 Regional Solicitation
8. MnDOT 50 Series Map
9. City of Edina Grandview District Transportation Study
10. Hennepin County Property Map
11. 2018 MN Bridge Inspection and Structure Inventory Report
12. City of Edina Existing and Planned Bicycle Facilities
13. City of Edina Letter of Support





**Project Location**



**Existing Conditions**



**Project Overview**

<b>Project Name:</b>	CSAH 158 (Vernon Avenue) Bridge Replacement Project
<b>Roadway:</b>	CSAH 158 (Vernon Avenue)
<b>Project Termini:</b>	At Canadian Pacific Railroad
<b>Project Location:</b>	City of Edina

**Solicitation Information**

<b>Applicant:</b>	Hennepin County
<b>Funding Requested:</b>	\$7,000,000
<b>Total Project Cost:</b>	\$9,150,000

**Project Information**

The proposed project will replace the existing Vernon Avenue Bridge (#4510) to extend its service life. Improvements will include a new bridge structure and modifications to the roadway approaches that are impacted by the project.

**Project Benefits**

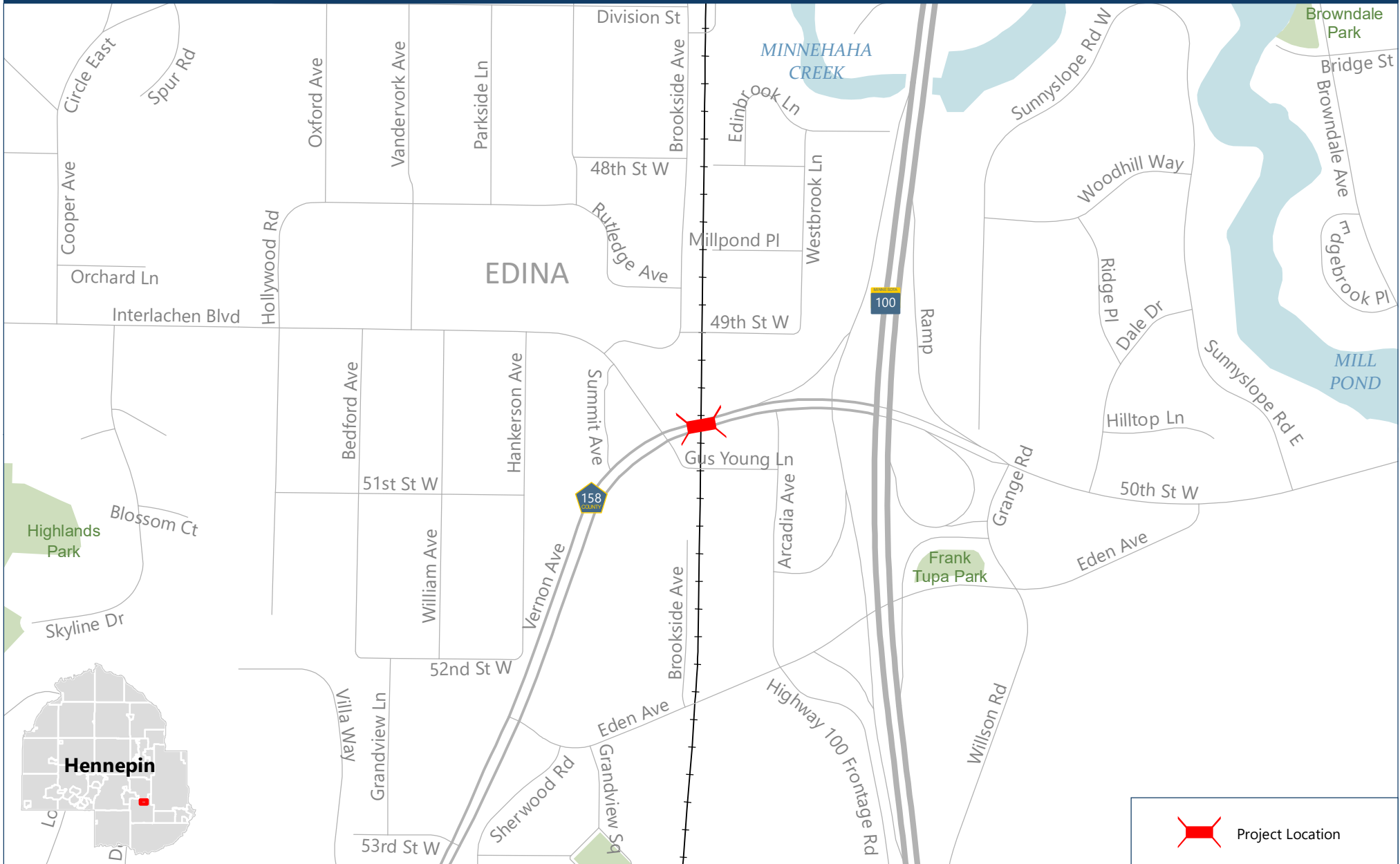
The existing Vernon Avenue Bridge (built in 1927) has reached the end of useful life and warrants replacement. Routine maintenance activities (such as sealing, coating, and minor patching) are no longer effective in preserving this critical bridge asset. Various bridge elements (including columns, pier caps, deck, and slab) are exhibiting deterioration.

The new bridge will remove current weight restrictions and accommodate all types of users (especially freight and emergency vehicles). The Vernon Avenue Bridge is a critical east/west route through the Gradview District Area, therefore, it's critical to maintain this asset for the travelling public.

# CSAH 158 (Vernon Ave) Bridge Replacement Project

HENNEPIN COUNTY  
MINNESOTA

## Attachment 2 | Project Location Map



 Project Location

**Disclaimer:** This map (i) is furnished "AS IS" with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this map.

Publication date: 6/7/2018

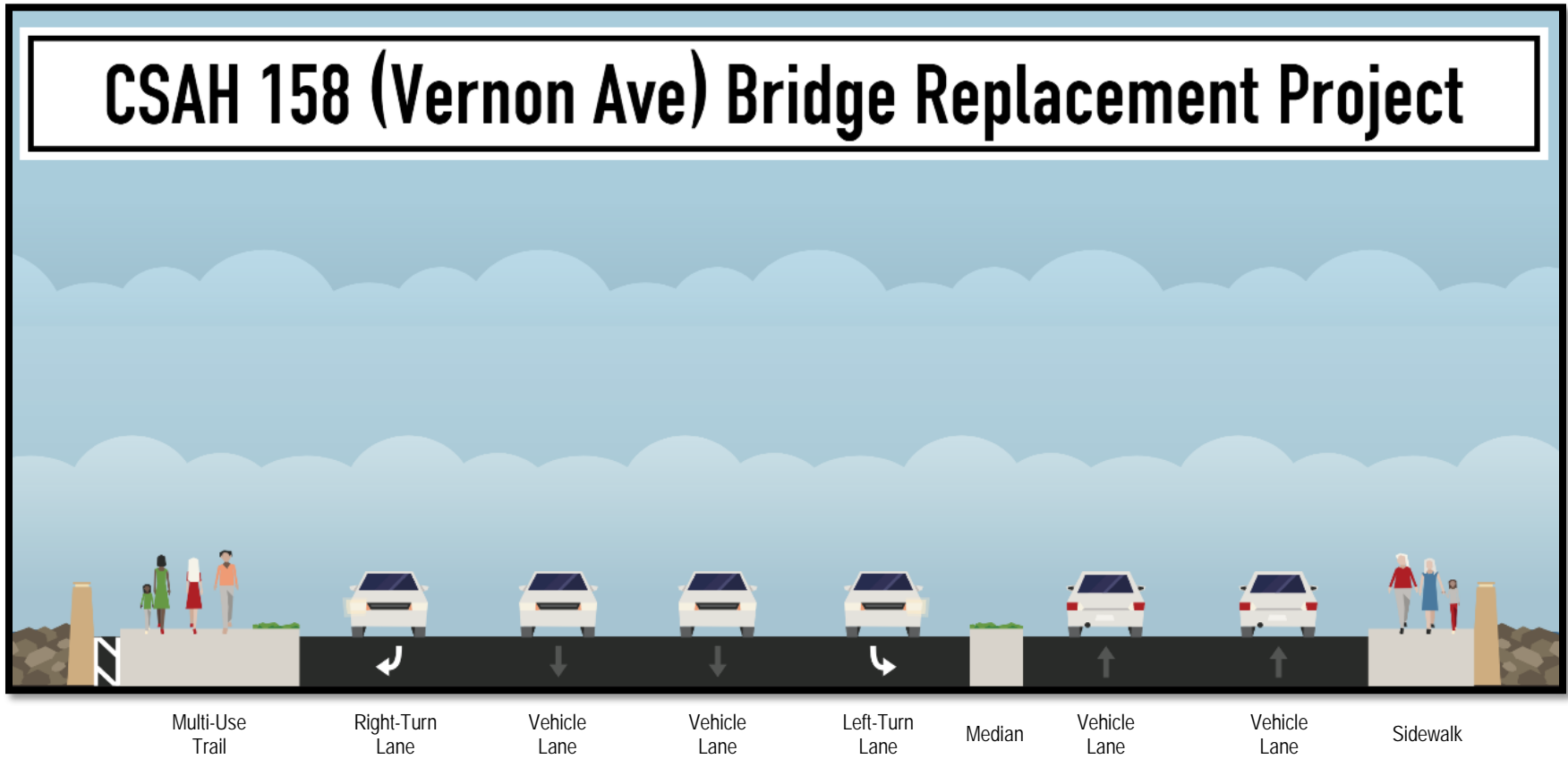


Attachment 3 - Existing Bridge Deficiencies



Attachment 4 - Proposed Typical Sections

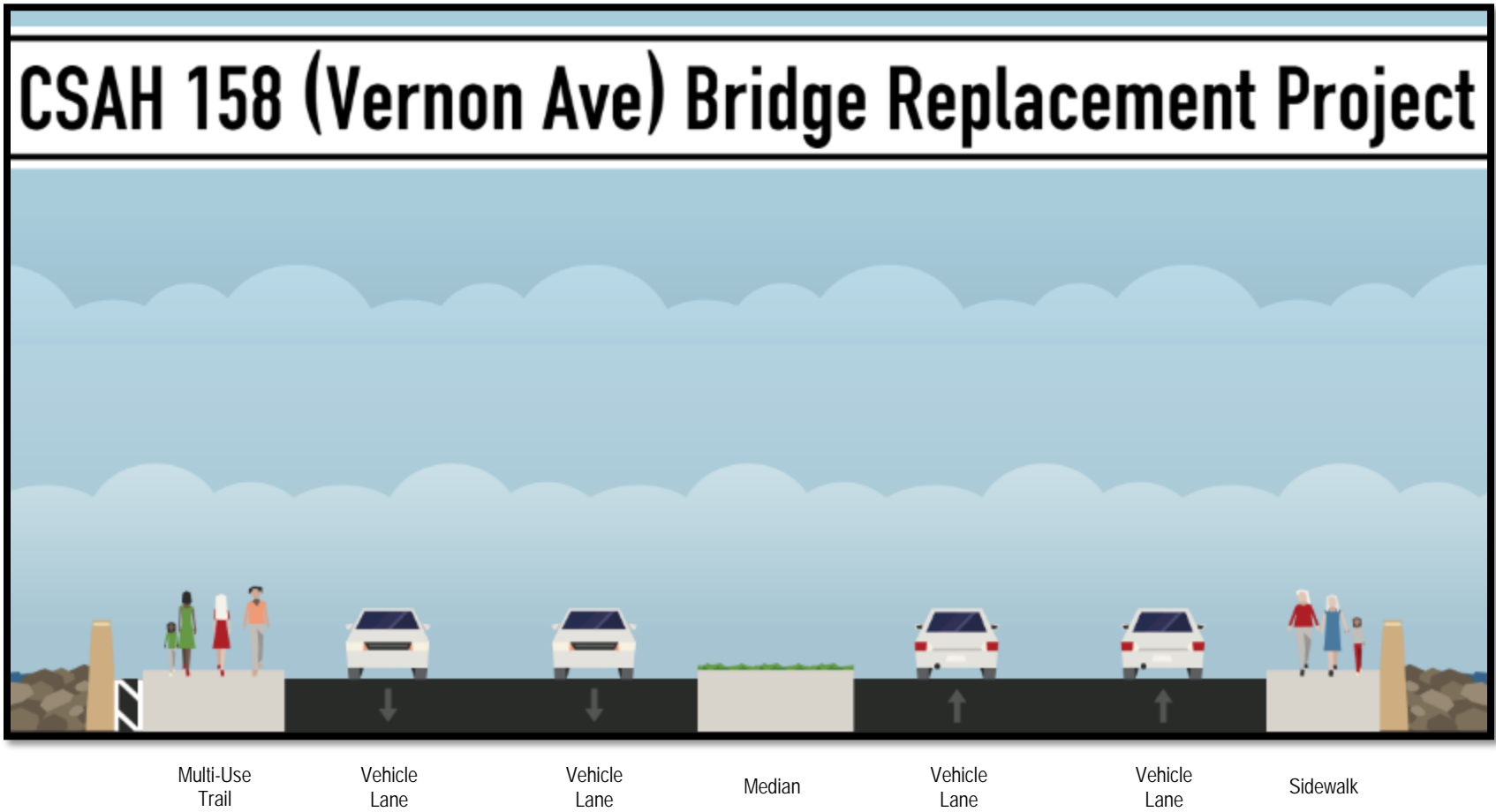
West End (Near Interlachen Blvd)





Attachment 4 - Proposed Typical Sections

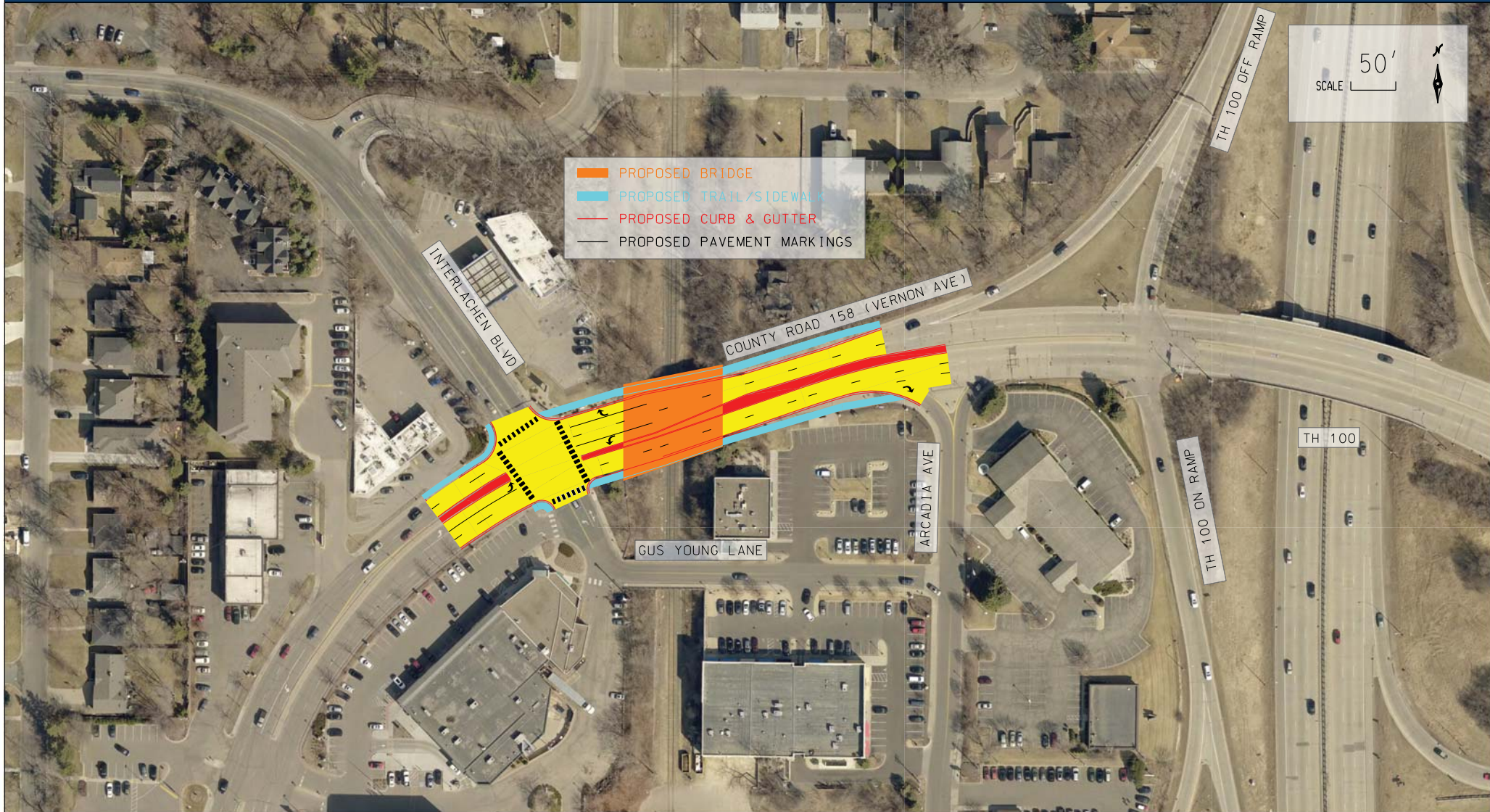
East End (Near TH 100)



# CSAH 158 (Vernon Ave) Bridge Replacement Project

Attachment 5 | Project Concept

HENNEPIN COUNTY  
MINNESOTA



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Publication date: 7/10/2018 PWV802 L:\TTPDIR\Regional Solicitation\2018 Regional Solicitation\_CSAH 158 - CP 1766 (Bridge)\Layouts\20180620-CSAH158-VernonAveBridge.dgn



# Attachment 6 - Hennepin County Board Resolution - 2017 Operating and Capital Budgets

Hennepin County, Minnesota

RESOLUTION NO. 16-0338R1

The following Resolution was offered by

WHEREAS, the Budget and Capital Investment Committee of the Hennepin County Board of Commissioners has conducted a series of public meetings for the purpose of hearing public testimony and reviewing the County Administrator's proposed 2017 budget for the departments of the county;

BE IT RESOLVED, that the Hennepin County Board of Commissioners adopt a final net tax levy of \$759,408,857 and budget of \$1,937,726,503 for 2017; and

BE IT FURTHER RESOLVED, that the 2017 Operating and Capital Budgets as proposed by the County Administrator on September 13, 2016 be amended as follows:

1. That the Human Services and Public Health Department's 2017 revenue and expenditure budget be increased by \$687,000, and the 2017 staff complement be increased by 1.0 FTE for the Nurse-Family Partnership Program;
2. That the Human Services and Public Health Department's 2017 revenue and expenditure budget be increased by \$88,000 and staff complement be increased by 1.0 grant FTE for the Pre-Exposure Prophylaxis project;
3. That the Human Services and Public Health Department's 2017 revenue and expenditure budget be increased by \$35,000 for the Health Care for the Homeless medical respite care program;
4. That the Human Services and Public Health Department's 2017 revenue and expenditure budget be increased by \$519,000; and the 2017 staffing complement be increased by 1.0 grant FTE for the purchase of medical and support services for persons living with HIV/AIDS.
5. That the Department of Community Corrections and Rehabilitation 2017 revenue and expenditure budget be increased by \$60,379 to account for the grant funding from the US Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention to perform a research study on trauma and justice involved youth;
6. That the Human Resources Department 2017 revenue and expenditure budget be increased by \$1,375,000 for Hennepin Workforce Career Connections programming; that the Department of Community Corrections and Rehabilitation's 2017 revenue and expenditure budget be increased by \$200,000 for contextualized GED and construction training services provided by Summit Academy OIC through the amended agreement A154775; and that the increase be funded by a Minnesota Department of Employment and Economic Development's career pathways using the Hennepin Career Connections Framework grant appropriation of \$200,000; and that the Department of Community Corrections and Rehabilitation's 2017 revenue and expenditure budget be increased by \$115,800 to develop employer-recognized certificates and training programs to prepare clients for employment along with earning a wage during the training program;
7. That the 2017 Public Works revenue and expenditure budget be increased by \$400,000 to account for additional state aid for transportation maintenance funding from the Minnesota Department of Transportation;
8. That the Hennepin Justice Integration Program 2017 revenue and expenditure budget be increased by \$150,000 to create a unique juvenile identifier to share appropriate information between Human Services and Public Safety Justice Partners;



Attachment 6 - Hennepin County Board Resolution - 2017 Operating and Capital Budgets

9. That the Hennepin County Sheriff's Office 2017 revenue and expenditure budget be increased by \$100,000 to pay for personal services associated with the Presidential Inauguration detail;
10. That the Hennepin County Sheriff's Office 2017 revenue and expenditure budget be increased by \$90,046 to pay for training, software upgrades, and subcontracting needed to improve forensic science services;
11. That the 2017 Capital Budget be decreased by \$6,671,000 in bond funding, due to a \$4,000,000 deferral in project 1002293 HCMC Surgery Center Expansion & Relocation from 2017 to 2018 and a \$2,671,000 deferral in project 1003286 Southdale Courts Relocation from 2017 to 2018 within the 2017-2021 Capital Improvement Program;
12. That the reconstruction of CSAH 61 / Flying Cloud Drive (CP 2090400), for the 2017 Capital Budget be increased by \$6,783,000 and the 2017-2021 CIP and total project budget be decreased by a net of \$2,150,000; for the reconstruction of CSAH 81 / Bottineau Blvd (CP 2020300), that the 2017 Capital Budget be increased by \$1,893,359 and the 2017-2021 CIP and total project budget be decreased by a net of \$106,641; for the reconstruction of CSAH 102 / Douglas Drive (CP 2100700), that the 2017 Capital Budget be increased by \$1,673,086 and the 2017-2021 CIP and total project budget be increased by the same amount; and for the reconstruction of CSAH 112 (CP 2091101), that the 2017 Capital Budget be increased by \$3,000,000 and the total project budget be increased by a net of \$688,348;
13. That Hennepin County has reviewed the pertinent data on bridges requiring replacement, rehabilitation, or removal, and has identified and prioritized these deficient bridges that require upgrades and that Hennepin County intends to upgrade the bridges as soon as funds are available; that CP 2167600 replacing deficient bridges numbered 27007 and 27008 running northbound and southbound across Lowry Avenue and CP 2167500 replacing bridge number 27006 crossing Victory Memorial Parkway be added as provisional projects within the 2017-2021 Capital Improvement Program; and further, that the Prioritized Bridge Improvement List be hereby approved, and Hennepin County hereby requests financial assistance from the Minnesota Department of Transportation with eligible approach grading and engineering costs on bridges as provided by law;

Project Number and Name	Bridge Number	Year Built	Avg. Daily Traffic	Sufficiency Rating	Estimated Construction Cost	Proposed Construction Year
2111500 CSAH 146 (Brown Road): Replace Bridge over Long Lake Creek, south of Fox St., in Orono	90622	1921	1,250	48.9	\$1,390,000	2017
2040800 CR 202 (Elm Creek Road): Replace Bridge over Elm Creek within the Elm Creek Park Reserve in Dayton	8081	1973	580	20.5	\$2,534,000	2018
2163400 CSAH 15 (Shoreline Drive): Replace bridge over Browns Bay & Tanager Channel in Orono	27592	1979	19,700	41.5	\$2,500,000	2020
2167500 CSAH 81 (W Broadway Avenue): Replace bridge at Victory Memorial Parkway in Robbinsdale	27006	1964	3,550	68.7	\$1,500,000	2021
2167600 CSAH 81 (W Broadway Avenue): Replace northbound and southbound bridges over Lowry Avenue in Robbinsdale	27007 27008	1964	14,300	44.2	\$13,500,000	2021

Attachment 6 - Hennepin County Board Resolution - 2017 Operating and Capital Budgets

2163500 CSAH 19 (Shadywood Road): Rehabilitate bridge over Narrows Channel of Lake Minnetonka, on the border between the cities of Orono and Tonka Bay	27516	1958	5,800	76.7	\$2,500,000	2021
CSAH 158 (Vernon Avenue): Replace bridge over Canadian Pacific Railroad in Edina	4510	1927	20,400	26.0	\$2,500,000	Post 2021
CSAH 51 (North Shore Drive): Replace bridge over Hendrickson Channel in Orono	7258	1959	4,550	38.4	\$2,000,000	Post 2021
CSAH 152 (Washington Avenue): Replace Bassett Creek Tunnel culvert in Minneapolis	91333	1923	9,700	39.0	\$1,500,000	Post 2021
CSAH 66 (Golden Valley Road): Replace Bassett Creek culvert in Golden Valley	90605	1953	9,400	40.3	\$1,300,000	Post 2021
CSAH 4 (Eden Prairie Road): Replace bridge over Twin Cities and Western Railroad in Eden Prairie	27502	1960	14,800	55.9	\$1,800,000	Post 2021
CSAH 51 (North Shore Drive): Replace bridge over Noerenberg Channel in Orono	7194	1961	4,600	60.6	\$2,000,000	Post 2021
CSAH 10: Replace bridge over Rush Creek in Corcoran	90462	1921	2,700	70.3	\$750,000	Post 2021

14. That the 2017 Capital Budget be decreased by \$3,340,000 for capital project 2961701 - the reconstruction of CSAH 24 from CSAH 201 to 0.4 miles east;
15. That the project budget for CP 2155600, TH 252 Improvements from I-694 to TH 610, be increased by \$100,000 in state aid to support planning and concept development of safety improvements, including necessary access modifications, along the Trunk Highway 252 corridor by Brooklyn Center, Brooklyn Park, the Minnesota Department of Transportation and Metro Transit;
16. That the Facility Services 2017 revenue and expenditure budget be decreased by \$243,048 to reflect the reduction in costs due to the vacating of staff and closure of Century Plaza and that the 2017 Hennepin County contingency budget be increased by \$243,048;
17. That the 2017 Hennepin County Emergency Management revenue and expenditure budget be increased by \$120,000 to purchase additional equipment, perform maintenance updates along with software upgrades to the Outdoor Warning Siren System, and the 2017 Contingency expenditure budget and property tax requirement be decreased by \$120,000;
18. That the Hennepin County Attorney's Office 2017 revenue and expenditure budget be increased by \$120,000 and 2.0 FTEs for the remaining portion of the African American Advocacy services and Victim Emergency funds grant in which \$100,000 will be received from the State of Minnesota, Department of Public Safety and \$20,000 for the county match; and the 2017 Contingency expenditure and property tax budget be decreased by \$20,000;
19. That the Hennepin County Board of Commissioners supports the recommendations for the advancement of the Child Protection system developed by the Child Protection Oversight Committee as noted below:



## Hennepin County, Board of Commissioners

### **RESOLUTION 18-0258**

2018

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The following resolution was moved by Commissioner Mike Opat and seconded by Commissioner Debbie Goettel:

WHEREAS, the Metropolitan Council has given notice that funding through the Regional Solicitation is available; and

WHEREAS, a board resolution must be submitted with the application for Regional Solicitation funding;

BE IT RESOLVED, that Hennepin County be authorized to apply for funding grants through the Regional Solicitation and recognize its role as the public agency sponsor for the following projects (separated by category), if funding is awarded:

#### **Roadway reconstruction/modernization**

- Programmed in 2018-2022 CIP
- 1. County State Aid Highway 5 (CSAH 5) (Minnetonka Boulevard) from Trunk Highway 100 to France Avenue in Saint Louis Park - CP 2168100
- 2. CSAH 152 (Osseo Rd) from CSAH 2 (Penn Avenue) to 49th Avenue in Minneapolis - CP 2174100
- 3. CSAH 153 (Lowry Avenue) from Washington Street NE to Johnson Street NE in Minneapolis - CP 1001648 & 2140900
  - Project Not Programmed in 2018-2022 CIP
- 4. CSAH 23 (Marshall St NE) from 16th Avenue NE to 27th Avenue NE in Minneapolis - CP 2984500

#### **Roadway expansion**

- Programmed in 2018-2022 CIP
- 5. CSAH 109 (85th Avenue) at TH 252 in Brooklyn Park - CP 2167700

#### **Bridges**

- Programmed in 2018-2022 CIP
- 6. CSAH 15 (Shoreline Drive) Bridge #27592 over Tanager Channel in Orono - CP 2163400
  - Projects Not Programmed in 2018-2022 CIP
- 7. CSAH 152 (Washington Avenue) Bridge #91333 at Bassett Creek in Minneapolis - CP 2176400
- 8. CSAH 158 (Vernon Avenue) Bridge #4510 over CP Rail in Edina - CP 2176600

#### **Multi-use trails and bicycle facilities**

- Programmed in 2018-2022 CIP
- 9. Midtown Greenway ramp access between Garfield Avenue and Harriet Avenue in Minneapolis - CP 0031547
- 10. CSAH 10 (Bass Lake Road) from CSAH 8 (West Broadway Avenue) to Xenia Avenue in Crystal - CP 2172800
- 11. CSAH 52 (Hennepin Avenue/First Avenue) from CSAH 23 (Main Street NE) to Eighth Street SE in Minneapolis - CP 2182100
- 12. CSAH 36 (University Avenue)/CSAH 37 (Fourth Street) from I-35W to Oak Street SE in Minneapolis - CP 2167301
- 13. CSAH 81 (Bottineau Boulevard) from CSAH 109 (85th Avenue) to First Avenue NW in Brooklyn Park and Osseo - CP 2182200

#### **Pedestrian facilities**

## Attachment 7 - Hennepin County Board Resolution - 2018 Regional Solicitation

- Programmed in 2018-2022 CIP

14. Americans with Disabilities Act retrofits at various locations to complement bus rapid transit and light rail transit services - CP 2999965

The question was on the adoption of the resolution and there were 7 YEAS and 0 NAYS, as follows:

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**County of Hennepin  
Board of County Commissioners**

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<b>YEAS</b>	<b>NAYS</b>	<b>ABSTAIN</b>	<b>ABSENT</b>
Mike Opat			
Linda Higgins			
Marion Greene			
Peter McLaughlin			
Debbie Goettel			
Jan Callison			
Jeff Johnson			

**RESOLUTION ADOPTED ON**                    **6/26/2018**

**ATTEST:**

*M. Roge*

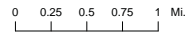
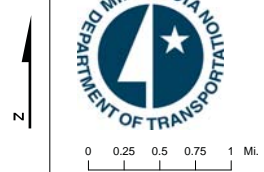
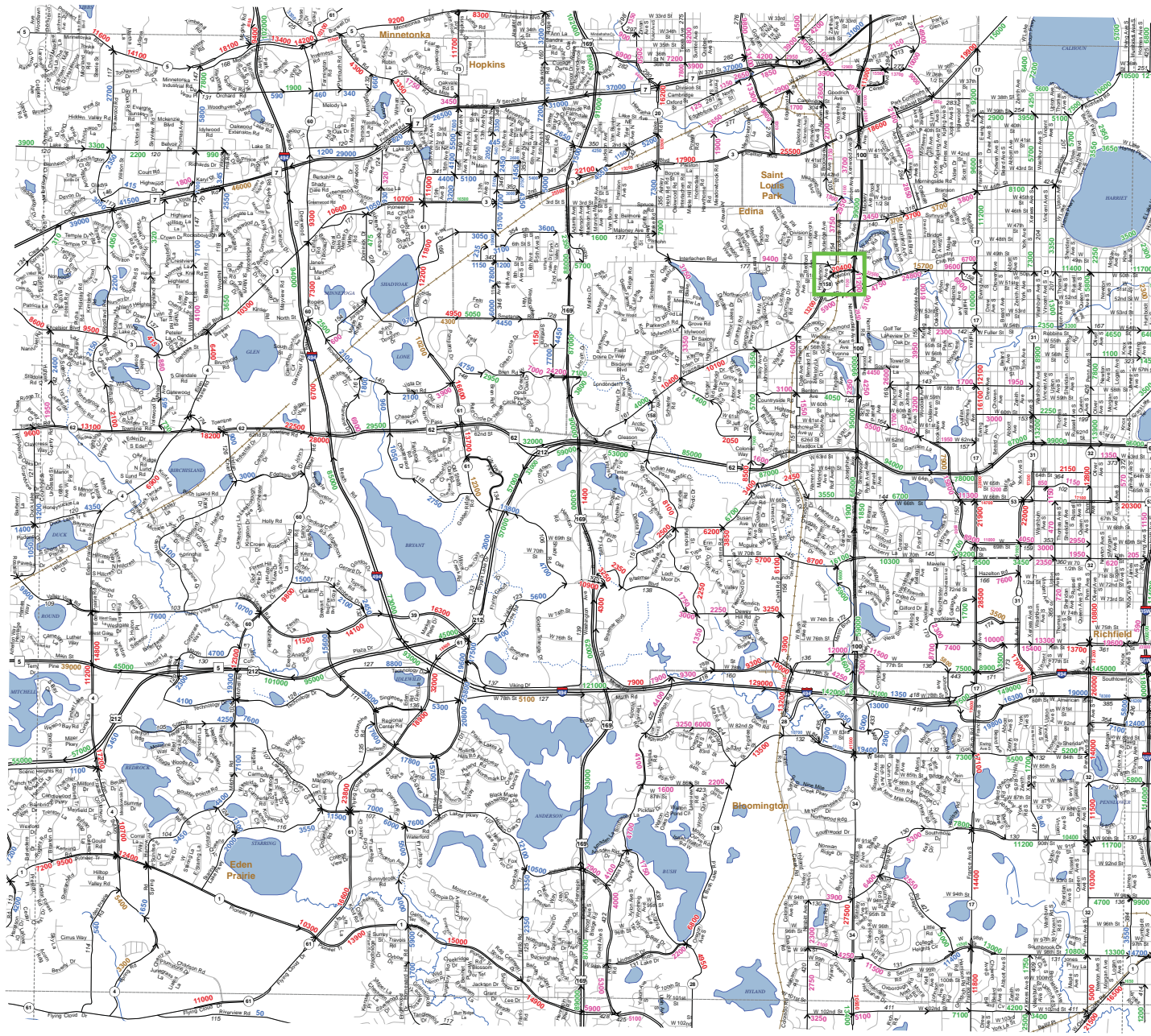
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**Deputy/Clerk to the County Board**



# Attachment 8 - MnDOT 50 Series Map

## 2015 Publication Traffic Volumes Metro Street Series - 4D



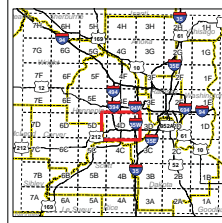
Numerals Indicate Average Annual Daily Traffic (AADT) Volumes on Designated Roads

Traffic Volumes are Subject to Variability and Construction Effects  
For More Info Visit:  
<http://www.dot.state.mn.us/traffic-data/call-methods.html>

Minnesota Department of Transportation  
Office of Transportation Data and Analysis  
Traffic Volume Program  
<http://www.dot.state.mn.us/traffic-data/index.html>

### MAP LEGEND

- AADT Year
  - 2015 2014
  - 2013 2012
  - 2011 and older
- Interstate
- US Highway
- MN Highway
- CSAH
- MSA
- County Road
- Other Roads
- Railroads
- Street Series Grid
- Cities
- COUNTIES
- Lakes
- Rivers
- Perennial Streams
- Ditches
- National Forests
- National Parks
- Tribal Gov'ts
- State Forests
- State Parks



Map Source:  
Minnesota Department of Transportation  
Office of Transportation Data and Analysis  
Traffic Volume Program  
2015 AADT Product  
<http://www.dot.state.mn.us/traffic-data/data-products.html>

To view this data using an online interactive map please visit: <http://www.dot.state.mn.us/traffic-data/ma.html>



# Grandview District

## *Transportation Study*

August 31st, 2016



PERFORMANCE  
DRIVEN DESIGN.





# Executive Summary

The Grandview District evolved and changed dramatically throughout its history. Recently, the District has been studied in numerous processes, culminating in the “Grandview District Framework Plan.” That plan recommended a transportation study be conducted in order to fully understand the impacts and tradeoffs of proposed redevelopment and network changes on all modes of travel. This study addresses that recommendation and uses the Framework Plan as a starting point for understanding potential change in the area. However, this study aims to do more than provide a review, alternatives, and recommendations; it also seeks to align itself with the culture, possibility, and potential for the District to be rejuvenated into a place where Living Streets meets everyday life.

To that end, this document describes a series of recommendations for all modes of transportation, which could be implemented within a range of timeframes. Which general timeframe a specific project appears in depends on contextual issues such as key safety improvements, opportunities related to potential related projects, timing of planned infrastructure improvements, and scale of required planning and funding related to a particular proposal. These enhancements were analyzed for impacts to all modes of transportation and are summarized as follows:

## Short Term Changes (0-5 Years)

- Pedestrian crossing and intersection improvements for Vernon and Eden Avenues with controlled intersections, adjusted signal timing, and/or striping
- Adjustments to signal timing and driveway access at the intersection of Interlachen Boulevard and Vernon Avenue
- New direct access from Eden Avenue to Jerry’s for all modes
- Conversion of two off-ramps from Highway 100 from existing free-rights to proposed standard signal-controlled right turns
- Reconfiguration of Arcadia Avenue along the former Public Works site to accommodate pedestrians and bikers

## Mid Term Changes (5-15 Years)

- North part of Arcadia Avenue converted to a shared street
- Vernon and Eden Avenues converted to support bikes, pedestrians, greenspace, and traffic management
- Add infrastructure to support bicycling on Eden Avenue over Highway 100
- Continued simplification of Highway 100 on-ramps; new northbound access at 50th Street
- Reopen a signalized intersection at 53rd Street and Vernon Avenue
- Enhanced bus stops on Vernon and Eden Avenues
- New frontage road, providing southbound access to Highway 100 and access to development parcels on west side of Highway 100
- Improve parking options at municipal ramp and current School District site, with associated policy improvements

## Long Term Changes (15-30 Years)

- Complete pedestrian and bicycle connection along 50th Street, across Highway 100
- New pedestrian and cyclist connection over Highway 100 to City Hall
- New frontage road providing northbound access to Highway 100 and access to development parcels on east side of Highway 100
- Reconfiguration of Eden Avenue, Lind Road, and the library parking lot with improvements for all modes
- Direct connection for high-capacity transit line at a new transit hub on the former Public Works development site
- New District parking options incorporated into the former Public Works site, with associated parking policy

This plan also includes a brief overview of a Far Term Plan that considers the possibility of “lid” over Highway 100. The primary transportation implication of that degree of density, is that it would require implementation of a high-capacity transit system.



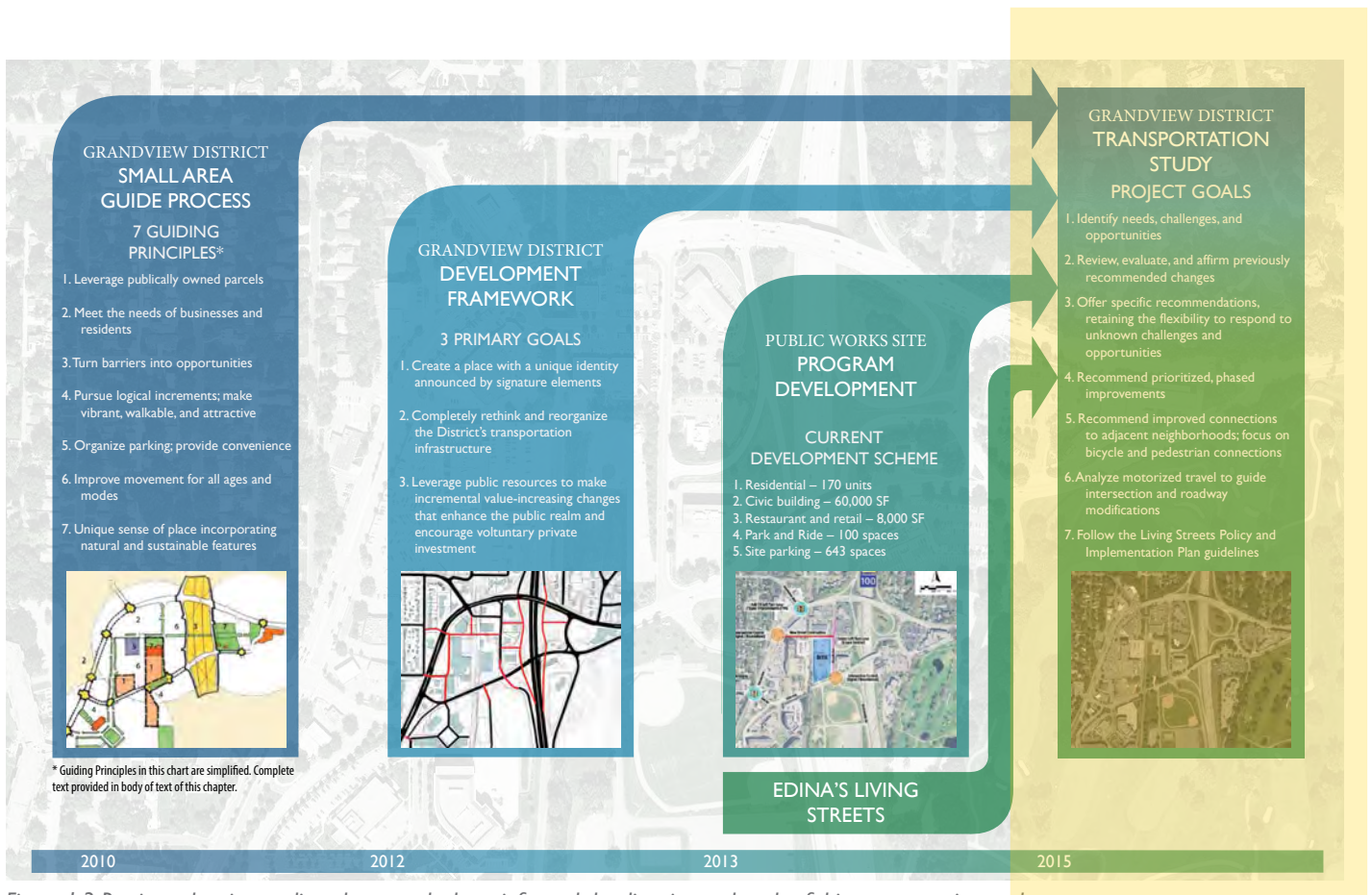


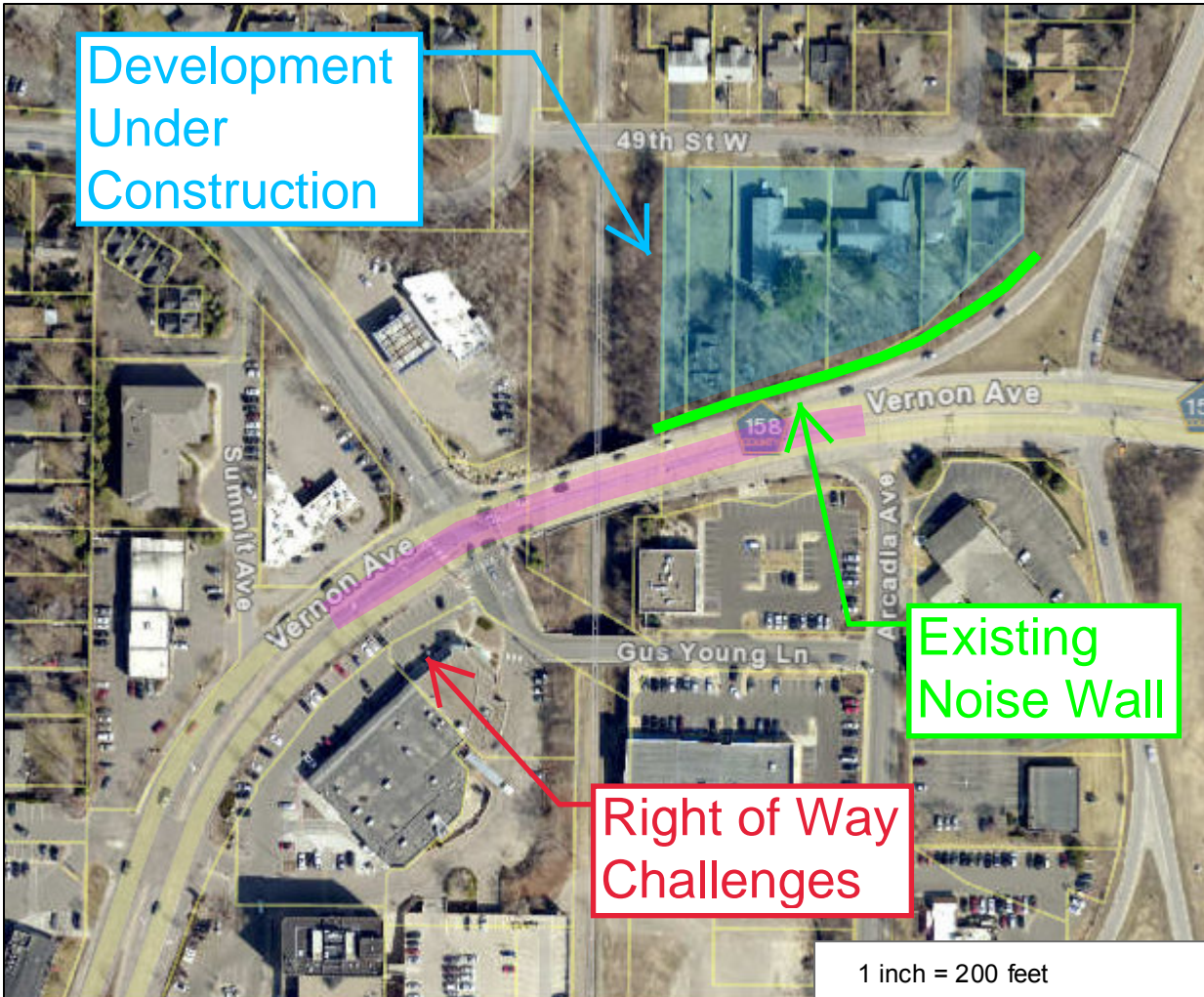
Figure 1.3 Previous planning studies whose results have informed the direction and goals of this transportation study.

3. Turn perceived barriers into opportunities. Consider layering development over supporting infrastructure and taking advantage of the natural topography of the area.
4. Design for the present and the future by pursuing logical increments of change using key parcels as stepping stones to a more vibrant, walkable, functional, attractive, and life-filled place.
5. Organize parking as an effective resource for the District by linking community parking to public and private destinations while also providing parking that is convenient for businesses and customers.
6. Improve movement within and access to the District for people of all ages by facilitating multiple modes of transportation, and preserve future transit opportunities provided by the rail corridor.
7. Create an identity and unique sense of place that incorporates natural spaces into a high quality and sustainable develop-

ment reflecting Edina's innovative development heritage.

The Framework document both called for the Transportation Study and provided a basis for its assumptions about urban design and redevelopment opportunities. Because of this strong connection, the Transportation Study specifically sought out input from those who had worked on the previous studies, the "Grandview Alumni." Their knowledge and participation formed the core of the public process and were instrumental in the design recommendations made for this report.

The process for the study itself was organized around three phases, each culminating in an intensive week of design and stakeholder engagement. The process was designed to first establish a shared understanding of the project during Convene Week, then explore potential solutions during Imagine Week, and finally review refined solutions during Recommend Week. Each phase is described in more detail, below.



No results

**Comments:**

CSAH 158 (Vernon Ave)  
Bridge Replacement Project

This data (i) is furnished 'AS IS' with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this data.



**MINNESOTA STRUCTURE INVENTORY REPORT**

Bridge ID: 4510 CSAH 158(VERNON A) over CP RAIL

Date: 06/14/2018

+ GENERAL +	+ ROADWAY +	+ INSPECTION +
Agency Br. No.	Bridge Match ID (TIS) 1	Deficient Status S.D.
District METRO Maint. Area	Roadway O/U Key 1-ON	Sufficiency Rating 24.0
County 27 - HENNEPIN	Route Sys/Nbr CSAH 158	Last Inspection Date 10-11-2017
City EDINA	Road Name CSAH 158	Inspection Frequency 12
Township	National Highway System N	Inspector Name HENNEPIN COUNTY
Desc. Loc. 0.1 MI E OF JCT CSAH 20	Roadway Function MAINLINE	Status P-LOAD POSTED
Sect., Twp., Range 28 - 117N - 21W	Roadway Type 2 WAY TRAF	<b>+ NBI CONDITION RATINGS +</b>
Latitude 44d 54m 44.34s	Control Section (TH Only)	Deck 4
Longitude 93d 21m 12.81s	Ref. Point	Superstructure 4
Custodian COUNTY	Date Opened to Traffic 10-01-1966	Substructure 5
Owner COUNTY	Detour Length 1 mi.	Channel N
Inspection By HENNEPIN COUNTY	Lanes 4 Lanes ON Bridge	Culvert N
Year Built 1927	ADT (YEAR) 20,400 (2014)	<b>+ NBI APPRAISAL RATINGS +</b>
MN Year Remodeled 1966	HCADT	Structure Evaluation 4
FHWA Year Reconstructed	Functional Class. URB/MINOR ART	Deck Geometry 3
Bridge Plan Location COUNTY	<b>+ RDWY DIMENSIONS +</b>	Underclearances 4
Potential ABC N.A.	If Divided NB-EB SB-WE	Waterway Adequacy N
	Roadway Width 25.0 ft 25.0 ft	Approach Alignment 7
<b>+ STRUCTURE +</b>	Vertical Clearance	<b>+ SAFETY FEATURES +</b>
Service On HWY;PED	Max. Vert. Clear.	Bridge Railing 0-SUBSTANDARD
Service Under RAILROAD	Horizontal Clear. 53.9 ft	GR Transition 0-SUBSTANDARD
Main Span Type CONC SLAB SPAN	Lateral Clr. - Lt/Rt	Appr. Guardrail 1-MEETS STANDARDS
Main Span Detail	Appr. Surface Width 54.0 ft	GR Termini 1-MEETS STANDARDS
Appr. Span Type	Bridge Roadway Width 50.0 ft	<b>+ IN DEPTH INSP. +</b>
Appr. Span Detail	Median Width on Bridge 4.0 ft	Frac. Critical N
Skew 17R	<b>+ MISC. BRIDGE DATA +</b>	Underwater N
Culvert Type	Structure Flared NO	Pinned Asbly. N
Barrel Length	Parallel Structure NONE	<b>+ WATERWAY +</b>
Number of Spans	Field Conn. ID	Drainage Area
MAIN: 5 APPR: 0 TOTAL: 5	Cantilever ID	Waterway Opening
Main Span Length 23.0 ft	Foundations	Navigation Control NOT APPL
Structure Length 115.0 ft	Abut. CONC - SPRD SOIL	Pier Protection
Deck Width 64.3 ft	Pier CONC - SPRD SOIL	Nav. Vert./Horz. Clr.
Deck Material C-I-P CONCRETE	Historic Status NOT ELIGIBLE	Nav. Vert. Lift Bridge Clear.
Wear Surf Type LOW SLUMP CONC	On - Off System ON	MN Scour Code A-NON WATERWAY
Wear Surf Install Year 1985	<b>+ PAINT +</b>	Scour Evaluation Year 1991
Wear Course/Fill Depth 0.42 ft	Year Painted Pct. Unsound	<b>+ CAPACITY RATINGS +</b>
Deck Membrane NONE	Painted Area	Design Load UNKN
Deck Rebars NONE	Primer Type	Operating Rating HS 19.40
Deck Rebars Install Year	Finish Type	Inventory Rating HS 11.60
Structure Area 7,395 sq ft	<b>+ BRIDGE SIGNS +</b>	Posting VEH: 24 SEMI: 40 DBL: 40
Roadway Area 5,748 sq ft	Posted Load VEHICLE & SEMI	Rating Date 10-29-2013
Sidewalk Width - L/R 4.0 ft 4.0 ft	Traffic NOT REQUIRED	Overweight Permit Codes
Curb Height - L/R 0.83 ft 0.83 ft	Horizontal NOT REQUIRED	A: N B: N C: N
Rail Codes - L/R 16 16	Vertical NOT APPLICABLE	

06/14/2018

**MINNESOTA BRIDGE INSPECTION REPORT**

Inspected by: HENNEPIN COUNTY

**BRIDGE 4510 CSAH 158(VERNON A) OVER CP RAIL****INSP. DATE: 10-11-2017**

County: HENNEPIN Location: 0.1 MI E OF JCT CSAH 20 Length: 115.0 ft  
 City: EDINA Route: CSAH 158 Ref. Pt.: 002+00.610 Deck Width: 64.3 ft  
 Township: Control Section: Maint. Area: Rdwy. Area / Pct. Unsnd: 5,748 sq ft  
 Section: 28 Township: 117N Range: 21W Local Agency Bridge Nbr: Paint Area / Pct. Unsnd:  
 Span Type: CONC SLAB SPAN Culvert : N/A  
 NBI Deck: 4 Super: 4 Sub: 5 Chan: N Culv: N  
 Open, Posted, Closed: LOAD POSTED Postings: 24 - 40 - 40  
 Appraisal Ratings - Approach: 7 Waterway: N MN Scour Code: A-NON WATERWAY Def. Stat: S.D. Suff. Rate: 24.0  
 Required Bridge Signs - Load Posting: VEHICLE & SEMI Traffic: NOT REQUIRED  
 Horizontal: NOT REQUIRED Vertical: NOT APPLICABLE

ELEM NBR	ELEMENT NAME	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
800	CRITICAL DEFS OR SAFETY HAZARDS	10-11-2017	1 EA	1	0	0	0
		10-04-2016	1 EA	1	0	0	0
Notes: 800. No critical structural deficiencies or serious safety hazards are present on this structure.							
38	REINFORCED CONCRETE SLAB	10-11-2017	7,395 SF	7,096	237	62	0
		10-04-2016	7,395 SF	7,209	124	62	0
Notes: 38. Some large long cracks w/ efflor and rust spots in all spans. Spall w/ rebar exp @ center of bridge and @ several places on E side of E pier. Coping spalled w/ rebar exp. 2' delam @ E abut in S corner. Spall w/ rebar exp in NE corner @ strip seal. Deck widening joint under both gutters has numerous spalls and delams. Patch in SW corner of deck and coping - patch is deteriorated and hollow sounding w/ rebar exp. Coping spalled w/ rebar exp @ joint over both piers. Coping spalled w/ rebar exp in many places along S side of E span. Patch over S end of E pier spalled. 1' X 1' spall w/ rebar exp @ N 1/2 of E abut. '13-rain at time of inspection. Moisture coming thru deck in many areas. Delams @ some of the cracks w/ efflor & rust. '14-340' of mod long cracks w/ efflor. Some also have rust stains. 1 SF spall w/ rebar exp in SE. Other areas of minor spalling in E span. '15-5 full span long cracks w/ efflor in W span; 6 in center span & 5 in E. '16-rust stains from chairs. '17-minor map cracks w/ mod density in 2 E spans.							
510	WEARING SURFACE	10-11-2017	5,748 SF	5,534	190	23	1
		10-04-2016	5,748 SF	5,461	0	287	0
Notes: 510. Numerous unsealed long, diagonal and trans cracks. Weathered, worn and scaled. Signal loop detectors sawed in WBL @ W end. Left WBL is spalled adjacent to loop detectors. '13-many of the cracks are now large w/ spalls. Few small conc patches. Large spall @ poured joint over W pier in EBL. '14-cracks & spalls, some partially filled w/ bit in NE. Left WBL has severe crack the whole span length w/ spalling @ patches. Left EBL has a severe long crack the entire length w/ spalling. '15-bit patches in each right lane @ poured joints. Crack in left EBL is +1" deep. '16-minor cracks have been sealed. Large cracks w/ spalls unsealed. Many minor unsealed spalls throughout. '17-large cracks w/ spalls sealed. Patch in WBL @ P2 has failed. Most cracks sealed w/ bit hot pour. Few minor unsealed cracks, some losing sealant. Spalls @ large cracks (up to 2" wide) sealed but patch material has settled, creating ponding.							
810	CONC WEAR SURF-CRACKING SEALING	10-11-2017	2,780 LF	2,478	288	14	0
		10-04-2016	2,780 LF	2,550	0	0	230
Notes: 810. '13-cracks are large, some over 1" wide. Density >5'. '14-'15-no change. '16-2320' of sealed cracks in roadway; 230' of large unsealed cracks. 230' of sealed cracks in walks. '17-most cracks sealed, some minor cracks unsealed. Few mod cracks in walks & apps. Sealant deteriorated in some areas in deck & median. Seal failed on a few in WB walk.							
300	STRIP SEAL DECK JOINT	10-11-2017	135 LF	0	132	3	0
		10-04-2016	135 LF	113	20	0	2
Notes: 300. Abutments. 1.5' of strip seal gland out of extrusion in SW. Some sand in joints. '13-2' of gland is out in SW. '14-no change. '15-qty changed to match in place. 1' partially out in NW. '16-most have debris. 20' partially pulled out of joints. '17-EAST-WBL=1-5/8"; EBL=1-1/2". WEST-WBL=1-1/4"; EBL=1-1/2". All 4 are filled w/ debris. 3' of gland is out in SW.							
301	POURED SEAL JOINT	10-11-2017	340 LF	165	135	36	4
		10-04-2016	200 LF	129	61	0	10
Notes: 301. Piers & end of slab 24' behind E abut. Many conc patches along joints. Some deterioration of patches and filler. '13-large spall in rt EBL @ W pier. Areas w/ no joint material. '14-deck adj to joints is spalled in areas. '15-moved most of qty in CS 3 to CS 2 because partially not adhered & missing material should be same CS. '16-multiple areas of bit patching over joint. '17-apps have 35' of long poured joints. Most missing in EBL. Few areas w/ large spalls around joints.							
330	METAL BRIDGE RAILING	10-11-2017	230 LF	202	28	0	0
		10-04-2016	230 LF	228	2	0	0
Notes: 330. '16-few areas of rust on rail. '17-areas of minor surface rust on S side of top rail of S.							

	515 STEEL PROTECTIVE COATING	10-11-2017	575 SF	0	340	230	5
		10-04-2016	575 SF	0	340	230	5
	Notes: 515. Galvanized rail painted black. '13-paint is faded on rail. '14, '15-no change. '16-paint faded, some areas w/ galv exposed. Few areas of rust. '17-no change.						
331	REINFORCED CONC BRIDGE RAILING	10-11-2017	230 LF	52	153	25	0
		10-04-2016	230 LF	98	130	2	0
	Notes: 331. NORTH-Numerous random cracks, some spalls and delams in rail have been sealed. '13-cracks becoming more mod in size. '14-small spall(<.5 SF) over tracks. 6' horiz cracks in top @ E end. '15-horiz cracks are minor to mod in size. Several minor spalls in base @ walk. '16-few areas on rail sealed, most unsealed. '17-some cracks becoming large (1/8").						
	SOUTH- 8" X 18" spall in rail in SW corner. 4' crack between the W strip seal and the poured joint just to the E. '13-cracks becoming more mod in size. '14-8' of unsealed horiz cracks. 12' of mod horiz cracks. '15-no change. '16-few areas on rail sealed, most unsealed. '17-2 large horiz cracks towards W end.						
321	CONCRETE APPROACH SLAB	10-11-2017	1,750 SF	1,686	6	56	2
		10-04-2016	1,080 SF	1,030	0	50	0
	Notes: 321. East panel. Conc is spalled. Numerous unsealed long & trans cracks. '13-bit patches in spalls @ conc app roadway. Large(+1") cracks in SE. '14-some spalls filled w/ bit. Spalls & cracks @ MH in SE. '15-patches, spalling, some cracks filled w/ bit. '16-no change. '17-EBL right lane is spalled up to 5" deep @ long poured jt. Bit patches are deteriorating.						
822	BITUMINOUS APPROACH ROADWAY	10-11-2017	1 EA	0	0	1	0
		10-04-2016	1 EA	0	0	1	0
	Notes: 822. West approach. Some sealed trans and diagonal cracks. '13-bit app roadway broken up & ramped because of settlement. in WBL. Large long cracks w/ spalls in EBL & WBL. '14-bit in NW corner is deteriorated and spalled Water is collecting in joint. bit adj to conc panel is severely deter entire width of deck. Large cracks have developed in spalls & potholes. '15-changed from #320-conc w/ bit O/L. Patch repairs in NW & SW. '16-no change. '17-EB map cracking is partially sealed.						
205	REINFORCED CONCRETE COLUMN	10-11-2017	10 EA	2	3	4	1
		10-04-2016	10 EA	3	4	3	0
	Notes: 205. Spalling and rebars exp on several columns. Delam on W and E face of S column of E pier. Spall w/ rebar exp on NE corner of S column of E pier. Scaled conc on E face of S column of E pier. '13-spall w/ rebar exp on W face of N column @ W pier. Spall w/ rebar exp in NE corner of 2nd column from N @ E pier. '14-spall w/ rebar exp @ 2nd from N @ E pier corner has expanded in size to 4 SF. '15-columns recently painted to cover graffiti. '16-no change. '17-large vert crack in S column of E pier; spall in this column is 4" deep.						
215	REINFORCED CONCRETE ABUTMENT	10-11-2017	227 LF	98	65	58	6
		10-04-2016	227 LF	98	65	58	6
	Notes: 215. EAST-Vert cracks, stain and leakage @ top between abut and slab. Vert crack w/ delam on NE and SE corners. Vert cracks from top to bottom. Large patch w/ spalls, delam and rebar exp in SE. Delam in SE @ deck joint. '13-no change. '14-4 vert full height cracks. '15-4 SF delam in SE corner. '16-rust stains. '17-conc patch in top of NE corner.						
	WEST-Vert cracks, stain and leakage @ top between abut and slab. Spalling in SW w/ water running down. Massive delam in SW. Large vert spall w/ rebar exp in SW. Spalling and rebar exposed in NW. Vert cracks from top to bottom. Vert cracks and delam in NW. Spall in haunch of W abut, 1/3 way in from N end. '13-massive delam in SW is now a spall. Large cracks, some over 1/16" wide. '14-5 full height cracks. '15-21 SF total of spalls in SW. '16-rust stains. '17-no change.						
	Wingwall notes: Horiz cracks and diagonal crack @ top of all walls. A few rebars exp in NE. '13-no change. '14-minor full height vert crack in SW. '15, '16-no change. '17-rebar exp in NW.						
234	REINFORCED CONCRETE PIER CAP	10-11-2017	121 LF	0	77	40	4
		10-04-2016	121 LF	0	82	36	3
	Notes: 234. Vert cracks w/ efflor from bottom of slab to top of cap arch. Vert crack w/ efflor @ N end of W cap. Conc spalled w/ rebar exp, loss of section and large vert crack @ S end of W cap. Conc delam'd and rebar exp @ N end of E pier. N end of W cap is starting to delam. S end of W cap was patched and now sounds hollow. S end E cap also patched and is OK. Vert cracks on S end of E pier. '13-no change. '14-vert cracks on S end of E pier have efflor. S end of W cap has 1" vert cracks and is hollow sounding-exp rebar is corroded & hook bar measures 3/4"-orig diam = 1". '15-vert cracks present in all archways. Patch on S end of W pier is fully deteriorated. '16-spall on S end of W pier is deep w/ rebar exp & surface rust. many areas of efflor @ both. '17-rust stain on bottom of 2nd arch from S @ E pier.						
883	CONCRETE SHEAR CRACKING	10-11-2017	1 EA	1	0	0	0
		10-04-2016	1 EA	1	0	0	0
	Notes: 883.						
890	LOAD PST OR VERTICAL CLR SIGNING	10-11-2017	1 EA	1	0	0	0
		10-04-2016	1 EA	0	1	0	0
	Notes: 890. '14-load posting signs for 20T;40T;40T @ approaches & advance warning from all directions except NB 100 to WB Vernon Ave. Called sign shop to look into placing one there. '15-WBL load posting sign @ bridge is slightly obscured						

because of trees. '16-no change. '17-foliage has been removed & WBL sign is visible.

891	OTHER BRIDGE SIGNING	10-11-2017	1 EA	1	0	0	0
		10-04-2016	1 EA	1	0	0	0
Notes: 891. '16-Do Not Enter & Keep Right @ W median.							
892	SLOPES & SLOPE PROTECTION	10-11-2017	1 EA	0	1	0	0
		10-04-2016	1 EA	0	1	0	0
Notes: 892. Minor erosion of dirt slopes. '13-erosion of slopes more moderate. Part of slopes @ wings are paved. '14-'17, annually-no change.							
893	GUARDRAIL	10-11-2017	1 EA	1	0	0	0
		10-04-2016	1 EA	0	0	1	0
Notes: 893. Guardrail is not attached to rail @ SW corner, it is perpendicular to rail. Guardrail attached and turned down @ NE corner. '13-3 spacer blocks missing in NE. '14-no change. '15-50 LF of rail in NE is not attached to posts. '16-no change. '17-new guardrail w/ crashworthy end treatment in NE.							
894	DECK & APPROACH DRAINAGE	10-11-2017	1 EA	0	1	0	0
		10-04-2016	1 EA	0	1	0	0
Notes: 894. Minor erosion in NE and NW corner along wingwalls. CB in NE approach roadway. '14, '15-no change. '16-ponding in deck @ potholes. '17-no change.							
895	SIDEWALK, CURB, & MEDIAN	10-11-2017	1 EA	0	0	1	0
		10-04-2016	1 EA	0	0	1	0
Notes: 895. Curbs are spalled. Crack and spall repaired @ NE corner. Trans cracks in median. Numerous popouts in N walk. SW walk and curb settled and broken. Walk on SE and NW corner settled. Median off W and E approach settled. '13-SE & NW walk ramped w/ bit. Spalled & deteriorated curb in SW disrupts runoff. '14-WB curb @ W end is spalled @ joint. Metal plate in WB walk just W of tracks. '15-top of both curbs spalled & scraped. SW curb patched w/ bit. '16-cracks in walk sealed. '17-concrete patches in curbs & walks.							
899	MISCELLANEOUS ITEMS	10-11-2017	1 EA	0	0	1	0
		10-04-2016	1 EA	1	0	0	0
Notes: 899. AT&T cables buried on S side. Fiber optic cable buried in NE corner. Graffiti on NW wall. '17-noise wall constructed behind new guardrail in NE. Comp joints at E approaches are deteriorated-EBL has 10' of metal bracket & gland that is gone and large, deep spall.							
900	PROTECTED SPECIES	10-11-2017	1 EA	0	1	0	0
		10-04-2016	1 EA	1	0	0	0
Notes: 900. 16, 17-none noted.							

General \*Bridge 4510 CSAH 158 (Vernon Ave)/CP Rail 10/11/17 PTH and TSM.

Notes: Plans show 5 spans. Only middle 3 spans are accessible. West & East abutments on plan are what you would consider the abutments in the field during inspection. For this reason any reference to spans will be for the 3 we can see; West, main span over the tracks, and East.

#### Recommended Repairs:

205. Repair spalls in columns.

215. Repair delams @ SE and SW abuts.

234. Repair large spall and cracks @ pier caps.

321. Reseal cracks in approach slab. Fill spalls & large cracks w/ hot pour.

810. Reseal numerous cracks in O/L. Fill spalls & large cracks w/ hot pour.

899. Remove graffiti on wing walls.

899. Replace joint @ end of E approaches. Remove joint materials & replace w/ bit.

Deck: [4] Many unsealed, large cracks w/ spalls in O/L. Leakage & efflor, spalls & deteriorated patches in underdeck. Deteriorated bituminous patches.

Transitions: [0] '17-new rail in NE. Concrete railing end post is <18" thick.

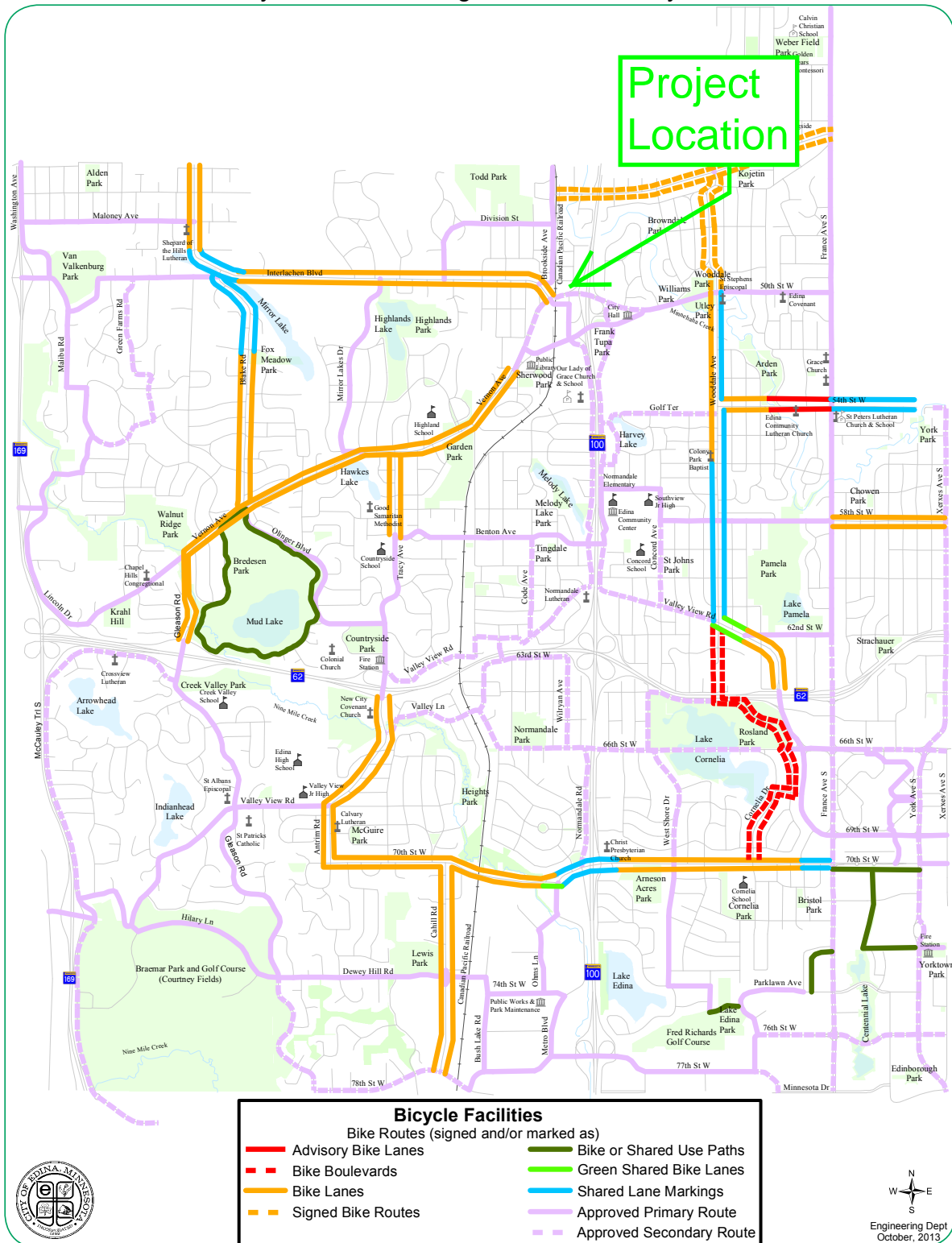
Appr Guardrail [1] '17-new crashworthy end treatment in NE.

Terminal :

Superstructure: [4] Concrete deck slab and superstructure rating are the same.

Substructure: [5] Large spalls w/ rebar exposed on caps and columns.





For more information, please call the Edina Engineering Department, 952-826-0371.



BIKEEDINA



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Attachment 13 - City of Edina Letter of Support

June 19, 2018

Carla Stueve, P.E., P.T.O.E  
Hennepin County Engineer  
Transportation Project Delivery  
1600 Prairie Drive  
Medina, MN 55340

RE: Support for Regional Solicitation Application  
Vernon Avenue (CSAH 158) Bridge #4510 Project over CP Rail

Dear Ms. Stueve:

The City of Edina hereby expresses its support for the Hennepin County Regional Solicitation federal funding application for the proposed bridge project at CSAH 158 (Vernon Avenue) for Bridge #4510 over CP Rail.

The existing bridge, built in 1927, has reached the end of its useful life and warrants replacement. The bridge is currently weight restricted and is classified as structurally deficient. The new bridge will address a critical asset near TH 100 and will provide an opportunity to improve safety for all modes.

Thank you for making us aware of this application effort and the opportunity to provide support. The city looks forward to working with you on this project.

Sincerely,

A handwritten signature in black ink that reads "Chad A. Milner".

Chad A. Milner, P.E.  
Director of Engineering  
City of Edina

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**ENGINEERING DEPARTMENT**

7450 Metro Boulevard • Edina, Minnesota 55439  
www.EdinaMN.gov • 952-826-0371 • Fax 952-826-0392



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Attachment 13 - City of Edina Letter of Support

**RESOLUTION NO. 2018-52**  
**SUPPORTING THE REGIONAL SOLICITATION BY HENNEPIN COUNTY SUPPORTING**  
**THE VERNON AVENUE BRIDGE REPLACEMENT PROJECT**

**WHEREAS**, Hennepin County, through the Metropolitan Council is submitting an application to obtain federal funding for the Vernon Avenue Bridge Replacement over the CP Rail; and,

**WHEREAS**, the funding would be available for the years 2022-2023

**WHEREAS**, the existing bridge, built in 1927, has reached the end of its useful life and warrants replacement; and,

**WHEREAS**, the existing bridge, currently has weight restrictions and is classified as structurally deficient; and,

**WHEREAS**, a new bridge would address a critical asset near TH 100 and provide improved safety for all modes; and,

**NOW THEREFORE, BE IT RESOLVED**, the City of Edina supports Hennepin County's regional solicitation through Hennepin County for federal funding to replace the Vernon Avenue Bridge over the CP Rail.

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**ENGINEERING DEPARTMENT**

7450 Metro Boulevard • Edina, Minnesota 55439  
www.EdinaMN.gov • 952-826-0371 • Fax 952-826-0392



Attachment 13 - City of Edina Letter of Support

Adopted this 19th day of June, 2018.

ATTEST: *Debra A. Manger* *[Signature]*  
City Clerk Mayor

STATE OF MINNESOTA )  
COUNTY OF HENNEPIN )  
CITY OF EDINA )

CERTIFICATE OF CITY CLERK

I, the undersigned duly appointed and acting City Clerk for the City of Edina do hereby certify that the attached and foregoing Resolution was duly adopted by the Edina City Council at its Regular Meeting of June 19, 2018, and as recorded in the Minutes of said Regular Meeting.

WITNESS my hand and seal of said City this 19<sup>th</sup> day of June, 2018  
*Debra A. Manger*  
City Clerk

## **ACTION TRANSMITTAL – 2022-03**

**DATE:** December 29, 2021

**TO:** Technical Advisory Committee

**FROM:** TAC Funding & Programming Committee

**PREPARED BY:** Joe Barbeau, Senior Planner ([joe.barbeau@metc.state.mn.us](mailto:joe.barbeau@metc.state.mn.us))

**SUBJECT:** Scope Change Request for Hennepin County CSAH 158 (Vernon Ave) Bridge Replacement

**REQUESTED ACTION:** Hennepin County requests a scope change for its CSAH 158 (Vernon Ave) bridge replacement (SP # 027-758-006) to increase the project length, remove a channelized right-turn island, reconstruct the southbound MN 100 ramp, and install a noise wall.

**RECOMMENDED MOTION:** That the Technical Advisory Committee recommend that TAB approve Hennepin County's scope change request to amend its CSAH 158 (Vernon Ave) bridge replacement (SP # 027-758-006) to increase the project length, remove a channelized right-turn island, reconstruct the southbound MN 100 ramp, and install a noise wall with no reduction in federal funds.

**BACKGROUND AND PURPOSE OF ACTION:** Hennepin County was awarded \$7,000,000 in the Bridge category as part of the 2018 Regional Solicitation to replace the existing Vernon Avenue Bridge over the CP Railway in Edina. Improvements were to include a new bridge structure and modifications to impacted roadway approaches (see Figure 1). Because impacts to the roadway approaches appear to be greater than thought at the time of application, the county is requesting a change in scope, reflected in Figure 2.

The proposed updates are:

- Extension of the project to the east along Vernon Avenue. This is needed to raise the bridge's elevation to accommodate CP Railway vertical clearance standards.
- Removal of the channelized right-turn island from the southbound Trunk Highway (TH) 100 exit ramp. This is preferred due to safety concerns related to speed through the channel and failure to yield.
- Reconstruction of roughly 825 feet of the southbound TH 100 ramp. Modeling shows that in 20 years the ramp is likely to have queuing onto the freeway.
- A noise wall on the east side of TH 100. MnDOT noise requirements led to this proposed structure.
- Removal of the right-turn lane from westbound Vernon Avenue to Interlachen Boulevard from the scope. This was decided upon because Hennepin County felt that modest benefits of the originally proposed right-turn lane do not outweigh the negative impact to pedestrians. This led to the proposed three-lane section.

**RELATIONSHIP TO REGIONAL POLICY:** Projects that receive funding through the Regional Solicitation process are subject to the regional scope change policy. The purpose of this policy is to ensure that the project is designed and constructed according to the plans and intent described in the original application. The scope change policy allows project sponsors to adjust



their projects as needed while still providing substantially the same benefits described in their original project applications.

**STAFF ANALYSIS:**

Approval/Denial of the Scope Change: Three primary changes are proposed: the removal of the channelized turn lane in favor of adding a third lane from southbound TH 100; removal of the proposed right-turn lane from Vernon Avenue to Interlachen Boulevard ; and expansion of the project footprint (including the addition of retaining walls and noise walls). The first two are not a concern because the original application had a scoring margin of 143 points over the highest-scoring unfunded project and it is a near certainty that this project, as now proposed, would have been funded. Per scope change policy, the locally funded expansion of the project is only a concern if it detracts from the original proposal. This proposal does not appear to do so.

Funding: Given that the applicant cites \$12,000 as the cost of project elements being removed from the original scope and that the project is essentially intact, historic practice suggests that there is no need to suggest taking federal funds away (that would amount to \$9,600).

**COMMITTEE COMMENTS AND ACTION:** At its December 16, 2021, meeting, the TAC Funding & Programming Committee voted unanimously to recommend approval of Hennepin County’s scope change request to amend its CSAH 158 (Vernon Ave) bridge replacement project to increase the project length, remove a channelized right-turn island, reconstruct the southbound MN 100 ramp, and install a noise wall with no reduction in federal funds.

The recommendation not to reduce federal funds was based on the small amount of funding in question.

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**ROUTING**

<b>TO</b>	<b>ACTION REQUESTED</b>	<b>DATE SCHEDULED / COMPLETED</b>
TAC Planning or TAC Funding & Programming Committee	Review & Recommend	12/16/2021
Technical Advisory Committee	Review & Recommend	1/5/2022
Transportation Advisory Board	Review Adopt	12/19/2022

**To:** Metropolitan Council – Transportation Advisory Board (TAB)  
**From:** Jason Staebell, PE – Hennepin County Project Manager  
**Date:** October 20, 2021  
**Re:** CSAH 158 (Vernon Ave) Bridge Replacement Project – Scope Change Request

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This document seeks to provide information the Transportation Advisory Board (TAB) requires for a formal scope change for SP 027-758-006. This includes a comparison of the project scope of the CSAH 158 (Vernon Ave) Bridge Replacement project as described in the 2018 Regional Solicitation Application against the current scope as well as the what benefits were gained, lost, or retained due to those changes. While some aspects of the current scope were not known during the application process, project stakeholders believe these scope items are necessary to fulfill the primary purpose of this project while maintaining standard engineering practices and accommodating safety concerns.

The primary purpose of this project, as described in the 2018 Regional Solicitation Application, Attachment 1 – Project Narrative, is shown below:

The proposed project will replace the existing Vernon Avenue Bridge (#4510) to extend its service life. Improvements will include a new bridge structure and modifications to the roadway approaches that are impacted by the project.

The descriptions below will demonstrate how the aspects of the project that were designed after the 2018 Regional Solicitation Application are still part of the primary purpose of the project and included in “modifications to the roadway approaches that are impacted by the project.” As the preliminary design progressed, impacts to the roadway approaches were found to be greater than originally anticipated.

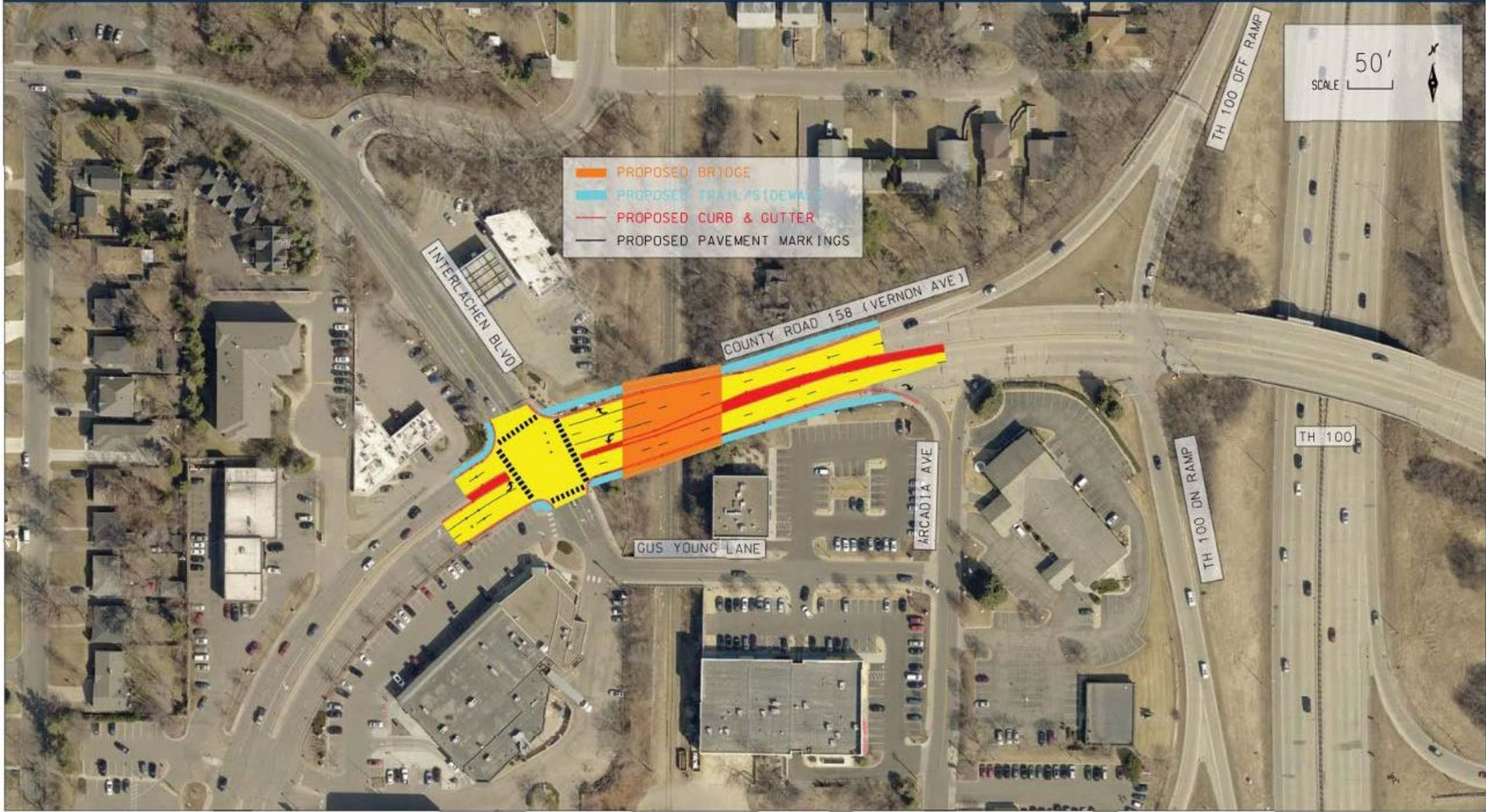
See Figure 1 for layout of expected scope at the time of the 2018 Regional Solicitation Application. See Figure 2 for a layout of the current scope.

Figure 1

# CSAH 158 (Vernon Ave) Bridge Replacement Project

Attachment 5 | Project Concept

HENNEPIN COUNTY  
MINNESOTA



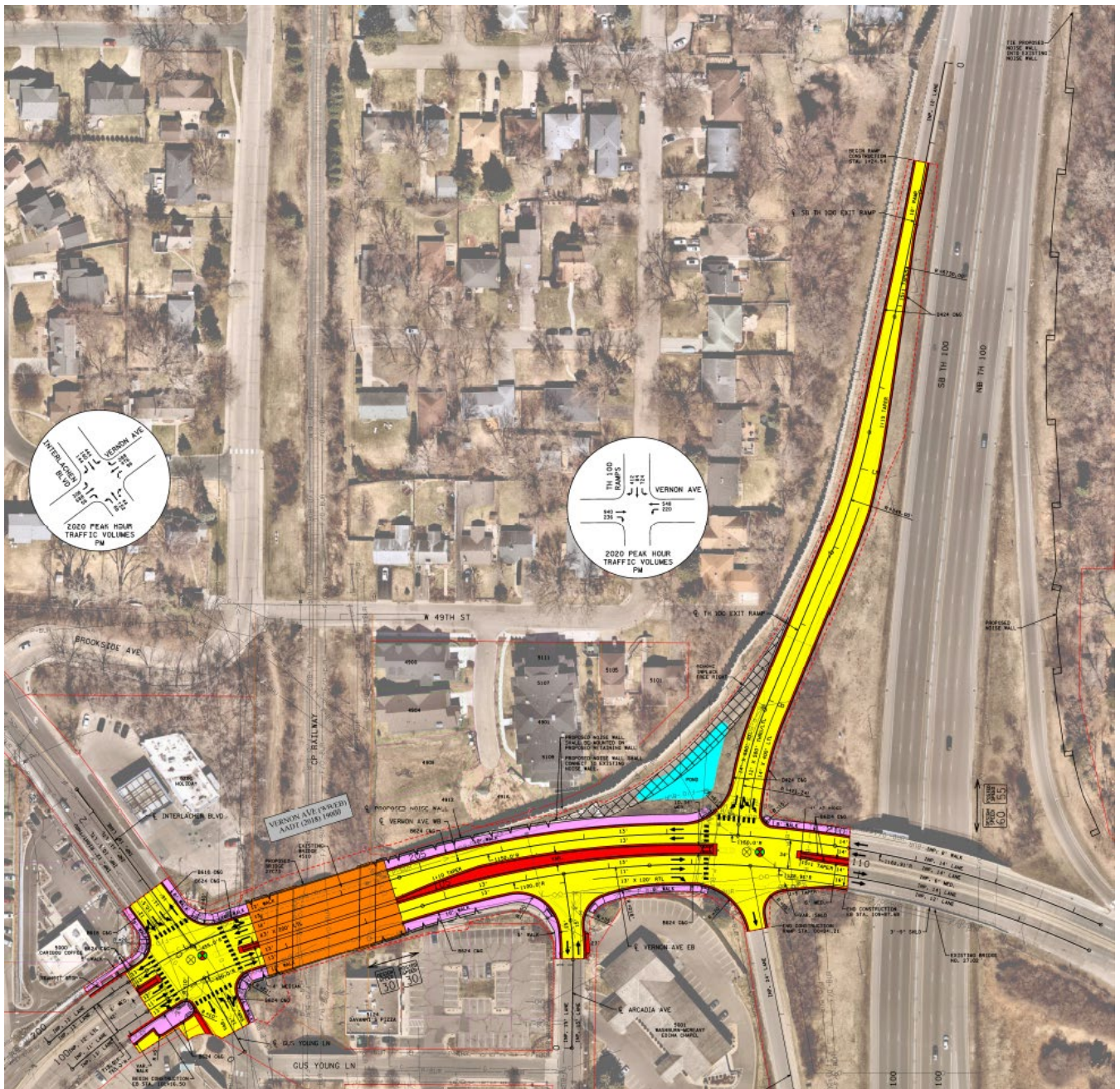
**Disclaimer:** This map (i) is furnished "AS IS" with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this map.

Publication date: 7/6/2018    PWV802    L:\TPDIR\Regional Solicitation\2018 Regional Solicitation\CSAH 158 - CP 1766 (Bridge)\Layouts\20180620-CSAH158-VernonAveBridge.dgn





Figure 2



During the preliminary design phase, several design constraints dictated the need for the proposed work shown in Figure 2.

First, profile requirements caused the project to extend to the east. The CP Railway current standards for vertical clearance over their railway required a significant raise in the elevation of proposed Bridge No. 27C73 as compared to the existing 22 foot clearance for Bridge No. 4510. The current preliminary design satisfies the 23 foot minimum vertical clearance requirement over the existing CP railway as well as over a potential future track, which would be located 15 feet east of the existing track (centerline to centerline). The proposed profiles and clearance information can be seen in Figure 3: Vernon Avenue WB and EB Profiles.

On the west side of the project, these proposed profiles were able to tie into the existing roadway at essentially the same location as expected in the 2018 Regional Solicitation Application. However, on the east side of the project, the construction limits needed to extend considerably to the east in order to tie into the built environment. The profile would allow construction to end approximately 26 feet west of the existing bridge over TH 100 (Bridge No. 27102). To be considerate of future maintenance and lifespan concerns, the project was extended this additional 26 feet to match into existing Bridge No. 27102.

This increase in scope provides new pavement and wider sidewalks up to the TH 100 Bridge (Bridge No. 27102), which will provide better service to the public through improved pedestrian access and will require less maintenance for the new pavement in the future. This extension of scope is an increase in benefits.

Second, the channelized right turn island from the SB TH 100 Exit Ramp is proposed to be removed to address existing safety concerns. Local public agencies have observed two issues with the vehicles traveling along this channelized right turn island: one) excessive speeds, two) poor compliance for the yield condition. In addition, bicycles are known to frequent this area, which presents a higher safety concern since vehicles may complete this turning maneuver at a relatively high rate of speed.

The profile changes required for this project results in a notable grade difference along WB Vernon Avenue at the merge point with the channelized right turn island. Thus, if the channelized right turn island was to remain, a considerable portion of it would still need to be reconstructed in order to tie in with the proposed WB Vernon profile. The City, County, and MnDOT are in agreement that not only should the channelized right turn island be eliminated to address safety concerns, but also that it's not desirable to use public funds to finance the reconstruction of the channelized right turn island in an in-kind condition.

The removal of the channelized right turn island is expected to slightly increase the delay for right turning vehicles; however, with higher priority being given to safety concerns related to rear end collisions and reducing the likelihood of a crash involving a person walking or biking, this change gains more benefit than it loses.

Third, roughly 825 feet of the SB TH 100 Exit Ramp is proposed to be reconstructed in order to accommodate longer left and right dedicated turn lanes. MnDOT required traffic modeling of the SB TH 100 exit ramp to determine if vehicles would queue onto the freeway in the build condition or in the 20 year future condition. It was found that while queuing was not expected to reach the freeway with build year volumes, the same could not be said for the 20 year future condition. Thus, MnDOT requires that the ramp be updated to accommodate the future condition.

After extensive modeling, it was found that extending the turn lanes to 580 feet for the right turn lane and 400 feet for the left turn lane prevented excessive queueing in the 20 year future condition. A fourth lane was also considered instead of extending the turn lanes. However, a fourth lane presented design issues, including severe impacts to the snow storage area as well as steep proposed slopes between the ramp and TH 100 that would likely require the construction of retaining walls and guardrail. A fourth lane would also require considerable reconstruction of the existing ramp. Thus, the turn lane extensions were determined to be the most feasible, maintainable, and cost effective solution.

The turn lane extension required reconstruction of the ramp beyond the extents of the proposed turn lanes to reduce the likelihood of retaining walls. The ramp is proposed to be re-aligned as close to the existing noise wall as possible while still maintaining the recommended 10 feet of clear distance for snow storage. This realignment allows the slopes between the ramp and TH 100 to be moderate enough that retaining walls (and guardrail) will not be required. Retaining walls are not desired because they present safety, maintenance, and cost implications.

Overall, the reconstruction of the TH 100 Exit Ramp and extension of the ramp's turn lanes is a gain in benefit to the project. This change prepares for expected future queuing while maintaining currently needed features such as snow storage.

Fourth, a noise wall is proposed on the east side of TH 100 due to the "Noise Requirements for MnDOT and other Type I Federal-aid Projects" effective since July 10, 2017. These requirements state, "*The noise analysis must include all areas that are affected by the project, including impacts from the project that occur beyond the official project limits/termini.*" and that ". . . *the analyst should extend the modeling limits at a minimum 500' or to a 'logical' termini point greater than 500' from the end of physical construction.*"

Figure 4 shows the extents of a 500 foot radius from three points, one) the edge of WB Vernon Avenue Construction, two) the edge of construction if the channelized right turn island was reconstructed, and three) the edge of reconstruction of the ramp.

As seen in Figure 4, even disregarding any construction on the SB TH 100 Exit Ramp or channelized right turn island, the noise study would be required to consider the homes just east of TH 100 based solely on the construction of WB Vernon Avenue. Those homes are within 500 feet of the proposed construction.

During the noise analysis, two homes east of TH 100 were found to have noise levels that approached or exceeded the FHWA Noise Abatement Criteria (NAC), which triggered analysis of noise walls in this area. Noise Barrier E, the noise wall modeled east of TH 100 in the *Vernon Avenue Bridge Replacement Project Noise Study*, was found to fulfill the requirements needed for a noise wall to be recommended for construction. First, the barrier is acoustically feasible. Several homes were found to be benefitted with noise reduction of at least 5.0 dBA, and at least one receptor met the required 7.0 dBA noise-reduction design goal. Second, the barrier meets engineering feasibility. A preliminary examination of proposed location did not discover any fatal flaws that would make a noise barrier unreasonable to construct or maintain. Thirdly, the barrier met the cost effectiveness criteria, meaning that the cost per benefitted receptor is not expected to exceed \$78,500.

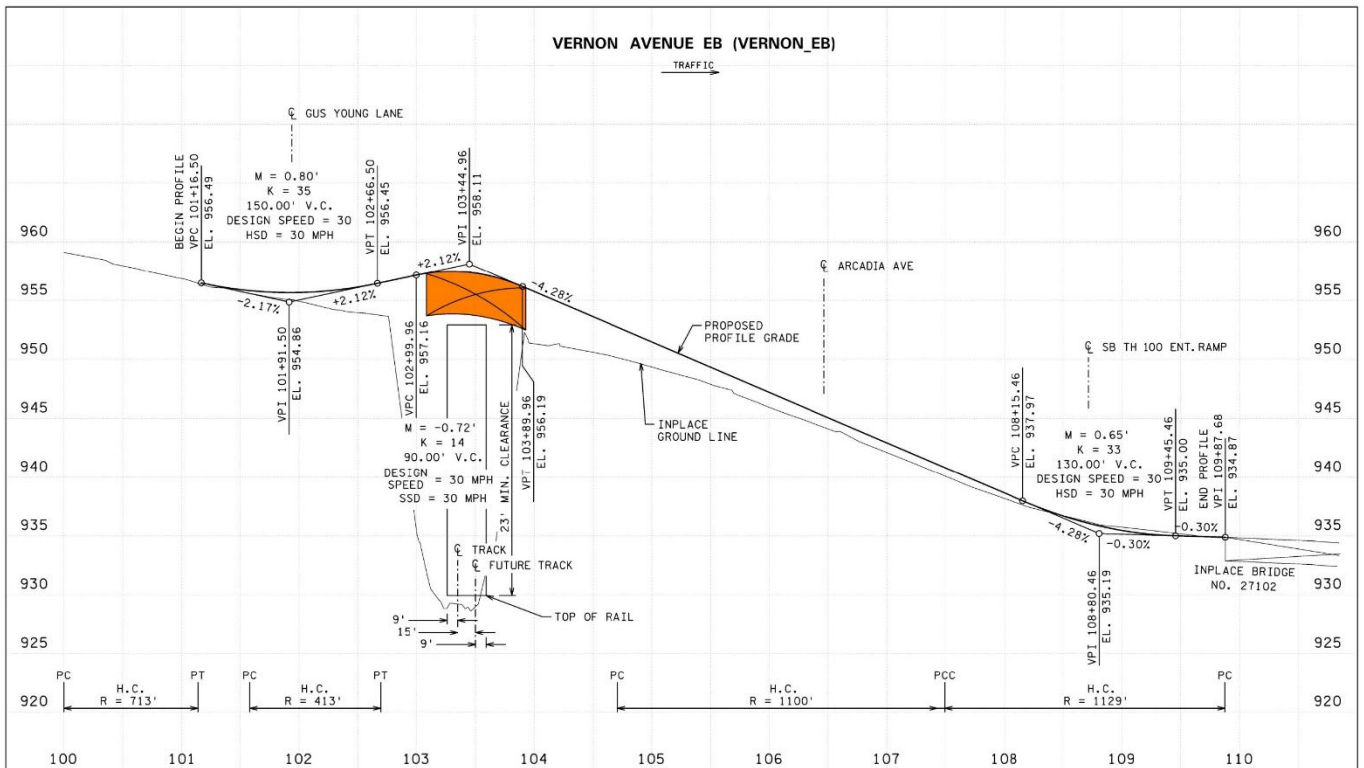
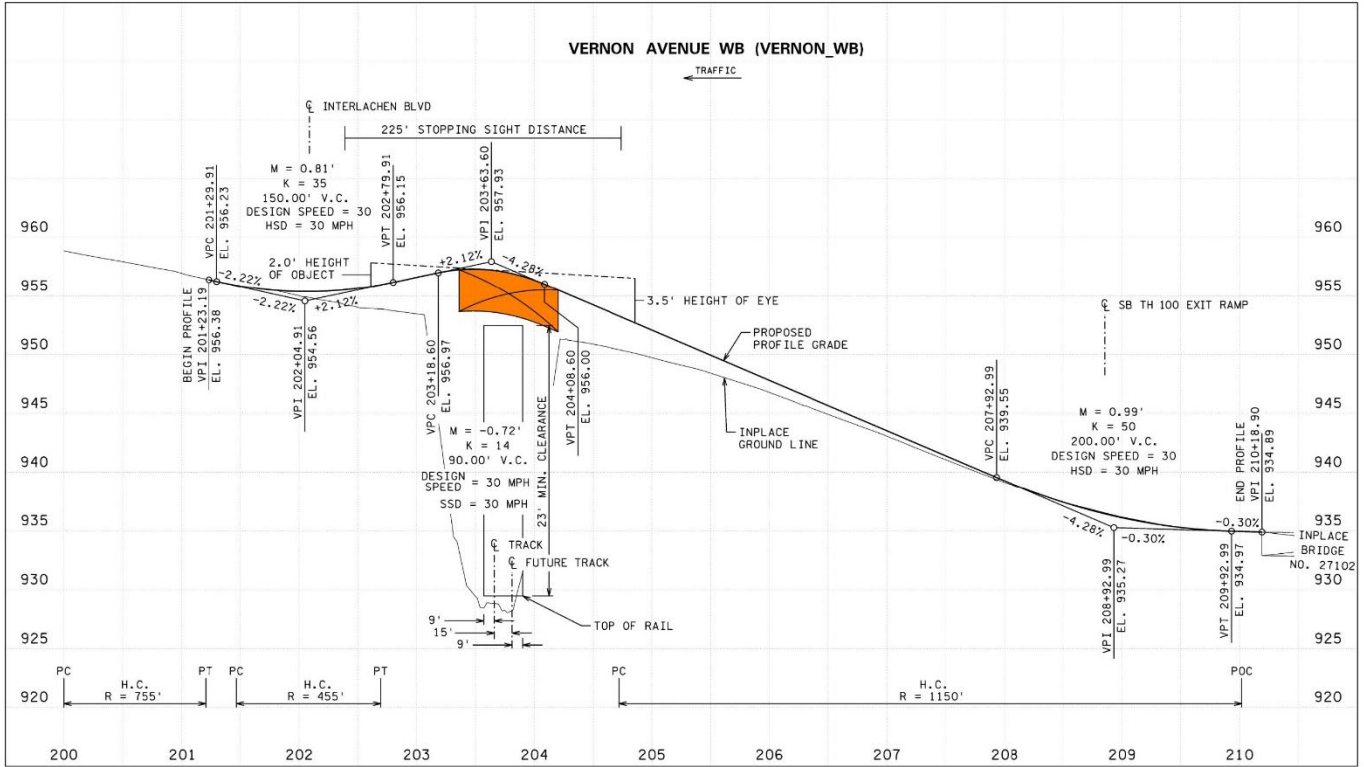
This proposed noise wall is an added benefit to the project since several homes were found to be acoustically benefitted.

Fifth, the right turn lane along westbound Vernon Ave at Interlachen Blvd that was proposed in the 2018 Regional Solicitation Application was removed from the scope of the project. After extensive modeling of the project area, it was found that the benefits of right turn lane were not justified. The right turn lane would reduce vehicle delay at the intersection, however the reduction was relatively modest, especially in comparison to the improvement provided by the left turn lane. The four lane section is relatively uninviting and uncomfortable for people walking in the area, requiring a longer crossing time. A three lane section was determined to provide a better balance of needs between people walking and people driving. Overall, the removal of the right turn lane may be viewed as a modest reduction in benefits for people driving, however, a significant increase in benefits for people walking.

These five areas of scope were not known at the time of the 2018 Regional Solicitation Application, however they are necessary modifications to the existing conditions that were prompted by the project development process. Taken as whole, this scope changes gain more benefits the project than they lose.

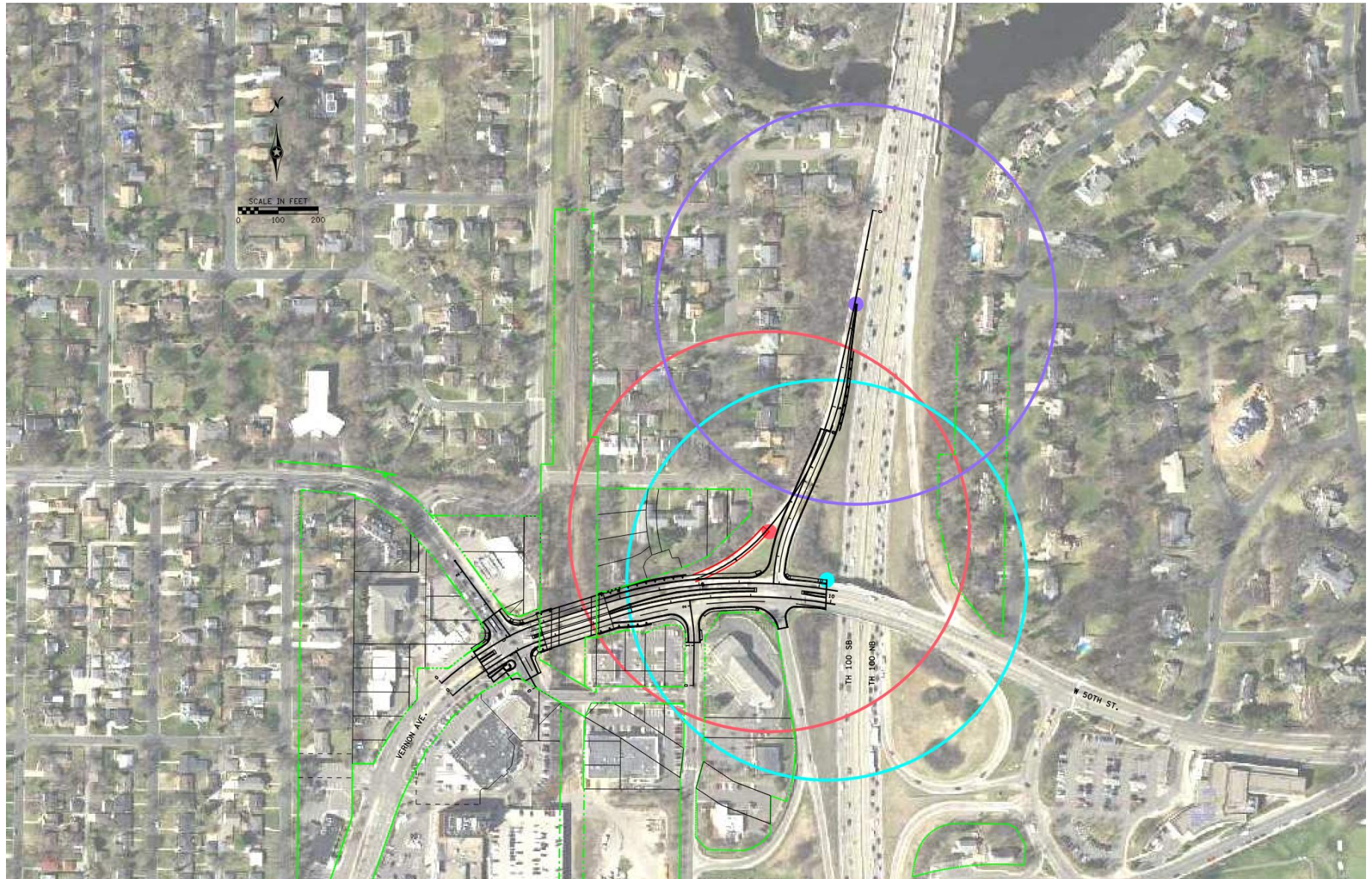
Attachment 1 (Funding Data for Scope Change Request) shows the estimated costs of each of these scope changes.





**Figure 3:** Vernon Avenue WB and EB Profiles





**Figure 4:** Noise Study Required Extents (500' radius)

**ATTACHMENT 1: FUNDING DATA FOR SCOPE CHANGE REQUEST**

**Original Application**

Regional Solicitation Year	2018
Application Funding Category	Regional Solicitation – Roadways Including Multimodal Elements
HSIP Solicitation	Yes <u>No</u>
Application Total Project Cost	\$9,150,000.00
Federal Award	\$7,000,000.00
Application Federal Percentage of Total Project Cost	76.5%

<b>Project Elements Being Removed</b>	<b>Original Application Costs</b>
WB Right Turn Lane along Vernon Avenue	\$12,000.00

<b>New Project Elements</b>	<b>Cost (Based on Year of Costs in Original Application)</b>
Increased project length along Vernon Avenue	\$195,000.00
Channelized right turn island removal at TH 100 Ramps	\$26,000.00
SB TH 100 Ramp reconstruction	\$117,000.00
Noise Wall east of TH 100	\$621,000.00



**ACTION TRANSMITTAL – 2022-04**

**DATE:** December 29, 2021

**TO:** Technical Advisory Committee

**FROM:** TAC Funding & Programming Committee

**PREPARED BY:** Elaine Koutsoukos, TAB Coordinator  
([elaine.koutsoukos@metc.state.mn.us](mailto:elaine.koutsoukos@metc.state.mn.us))  
Joe Barbeau, Senior Planner ([joe.barbeau@metc.state.mn.us](mailto:joe.barbeau@metc.state.mn.us))

**SUBJECT:** Program Year Extension Request: Blaine 99<sup>th</sup> Avenue / Baltimore Street Roundabout

**REQUESTED ACTION:** Blaine requests a program year extension for its 99<sup>th</sup> Avenue / Baltimore Street roundabout installation (SP# 106-101-010) from fiscal year 2022 to fiscal year 2023.

**RECOMMENDED MOTION:** That the Technical Advisory Committee recommend that TAB approve Blaine’s program year extension request to move its 99<sup>th</sup> Avenue / Baltimore Street roundabout installation (SP# 106-101-010) from fiscal year 2022 to fiscal year 2023.

**BACKGROUND AND PURPOSE OF ACTION:** The City of Blaine received \$1,530,000 from the 2020 Highway Safety Improvement Program (HSIP) Solicitation to construct a roundabout at the intersection of 99<sup>th</sup> Avenue and Baltimore Street in program year 2022. The city is requesting an extension of the program year to 2023, as that would provide better coordination with nearby Trunk Highway (TH) 65 improvements. The city had applied for 2024 or 2025 funds to coordinate with that project but accepted earlier funding in anticipation that it would be further along at this point.

**RELATIONSHIP TO REGIONAL POLICY:** The Transportation Advisory Board (TAB) adopted the Program Year Policy in April 2013 (updated in August 2014) to assist with management and timely delivery of transportation projects awarded federal funding through the TAB’s Regional Solicitation. The policy includes a procedure to request a one-year extension based on extenuating circumstances within certain guidelines.

**STAFF ANALYSIS:** Per the Program Year Policy’s progress assessment (pages 9 and 10), a minimum score of 7 is needed to be eligible for an extension. The city scored 6 for this request. That said, MnDOT Metro District is comfortable with approval of the request because the score is due to the city agreeing to an earlier program year to be on track with the TH 65 environmental study (phase I completed by MnDOT; phase II in process, led by the city), which was to be completed in 2020 but took longer than anticipated. The score being below 7 is not the result of the city not doing its part to deliver the project, which should be able to be delivered in May of 2023. Further, MnDOT Metro District believes it will be able to spend the project’s funds in 2022.

An extension of the program year does not guarantee federal funding will be available in that year. The project sponsor is responsible for completing the project in the new program year and covering the federal share of the project until federal funding becomes available. At this time the project would be in line for 2026 reimbursement of federal funds, though an earlier

reimbursement may occur if funding becomes available due to the recent increase in federal funds or if other projects withdraw.

**COMMITTEE COMMENTS AND ACTION:** At its December 16, 2021, meeting, the TAC Funding & Programming Committee voted unanimously to recommend approval of Blaine's program year extension request to move its 99<sup>th</sup> Avenue / Baltimore Street roundabout installation from fiscal year 2022 to fiscal year 2023.

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**ROUTING**

<b>TO</b>	<b>ACTION REQUESTED</b>	<b>DATE SCHEDULED / COMPLETED</b>
TAC Funding & Programming Committee	Review & Recommend	12/16/2021
Technical Advisory Committee	Review & Recommend	1/5/2022
Transportation Advisory Board	Review & Accept	1/19/2022



## City of Blaine

1801 - 101<sup>st</sup> Avenue NE

Blaine MN 55449-1108

Public Works 763-785-6165 | [BlaineMN.gov](http://BlaineMN.gov)

November 15, 2021

Mr. Michael Thompson, Chair  
TAC Funding and Programming Committee  
Metropolitan Council  
390 Robert Street North  
St. Paul, MN 55101

RE: Program Year Extension Request for 106-101-010 99<sup>th</sup> Ave at Baltimore Intersection Improvements

Dear Mr. Thompson,

The City of Blaine respectfully requests that the Funding and Programming Committee consider a program year extension for the above project. The awarded program was 2022 to construct a roundabout for improved traffic flow and safety.

The City applied for \$1,530,000 of HSIP funds for program year 2024-2025. The project was originally being considered a related component of the overall Trunk Highway 65 corridor improvements. There are continuing efforts to complete the environmental review of this corridor segment to ensure all potential projects identified in the State's first Planning and Environmental Linkages (PEL) study would work together to reduce congestion and improve the overall safety for the area. The City agreed to accept earlier funding in 2022 anticipating this process would be further along.

We request the Funding and Programming Committee's support for extending the City of Blaine's program year to 2023. Please let me know if additional information is needed.

Sincerely

Jon Haukaas, Director of Public Works

cc: Joe Barbeau, Metropolitan Council, Colleen Brown, MnDOT Federal Aid

**REQUEST FOR PROGRAM YEAR EXTENSION**

For

**SP 106-101-010**

**99th Ave and Baltimore St Roundabout**

City of Blaine, MN

REQUESTED BY:

Jon Haukaas, Director of Public Works

Phone: 763-785-6167

[jhaukaas@blainemn.gov](mailto:jhaukaas@blainemn.gov)

## Project Background

The City applied for \$1,530,000 of HSIP funds for program year 2024-2025. The project was originally being considered a related component of the overall Trunk Highway 65 corridor improvements. There are continuing efforts to complete the environmental review of this corridor segment to ensure all potential projects identified in the State's first Planning and Environmental Linkages (PEL) study would work together to reduce congestion and improve the overall safety for the area. The City agreed to accept earlier funding in 2022 anticipating this process would be further along.

Progress on the environmental review has recently shown that this project does not have significant impacts to the 99<sup>th</sup> Ave intersection design and can therefore proceed separately. However, we will not be able to make the federal authorization deadlines for 2022.

The City does feel that this project can be delivered beginning in 2023 now that the environmental impacts are better understood.

## Project Status

### Project Schedule

- a) The City anticipates awarding the design and construction support contract by February 2022. This would allow ample time for project development, right of way, and agency coordination. We would anticipate a project construction award in late spring (April/May) of 2023.

### Right of Way Acquisition

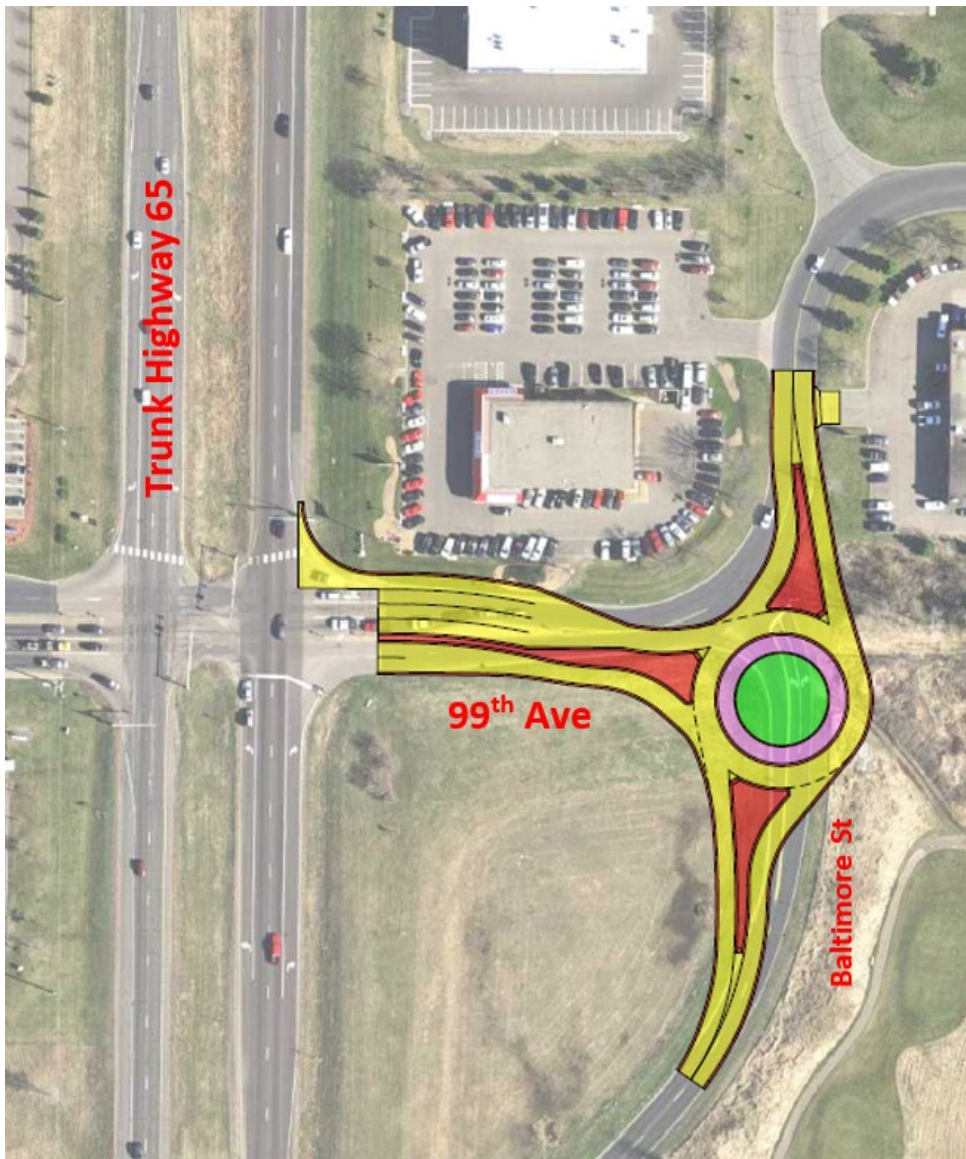
- b) The majority of the project is proposed to be constructed within easements on land owned by the Metropolitan Airports Commission (MAC) similar to the existing frontage road. The project was presented to MAC staff at the conceptual stages on February 3, 2021 in anticipation of new easements. Staff was receptive to the concepts and prepared to work with us.

Minor additional right of way may be needed from two adjacent private properties dependent on the final geometric design.

## Plans

- c) Preliminary survey work for the area has been completed as part of the TH 65 design work to include utility impact identification. Traffic modeling has also been completed for the highway and supporting roadway networks. This information will be utilized to bring the project plans through to the final design.

The conceptual layout is below:



## Permits



- d) The following list of permits will all need to be requested as the project development continues.
- FHWA & MnDOT – Categorical Exclusion document
  - MAC - Easements
  - MPCA – NPDES Construction Stormwater Permit & SWPPP
  - CCWD – Watershed Permit

### Approvals

- e) The City of Blaine is the only agency with approval authority outside the permitting process.

### Identify funds and other resources spent to date on the project

- f) Blaine City staff have expended time on the scoping of this project. Additional time and effort has been completed under other contracts for the TH65 project the results of which will be available for use on this project.

### Justification for Extension Request

#### What is unique about this project that requires an extension of the program year?

This project has been evaluated for environmental review and traffic impacts as part of a larger corridor project under the first Planning and Environmental Linkages (PEL) study in Minnesota. This means the project can be designed and constructed separately and still be sure that it will work with all future construction projects without unanticipated adverse effects. The City agreed to an earlier program year believing that the PEL would be completed in 2020 and projects would be ready to move forward beginning in 2021. Being the first PEL, the study took longer than anticipated and the timelines were further complicated by scheduling delays related to COVID impacts.

Additionally, this project will support the future improvements on TH65 as an interim reliever during the project construction.

#### What are the financial impacts if the project does not meet its current program year?

If federal funds are surrendered, the proposed project will likely be postponed until an alternate source of funding can be secured, or the project will be eliminated. The only other available funds are City CIP funding or MSAS funding. Both sources have long range plans committing those dollars out to 2026 or beyond.

What are the implications if the project does not obtain the requested extension?

There are no alternative funding sources identified for the intersection improvement project. If the project does not receive the requested extension, it is highly likely that these improvements will not be constructed and existing safety needs will go unmet.

A fully functioning/supporting frontage road network has been identified as a necessity if Trunk Highway 65 is to operate efficiently. This is an identified deficiency and will continue to impact the functionality of the highway until resolved.

What actions will the agency take to resolve the problem facing the project in the next three to six months?

The City of Blaine is prepared to move this project forward immediately in 2022 if the extension is granted.

### Attachment 1: PROGRESS SCHEDULE FOR PROGRAM YEAR EXTENSION

Enter request date 11/17/ 2021

**INSTRUCTIONS:**

- 1. Check status of project under each major heading.
- 2. Enter dates as requested for each major heading.
- 3. Enter points as suggested by each applicable response.
- 4. Total points received in the TOTAL POINTS line on the last page. **The minimum score to be eligible to request an extension is seven points.**

**ENVIRONMENTAL DOCUMENTATION**

**PROJECT MEMORANDUM**

Reviewed by State Aid \_\_\_\_\_ If checked enter 4. \_\_\_\_\_  
Date of approval \_\_\_\_\_

Completed/Approved \_\_\_\_\_ If checked enter 5. \_\_\_\_\_  
Date of approval \_\_\_\_\_

EA  
 Completed/Approved \_\_\_\_\_ If checked enter 2. \_\_\_\_\_  
Date of approval \_\_\_\_\_

**EITHER**

Not Complete  
Anticipated Date of Completion May 2022  
If prior to January 31 of the program year, enter 1. 1

**OPPORTUNITY FOR PUBLIC HEARING (not necessary for project memorandum)**

Completed \_\_\_\_\_  
Date of Hearing \_\_\_\_\_ If checked enter 2. \_\_\_\_\_

Not Complete  
Anticipated Date of Completion February 2022  
If prior to February 28 of the program year, enter 1. 1

**FINAL ENVIRONMENTAL ASSESSMENT (not required for project memorandum)**

Completed/FONSI Approved \_\_\_\_\_ If checked enter 2. \_\_\_\_\_  
Date of approval \_\_\_\_\_

Not Complete  
Anticipated Date of Completion March 2022  
If prior to March 31 of the program year, enter 1. 1

STUDY REPORT (required for Environmental Assessment Only)

Complete/Approved If checked enter 1. \_\_\_\_\_  
Date of Approval \_\_\_\_\_  
 Not Complete  
Anticipated Date of Completion August 2022

CONSTRUCTION PLANS

Completed (includes signature of District State Aid Engineer)  
Date \_\_\_\_\_ If checked enter 3. \_\_\_\_\_  
 Completed (approved by District State Aid as to SA Standards but not signed)  
Date \_\_\_\_\_ If checked enter 2. \_\_\_\_\_  
 Not Complete  
Anticipated Date of Completion February 2023  
If prior to June 30 of the program year, enter 1. 1

RIGHT OF WAY ACQUISITION

Completed (includes approval of R/W Cert. #1 or #1A) If checked enter 2. \_\_\_\_\_  
Date \_\_\_\_\_  
 Not Complete  
Anticipated Date of Completion December 2022  
If prior to December 31 of the year following the original program year, enter 1. 1

ENGINEERS ESTIMATE OF COSTS

Completed If checked enter 2. \_\_\_\_\_  
Date \_\_\_\_\_  
 Not Complete  
Anticipated Date of Completion September 2022  
If prior to December 31 of the year following the original program year, enter 1. 1

AUTHORIZED

Anticipated Letting Date May 2023.  
Anticipated letting date must be prior to June 30  
in the year following the original program year,  
so that authorization can be completed prior to  
June 30 of the extended program year.

TOTAL POINTS 6

# Highway Safety Improvement Program (HSIP) (For State Fiscal Years 2022 and 2023)



*Photo Credit: Google, September 2017*

**Applicant: Hennepin County**

**Project Name: CSAH 3 (Lake Street) and CSAH 42 (42nd Street) Pedestrian Crossing Safety Improvements**

**Project Locations:**

- **CSAH 3 (Lake Street) at CSAH 152 (Cedar Avenue)**
- **CSAH 42 (42nd Street) at CSAH 152 (Cedar Avenue)**
- **CSAH 42 (42nd Street) at 21st Avenue**
- **CSAH 42 (42nd Street) at 26th Avenue**
- **CSAH 42 (42nd Street) at Nokomis Avenue**

**HSIP application (Form 1)**



Federal HSIP Funding Application (Form 1)

**INSTRUCTIONS:** Complete and return completed application to Lars Impola, MnDOT, Metro District, 1500 West County Road B2, Roseville, Minnesota 55113. (651) 234-7820. **Applications must be received by 4:30 PM or postmarked on August 31, 2018...\*Be sure to complete and attach the Project Information form. (Form 2)**

**I. GENERAL INFORMATION**

1. APPLICANT: Hennepin County

2. JURISDICTIONAL AGENCY (IF DIFFERENT):

3. MAILING ADDRESS: 1600 Prairie Drive

CITY: Medina

STATE: MN

ZIP CODE: 55340

4. COUNTY: Hennepin

5. CONTACT PERSON: Chad Ellos

TITLE: Transportation Planning Division Manager

PHONE NO. (612)-596-0395

CONTACT E-MAIL ADDRESS: chad.ellos@hennepin.us

**II. PROJECT INFORMATION**

6. PROJECT NAME: CSAH 3 (Lake Street) and CSAH 42 (42nd Street) Pedestrian Crossing Safety Improvements

7. BRIEF PROJECT DESCRIPTION - Include location, road name, type of improvement, etc... (A complete description can be submitted separately): The following safety improvements are proposed at various intersections along Lake Street and 42nd Street whenever feasible and warranted: curb extensions, raised medians, crossing beacons, ADA accommodations, pavement markings, and signage.

8. HSIP PROJECT CATEGORY – Circle which project grouping in which you wish your project to be scored.

**Proactive**

Reactive

**III. PROJECT FUNDING**

9. Are you applying or have you applied for funds from another source(s) to implement this project? Yes  No  If yes, please identify the source(s):

10. FEDERAL AMOUNT: \$828,000

13. MATCH % OF PROJECT TOTAL: 10%

11. MATCH AMOUNT: \$92,000

14. SOURCE OF MATCH FUNDS: Hennepin County

12. PROJECT TOTAL: \$920,000

15. REQUESTED PROGRAM YEAR(S) : SEE NOTE BELOW

2022     2023     Either year

16. SIGNATURE: 

17. TITLE: Transportation Planning Division Manager

**\*NOTE:** If funding should become available in 2019, 2020, or 2021, would this project be able to be advanced to meet this schedule? No

**Project information sheet (Form 2)**

## PROJECT INFORMATION (Form 2)

(To be used to assign State Project Number after project is selected)

Please fill in the following information as it pertains to your proposed project. Items that do not apply to your project, please label N/A. **Do not send this form to the State Aid Office. For project solicitation package only.**

COUNTY, CITY, or LEAD AGENCY: HENNEPIN COUNTY

FUNCTIONAL CLASS OF ROAD: CSAH 3 – A-Minor Arterial (Augmentor)  
CSAH 42 – A-Minor Arterial (Augmentor)

ROAD SYSTEM: CSAH (TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET)

NAME OF ROAD: Cedar (CSAH 152), Lake Street (CSAH 3, 42<sup>nd</sup> Street (CSAH 42)

(Example: 1<sup>st</sup> Street, Main Avenue)

ZIP CODE WHERE MAJORITY OF WORK IS BEING PERFORMED: 55407

APPROXIMATE BEGIN CONSTRUCTION DATE (MO/YR): April/2022

APPROXIMATE END CONSTRUCTION DATE (MO/YR): December/2022

LOCATION: CSAH 3 (Lake Street) at CSAH 152 (Cedar Avenue), CSAH 42 (42<sup>nd</sup> Street) at CSAH 152 (Cedar Avenue), CSAH 42 (42<sup>nd</sup> Street) at 21<sup>st</sup> Avenue, CSAH 42 (42<sup>nd</sup> Street) at 26<sup>th</sup> Avenue, CSAH 42 (42<sup>nd</sup> Street) at Nokomis Avenue in the City of Minneapolis in Hennepin County.

(DO NOT INCLUDE LEGAL DESCRIPTION)

TYPE OF WORK: MEDIANS, CURB EXTENSIONS, PAVEMENT MARKINGS, SIGNALS, SIGNS, LIGHTING, CROSSING AIDES

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(Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER, STORM SEWER, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, BRIDGE, PARK AND RIDE, ETC)

# Highway Safety Improvement Program (HSIP)

## Project Name

CSAH 3 (Lake Street) and CSAH 42 (42nd Street) Pedestrian Safety Improvements

## Project Location

Five intersections throughout South Minneapolis in Hennepin County, MN

- CSAH 3 (Lake Street) and CSAH 152 (Cedar Avenue)
- CSAH 42 (42nd Street) and 21st Avenue
- CSAH 42 (42nd Street) and 26th Avenue
- CSAH 42 (42nd Street) and CSAH 152 (Cedar Avenue)
- CSAH 42 (42nd Street) and Nokomis Avenue

## Brief Project Description

Hennepin County is proposing pedestrian-specific safety improvements (e.g. raised medians, curb extensions, crossing beacons, pavement markings, ADA upgrades) at various intersections (whenever feasible and warranted) in the City of Minneapolis as identified above (see Attachment A).

CSAH 3 (Lake Street) is a four-lane undivided roadway that serves approximately 19,400 vehicles daily. This section of roadway was reconstructed in the 2000s which introduced curb extensions at many of the intersections to better define on-street parking areas and reduce the pedestrian crossing distance. However, a curb extension was not installed in the southwest quadrant at the CSAH 3 (Lake Street) and CSAH 152 (Cedar Avenue) for reasons unknown. The land use near the CSAH 3 (Lake Street) and CSAH 152 (Cedar Avenue) intersection is primarily commercial, and thus, generates routine pedestrian crossing activity to access these destinations.

CSAH 42 (42nd Street) is a two-lane undivided roadway that serves approximately 8,500 vehicles daily. This project proposes pedestrian crossing improvements at various intersections along a one-mile segment between CSAH 152 (Cedar Avenue) and Nokomis Avenue that includes two signalized intersections to offer protected pedestrian crossings. Northrop Elementary School and Roosevelt High School are located near the project area which generate routine pedestrian crossing activity (especially children) along CSAH 42 (42nd Street).

The following is a summary of the general roadway characteristics associated with the intersections include:

- Urban roadways ranging from two to four lanes of vehicle through traffic lanes
- On-street parking
- On-road bicycle accommodations (bike boulevards, shared lanes, and bike lanes)
- Transit stops
- Diverse traffic control devices (side street stops, all-way stops, and traffic signals)
- Residential and commercial land uses

The following safety improvements (whenever feasible and warranted) are proposed as part of this application at existing signalized intersections (see Attachment B):

- Curb extensions to reduce the pedestrian crossing distance and provide traffic calming
- Lighting upgrades to improve nighttime visibility
- ADA upgrades (including pedestrian ramps and APS) to provide adequate accessibility

The following safety improvements (whenever feasible and warranted) are proposed as part of this application at existing non-signalized intersections: (see Attachment B):

- Raised medians to provide a pedestrian refuge and traffic calming
- Curb extensions to reduce the pedestrian crossing distance and provide traffic calming
- Revised pavement markings to better guide vehicles
- ADA upgrades (including pedestrian ramps) to provide adequate visibility
- Pedestrian crossing beacons to improve visibility

The proposed safety improvements at these intersections are consistent with those identified in the County's Roadway Safety Plan (CRSP) (see Attachment C) and are consistent with the strategies identified in the County's Roadway Safety Plan Big Book of Ideas (see Attachment C). Furthermore, the intersections were identified in the City of Minneapolis Pedestrian Crash Study as "High Pedestrian Crash Intersections" and being located along "Pedestrian Crash Concentration Corridors" (see Attachment C)". This is due to the high volume of traffic that these roadways carry, both for motor vehicles and bicycles/pedestrians. The City of Minneapolis Pedestrian Crash Study also identified the intersection of CSAH 3 (Lake Street) and CSAH 152 (Cedar Avenue) as an intersection where a high volume of pedestrian crashed occurred. The study also identified curb extensions as a potential mitigation measure to improve pedestrian safety at intersections (see Attachment C). The Northrop Elementary Safe Routes to School Study identified CSAH 42 (42<sup>nd</sup> Street) as a major barrier for students traveling to and from school due the high volumes and speeds along the corridor. This study also identified the intersections of CSAH 42 (42<sup>nd</sup> Street) and 21<sup>st</sup> Avenue, CSAH 42 (42<sup>nd</sup> Street) and 26<sup>th</sup> Avenue, and CSAH 42 (42<sup>nd</sup> Street) and Nokomis Avenue as potential opportunities for pedestrian safety improvements (see Attachment C).

Hennepin County will be coordinating with the City of Minneapolis and Metro Transit throughout this project (see Attachment D for letters of Support). This project will comply with state aid design standards and Americans with Disabilities Act (ADA) standards.

## Crash Summary

The major safety issues that occur at these intersections involve vehicles colliding with bicyclists and pedestrians after having failed to yield at crosswalks and disregarding traffic signals. Between 2006 and 2015, there were a total of 333 vehicular crashes reported at project location intersections in Minneapolis; 29 of these crashes involved bicycles and pedestrians. This data was provided by MnDOT staff using the Minnesota Department of Public Safety Data Base (see Attachment E). The following is a summary of the crashes reported. Additionally, collision diagrams for the intersections are included in Attachment F.

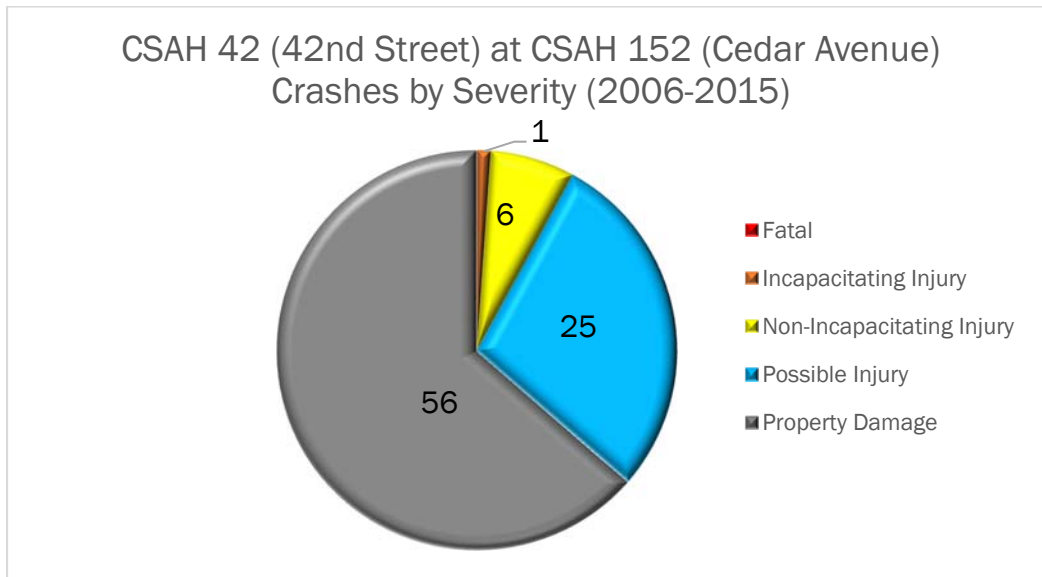
## Severity Type

Key findings from this summary include:

- 32 out of 88 of the vehicular-only crashes at CSAH 42 (42<sup>nd</sup> Street) and CSAH 152 (Cedar Avenue) were injury type crashes including one incapacitating injury, six non-incapacitating injury and 25 possible injury (see Figure 1).
- 75 out of 222 of the vehicular-only crashes at CSAH 3 (Lake Street) and CSAH 152 (Cedar Avenue) were injury type crashes including four incapacitating injury, 16 non-incapacitating injury and 54 possible injury. **One fatality** was recorded at this intersection (see Figure 2).
- For all of the intersections combined, there were a total of 29 crashes involving bicycles and/or pedestrians. Twenty-seven out of 29 of the crashes were injury type crashes including **one fatality**, four incapacitating injury, nine non-incapacitating injury, and 13 possible injury (see Figure 3).

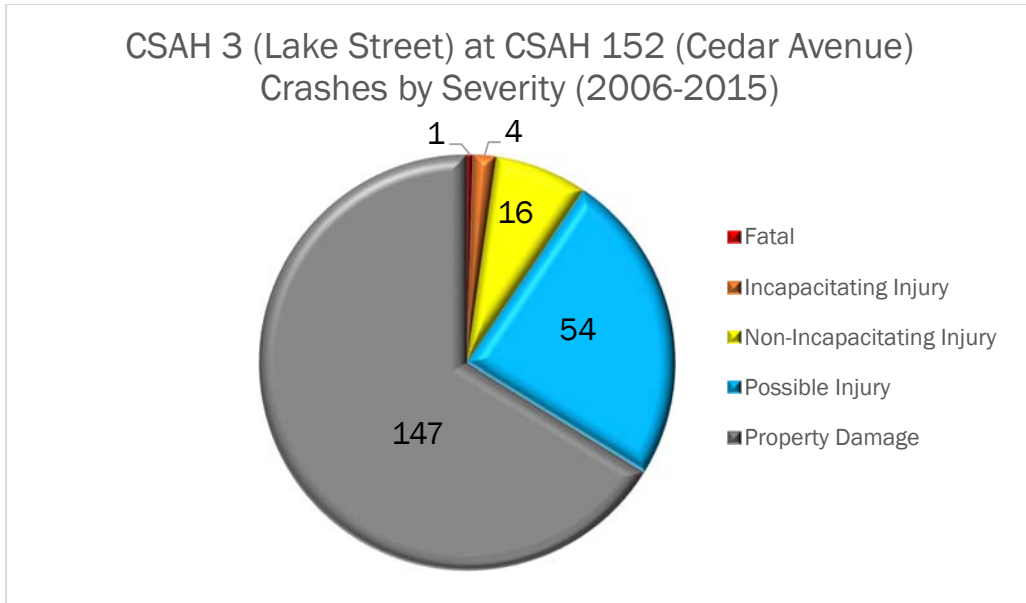
Figures 1 through 3 provide a summary of two of the five of the intersections' vehicle-only crash data, as well as all bicycle and pedestrian crashes, by severity type.

**FIGURE 1: CRASHES BY SEVERITY (CSAH 42 (42<sup>ND</sup> STREET) AND CSAH 152 (CEDAR AVENUE))**

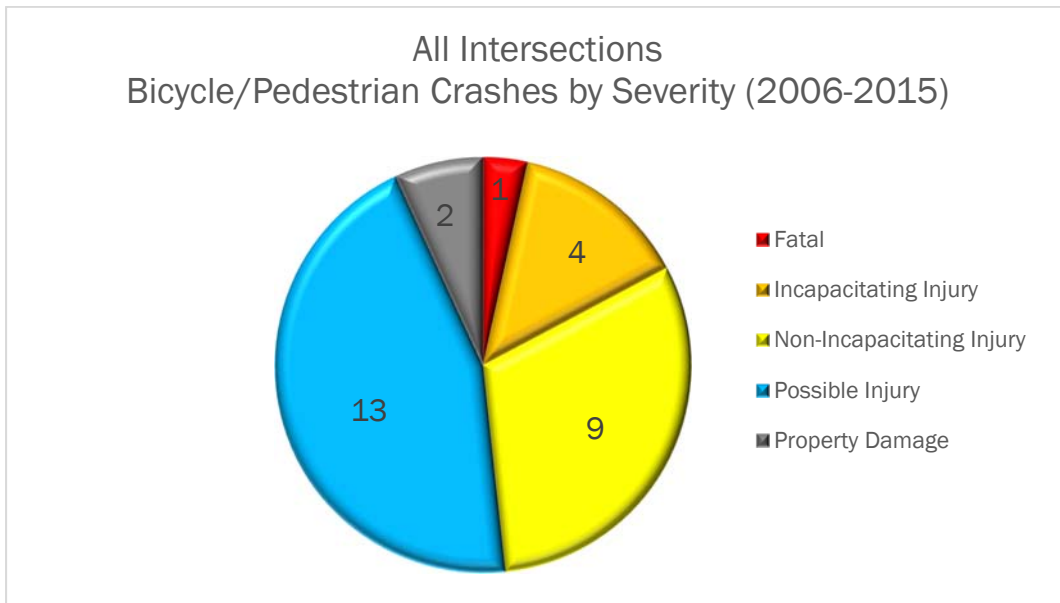




**FIGURE 2: CRASHES BY SEVERITY (CSAH 3 (LAKE STREET) AND CSAH 152 (CEDAR AVENUE))**



**FIGURE 3: BICYCLE/PEDESTRIAN CRASHES BY SEVERITY (ALL INTERSECTIONS)**



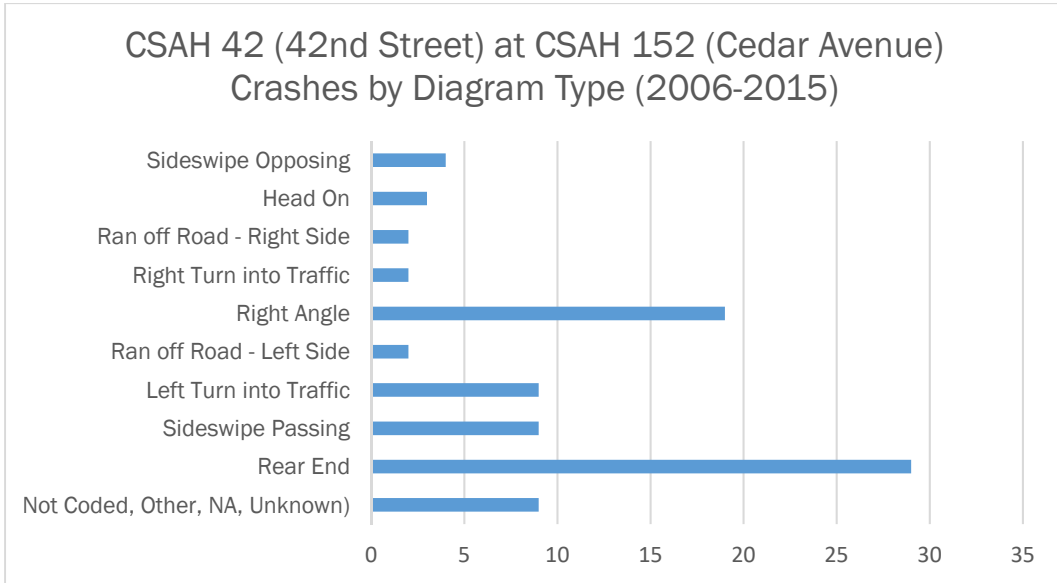
#### Crash Type

Figure 4 provides a summary of two of the five intersections' crash data by type. Key findings from this summary include:

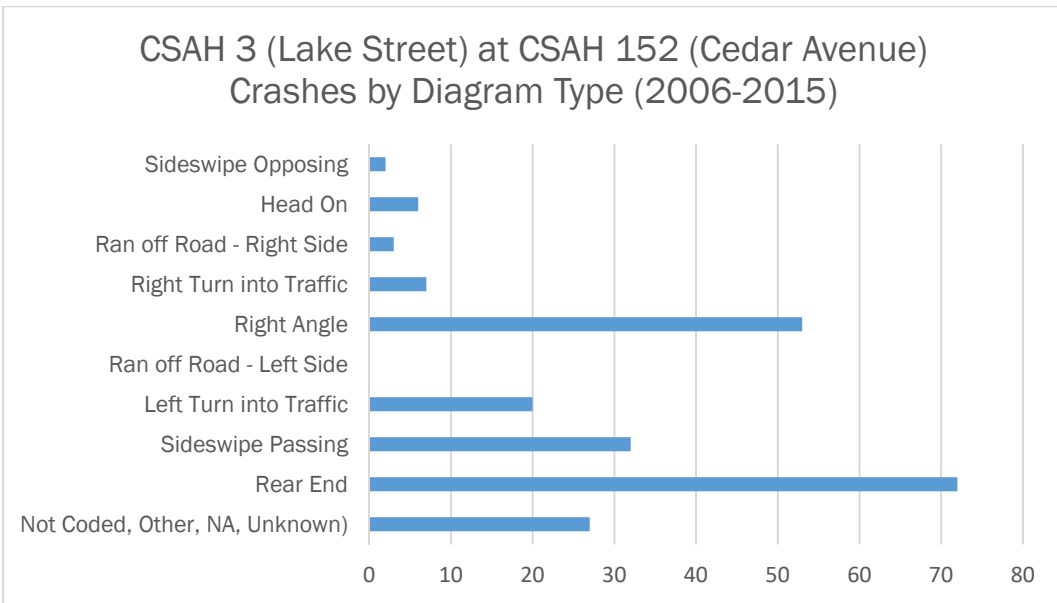
- Right angle and rear end crashes represented over 50 percent of crashes at CSAH 42 (42<sup>nd</sup> Street) and CSAH 152 (Cedar Avenue) as well as at CSAH 42 (42<sup>nd</sup> Street) and CSAH 3 (Lake Street) (see Figures 4 and 5).

- For bicycle and pedestrian related crashes, many of the 29 crashes were caused by vehicles failing to yield at crosswalks, vehicles disregarding traffic devices, and bicycle collisions with pedestrians.

**FIGURE 4: CRASHES BY TYPE (CSAH 42 (42<sup>ND</sup> STREET) AND CSAH 152 (CEDAR AVENUE))**



**FIGURE 5: CRASHES BY TYPE (CSAH 3 (LAKE STREET) AND CSAH 152 (CEDAR AVENUE))**



## Crash Reduction Factor (CRF)

The Desktop Reference for Crash Reduction Factors (Federal Highway Administration Report No. FHWA-SA-08-011) and the Federal Highway's Crash Modification Factors (CMF) Clearinghouse were used to identify appropriate CRFs for the intersection safety improvements (see Attachment G).

The following safety improvements (whenever feasible and warranted) are being proposed as part of this application at existing signalized intersections: (see Attachment B):

- Installation of accessible pedestrian signals (APS).
- Installation of curb extensions, accompanied with updated pedestrian crossing markings, to reduce crossing distances and provide a physical barrier from vehicles making turns.
- Upgrading of existing lighting (to LEDs)
- Upgrading of pedestrian ramps to meet current ADA design standards

The following CRFs were used to determine the project's benefits at the intersections of (see Attachment G):

- CSAH 3 (Lake Street) and CSAH 152 (Cedar Avenue)
- CSAH 42 (42<sup>nd</sup> Street) and CSAH 152 (Cedar Avenue)

CRF1 = Curb Extensions = 0.37 for all crash types

Findings: There were 310 crashes at both of these intersections, 26 of these were a bike or ped crash. As shown above, there is a 37 percent reduction (**approximately 115 crashes**) benefit in all crash types for installing curb extensions at these intersections.

The following safety improvements (whenever feasible and warranted) are being proposed as part of this application at existing non-signalized intersections (see Attachment B):

- Raised medians to provide a pedestrian refuge and traffic calming
- Revised pavement markings to better guide vehicles
- ADA upgrades (including pedestrian ramps) to provide adequate visibility
- Pedestrian crossing beacons to improve visibility

The following CRFs were used to determine the project's benefits at the intersections of (see Attachment G):

- CSAH 42 (42nd Street) and 21st Avenue
- CSAH 42 (42nd Street) and 26th Avenue
- CSAH 42 (42nd Street) and Nokomis Avenue

CRF1 = Install refuge islands = 0.56 for pedestrian crashes

Findings: 3 of the crashes at the intersections were "pedestrian" type crashes. As shown above, there is a 56 percent reduction (**approximately 2 crashes**) benefit for installing refuge islands at the intersections.

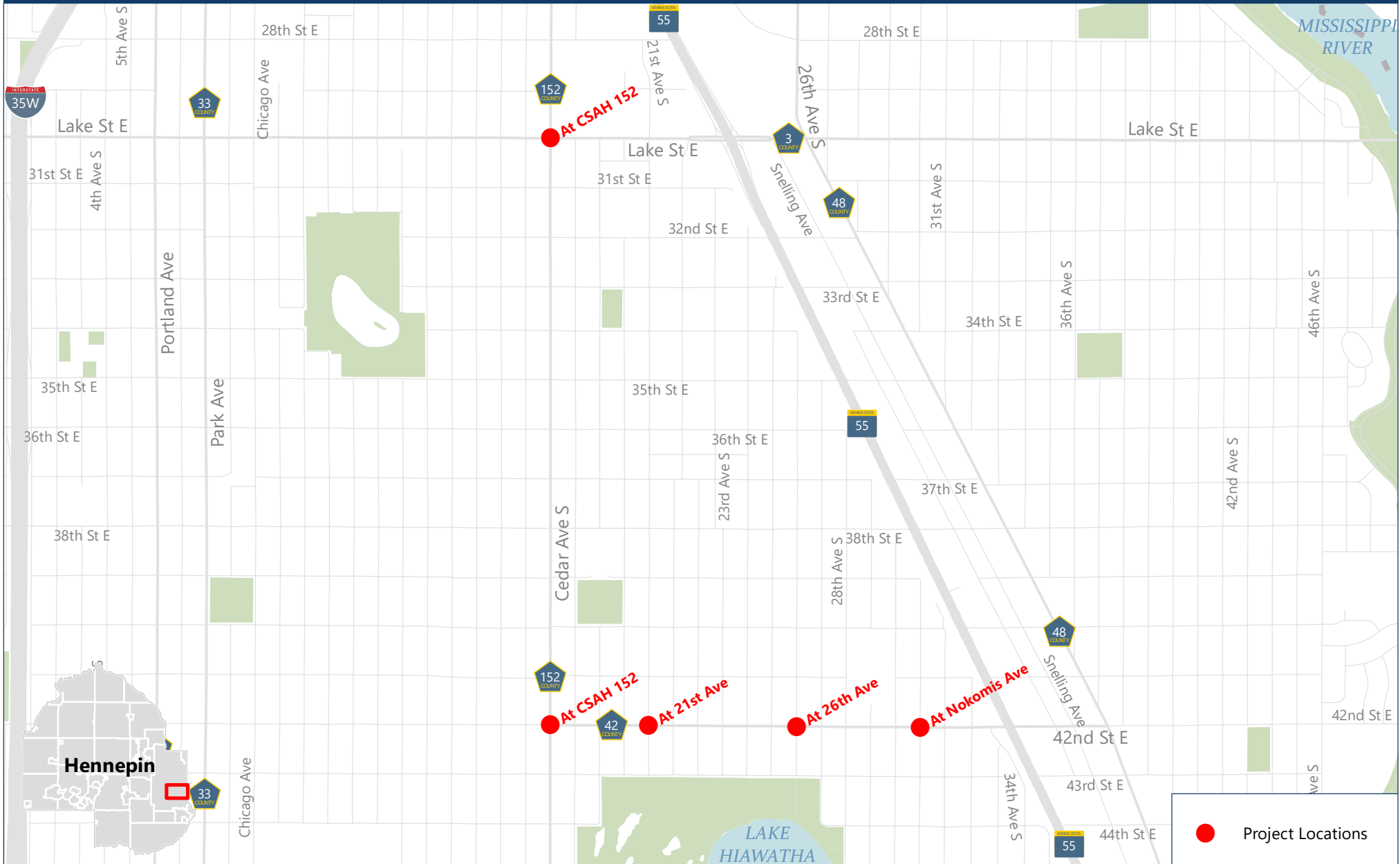
Overall the safety improvements being proposed have the potential to mitigate 117 crashes, including 11 bike or pedestrian related crashes.

**Attachment A – Project Location Map**

# 2018 HSIP | Project Location Map

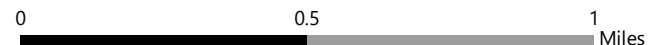
CSAH 3 (Lake St) and CSAH 42 (42nd St) Pedestrian Crossing Safety Improvements

HENNEPIN COUNTY  
MINNESOTA



**Disclaimer:** This map (i) is furnished "AS IS" with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this map.

Publication date: 8/23/2018



**Attachment B – Project Layout and Estimate of Project Costs**

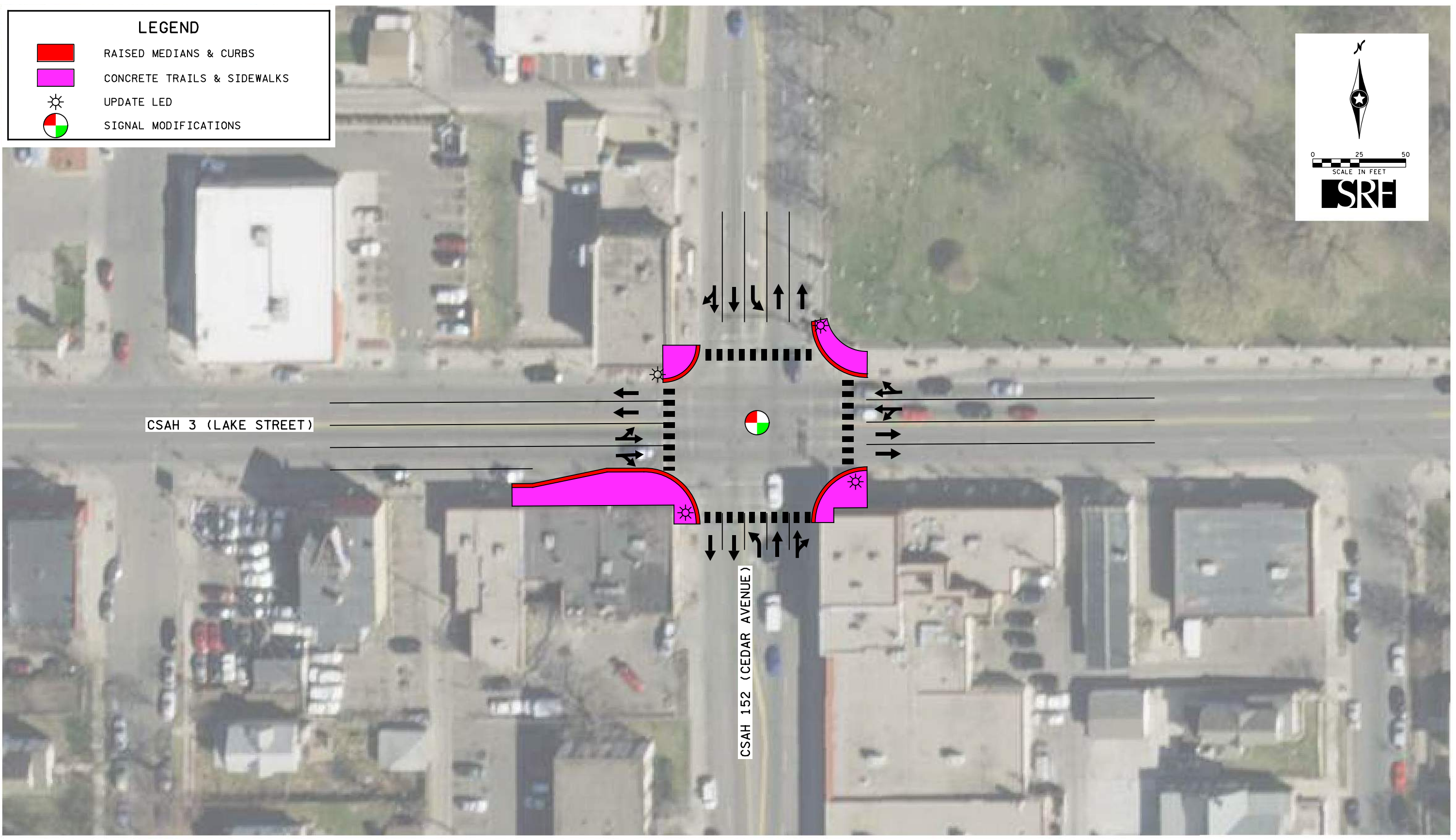


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**LEGEND**

- RAISED MEDIANS & CURBS
- CONCRETE TRAILS & SIDEWALKS
- ☀ UPDATE LED
- SIGNAL MODIFICATIONS

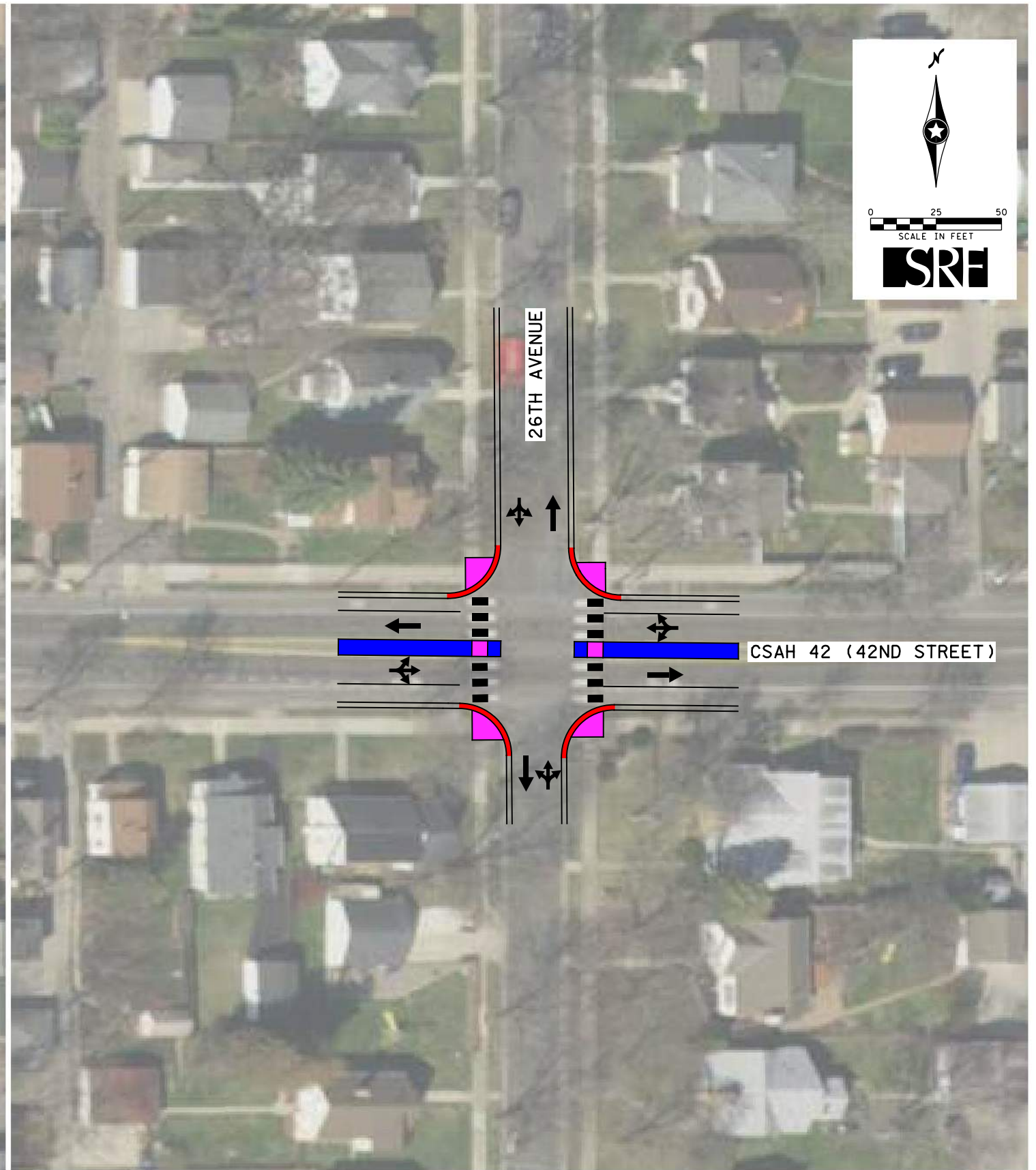
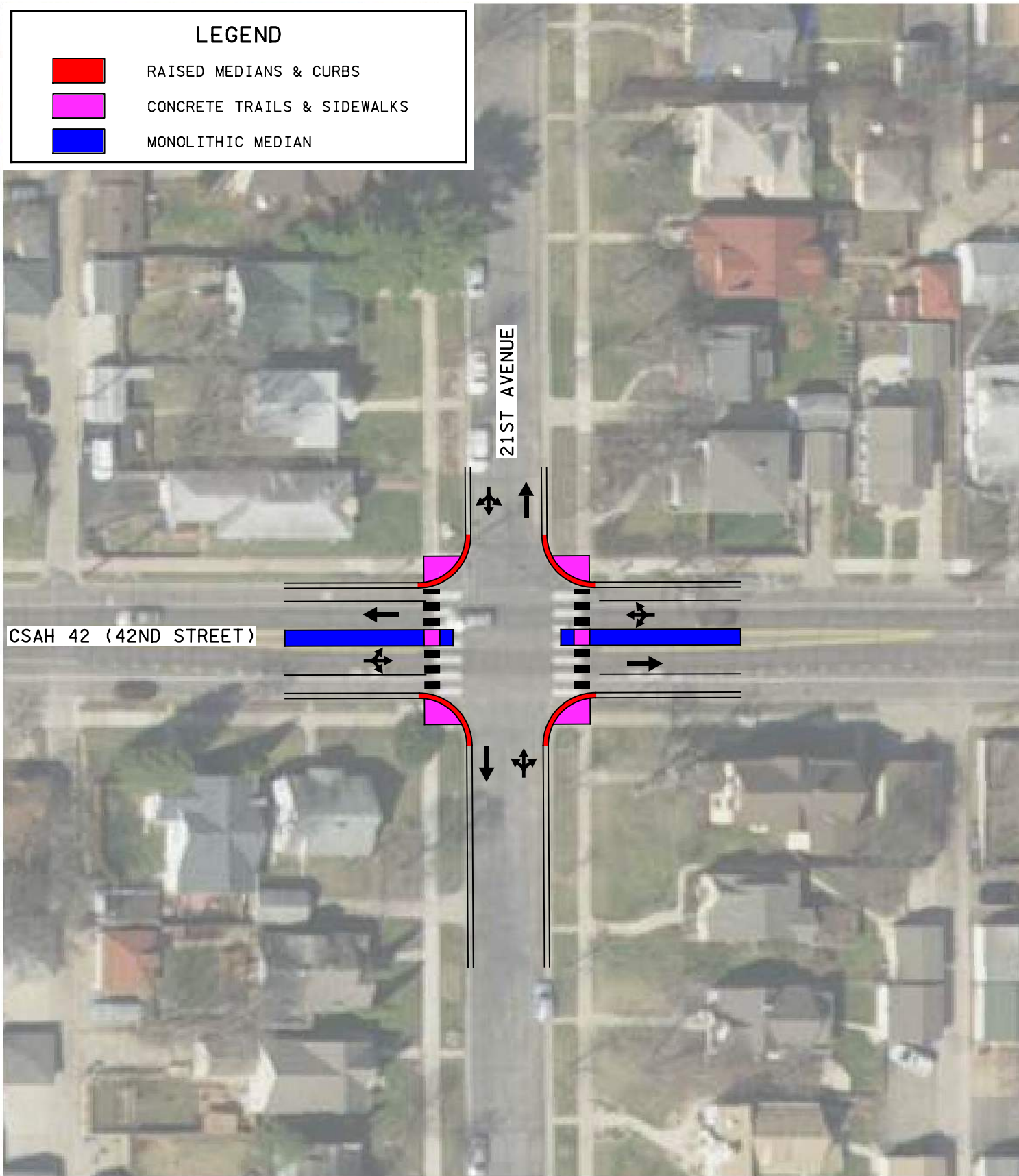
SCALE IN FEET  
**SRE**





**LEGEND**

- RAISED MEDIANS & CURBS
- CONCRETE TRAILS & SIDEWALKS
- MONOLITHIC MEDIAN



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**Hennepin County 2018 HSIP**






CSAH 42 (42nd Street) & 21st Avenue and CSAH 42 (42nd Street) & 26th Avenue Intersection Safety Improvements  
 Minneapolis, MN

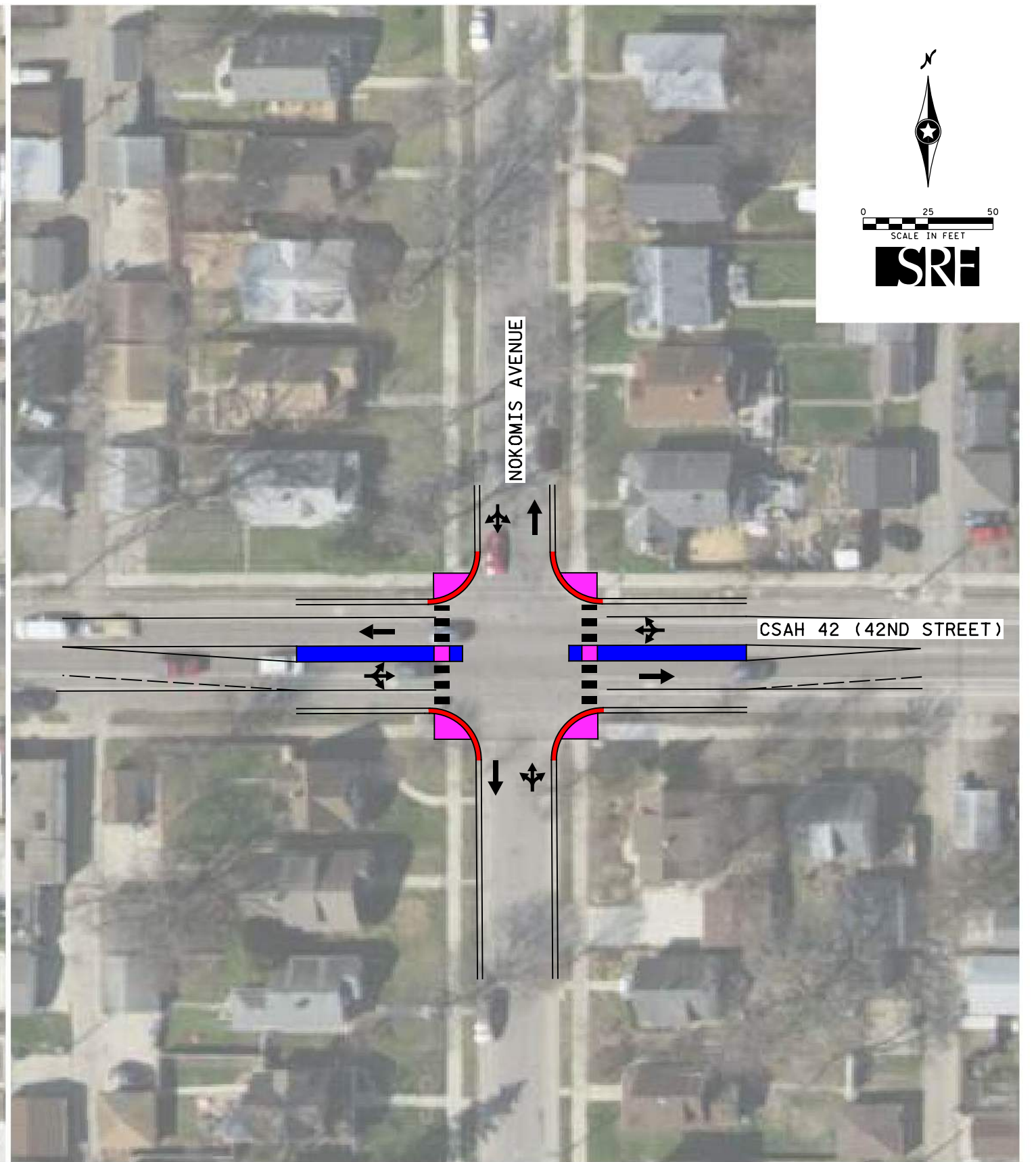
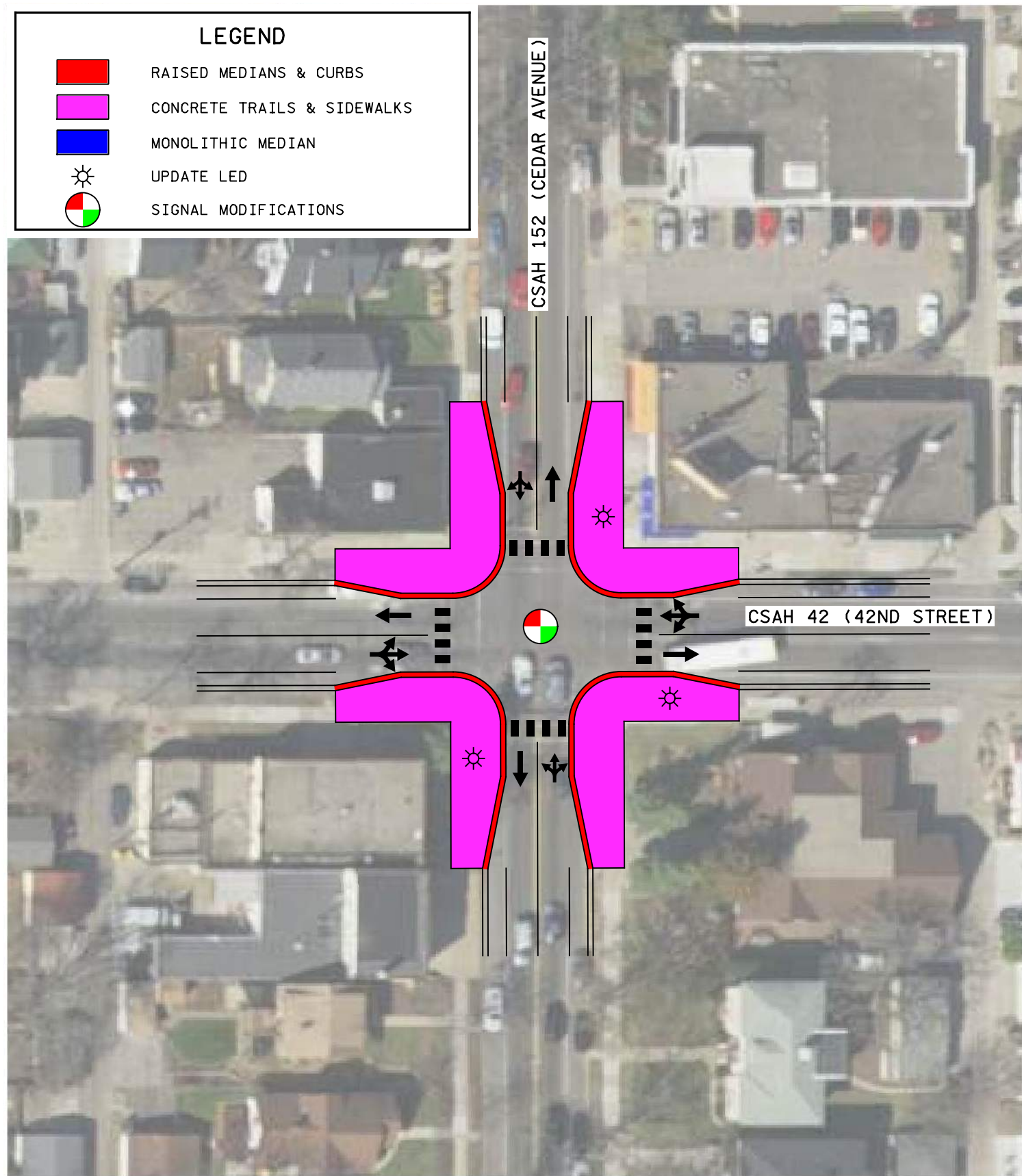
**Figure 2**



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**LEGEND**

-  RAISED MEDIANS & CURBS
-  CONCRETE TRAILS & SIDEWALKS
-  MONOLITHIC MEDIAN
-  UPDATE LED
-  SIGNAL MODIFICATIONS



SCALE IN FEET

**SRE**



**Hennepin County 2018 HSIP**

CSAH 42 (42nd Street) & CSAH 152 (Cedar Avenue) and CSAH 42 (42nd Street) & Nokomis Avenue Intersection Safety Improvements  
 Minneapolis, MN

**Figure 3**



**HENNEPIN COUNTY 2018 HSIP APPLICATION  
Minneapolis Pedestrian Crossing Improvements**

Concept Cost Estimate (based upon 2017 bid price information)

Prepared By: SRF Consulting Group, Inc., 08/14/2018

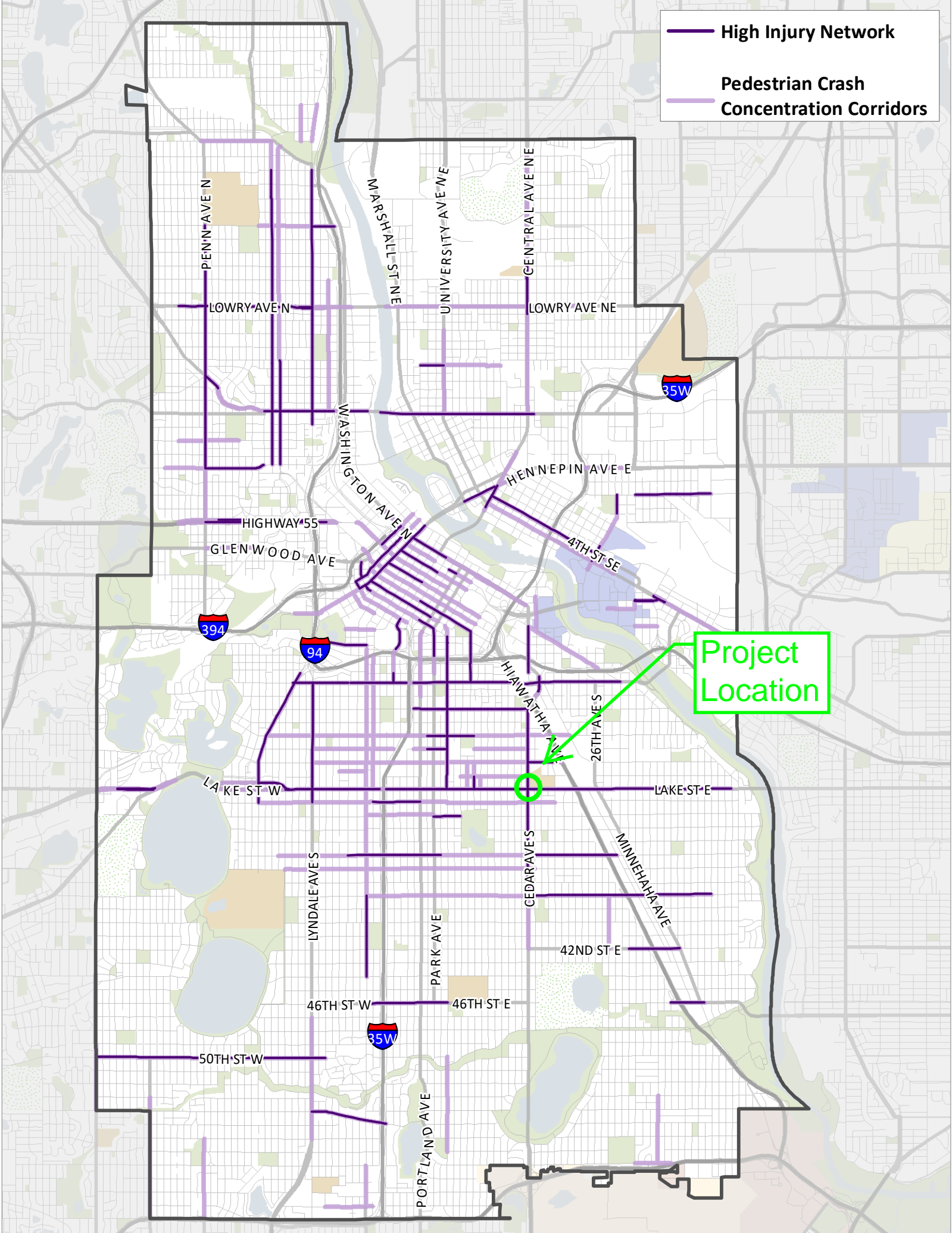
					CSAH 3 & CSAH 152 CSAH 42 & CSAH 152 CSAH 42 & 21st Avenue CSAH 42 & 26th Avenue CSAH 42 & Nokomis Avenue	
ITEM DESCRIPTION			UNIT	UNIT PRICE	EST. QUANTITY	EST. AMOUNT
<b>PAVING AND GRADING COSTS</b>						
1	Monolithic Median	(1)	sq. vd.	\$65.00	240	\$15,600
2	Concrete Walk / Trail / Median	(1)	sq. vd.	\$50.00	1,275	\$63,750
3	ADA Pedestrian Curb Ramp		each	\$1500.00	40	\$60,000
4	Concrete Curb and Gutter		lin. ft.	\$25.00	1,115	\$27,875
5	Removals - Pavement		sq. vd.	\$10.00	420	\$4,200
<b>SUBTOTAL PAVING AND GRADING COSTS:</b>						<b>\$171,425</b>
<b>DRAINAGE, UTILITIES AND EROSION CONTROL</b>						
1	Drainage - urban		30%			\$52,000
<b>SUBTOTAL DRAINAGE, UTILITIES AND EROSION CONTROL</b>						<b>\$52,000</b>
<b>SIGNAL AND LIGHTING COSTS</b>						
1	Signal Modifications	(2)	each	\$150,000	2	\$300,000
2	Intersection Lighting (LED)		each	\$1,500	7	\$10,500
<b>SUBTOTAL SIGNAL AND LIGHTING COSTS:</b>						<b>\$310,500</b>
<b>SIGNING &amp; STRIPING COSTS</b>						
1	Signing and Striping		Lump Sum	\$8,000	1	\$8,000
<b>SUBTOTAL SIGNING &amp; STRIPING COSTS:</b>						<b>\$8,000</b>
<b>SUBTOTAL CONSTRUCTION COSTS:</b>						<b>\$541,925</b>
<b>MISCELLANEOUS COSTS</b>						
1	Mobilization		10%			\$55,000
2	Non Quantified Minor Items		10%			\$55,000
3	Traffic Control		10%			\$55,000
<b>SUBTOTAL MISCELLANEOUS COSTS:</b>						<b>\$165,000</b>
<b>ESTIMATED TOTAL CONSTRUCTION COSTS without Contingency:</b>						<b>\$706,925</b>
1	Contingency or "risk"		30%			\$213,000
<b>ESTIMATED TOTAL CONSTRUCTION COSTS PLUS CONTINGENCY:</b>						<b>\$919,925</b>
<b>TOTAL PROJECT COST (OPENING YEAR DOLLARS)</b>						<b>\$920,000</b>

(1) Includes aggregate base class 5.  
(2) Modifications to existing signal systems at CSAH 3/CSAH 152 and CSAH 42/CSAH 152

**Attachment C – Relevant Planning Documents**



-  High Injury Network
-  Pedestrian Crash Concentration Corridors



Project Location



# Crashes at County Road Intersections

Hennepin County owns and maintains a number of arterials through the City of Minneapolis, such as Lake Street (County Road 3) and Penn Avenue (County Road 2). These streets connect destinations within and outside the City of Minneapolis, and as such are some of the highest volume arterial streets in the City of Minneapolis for both pedestrians and other modes. The intersections on county roads with the most pedestrian crashes are shown in **Table C-5** and intersections with the highest crash rates are shown in **Table C-6**.

**Table C-5. County Intersections with Highest Pedestrian Crash Totals**

Rank	Street On	Cross Street	Total Pedestrian Crashes	Crash Rate Crashes per Million Entering Vehicles per Year	Entering Vehicle Volume (Vehicles/Day)
1	Lake St W	Lyndale Ave S	24	0.17	37,950
2	West Broadway Ave N	Lyndale Ave N	23	0.23	28,000
3	Franklin Ave W	Nicollet Ave S	21	0.18	31,600
4	Lake St W	Hennepin Ave S	20	0.21	26,300
5	Lake St W	Pillsbury Ave S	17	0.18	25,400
6	Lake St W	Blaisdell Ave S	17	0.18	26,500
7	4th St S	Cedar Ave S	16	0.22	19,650
8	Franklin Ave E	Chicago Ave S	16	0.17	25,150
9	Franklin Ave E	Portland Ave S	16	0.14	30,350
10	26th St W	Lyndale Ave S	15	0.14	29,700
11	Lake St E	Bloomington Ave S	13	0.12	30,500
12	Lake St E	1st Ave S	11	0.12	24,900
13	Franklin Ave E	3rd Ave S	11	0.12	25,675
14	Lowry Ave NE	Central Ave NE	11	0.11	26,500
15	Lagoon Ave W	Hennepin Ave S	11	0.11	27,600
16	Franklin Ave W	Lyndale Ave S	11	0.08	37,100
17	Lake St E	Chicago Ave S	10	0.09	32,200
18	Lowry Ave N	Penn Ave N	9	0.11	21,750
19	4th St SE	15th Ave SE	9	0.10	24,800
20	24th St W	Lyndale Ave S	9	0.09	27,825
21	Franklin Ave E	Park Ave S	9	0.09	29,000
22	Lake St E	Cedar Ave S	9	0.07	37,000
23	Lake St E	28th Ave S	8	0.15	15,150
24	Lake St W	Bryant Ave S	8	0.09	25,200
25	38th St E	Minnehaha Ave S	8	0.14	15,825

Source for Pedestrian Crash Data: 10-Year Database

Source for Vehicle Volume Data: City of Minneapolis



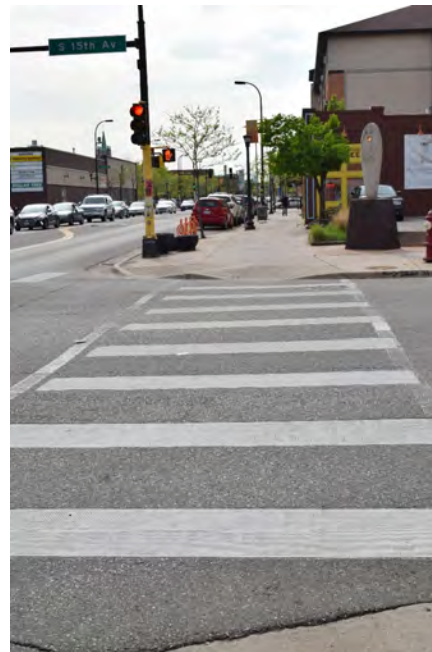
## Engineering

Street and intersection design is one of the tools that the city and other agencies will need to employ to reduce pedestrian crashes. Good design improves the comfort of the pedestrian realm and reduces conflicts between pedestrians and other modes. This section suggests several strategies to be considered relative to street design and operation.

Engineering strategies that can help improve pedestrian safety include:

- **Visibility of Crosswalks and Crossings** - While Minnesota State Statute establishes pedestrians' right to cross at any intersection regardless of the presence of a marked crosswalk, marked crosswalks serve as a guide for pedestrians and as a way to communicate pedestrian right-of-way to motorists. Unsignalized marked crosswalks should be considered for additional treatments such as flashers or median refuge.
- **Pedestrian Refuges** - Refuge islands reduce the distance and time that pedestrians are exposed to vehicle traffic. They are best applied where vehicle volumes or number of lanes make crossing difficult.
- **Intersection Radii** - Minimizing corner radii serves to reduce vehicle turning speeds and shorten pedestrian crossings at the intersection.
- **Curb Extensions** – Bumping curbs out at intersections improves the visibility of pedestrians, as well as reducing crossing distance. Where curb extensions are not feasible, parking clearance of 20 to 25 feet from the crosswalk can still be used to make sure drivers and pedestrians can see each other.
- **Road Narrowing** - Fewer lanes and conflict points will help reduce pedestrian crashes. Reduce crossing distances by eliminating lanes when feasible.
- **Leading Pedestrian Interval (LPI)** – A LPI is a signal design feature that gives the walk signal to pedestrians prior to a green light for automobiles. This strategy has the most benefit where there are significant conflicts or crashes with turning vehicles, especially left-turning vehicles.
- **Reducing Speed Limits** – Higher vehicle speeds result in greater chance of a pedestrian crash resulting in a fatality or serious injury.
- **Left Turn Treatments** - When a fully protected left turn phase is not feasible, a Flashing Yellow Arrow can include a protected only phase only when the push button is pressed.
- **Appropriate Design Speeds** - Advocate for lower design speeds to reduce required width and number of lanes and ultimately increase pedestrian comfort.

Narrowing lanes, shortening crossing distances, reducing conflicts with turning vehicles, reducing vehicle speeds, and other traffic calming measures decrease pedestrian fatality and serious injury rates.



**Figure 6-1. Example of Zebra Crosswalk**  
*The intersection of 15th Avenue South and Franklin Avenue has visible, zebra-style crossings that reinforce pedestrian presence.*

**Desirable**



- Wide pedestrian zone
- Small corner radius
- Ample corner space
- Straight path of travel

**Undesirable**



- Narrow pedestrian zone
- Large corner radius
- Little corner space
- Indirect path of travel

**Figure 6-2. Access Minneapolis Design Guidelines for Streets and Sidewalks**

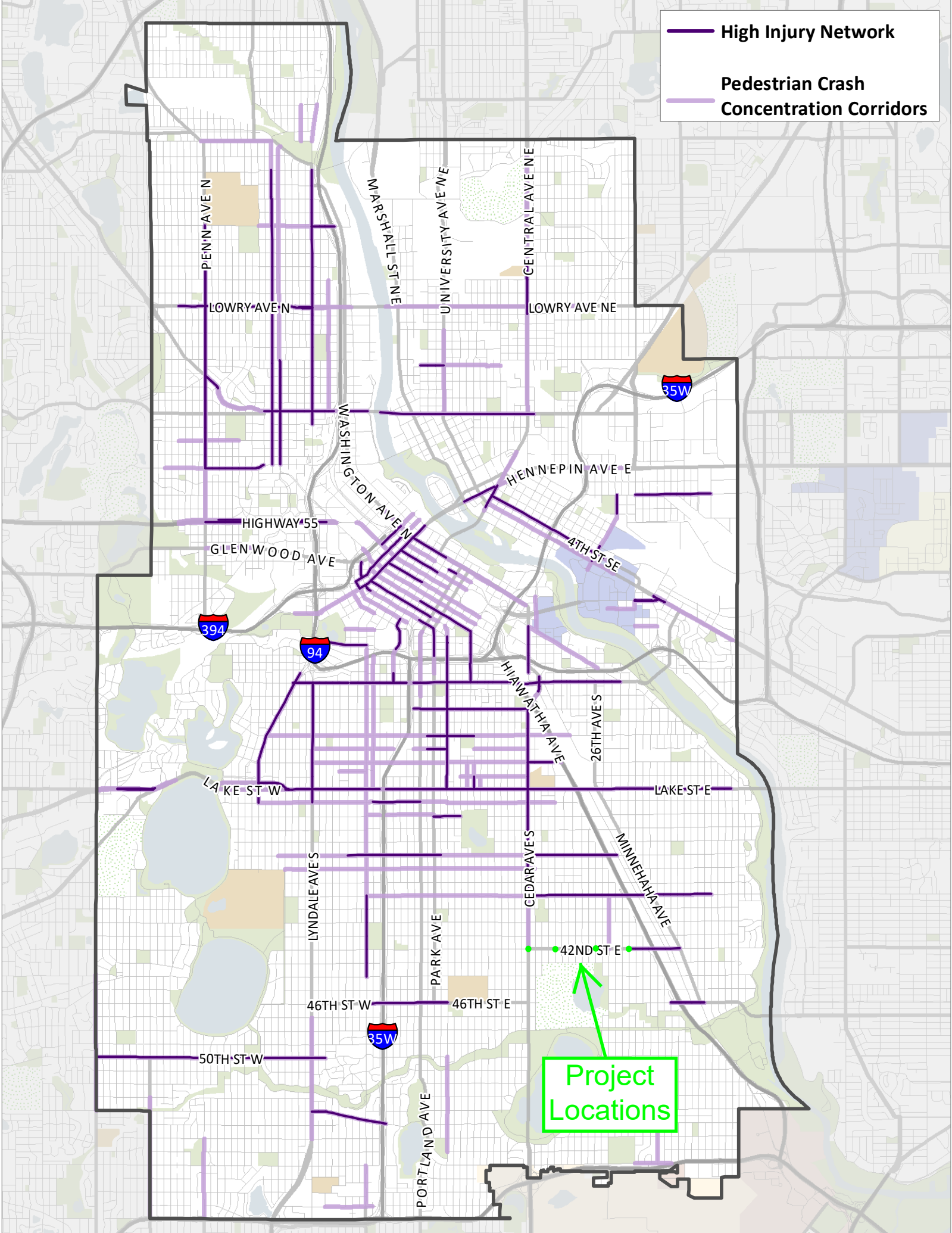
*The design guidelines in Access Minneapolis note that small corners and straight pedestrian travel paths are preferred over large radii and indirect pedestrian paths.*



Urban Intersection Prioritization for Hennepin County - PED/BIKE RELATED

List No.	County Rank	CRSP 2 ID	Route System	Route No.	County	Description	Risk Factors							Tiebreaker	
							Traffic Control	Entering ADT	Adjacent Development	Max Number of Lanes Crossed	Presence of Refuge Island	Pedestrian Crossing Type	Presence of Transit Stop		Total Stars
1028	1	1520052	NV	152	Hennepin	County Road 152 at CSAH 3 (Lake Street East)	★	★	★	★	★	★	★	★★★★★★	\$16,981,000
119	2	30294	NV	3	Hennepin	County Road 3 at 27th Avenue South	★	★	★	★	★	★	★	★★★★★★	\$12,543,800
87	3	30178	NV	3	Hennepin	County Road 3 at Market Plaza	★	★	★	★	★	★	★	★★★★★★	\$12,261,200
1105	4	1530056	NV	153	Hennepin	County Road 153 at 2nd Street North	★	★	★	★	★	★	★	★★★★★★	\$11,884,200
855	5	810004	NV	81	Hennepin	County Road 81 at Lyndale Avenue North	★	★	★	★	★	★	★	★★★★★★	\$8,060,200
1070	6	1520194	NV	152	Hennepin	County Road 152 at 42nd Avenue North	★	★	★	★	★	★	★	★★★★★★	\$4,817,800
151	7	50222	NV	5	Hennepin	County Road 5 at Nicollet Avenue	★	★	★	★	★	★	★	★★★★★★	\$4,761,200
1053	8	1520114	NV	152	Hennepin	County Road 152 at CSAH 52 (Hennepin Avenue)	★	★	★	★	★	★	★	★★★★★★	\$4,732,800
1108	9	1530068	NV	153	Hennepin	County Road 153 at State Highway 47 (University Avenue Northeast)	★	★	★	★	★	★	★	★★★★★★	\$4,618,400
390	10	220070	NV	22	Hennepin	County Road 22 at 24th Street West	★	★	★	★	★	★	★	★★★★★★	\$4,262,200
155	11	50244	NV	5	Hennepin	County Road 5 at Chicago Avenue	★	★	★	★	★	★	★	★★★★★★	\$4,209,200
104	12	30236	NV	3	Hennepin	County Road 3 at 1st Avenue South	★	★	★	★	★	★	★	★★★★★★	\$4,027,600
101	13	30230	NV	3	Hennepin	County Road 3 at Pillsbury Avenue	★	★	★	★	★	★	★	★★★★★★	\$3,641,000
858	14	810012	NV	81	Hennepin	County Road 81 at Emerson Avenue North	★	★	★	★	★	★	★	★★★★★★	\$3,404,400
57	15	20066	NV	2	Hennepin	County Road 2 at CSAH 153 (Lowry Avenue North)	★	★	★	★	★	★	★	★★★★★★	\$3,362,000
153	16	50232	NV	5	Hennepin	County Road 5 at 3rd Avenue South	★	★	★	★	★	★	★	★★★★★★	\$3,334,800
392	17	220074	NV	22	Hennepin	County Road 22 at CSAH 5 (Franklin Avenue West)	★	★	★	★	★	★	★	★★★★★★	\$3,314,600
102	18	30232	NV	3	Hennepin	County Road 3 at Blaisdell Avenue South	★	★	★	★	★	★	★	★★★★★★	\$3,199,600
1112	19	1530092	NV	153	Hennepin	County Road 153 at State Highway 65 (Central Avenue Northeast)	★	★	★	★	★	★	★	★★★★★★	\$3,098,800
388	20	220062	NV	22	Hennepin	County Road 22 at 28th Street West	★	★	★	★	★	★	★	★★★★★★	\$3,018,800
391	21	220072	NV	22	Hennepin	County Road 22 at 22nd Street West	★	★	★	★	★	★	★	★★★★★★	\$2,999,600
857	22	810010	NV	81	Hennepin	County Road 81 at Dupont Avenue North	★	★	★	★	★	★	★	★★★★★★	\$2,980,800
314	23	170010	NV	17	Hennepin	County Road 17 at 102nd Street West	★	★	★	★	★	★	★	★★★★★★	\$2,889,200
120	24	30296	NV	3	Hennepin	County Road 3 at 28th Avenue South	★	★	★	★	★	★	★	★★★★★★	\$2,886,800
1066	25	1520168	NV	152	Hennepin	County Road 152 at CSAH 153 (Lowry Avenue North)	★	★	★	★	★	★	★	★★★★★★	\$2,757,000
55	26	20052	NV	2	Hennepin	County Road 2 at CSAH 81 (West Broadway)	★	★	★	★	★	★	★	★★★★★★	\$2,705,800
114	27	30272	NV	3	Hennepin	County Road 3 at Bloomington Avenue South	★	★	★	★	★	★	★	★★★★★★	\$2,667,800
108	28	30248	NV	3	Hennepin	County Road 3 at 4th Avenue South	★	★	★	★	★	★	★	★★★★★★	\$2,634,800
496	29	330034	NV	33	Hennepin	County Road 33 at CSAH 3 (Lake Street East)	★	★	★	★	★	★	★	★★★★★★	\$2,607,600
994	30	1300040	NV	130	Hennepin	County Road 130 at Northland Drive North	★	★	★	★	★	★	★	★★★★★★	\$2,596,400
818	31	660082	NV	66	Hennepin	County Road 66 at 2nd Street North	★	★	★	★	★	★	★	★★★★★★	\$2,555,000
152	32	50224	NV	5	Hennepin	County Road 5 at 1st Avenue South	★	★	★	★	★	★	★	★★★★★★	\$2,429,800
1027	33	1520050	NV	152	Hennepin	County Road 152 at 31st Street East	★	★	★	★	★	★	★	★★★★★★	\$2,339,600
941	34	1020040	NV	102	Hennepin	County Road 102 at 36th Avenue North	★	★	★	★	★	★	★	★★★★★★	\$2,274,000
1002	35	1300088	NV	130	Hennepin	County Road 130 at Zane Avenue North	★	★	★	★	★	★	★	★★★★★★	\$2,137,000
1022	36	1520036	NV	152	Hennepin	County Road 152 at 38th Street East	★	★	★	★	★	★	★	★★★★★★	\$2,095,600
349	37	1900666	NV	19	Hennepin	County Road 19 at CSAH 15 (Shoreline Drive)	★	★	★	★	★	★	★	★★★★★★	\$2,080,800
1061	38	1520136	NV	152	Hennepin	County Road 152 at Plymouth Avenue North	★	★	★	★	★	★	★	★★★★★★	\$1,981,200
150	39	50220	NV	5	Hennepin	County Road 5 at Lasalle Avenue / Blaisdell Avenue South	★	★	★	★	★	★	★	★★★★★★	\$1,959,800
1055	40	1520118	NV	152	Hennepin	County Road 152 at 2nd Avenue North	★	★	★	★	★	★	★	★★★★★★	\$1,939,000
98	41	30216	NV	3	Hennepin	County Road 3 at Bryant Avenue South	★	★	★	★	★	★	★	★★★★★★	\$1,863,200
259	42	120013	NV	12	Hennepin	County Road 12 at 95th Avenue North	★	★	★	★	★	★	★	★★★★★★	\$1,703,200
1041	43	1520088	NV	152	Hennepin	County Road 152 at 15th Avenue South / Washington Avenue South	★	★	★	★	★	★	★	★★★★★★	\$1,639,200
658	44	520028	NV	52	Hennepin	County Road 52 at 86th Street West / 86th Street East	★	★	★	★	★	★	★	★★★★★★	\$1,596,400
1127	45	1560052	NV	156	Hennepin	County Road 156 at 36th Avenue North	★	★	★	★	★	★	★	★★★★★★	\$1,578,800
387	46	220058	NV	22	Hennepin	County Road 22 at 31st Street West	★	★	★	★	★	★	★	★★★★★★	\$1,531,000
122	47	30302	NV	3	Hennepin	County Road 3 at 31st Avenue South	★	★	★	★	★	★	★	★★★★★★	\$1,520,400
143	48	50130	NV	5	Hennepin	County Road 5 at Louisiana Avenue South	★	★	★	★	★	★	★	★★★★★★	\$1,492,000
100	49	30226	NV	3	Hennepin	County Road 3 at Grand Avenue South	★	★	★	★	★	★	★	★★★★★★	\$1,486,000
612	50	430006	NV	43	Hennepin	County Road 43 at Hennepin Avenue	★	★	★	★	★	★	★	★★★★★★	\$1,459,400

-  High Injury Network
-  Pedestrian Crash Concentration Corridors



Project Locations



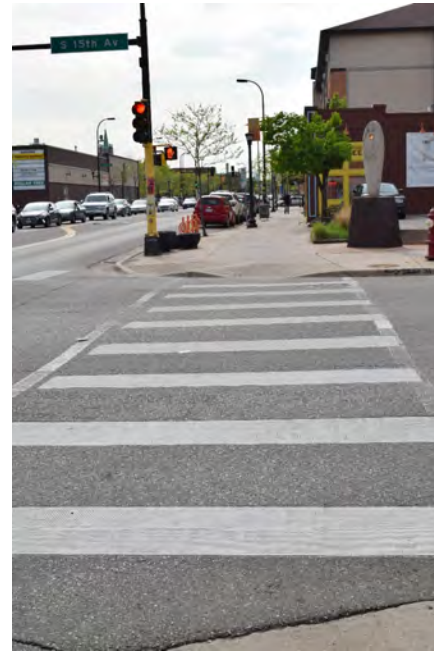
## Engineering

Street and intersection design is one of the tools that the city and other agencies will need to employ to reduce pedestrian crashes. Good design improves the comfort of the pedestrian realm and reduces conflicts between pedestrians and other modes. This section suggests several strategies to be considered relative to street design and operation.

Engineering strategies that can help improve pedestrian safety include:

- **Visibility of Crosswalks and Crossings** - While Minnesota State Statute establishes pedestrians' right to cross at any intersection regardless of the presence of a marked crosswalk, marked crosswalks serve as a guide for pedestrians and as a way to communicate pedestrian right-of-way to motorists. Unsignalized marked crosswalks should be considered for additional treatments such as flashers or median refuge.
- **Pedestrian Refuges** - Refuge islands reduce the distance and time that pedestrians are exposed to vehicle traffic. They are best applied where vehicle volumes or number of lanes make crossing difficult.
- **Intersection Radii** - Minimizing corner radii serves to reduce vehicle turning speeds and shorten pedestrian crossings at the intersection.
- **Curb Extensions** – Bumping curbs out at intersections improves the visibility of pedestrians, as well as reducing crossing distance. Where curb extensions are not feasible, parking clearance of 20 to 25 feet from the crosswalk can still be used to make sure drivers and pedestrians can see each other.
- **Road Narrowing** - Fewer lanes and conflict points will help reduce pedestrian crashes. Reduce crossing distances by eliminating lanes when feasible.
- **Leading Pedestrian Interval (LPI)** – A LPI is a signal design feature that gives the walk signal to pedestrians prior to a green light for automobiles. This strategy has the most benefit where there are significant conflicts or crashes with turning vehicles, especially left-turning vehicles.
- **Reducing Speed Limits** – Higher vehicle speeds result in greater chance of a pedestrian crash resulting in a fatality or serious injury.
- **Left Turn Treatments** - When a fully protected left turn phase is not feasible, a Flashing Yellow Arrow can include a protected only phase only when the push button is pressed.
- **Appropriate Design Speeds** - Advocate for lower design speeds to reduce required width and number of lanes and ultimately increase pedestrian comfort.

Narrowing lanes, shortening crossing distances, reducing conflicts with turning vehicles, reducing vehicle speeds, and other traffic calming measures decrease pedestrian fatality and serious injury rates.



**Figure 6-1. Example of Zebra Crosswalk**  
*The intersection of 15th Avenue South and Franklin Avenue has visible, zebra-style crossings that reinforce pedestrian presence.*

**Desirable**



- Wide pedestrian zone
- Small corner radius
- Ample corner space
- Straight path of travel

**Undesirable**



- Narrow pedestrian zone
- Large corner radius
- Little corner space
- Indirect path of travel

**Figure 6-2. Access Minneapolis Design Guidelines for Streets and Sidewalks**

*The design guidelines in Access Minneapolis note that small corners and straight pedestrian travel paths are preferred over large radii and indirect pedestrian paths.*



Urban Intersection Prioritization for Hennepin County - PED/BIKE RELATED

List No.	County Rank	CRSP 2 ID	Route System	Route No.	County	Description	Risk Factors							Tiebreaker	
							Traffic Control	Entering ADT	Adjacent Development	Max Number of Lanes Crossed	Presence of Refuge Island	Pedestrian Crossing Type	Presence of Transit Stop		Total Stars
645	101	480046	NV	48	Hennepin	County Road 48 at CSAH 3 (Lake Street East)	★	★	★		★	★	★	★★★★★	\$3,309,400
821	102	660092	NV	66	Hennepin	County Road 66 at State Highway 47 (University Avenue Northeast)	★	★	★	★		★	★	★★★★★	\$3,183,400
534	103	350048	NV	35	Hennepin	County Road 35 at CSAH 3 (Lake Street East)	★	★	★		★	★	★	★★★★★	\$3,153,800
318	104	170038	NV	17	Hennepin	County Road 17 at American Boulevard West	★	★	★	★		★	★	★★★★★	\$3,072,000
1107	105	1530064	NV	153	Hennepin	County Road 153 at 2nd Street Northeast	★	★	★	★		★	★	★★★★★	\$2,830,600
1020	106	1520026	NV	152	Hennepin	County Road 152 at CSAH 42 (42nd Street East)	★	★	★		★	★	★	★★★★★	\$2,777,800
566	107	360002	NV	36	Hennepin	County Road 36 at 10th Avenue Southeast	★	★	★		★	★	★	★★★★★	\$2,644,600
116	108	30286	NV	3	Hennepin	County Road 3 at 21st Avenue South	★	★	★	★		★	★	★★★★★	\$2,351,800
49	109	20030	NV	2	Hennepin	County Road 2 at Plymouth Avenue North	★	★	★		★	★	★	★★★★★	\$2,280,400
1101	110	1530032	NV	153	Hennepin	County Road 153 at Fremont Avenue North	★	★	★		★	★	★	★★★★★	\$2,265,000
1129	111	1560062	NV	156	Hennepin	County Road 156 at CSAH 9 (42nd Avenue North)	★	★	★	★		★	★	★★★★★	\$2,260,000
1113	112	1530106	NV	153	Hennepin	County Road 153 at Johnson Street Northeast	★	★		★		★	★	★★★★★	\$2,199,000
1132	113	1560080	NV	156	Hennepin	County Road 156 at 49th Avenue North	★	★		★		★	★	★★★★★	\$2,133,800
337	114	170088	NV	17	Hennepin	County Road 17 at 54th Street West	★	★	★		★	★	★	★★★★★	\$2,033,000
1029	115	1520056	NV	152	Hennepin	County Road 152 at 28th Street East	★	★		★		★	★	★★★★★	\$2,018,400
1111	116	1530086	NV	153	Hennepin	County Road 153 at Monroe Street Northeast	★	★	★	★		★	★	★★★★★	\$1,973,400
742	117	610024	NV	61	Hennepin	County Road 61 at Prairie Center Drive	★	★	★	★		★	★	★★★★★	\$1,954,800
156	118	50250	NV	5	Hennepin	County Road 5 at 11th Avenue South	★	★	★		★	★	★	★★★★★	\$1,855,600
1103	119	1530048	NV	153	Hennepin	County Road 153 at Lyndale Avenue North	★	★	★		★	★	★	★★★★★	\$1,845,600
498	120	330040	NV	33	Hennepin	County Road 33 at 26th Street East	★	★	★		★	★	★	★★★★★	\$1,829,200
1089	121	1520299	NV	152	Hennepin	County Road 152 at 68th Avenue North	★		★	★		★	★	★★★★★	\$1,818,200
261	122	120018	NV	12	Hennepin	County Road 12 at 101st Avenue North	★	★	★	★		★	★	★★★★★	\$1,771,400
820	123	660088	NV	66	Hennepin	County Road 66 at 2nd Street Northeast	★	★	★	★		★	★	★★★★★	\$1,746,200
870	124	810058	NV	81	Hennepin	County Road 81 at CSAH 9 (42nd Avenue North / Lake Drive)	★	★	★	★		★	★	★★★★★	\$1,725,400
88	125	30180	NV	3	Hennepin	County Road 3 at CSAH 25 (Lake Street West)	★	★	★	★		★	★	★★★★★	\$1,725,000
587	126	390010	NV	39	Hennepin	County Road 39 at Plaza Drive / Topview Road	★	★	★	★		★	★	★★★★★	\$1,707,600
640	127	480030	NV	48	Hennepin	County Road 48 at 35th Street East	★	★	★		★	★	★	★★★★★	\$1,670,000
32	128	10219	NV	1	Hennepin	County Road 1 at Old Cedar Avenue South	★	★	★	★		★	★	★★★★★	\$1,591,800
1039	129	1520084	NV	152	Hennepin	County Road 152 at 3rd Street South	★	★	★	★		★	★	★★★★★	\$1,590,400
154	130	50234	NV	5	Hennepin	County Road 5 at Clinton Avenue South	★		★	★		★	★	★★★★★	\$1,527,000
1044	131	1520094	NV	152	Hennepin	County Road 152 at 11th Avenue South	★	★	★		★	★	★	★★★★★	\$1,488,000
113	132	30266	NV	3	Hennepin	County Road 3 at 13th Avenue South	★	★	★	★		★	★	★★★★★	\$1,456,600
908	133	1010030	NV	101	Hennepin	County Road 101 at CSAH 3 (Excelsior Boulevard) / Old Excelsior Boulevard	★	★	★	★		★	★	★★★★★	\$1,443,000
899	134	880008	NV	88	Hennepin	County Road 88 at St Anthony Boulevard	★	★	★	★		★	★	★★★★★	\$1,406,800
159	135	50260	NV	5	Hennepin	County Road 5 at Bloomington Avenue South	★	★	★		★	★	★	★★★★★	\$1,405,000
969	136	1090012	NV	109	Hennepin	County Road 109 at Hemlock Lane North / Zachary Lane North	★	★	★	★		★	★	★★★★★	\$1,391,000
1046	137	1520100	NV	152	Hennepin	County Road 152 at Chicago Avenue	★		★	★		★	★	★★★★★	\$1,369,800
418	138	270006	NV	27	Hennepin	County Road 27 at CSAH 66 (Broadway Street Northeast)	★	★	★	★		★	★	★★★★★	\$1,346,600
825	139	660120	NV	66	Hennepin	County Road 66 at Fillmore Street Northeast	★	★		★		★	★	★★★★★	\$1,331,600
401	140	230032	NV	23	Hennepin	County Road 23 at CSAH 153 (Lowry Avenue North)	★	★	★	★		★	★	★★★★★	\$1,329,600
204	141	90040	NV	9	Hennepin	County Road 9 at Xylon Avenue North	★	★		★		★	★	★★★★★	\$1,301,400
1047	142	1520102	NV	152	Hennepin	County Road 152 at 5th Avenue South	★		★	★		★	★	★★★★★	\$1,295,200
637	143	480020	NV	48	Hennepin	County Road 48 at 38th Street East	★	★	★		★	★	★	★★★★★	\$1,294,600
911	144	1010035	NV	101	Hennepin	County Road 101 at Seven Hi Drive	★	★	★	★		★	★	★★★★★	\$1,288,000
859	145	810014	NV	81	Hennepin	County Road 81 at Fremont Avenue North	★		★	★		★	★	★★★★★	\$1,279,200
508	146	330070	NV	33	Hennepin	County Road 33 at 6th Street South	★	★	★		★	★	★	★★★★★	\$1,279,000
665	147	520048	NV	52	Hennepin	County Road 52 at 77th Street West / 77th Street East	★	★	★	★		★	★	★★★★★	\$1,242,800
995	148	1300042	NV	130	Hennepin	County Road 130 at Boone Avenue North	★	★	★	★		★	★	★★★★★	\$1,236,000
399	149	230020	NV	23	Hennepin	County Road 23 at 13th Avenue Northeast	★		★	★		★	★	★★★★★	\$1,210,600
203	150	90034	NV	9	Hennepin	County Road 9 at Boone Avenue North	★	★		★		★	★	★★★★★	\$1,209,000



Urban Intersection Prioritization for Hennepin County - PED/BIKE RELATED

List No.	County Rank	CRSP 2 ID	Route System	Route No.	County	Description	Risk Factors							Tiebreaker		
							Traffic Control	Entering ADT	Adjacent Development	Max Number of Lanes Crossed	Presence of Refuge Island	Pedestrian Crossing Type	Presence of Transit Stop		Total Stars	Crash Cost
986	1101	1100036	NV	110	Hennepin	County Road 110 at CSAH 125 (Bartlett Boulevard)						★	★	\$288,200		
171	1102	60108	NV	6	Hennepin	County Road 6 at Shenandoah Lane North		★					★	\$272,600		
355	1103	190156	NV	19	Hennepin	County Road 19 at CSAH 29						★	★	\$272,600		
246	1104	100190	NV	10	Hennepin	County Road 10 at Halifax Avenue North (East Junction)						★	★	\$257,000		
427	1105	280018	NV	28	Hennepin	County Road 28 at Lindstrom Drive						★	★	\$257,000		
871	1106	810060	NV	81	Hennepin	County Road 81 at State Highway 100 Northbound Ramps	★						★	\$248,000		
400	1107	230028	NV	23	Hennepin	County Road 23 at 22nd Avenue Northeast						★	★	\$244,200		
436	1108	300032	NV	30	Hennepin	County Road 30 at Troy Lane North	★						★	\$228,600		
304	1109	150108	NV	15	Hennepin	County Road 15 at CSAH 51 (North Shore Drive)							★	\$220,800		
609	1110	420040	NV	42	Hennepin	County Road 42 at Snelling Avenue						★	★	\$201,200		
607	1111	420028	NV	42	Hennepin	County Road 42 at Nokomis Avenue South						★	★	\$197,400		
177	1112	80018	NV	8	Hennepin	County Road 8 at 47th Avenue North						★	★	\$197,400		
736	1113	600080	NV	60	Hennepin	County Road 60 at Orchard Road						★	★	\$181,800		
731	1114	600044	NV	60	Hennepin	County Road 60 at Rowland Road						★	★	\$181,800		
650	1115	480056	NV	48	Hennepin	County Road 48 at 24th Street East						★	★	\$180,600		
878	1116	810081	NV	81	Hennepin	County Road 81 at Interstate 94 Eastbound Ramps	★						★	\$177,800		
350	1117	190080	NV	19	Hennepin	County Road 19 at CSAH 51 (Sunset Drive)						★	★	\$177,800		
308	1118	160020	NV	16	Hennepin	County Road 16 at Oak Lea Drive						★	★	\$170,000		
735	1119	600068	NV	60	Hennepin	County Road 60 at Lake Street Extension				★			★	\$170,000		
245	1120	100184	NV	10	Hennepin	County Road 10 at June Avenue North (West Junction)						★	★	\$170,000		
1146	1121	2020008	NV	202	Hennepin	County Road 202 at 96th Avenue North							★	\$149,400		
298	1122	150040	NV	15	Hennepin	County Road 15 at Auditors Road			★				★	\$149,400		
1098	1123	1530000	NV	153	Hennepin	County Road 153 at Theodore Wirth Parkway / Oakdale Avenue North						★	★	\$133,800		
422	1124	270014	NV	27	Hennepin	County Road 27 at St Anthony Parkway						★	★	\$102,600		
901	1125	880014	NV	88	Hennepin	County Road 88 at Old Highway 8		★					★	\$102,600		
626	1126	460056	NV	46	Hennepin	County Road 46 at 41st Avenue South			★				★	\$94,800		
307	1127	160010	NV	16	Hennepin	County Road 16 at Crosby Road						★	★	\$94,800		
292	1128	140066	NV	14	Hennepin	County Road 14 at 113th Avenue North						★	★	\$87,000		
296	1129	150032	NV	15	Hennepin	County Road 15 at Grandview Boulevard						★	★	\$87,000		
1003	1130	1350000	NV	135	Hennepin	County Road 135 at CSAH 51 (North Shore Drive)						★	★	\$87,000		
639	1131	480028	NV	48	Hennepin	County Road 48 at 31st Avenue South						★	★	\$31,200		
353	1132	190116	NV	19	Hennepin	County Road 19 at CSAH 151 (West Branch Road)						★	★	\$23,400		
297	1133	150034	NV	15	Hennepin	County Road 15 at Cottonwood Lane						★	★	\$23,400		
221	1134	90120	NV	9	Hennepin	County Road 9 at Xerxes Avenue North						★	★	\$7,800		
222	1135	90126	NV	9	Hennepin	County Road 9 at Sheridan Avenue North						★	★	\$7,800		
223	1136	90128	NV	9	Hennepin	County Road 9 at Russell Avenue North						★	★	\$7,800		
594	1137	400012	NV	40	Hennepin	County Road 40 at Western Avenue						★	★	\$7,800		
765	1138	610108	NV	61	Hennepin	County Road 61 at Huntingdon Drive						★	★	\$7,800		
959	1139	1030062	NV	103	Hennepin	County Road 103 at 120th Avenue North (South Junction)						★	★	\$7,800		
985	1140	1100032	NV	110	Hennepin	County Road 110 at Highland Boulevard						★	★	\$7,800		
266	1141	120046	NV	12	Hennepin	County Road 12 at Xenia Avenue North				★			★	\$0		
592	1142	400002	NV	40	Hennepin	County Road 40 at Harold Avenue						★	★	\$0		
616	1143	440022	NV	44	Hennepin	County Road 44 at Ridgewood Road						★	★	\$0		
895	1144	840020	NV	84	Hennepin	County Road 84 at Leaf Street						★	★	\$0		
960	1145	1030064	NV	103	Hennepin	County Road 103 at 120th Avenue North (North Junction)						★	★	\$0		
1149	1146	2020030	NV	202	Hennepin	County Road 202 at 109th Avenue North						★	★	\$0		
1080	1147	1520273	NV	152	Hennepin	County Road 152 at State Highway 100 Northbound Ramps								\$170,000		
904	1148	1010000	NV	101	Hennepin	County Road 101 at Townline Road								\$126,000		
294	1149	140076	NV	14	Hennepin	County Road 14 at 117th Avenue North								\$102,600		
802	1150	620024	NV	62	Hennepin	County Road 62 at Boulder Creek Drive / Eden Drive North								\$94,800		

Urban Intersection Prioritization Hennepin County - VEHICLE RELATED

List No.	County		Route		County	Description	Risk Factors						Tiebreaker	
	Rank	County ID	System	No.			Area Type	Traffic Control	Entering ADT OR Cross Product	Leg Configuration	Adjacent Development	Major Approach Left Turn Phasing	Total Stars	Crash Cost
110	93	30258	NV	3	Hennepin	County Road 3 at Elliot Avenue South	★	★	★	★	★	★	★★★★★	\$606,600
1056	94	1520120	NV	152	Hennepin	County Road 152 at 3rd Avenue North	★	★	★	★	★	★	★★★★★	\$558,600
1058	95	1520124	NV	152	Hennepin	County Road 152 at 6th Avenue North	★	★	★	★	★	★	★★★★★	\$493,400
605	96	400112	NV	40	Hennepin	County Road 40 at 7th Street North / 9th Street North / 2nd Avenue North	★	★	★	★	★	★	★★★★★	\$389,600
232	97	100085	NV	10	Hennepin	County Road 10 at Sycamore Lane North	★	★	★	★	★	★	★★★★★	\$339,000
1060	98	1520132	NV	152	Hennepin	County Road 152 at 10th Avenue North	★	★	★	★	★	★	★★★★★	\$287,000
95	99	30206	NV	3	Hennepin	County Road 3 at Girard Avenue South	★	★	★	★	★	★	★★★★★	\$275,400
523	100	350010	NV	35	Hennepin	County Road 35 at 7th Street South	★	★	★	★	★	★	★★★★★	\$252,000
853	101	810000	NV	81	Hennepin	County Road 81 at Interstate 94 Eastbound Ramps	★	★	★	★	★	★	★★★★★	\$193,400
1043	102	1520091	NV	152	Hennepin	County Road 152 at Interstate 35W Southbound Ramps	★	★	★	★	★	★	★★★★★	\$102,600
197	103	90019	NV	9	Hennepin	County Road 9 at Interstate 494 Northbound Ramps	★	★	★	★	★	★	★★★★★	\$102,600
1042	104	1520090	NV	152	Hennepin	County Road 152 at Interstate 35W Northbound Ramps	★	★	★	★	★	★	★★★★★	\$19,256,400
1028	105	1520052	NV	152	Hennepin	County Road 152 at CSAH 3 (Lake Street East)		★	★	★	★	★	★★★★★	\$16,981,000
579	106	370009	NV	37	Hennepin	County Road 37 at 15th Avenue Southeast	★	★	★	★	★	★	★★★★★	\$13,145,600
15	107	20000	NV	2	Hennepin	County Road 2 at Interstate 394 Eastbound Ramps	★	★	★	★	★	★	★★★★★	\$12,029,600
332	108	170065	NV	17	Hennepin	County Road 17 at State Highway 62 Eastbound Ramps	★	★	★	★	★	★	★★★★★	\$11,956,800
1064	109	1520152	NV	152	Hennepin	County Road 152 at 22nd Avenue North	★	★	★	★	★	★	★★★★★	\$11,897,200
1105	110	1530056	NV	153	Hennepin	County Road 153 at 2nd Street North		★	★	★	★	★	★★★★★	\$11,884,200
1142	111	1580050	NV	158	Hennepin	County Road 158 at Interlachen Boulevard		★	★	★	★	★	★★★★★	\$11,370,200
53	112	50238	NV	5	Hennepin	County Road 5 at 5th Avenue South	★	★	★	★	★	★	★★★★★	\$8,434,800
690	113	520150	NV	52	Hennepin	County Road 52 at 11th Avenue Southeast		★	★	★	★	★	★★★★★	\$7,231,200
1032	114	1520065	NV	152	Hennepin	County Road 152 at State Highway 55 Southbound Ramps	★	★	★	★	★	★	★★★★★	\$5,812,600
161	115	50268	NV	5	Hennepin	County Road 5 at CSAH 152 (Cedar Avenue South)	★	★	★	★	★	★	★★★★★	\$5,101,000
1108	116	1530068	NV	153	Hennepin	County Road 153 at State Highway 47 (University Avenue Northeast)		★	★	★	★	★	★★★★★	\$4,618,400
390	117	220070	NV	22	Hennepin	County Road 22 at 24th Street West		★	★	★	★	★	★★★★★	\$4,262,200
359	118	200014	NV	20	Hennepin	County Road 20 at State Highway 7	★	★	★	★	★	★	★★★★★	\$3,940,400
583	119	370018	NV	37	Hennepin	County Road 37 at 10th Avenue Southeast		★	★	★	★	★	★★★★★	\$3,820,800
460	120	310031	NV	31	Hennepin	County Road 31 at State Highway 62 Eastbound Ramps		★	★	★	★	★	★★★★★	\$3,755,600
398	121	230018	NV	23	Hennepin	County Road 23 at CSAH 66 (Broadway Street Northeast)		★	★	★	★	★	★★★★★	\$3,718,400
530	122	350032	NV	35	Hennepin	County Road 35 at CSAH 5 (Franklin Avenue East)		★	★	★	★	★	★★★★★	\$3,497,800
824	123	660114	NV	66	Hennepin	County Road 66 at State Highway 65 (Central Avenue Northeast)	★	★	★	★	★	★	★★★★★	\$3,485,000
1030	124	1520060	NV	152	Hennepin	County Road 152 at 26th Street East		★	★	★	★	★	★★★★★	\$3,481,800
558	125	350160	NV	35	Hennepin	County Road 35 at American Boulevard East	★	★	★	★	★	★	★★★★★	\$3,419,800
821	126	660092	NV	66	Hennepin	County Road 66 at State Highway 47 (University Avenue Northeast)		★	★	★	★	★	★★★★★	\$3,183,400
1112	127	1530092	NV	153	Hennepin	County Road 153 at State Highway 65 (Central Avenue Northeast)		★	★	★	★	★	★★★★★	\$3,098,800
318	128	170038	NV	17	Hennepin	County Road 17 at American Boulevard West	★	★	★	★	★	★	★★★★★	\$3,072,000
487	129	320093	NV	32	Hennepin	County Road 32 at State Highway 62 Eastbound Ramps	★	★	★	★	★	★	★★★★★	\$3,021,600
89	130	30182	NV	3	Hennepin	County Road 3 at Dean Parkway (West Junction)	★	★	★	★	★	★	★★★★★	\$3,007,400
314	131	170010	NV	17	Hennepin	County Road 17 at 102nd Street West		★	★	★	★	★	★★★★★	\$2,889,200
120	132	30296	NV	3	Hennepin	County Road 3 at 28th Avenue South	★	★	★	★	★	★	★★★★★	\$2,886,800
506	133	330066	NV	33	Hennepin	County Road 33 at 8th Street South	★	★	★	★	★	★	★★★★★	\$2,876,600
160	134	50266	NV	5	Hennepin	County Road 5 at 17th Avenue South	★	★	★	★	★	★	★★★★★	\$2,859,400
500	135	330048	NV	33	Hennepin	County Road 33 at CSAH 5 (Franklin Avenue East)		★	★	★	★	★	★★★★★	\$2,855,800
1020	136	1520026	NV	152	Hennepin	County Road 152 at CSAH 42 (42nd Street East)		★	★	★	★	★	★★★★★	\$2,777,800
320	137	170040	NV	17	Hennepin	County Road 17 at 78th Street West	★	★	★	★	★	★	★★★★★	\$2,721,000
30	138	30289	NV	3	Hennepin	County Road 3 at State Highway 55 Southbound Ramps	★	★	★	★	★	★	★★★★★	\$2,681,400

Urban Intersection Prioritization Hennepin County - VEHICLE RELATED

List No.	County Rank	County ID	Route System	Route No.	County	Description	Risk Factors					Tiebreaker	
							Area Type	Traffic Control	Entering ADT OR Cross Product	Leg Configuration	Adjacent Development	Major Approach Left Turn Phasing	Total Stars
436	1013	300032	NV	30	Hennepin	County Road 30 at Troy Lane North		★				★	\$228,600
843	1014	730038	NV	73	Hennepin	County Road 73 at Hillside Lane West			★			★	\$213,000
180	1015	80030	NV	8	Hennepin	County Road 8 at Corvallis Avenue North					★	★	\$213,000
987	1016	1100038	NV	110	Hennepin	County Road 110 at Auditors Road					★	★	\$209,000
816	1017	660070	NV	66	Hennepin	County Road 66 at Morgan Avenue North				★		★	\$205,200
932	1018	1020002	NV	102	Hennepin	County Road 102 at Country Club Drive					★	★	\$205,200
423	1019	270016	NV	27	Hennepin	County Road 27 at 29th Avenue Northeast				★		★	\$204,000
609	1020	420040	NV	42	Hennepin	County Road 42 at Snelling Avenue				★		★	\$201,200
607	1021	420028	NV	42	Hennepin	County Road 42 at Nokomis Avenue South				★		★	\$197,400
829	1022	660132	NV	66	Hennepin	County Road 66 at Cleveland Street Northeast				★		★	\$193,400
264	1023	120024	NV	12	Hennepin	County Road 12 at Kyle Avenue North				★		★	\$189,600
272	1024	120082	NV	12	Hennepin	County Road 12 at Cartway Road				★		★	\$189,600
815	1025	660062	NV	66	Hennepin	County Road 66 at Russell Avenue North				★		★	\$189,600
715	1026	570004	NV	57	Hennepin	County Road 57 at Victory Memorial Drive				★		★	\$189,600
945	1027	1020070	NV	102	Hennepin	County Road 102 at Fairview Avenue North				★		★	\$181,800
736	1028	600080	NV	60	Hennepin	County Road 60 at Orchard Road				★		★	\$181,800
650	1029	480056	NV	48	Hennepin	County Road 48 at 24th Street East				★		★	\$180,600
939	1030	1020036	NV	102	Hennepin	County Road 102 at 32nd Avenue North				★		★	\$174,000
36	1031	40025	NV	4	Hennepin	County Road 4 at Highway 212 Westbound Ramp		★				★	\$170,000
308	1032	160020	NV	16	Hennepin	County Road 16 at Oak Lea Drive				★		★	\$170,000
735	1033	600068	NV	60	Hennepin	County Road 60 at Lake Street Extension				★		★	\$170,000
1146	1034	2020008	NV	202	Hennepin	County Road 202 at 96th Avenue North				★		★	\$149,400
298	1035	150040	NV	15	Hennepin	County Road 15 at Auditors Road					★	★	\$149,400
1098	1036	1530000	NV	153	Hennepin	County Road 153 at Theodore Wirth Parkway / Oakdale Avenue North				★		★	\$133,800
31	1037	10206	NV	1	Hennepin	County Road 1 at 12th Avenue South			★			★	\$126,000
465	1038	310051	NV	31	Hennepin	County Road 31 at 51st Street West				★		★	\$118,200
940	1039	1020038	NV	102	Hennepin	County Road 102 at 34th Avenue North				★		★	\$110,400
930	1040	1010240	NV	101	Hennepin	County Road 101 at Territorial Road					★	★	\$110,400
769	1041	610140	NV	61	Hennepin	County Road 61 at Cedar Lake Road		★				★	\$102,600
828	1042	660130	NV	66	Hennepin	County Road 66 at Arthur Street Northeast				★		★	\$102,600
422	1043	270014	NV	27	Hennepin	County Road 27 at St Anthony Parkway				★		★	\$102,600
294	1044	140076	NV	14	Hennepin	County Road 14 at 117th Avenue North				★		★	\$102,600
901	1045	880014	NV	88	Hennepin	County Road 88 at Old Highway 8			★			★	\$102,600
597	1046	400035	NV	40	Hennepin	County Road 40 at State Highway 100 Northbound Ramp		★				★	\$94,800
1122	1047	1560020	NV	156	Hennepin	County Road 156 at Olympia Street		★				★	\$94,800
307	1048	160010	NV	16	Hennepin	County Road 16 at Crosby Road				★		★	\$94,800
701	1049	530028	NV	53	Hennepin	County Road 53 at Logan Avenue South			★			★	\$94,800
802	1050	620024	NV	62	Hennepin	County Road 62 at Boulder Creek Drive / Eden Drive North				★		★	\$94,800
762	1051	610086	NV	61	Hennepin	County Road 61 at Lake Street Extension				★		★	\$87,000
968	1052	1090010	NV	109	Hennepin	County Road 109 at Forestview Lane North				★		★	\$87,000
1133	1053	1560090	NV	156	Hennepin	County Road 156 at 54th Avenue North / Elm Grove Avenue				★		★	\$70,200
179	1054	80026	NV	8	Hennepin	County Road 8 at Welcome Avenue North					★	★	\$39,000
274	1055	120102	NV	12	Hennepin	County Road 12 at Valley Forge Lane North / Depue Drive				★		★	\$31,200
1147	1056	2020009	NV	202	Hennepin	County Road 202 at State Highway 610 Westbound Ramps				★		★	\$31,200
989	1057	1100054	NV	110	Hennepin	County Road 110 at Grandview Boulevard				★		★	\$23,400
353	1058	190116	NV	19	Hennepin	County Road 19 at CSAH 151 (West Branch Road)				★		★	\$23,400

Urban Intersection Project List for Hennepin County - PED/BIKE RELATED

List No.	Ped/Bike Rank	County ID	Description	Star Ranking	HAWK	Median Refuge Island	Curb Extension	Countdown Timers	Leading Ped Interval	RRFB w/ Refuge Island	RRFB	Upgrade Signal Head Hardware	Update Signal to Meet MUTCD Recommendation	Mini Roundabout	Upgrade Signs & Markings	Intersection Cost
124	62	30312	County Road 3 at 36th Avenue South	*****	0	0	4	0	1	0	0	1	0	0	0	\$70,000
856	63	810006	County Road 81 at Aldrich Avenue North	*****	0	4	0	0	1	0	0	1	0	0	0	\$78,000
685	64	520128	County Road 52 at State Highway 47 (University Avenue Northeast)	*****	0	0	0	1	0	0	0	1	0	0	0	\$107,000
111	65	30260	County Road 3 at 10th Avenue South	*****	0	0	4	1	0	0	0	1	0	0	0	\$52,000
695	66	520182	County Road 52 at Industrial Boulevard	*****	0	0	0	0	1	0	0	0	1	0	0	\$125,000
675	67	520092	County Road 52 at 2nd Street North	*****	0	4	0	1	0	0	0	1	0	0	0	\$60,000
681	68	520110	County Road 52 at State Highway 65 (Central Avenue Southeast / Central Avenue Northeast)	*****	0	0	0	1	0	0	0	0	1	0	0	\$107,000
147	70	50184	County Road 5 at Ottawa Avenue South	*****	0	0	0	0	1	0	0	1	0	0	0	\$30,000
145	71	50146	County Road 5 at Dakota Avenue South	*****	0	0	4	0	1	0	0	0	1	0	0	\$70,000
915	72	1010064	County Road 101 at CSAH 5 (Minnetonka Boulevard)	*****	0	0	0	0	1	0	0	0	1	0	0	\$125,000
693	73	520174	County Road 52 at Hoover Street Northeast / 25th Avenue Southeast	*****	0	0	0	1	0	0	0	1	0	0	0	\$12,000
709	74	530084	County Road 53 at 12th Avenue South	*****	0	0	0	0	1	0	0	1	0	0	0	\$30,000
657	75	520018	County Road 52 at 90th Street West / 90th Street East	*****	0	0	0	1	0	0	0	1	0	0	0	\$12,000
129	76	30340	County Road 3 at River Parkway West	*****	0	0	4	0	1	0	0	1	0	0	0	\$70,000
698	77	530008	County Road 53 at Vincent Avenue South	*****	0	0	0	0	1	0	0	0	1	0	0	\$30,000
691	78	520158	County Road 52 at 15th Avenue Southeast	*****	0	0	4	1	0	0	0	0	1	0	0	\$147,000
1120	79	1560004	County Road 156 at 10th Avenue North	*****	0	0	2	0	1	0	0	1	0	0	0	\$50,000
535	80	350050	County Road 35 at 31st Street East	*****	0	0	4	1	0	0	0	0	1	0	0	\$147,000
86	81	30177	County Road 3 at Whole Foods Market Entrance	*****	0	0	4	1	0	0	0	1	0	0	0	\$52,000
126	82	30324	County Road 3 at 42nd Avenue South	*****	0	0	4	0	1	0	0	1	0	0	0	\$70,000
907	83	1010016	County Road 101 at Hanud Road	*****	0	0	2	0	1	0	0	0	1	0	0	\$145,000
123	84	30306	County Road 3 at 33rd Avenue South	*****	0	0	4	0	1	0	0	1	0	0	0	\$70,000
835	85	700034	County Road 70 at Nevada Avenue North	*****	0	0	4	0	1	0	0	1	0	0	0	\$70,000
692	86	520164	County Road 52 at Taft Street Northeast	*****	0	0	0	1	0	0	0	1	0	0	0	\$12,000
910	87	1010034	County Road 101 at State Highway 7	*****	0	0	0	0	1	0	0	0	1	0	0	\$125,000
94	88	30204	County Road 3 at Hennepin Avenue	*****	0	0	0	0	1	0	0	1	0	0	0	\$30,000
579	89	370009	County Road 37 at 15th Avenue Southeast	*****	0	4	0	1	0	0	0	0	1	0	0	\$155,000
549	90	350126	County Road 35 at 64th Street East	*****	0	0	4	1	0	0	0	1	0	0	0	\$52,000
1063	91	1520148	County Road 152 at CSAH 81 (West Broadway Avenue) / CSAH 66 (West Broadway Avenue)	*****	0	0	0	1	0	0	0	0	1	0	0	\$107,000
99	92	30220	County Road 3 at CSAH 22 (Lyndale Avenue South)	*****	0	4	0	0	1	0	0	1	0	0	0	\$78,000
565	93	360001	County Road 36 at Golden View Drive	*****	0	0	0	1	0	0	0	1	0	0	0	\$12,000
583	94	370018	County Road 37 at 10th Avenue Southeast	*****	0	0	0	1	0	0	0	0	1	0	0	\$107,000
460	95	310031	County Road 31 at State Highway 62 Eastbound Ramps	*****	0	0	4	0	1	0	0	1	0	0	0	\$70,000
507	96	330068	County Road 33 at 7th Street South	*****	0	0	4	1	0	0	0	0	1	0	0	\$147,000
398	97	230018	County Road 23 at CSAH 66 (Broadway Street Northeast)	*****	0	0	0	0	1	0	0	1	0	0	0	\$30,000
530	98	350032	County Road 35 at CSAH 5 (Franklin Avenue East)	*****	0	0	0	1	0	0	0	0	1	0	0	\$107,000
1030	99	1520060	County Road 152 at 26th Street East	*****	0	0	0	1	0	0	0	0	1	0	0	\$107,000
109	100	30256	County Road 3 at Chicago Avenue	*****	0	4	0	1	0	0	0	1	0	0	0	\$60,000
645	101	480046	County Road 48 at CSAH 3 (Lake Street East)	*****	0	0	0	0	1	0	0	1	0	0	0	\$30,000
821	102	660092	County Road 66 at State Highway 47 (University Avenue Northeast)	*****	0	0	0	0	1	0	0	1	0	0	0	\$30,000
534	103	350048	County Road 35 at CSAH 3 (Lake Street East)	*****	0	0	0	1	0	0	0	0	1	0	0	\$107,000
318	104	170038	County Road 17 at American Boulevard West	*****	0	0	0	0	1	0	0	1	0	0	0	\$30,000
1107	105	1530064	County Road 153 at 2nd Street Northeast	*****	0	0	4	1	0	0	0	0	1	0	0	\$147,000
1020	106	1520026	County Road 152 at CSAH 42 (42nd Street East)	*****	0	0	0	0	1	0	0	0	1	0	0	\$125,000
566	107	360002	County Road 36 at 10th Avenue Southeast	*****	0	0	0	1	0	0	0	1	0	0	0	\$12,000
116	108	30286	County Road 3 at 21st Avenue South	*****	0	0	0	1	0	0	0	1	0	0	0	\$12,000
49	109	20030	County Road 2 at Plymouth Avenue North	*****	0	0	4	1	0	0	0	1	0	0	0	\$52,000
1101	110	1530032	County Road 153 at Fremont Avenue North	*****	0	0	2	0	1	0	0	0	1	0	0	\$145,000
1129	111	1560062	County Road 156 at CSAH 9 (42nd Avenue North)	*****	0	0	0	0	1	0	0	1	0	0	0	\$30,000
1113	112	1530106	County Road 153 at Johnson Street Northeast	*****	0	0	0	0	1	0	0	0	1	0	0	\$125,000
1132	113	1560080	County Road 156 at 49th Avenue North	*****	0	0	4	0	1	0	0	1	0	0	0	\$70,000
337	114	170088	County Road 17 at 54th Street West	*****	0	0	4	1	0	0	0	1	0	0	0	\$52,000
1029	115	1520056	County Road 152 at 28th Street East	*****	0	0	0	1	0	0	0	0	1	0	0	\$107,000
1111	116	1530086	County Road 153 at Monroe Street Northeast	*****	0	0	4	0	1	0	0	0	1	0	0	\$165,000
742	117	610024	County Road 61 at Prairie Center Drive	*****	0	0	0	0	1	0	0	1	0	0	0	\$30,000
156	118	50250	County Road 5 at 11th Avenue South	*****	0	0	0	1	0	0	0	1	0	0	0	\$12,000
1103	119	1530048	County Road 153 at Lyndale Avenue North	*****	0	0	2	0	1	0	0	1	0	0	0	\$50,000
498	120	330040	County Road 33 at 26th Street East	*****	0	0	0	0	1	0	0	0	1	0	0	\$125,000
1089	121	1520299	County Road 152 at 68th Avenue North	*****	0	0	0	0	1	0	0	0	1	0	0	\$30,000
261	122	120018	County Road 12 at 101st Avenue North	*****	0	0	2	0	1	0	0	1	0	0	0	\$50,000
820	123	660088	County Road 66 at 2nd Street Northeast	*****	0	0	4	0	1	0	0	1	0	0	0	\$70,000





# Safe Routes to School

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

**NORTHROP URBAN ENVIRONMENTAL  
LEARNING CENTER**

Minneapolis Public Schools  
Minneapolis, MN

**mn** DEPARTMENT OF  
TRANSPORTATION



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# Existing Issues and Conflicts

The section that follows highlights some of the major issues in the area surrounding Northrop. The photos and observations described below were made during the fall of 2017, when the Northrop SRTS team performed a walk assessment of the area surrounding the schools. A walk assessment allowed the team to experience the conditions faced by people who walk and bike in the area. More observations and recommendations to improve conditions can be found on the pages following this overview.



## ^ E 43RD ST & S 31ST AVE

43rd St and 31st Ave is the main intersection for families walking and biking to school from the north and west. The school posts student crossing guards and an adult volunteer at the intersection to assist students crossing to the main entrance of Northrop, but because of vehicle drop offs and busing, the long crossings can be challenging and uncomfortable. There is no stop sign controlling north and south traffic on 31st Ave, which can be confusing for drivers as they approach the intersection during arrival and dismissal.

## v E 46TH ST & S 31ST AVE

School buses drop students in the area of 46th St and 31st Ave during Minnehaha Monday events. Additionally, when staff and students take field trips to the Creek, they frequently use this crossing. There is no marked crosswalk, the crossing distances are long, the curb ramp is aligned to the center line of 31st Ave, and the curb ramps are not compliant with ADA standards. The photo below shows this crossing.







## ^ E 42ND ST

A major barrier to traveling to and from Northrop on foot or by bike is the 42nd St corridor, which runs east-west one block north of campus. Though an on street bike lane is present along 42nd, high vehicle volumes and speeds along the corridor make the crossings uncomfortable for students and families.

## E 42ND ST & S 28TH AVE >

The intersection in the photo on the right connects two major roadways in south Minneapolis. Many families attending Northrop live to the north and west of this intersection (see Appendix E for maps of locations of student residences). This crossing acts as both a gateway and barrier to safe and comfortable walking and biking to Northrop.







- Intersection Opportunity
- Corridor Opportunity
- Primary Existing Walking or Biking Routes





# Infrastructure Recommendations

	LOCATION	PROBLEM/ISSUE	POTENTIAL SOLUTION/RECOMMENDATION	ANTICIPATED OUTCOME	LEAD	PRIORITY
A	43rd St & 31st Ave	Drivers not anticipating people crossing through this intersection (primary school gateway); long crossing distances; uncomfortable motor vehicle volumes and multiple turning movements during arrival and dismissal; vehicles parked close to the marked crosswalks decreasing visibility; two-way stop control unexpected by motorists	Install curb extensions; install raised crosswalks/speed table or raise the entire intersection; install signage alerting drivers to slow during approach to grade change; install all-way stop; install forward stop bars	Slower vehicle speeds, higher yielding compliance by drivers, better visibility, more comfortable experience for people walking. Drivers in the area identify the intersection as a gateway to the school	City of Minneapolis	High
B	46th St & 31st Ave	Drivers not anticipating people crossing from 31st to Minnehaha Creek; crossings do not meet accessibility standards; intersection design encourages crossing outside of crosswalk to access the creek trails; frequently used crossing by Northrop classroom field trips and Minnehaha Mondays	Install curb extensions; install high visibility crosswalk on east crossing; install signage upstream of crossing to highlight it as an area where drivers should expect people; install ADA compliant curb ramps to align with crossings	Slower vehicle speeds, higher yielding compliance by drivers, better visibility, more comfortable experience for people walking	City of Minneapolis, Minneapolis Park & Recreation Board	High
C	43rd St & 28th Ave	Drivers not anticipating people crossing 28th Ave (primary access point to neighborhoods west of 28th Ave); crossings do not meet accessibility standards; long crossing distances	Install curb extensions; install high visibility crosswalk on south crossing; install signage upstream of crossing to highlight it as an area where drivers should expect people; install ADA compliant curb ramps	Slower vehicle speeds, higher yielding compliance by drivers, better visibility, more comfortable experience for people walking	City of Minneapolis	High
D	43rd St & Cedar Ave	Uncomfortable motor vehicle volumes and speeds on Cedar Ave; drivers not anticipating people crossing Cedar Ave (primary connection to access neighborhoods west of Cedar Ave); long crossing distances; vehicles parked close to the marked crosswalks decreasing visibility; crossings do not meet accessibility standards	Install curb extensions; install high visibility crosswalk on south crossing; install signage upstream of crossing to highlight it as an area where drivers should expect people; install activated flashing beacon; install ADA compliant curb ramps where absent	Slower vehicle speeds, higher yielding compliance by drivers, better visibility, more comfortable experience for people walking	Hennepin County, City of Minneapolis	High
E	42nd St & 31st Ave	Uncomfortable motor vehicle speeds on 42nd St; drivers not anticipating people crossing through this intersection (primary connection from school to neighborhoods north of 42nd St); long crossing distances	Install curb extensions; install high visibility crosswalk on east crossing; install signage upstream of crossing to highlight it as an area where drivers should expect people; install activated flashing beacon; install ADA compliant curb ramps where absent; install no parking zone at all times on 42nd St for a minimum of 30 feet upstream from the crossings	Slower vehicle speeds, higher yielding compliance by drivers, better visibility, more comfortable experience for people walking	Hennepin County, City of Minneapolis	High
F	42nd St & Nokomis Ave	Drivers not anticipating people biking and walking through this intersection; inconsistent driver compliance with existing stop control; long crossing distances;	Install curb extensions; install high visibility crosswalk on east crossing; install forward stop bars; install ADA compliant curb ramps where absent; install bicycle intersection crossing markings across 42nd St	Slower vehicle speeds, higher yielding compliance by drivers, better visibility of people riding on the Nokomis Bike Blvd; more comfortable experience for people walking and biking	Hennepin County, City of Minneapolis	High
G	43rd St & 32nd Ave	Drivers not anticipating people crossing through this intersection (frequently used connection to Community Garden); long crossing distances; vehicles parked close to the marked crosswalks decreasing visibility; two-way stop control unexpected by motorists	Install curb extensions; install high visibility crosswalk; install forward stop bars; install all-way stop	Slower vehicle speeds, higher yielding compliance by drivers, better visibility, more comfortable experience for people walking	City of Minneapolis	Medium
H	44th St & 31st Ave	Drivers not anticipating people crossing through this intersection; long crossing distances; vehicles parked close to the marked crosswalks decreasing visibility; two-way stop control unexpected by motorists	Install curb extensions; install forward stop bars; install all-way stop	Slower vehicle speeds, higher yielding compliance by drivers, better visibility, more comfortable experience for people walking	City of Minneapolis	Medium
I	43rd St & Nokomis Ave	Drivers not anticipating people crossing Nokomis Ave; long crossing distances; uncomfortable motor vehicle volumes and speeds on Nokomis Ave; vehicles parked close to the marked crosswalks decreasing visibility; crossings do not meet accessibility standards. This intersection previously had a police crossing guard and marked crosswalk.	Install curb extensions; install high visibility crosswalk; install forward stop bars; install ADA compliant curb ramps	Slower vehicle speeds, higher yielding compliance by drivers, better visibility, more comfortable experience for people walking	City of Minneapolis	Medium
J	42nd St & 32nd Ave	Uncomfortable motor vehicle speeds on 42nd St due to drivers speeding to cross Hiawatha Ave; drivers not anticipating people crossing through this intersection (connection to Community Garden); long crossing distances; crossings do not meet accessibility standards	Install curb extensions; install high visibility crosswalk on east crossing; install signage upstream of crossing to highlight it as an area where drivers should expect people; install ADA compliant curb ramps where absent	Slower vehicle speeds, higher yielding compliance by drivers, better visibility, more comfortable experience for people walking	Hennepin County, City of Minneapolis	Medium

# Infrastructure Recommendations (continued)

	LOCATION	PROBLEM/ISSUE	POTENTIAL SOLUTION/RECOMMENDATION	ANTICIPATED OUTCOME	LEAD	PRIORITY
K	42nd St & 26th Ave	Uncomfortable motor vehicle speeds on 42nd St; drivers not anticipating people crossing through this intersection; long crossing distances; crossings do not meet accessibility standards	Install permanent median safety island; install curb extensions; install ADA compliant curb ramps; coordinate with SENA	Slower vehicle speeds, higher yielding compliance by drivers, better visibility, more comfortable experience for people walking	Hennepin County, City of Minneapolis	Medium
L	44th St & 32nd Ave	Drivers not anticipating people crossing through this intersection (primary connection to Northrop for St. Helena's students who share buses); long crossing distances; vehicles parked close to the marked crosswalks decreasing visibility; two-way stop control unexpected by motorists	Install curb extensions; install high visibility crosswalks; install forward stop bars; install all-way stop	Slower vehicle speeds, higher yielding compliance by drivers, better visibility, more comfortable experience for people walking	City of Minneapolis	Medium
M	42nd St & 21st Ave	Uncomfortable motor vehicle speeds on 42nd St; drivers not anticipating people crossing through this intersection; long crossing distances; crossings do not meet accessibility standards	Install permanent median safety island; install curb extensions; install ADA compliant curb ramps; coordinate with SENA	Slower vehicle speeds, higher yielding compliance by drivers, better visibility, more comfortable experience for people walking	Hennepin County, City of Minneapolis	Medium
N	42nd St & 28th Ave	Long crossing distances; long traffic signal cycle / wait time for people desiring to cross; drivers not anticipating people crossing; high vehicle speeds and volumes during commute hours	Install curb extensions; install leading pedestrian interval (LPI)	Increased visibility of pedestrians, less wait time for people walking; less jaywalking; more comfortable experience for people walking	Hennepin County, City of Minneapolis	Low
O	44th St & 28th Ave	Long traffic signal cycle / wait time for people desiring to cross 28th Ave and access Lake Hiawatha Park; current MPS recommended safe route across 28th Ave	Install curb extensions; install leading pedestrian interval (LPI)	Increased visibility of pedestrians, less wait time for people walking; less jaywalking; more comfortable experience for people walking	City of Minneapolis, Minneapolis Park and Recreation Board	Low
P	43rd St from Cedar Ave to 31st Ave	Drivers not anticipating people walking and biking to access the school campus along this primary east-west spine (this is the shortest, most direct route to neighborhoods west of Cedar Ave)	Consider traffic calming improvements along corridor including median safety islands, midblock neckdowns, curb extensions at intersections, bicycle boulevard/neighborhood greenway, etc.	Slower speeds and increased comfort for people walking and biking in the corridor	City of Minneapolis	Coordinate with Items A, C, D & I
Q	42nd St from 25th Ave to 34th Ave	Wide street cross section encourages drivers to move quickly; drivers not anticipating people walking and biking and crossing to access the school campus	Consider traffic calming improvements along corridor including median safety islands, midblock neckdowns, curb extensions at intersections, etc.	Slower speeds and increased comfort for people walking and biking in the corridor	Hennepin County	Coordinate with Items E, F, J, K & N



## APPENDIX

### FURTHER READING

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



*County Roadway Safety Plan Updates*

# The Big Book of Ideas

Prepared for:  
**Hennepin County**

Prepared by:  
**ch2m<sup>®</sup> Team**

Version 1.1

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# List of Strategies

## Rural Segments

- Centerline Rumble Strip
  - Sinusoidal Rumble “Mumble” Strips included
- Shoulder/Edgeline Rumble Strips
  - Sinusoidal Rumble “Mumble” Strips included
- Sinusoidal Rumble “Mumble” Strips
  - Centerline
  - Shoulder/Edgeline
- Safety Edge
- Enhanced Edgeline (6” & 8”)
- Shoulder Paving (2’, 4’, 6’)
- Clear Zone Maintenance/Enhancements
- Ditch/embankment Improvements
- Access Management & Corridor Studies

## Rural Curves

- Chevrons
- Delineators
- High Friction Surface Treatment (HFST)
- Dynamic Curve Signing
- Clear Zone Maintenance/Enhancements
- Reconstruct [TT to a Single T intersection]
- Sight Line Improvement

## Rural Intersections

- Streetlights (and approaches)
- Restricted Crossing U-Turn (RCUT) Intersection
- Roundabout
- Turn Lanes (Offset, Channelized)
- LED Stop Signs

- Remove Skew / Realign Intersections
- Retroreflective Borders on Traffic Signal Backplates

## Urban Segments

- Road diet [3- & 5-Lane Conversions]
- ¾-Intersection
- Raised center median
- Access Management & Corridor Studies

## Urban Intersections

- Confirmation Lights
- 
- Center Island Medians
- Roundabout (including Mini Roundabout)
- Flashing Yellow Arrow (FYA)
- Turn Lanes (Offset, Channelized)
- Retroreflective Borders on Traffic Signal Backplates
- Signal Mast Arms
- Signal Coordination

## Pedestrian and Bicycle

- Leading Pedestrian Intervals
- Curb Extensions
- Pedestrian crossing flasher
- High-Intensity Activated crossWalk Beacon (HAWK)APS
- Pedestrian Countdown Timers

## Urban Intersections

Strategy	Crash Reduction Factor*	Typical Installation Costs
Confirmation Lights	25% to 84% reduction in violations	\$1,200 per two approaches
Leading Pedestrian Intervals	Up to 60% pedestrian/vehicle crashes	\$600 per intersection
Curb Extensions	Increase in vehicles yielding to pedestrians	\$36,000 per corner
Center Island Medians	46% in vehicle/pedestrian crashes	\$24,000 per approach
Roundabout (including Mini Roundabout)	20% to 50% all crashes/ 60% to 90% right-angle crashes	\$4,200,000 per intersection
Rectangular Rapid Flash Beacon (RRFB)	75% of drivers yield to pedestrians	\$15,000
High-Intensity Activated crossWalk Beacon (HAWK)	69% Vehicle/Pedestrian	\$50,000 to \$120,000
Flashing Yellow Arrow (FYA) --> Note: Permitted to FYA	19.4% left turn crashes	
Turn Lanes (Offset, Channelized)	27%	\$150,000 to \$500,000

Notes:

\* - Crash reduction factors based on review of CMF Clearinghouse and other published research

<sup>a</sup> – Virginia DOT Report: <https://www.railstotrails.org/resourcehandler.ashx?id=4063>



**Confirmation Lights**

Source: MnDOT 2015 Traffic Safety Fundamentals Handbook



**Leading Pedestrian Interval**

Source: <https://bikeuptowndotorg.files.wordpress.com/2012/04/2012-04-15-09-56-491.jpg>



**Curb Extensions**

Source: <http://www.fhwa.dot.gov/publications/research/safety/pedbike/05085/images/fig205.jpg>



**Center Island Medians**

Source: [http://safety.fhwa.dot.gov/provencountermeasures/images/sa12\\_011.jpg](http://safety.fhwa.dot.gov/provencountermeasures/images/sa12_011.jpg)



**Roundabout**

Source: Innovative Intersection Safety Improvement Strategies and Management Practices: A Domestic Scan (FHWA, FHWA-SA-06-016)



**Rectangular Rapid Flash Beacon**

Source: <http://www.fhwa.dot.gov/publications/publicroads/11mayjun/images/do1.jpg>



**HAWK**

Source: [http://www.fhwa.dot.gov/publications/research/safety/10045/images/hawk\\_027.jpg](http://www.fhwa.dot.gov/publications/research/safety/10045/images/hawk_027.jpg)



**Attachment D – Letters of Support**

August 29, 2018

Ms. Carla Stueve, Director, County Engineer  
Hennepin County Public Works  
1600 Prairie Drive  
Medina, MN 55340-5421

Dear Ms. Stueve:

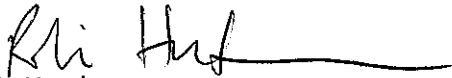
Hennepin County has requested a letter of support for a series of grant applications for MnDOT's Highway Safety Improvement Program (HSIP). The City of Minneapolis hereby expresses its support for the following Hennepin County projects:

- Lake Street (CSAH 3) at Cedar Avenue (CSAH 152), which will include a combination of various improvements such as (but not limited to): curb extensions, upgraded intersection lighting, and upgraded ADA accommodations.
- 42nd Street East (CSAH 42) at Cedar Avenue (CSAH 152), 21st Avenue South, 26th Avenue South, and Nokomis Avenue, which will include a combination of various improvements such as (but not limited to): raised medians, curb extensions, pavement markings, signing, and/or beacons.

We understand these improvements will be discussed and included where appropriate, as part of the County-City Operations and Maintenance Agreement.

Thank you for making us aware of this application effort and the opportunity to provide support. Minneapolis Public Works looks forward to working with you on these projects.

Sincerely,

A handwritten signature in black ink, appearing to read "Robin Hutcheson".

Robin Hutcheson  
Director of Public Works  
City of Minneapolis

## **Attachment E – MnDOT Crash Data (2006-2015)**

**CSAH 42 (42nd Street) at 21st Avenue in Minneapolis (2006 - 2015)**

Crash data is managed by the Mn/DOT Office of Traffic, Safety, and Operations.

CRASH NUM	SYS	NUM	RELY	CITY	CRASH DATE	TIME	SEV	NUM KILLED	NUM VEH	JUNC	SL	CRASH TYPE	DIAG	LOC1	TCD	LIT	WTHR1	WTHR2	SURF	RD CHAR	RD DSGN	V1 VTYPE	V1 DIR	V1 ACT	V1 FAC1	V1 FAC2	P1 POSN	P1 INJ	P1 EQP	P1 PHYS	P1 AGE	P1 SEX	V2 VTYPE	V2 DIR	V2 ACT	V2 FAC1	V2 FAC2	P2 POSN	P2 INJ	P2 EQP	P2 PHYS	P2 AGE	P2 SEX		
070390227	04	27000042	1	Minneapolis	01/08/2007	1415	N	0	02	01	30	02	02	01	98	01	01	00	01	02	08	01	07	01	15	21	01	N	04	08	95	F	01	07	21	00	00								
060560080	04	27000042	1	Minneapolis	02/25/2006	1600	C	0	02	04	30	01	05	01	04	01	01	00	01	01	08	01	05	01	02	00	01	N	04	01	35	F	03	03	01	01	01	01	C	04	01	43	F		
061800136	04	27000042	1	Minneapolis	06/28/2006	0809	C	0	03	04	30	01	05	01	04	01	01	00	01	01	08	03	07	01	01	01	01	C	04	01	43	F	01	01	01	05	02	01	N	04	01	18	M		
121870037	04	27000042	1	Minneapolis	05/16/2012	2030	N	0	02	00	30	01	00	00	04	03	01	00	01	00	00	01	00	01	00	00	01	N	04	00	44	F	04	00	06	00	00	01	N	00	00	900	F		
110830210	04	27000042	1	Minneapolis	03/24/2011	1625	N	0	01	04	30	24	06	02	98	01	01	00	01	01	08	01	07	05	01	00	01	N	04	01	53	F													
061560048	04	27000042	1	Minneapolis	05/14/2006	0603	C	0	01	01	30	02	01	01	98	02	02	00	01	02	08	01	03	01	99	99	01	C	00	99	894	Z	01	03	21	00	00								
091050110	04	27000042	1	Minneapolis	03/31/2009	0945	N	0	01	00	25	01	03	00	04	01	01	00	01	00	00	04	04	54	00	00	01	N	04	00	35	F													
110580084	10	25851070	1	Minneapolis	02/27/2011	0001	N	0	02	01	30	02	90	01	98	04	99	99	03	01	08	99	05	01	01	01	01	N	99	99	899	Z	03	01	21	01	01								

**CSAH 42 (42nd Street) at 26th Avenue in Minneapolis (2006 - 2015)**

Crash data is managed by the Mn/DOT Office of Traffic, Safety, and Operations.

CRASH NUM	SYS	NUM	RELY	CITY	CRASH DATE	TIME	SEV	NUM KILLED	NUM VEH	JUNC	SL	CRASH TYPE	DIAG	LOC1	TCD	LIT	WTHR1	WTHR2	SURF	RD CHAR	RD DSGN	V1 VTYPE	V1 DIR	V1 ACT	V1 FAC1	V1 FAC2	P1 POSN	P1 INJ	P1 EQP	P1 PHYS	P1 AGE	P1 SEX	V2 VTYPE	V2 DIR	V2 ACT	V2 FAC1	V2 FAC2	P2 POSN	P2 INJ	P2 EQP	P2 PHYS	P2 AGE	P2 SEX
083250197	04	27000042	1	Minneapolis	10/27/2008	1840	N	0	02	00	30	01	00	01	00	00	00	00	01	01	08	01	03	17	11	05	01	N	04	09	61	M	01	01	01	01	00	01	N	04	01	36	F
090900468	04	27000042	1	Minneapolis	03/31/2009	1834	N	0	01	04	30	12	07	01	98	01	01	00	01	01	08	04	03	01	01	00	01	N	99	01	39	M											
130280164	04	27000042	1	Minneapolis	01/28/2013	1335	C	0	01	04	30	06	09	01	04	01	01	00	03	01	08	32	01	06	15	00	01	N	04	01	55	M	53	05	90	01	00	25	N	98	01	43	M





**CSAH 152 (Cedar Avenue) @ CSAH 42 (42nd Street) (2006 -2015)**

Crash data is managed by the Mn/DOT Office of Traffic, Safety, and Operations.

152020041	04	27000152	1	Minneapolis	06/17/2015	0830	N	0	02	00	30	01	01	00	01	07	06	00	00	01	N	04	00	66	M	99	07	01	00	00	01	N	98	00		Z							
153000262	04	27000152	1	Minneapolis	10/27/2015	2020	N	0	02	04	30	01	02	01	01	04	03	00	02	01	08	01	03	00	99	00	01	N	99	99		X	01	03	00	00	00	01	N	04	01	29	F
151570131	04	27000152	1	Minneapolis	06/06/2015	1320	N	0	02	01	30	02	98	01	98	01	01	00	01	01	08	01	98	07	10	00	01	N	99	99		Z	01	05	21	00	00						
132630064	04	27000152	1	Minneapolis	09/20/2013	1008	N	0	02	04	30	01	01	01	01	01	02	00	01	01	08	01	01	01	04	16	01	N	04	01	19	F	01	01	11	01	00	01	N	04	01	42	M
140840093	04	27000152	1	Minneapolis	03/25/2014	1213	N	0	02	07	30	01	01	01	01	01	01	00	01	01	08	02	01	01	15	04	01	N	99	01	902	Z	01	01	01	01	00	01	N	04	01	24	F
112700190	04	27000152	1	Minneapolis	09/27/2011	1335	N	0	02	04	30	01	01	01	01	01	02	03	02	01	08	01	01	01	01	01	01	N	99	99	21	M	01	01	11	01	01	01	N	04	01	27	M
140600022	04	27000152	1	Minneapolis	02/28/2014	1600	N	0	02	04	30	01	02	01	01	01	02	00	05	01	08	02	05	15	07	00	01	N	99	99	902	Z	04	05	04	01	00	01	N	04	01	48	F
110300093	04	27000152	1	Minneapolis	01/30/2011	1425	N	0	02	01	30	01	01	01	98	01	01	01	01	01	08	02	01	01	01	01	01	N	99	01	40	M	01	01	11	01	01	01	N	99	01	44	M
100290164	04	27000152	1	Minneapolis	01/28/2010	1800	N	0	02	01	30	01	01	01	98	03	01	01	99	01	05	01	01	01	01	01	01	N	04	98	38	M	01	01	01	01	01	01	N	99	98	898	Z
103250230	04	27000152	1	Minneapolis	11/21/2010	0001	N	0	01	01	30	30	07	04	98	04	03	05	05	01	08	01	05	01	01	01	01	N	04	99	36	F											
150180041	04	27000152	1	Minneapolis	01/18/2015	1115	N	0	02	01	30	01	01	01	98	01	01	01	02	01	08	01	05	01	01	01	01	N	99	99	903	F	01	05	10	01	01	01	N	04	01	22	M
153460080	04	27000152	1	Minneapolis	12/12/2015	1825	N	0	02	01	30	01	01	01	01	04	01	00	01	01	08	01	01	01	90	00	01	N	04	01	32	M	01	01	11	01	00	01	N	04	01	28	M
132560188	05	25850260	1	Minneapolis	09/13/2013	1620	N	0	02	01	30	02	02	01	04	01	01	00	01	01	08	01	03	12	00	00	01	N	99	99	67	F	01	03	21	01	00						
082780112	05	25850260	1	Minneapolis	10/04/2008	1142	C	0	02	07	30	01	01	01	01	01	01	01	01	01	08	02	07	01	04	15	01	N	04	01	27	M	04	07	11	01	01	01	C	04	01	37	F
091930073	05	25850260	1	Minneapolis	07/12/2009	1445	N	0	02	01	30	01	90	01	98	01	01	01	01	01	08	01	03	09	08	00	01	N	99	01	35	M	04	03	01	01	01	01	N	04	01	73	F
092570054	05	25850260	1	Minneapolis	09/14/2009	0955	N	0	02	01	30	01	90	01	98	01	01	01	01	01	08	35	07	17	11	00	01	N	99	01	26	M	04	03	11	01	01	01	N	04	01	31	F
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122020139	05	25850260	2	Minneapolis	07/20/2012	1900	N	0	02	04	30	01	01	01	01	01	01	01	01	01	90	02	07	01	01	01	01	N	99	01	62	M	12	07	01	01	01	01	N	98	01	39	M
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070610048	04	27000042	1	Minneapolis	02/13/2007	1500	B	0	01	04	30	07	06	01	01	01	01	00	01	01	05	01	00	05	02	00	01	N	00	99	895	Z	51	98	31	01	00	21	B	98	01	51	M
123360026	04	27000042	1	Minneapolis	12/01/2012	0650	B	0	01	04	30	07	05	01	01	04	02	02	01	01	08	04	05	06	02	00	01	N	99	01	32	M	51	03	31	01	01	21	B	98	01	59	F
070320235	04	27000042	1	Minneapolis	01/04/2007	2145	C	0	02	04	30	01	05	01	01	04	02	00	02	01	08	01	01	01	02	00	01	N	99	01	23	M	01	07	01	01	00	01	C	99	01	25	M
121720107	04	27000042	2	Minneapolis	05/12/2012	2120	C	0	02	00	30	01	09	00	01	01	01	00	01	00	00	03	07	06	00	00	01	C	04	00	51	F	01	03	06	00	00	01	N	00	00	19	M
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100220012	04	27000042	1	Minneapolis	01/22/2010	0122	N	0	02	07	30	01	01	01	01	04	01	00	99	01	08	03	07	01	18	00	01	N	00	00	47	F	01	07	11	01	00	01	N	00	01	48	F
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150670007	04	27000042	1	Minneapolis	03/07/2015	2240	N	0	02	07	30	01	05	01	01	04	01	00	01	01	08	01	05	01	02	00	01	N	99	99	21	M	01	07	01	01	00	01	N	04	01	42	F
140430075	04	27000042	1	Minneapolis	02/12/2014	1030	N	0	02	01	30	02	02	01	98	01	01	02	02	01	08	99	03	99	99	00	01	N	99	99	902	X	03	03	21	01	00						
081710074	04	27000042	1	Minneapolis	04/11/2008	0447	N	0	03	00	30	01	01	00	01	01	02	00	02	00	00	01	07	10	00	00	01	N	04	00	50	F	01	07	11	00	00	01	N	00	00	56	M
093500084	04	27000042	1	Minneapolis	11/14/2009	0500	N	0	01	00	00	02	01	00	90	03	01	00	01	00	00	01	00	21	00	00							04	05	01	00	00	01	N	04	00	44	M

**CSAH 42 (42<sup>nd</sup> Street) @ Nokomis Avenue (2006 - 2015)**

**Crash data is managed by the Mn/DOT Office of Traffic, Safety, and Operations.**

CRASH NUM	SYS	NUM	RELY	CITY	CRASH DATE	TIME	SEV	NUM KILLED	NUM VEH	JUNC	SL	CRASH TYPE	DIAG	LOC1	TCD	LIT	WTHR1	WTHR2	SURF	RD CHAR	RD DSGN	V1 VTYPE	V1 DIR	V1 ACT	V1 FAC1	V1 FAC2	P1 POSN	P1 INJ	P1 EQP	P1 PHYS	P1 AGE	P1 SEX	V2 VTYPE	V2 DIR	V2 ACT	V2 FAC1	V2 FAC2	P2 POSN	P2 INJ	P2 EQP	P2 PHYS	P2 AGE	P2 SEX
092790122	04	27000042	1	Minneapolis	10/06/2009	1345	N	0	02	07	30	01	01	01	03	01	03	00	02	01	08	04	03	01	15	61	01	N	04	01	31	F	02	03	01	01	00	01	N	04	01	40	M
061560230	04	27000042	1	Minneapolis	05/17/2006	1030	N	0	02	01	30	01	01	01	98	01	01	90	01	01	05	03	00	01	00	00	01	N	00	99	894	Z	01	03	01	01	00	01	N	99	01	20	F
062540255	04	27000042	1	Minneapolis	08/03/2006	2100	C	0	02	00	30	01	05	00	03	03	01	00	01	00	00	01	07	01	00	00	01	C	04	00	32	F	99	03	01	00	00	01	N	98	00	29	M
070860006	04	27000042	1	Minneapolis	03/26/2007	1750	C	0	02	04	30	01	01	01	98	01	01	00	01	01	08	01	07	01	04	03	01	N	98	99	895	Z	03	07	01	01	00	01	C	04	01	22	F
071030096	04	27000042	1	Minneapolis	03/28/2007	2005	N	0	03	04	30	01	03	01	03	04	02	03	02	01	08	01	05	05	02	00	01	N	99	99	895	Z	01	05	06	01	00	01	N	99	01	32	F
080430091	04	27000042	1	Minneapolis	10/24/2007	1545	N	0	02	00	30	01	05	00	03	01	01	00	01	00	00	01	01	01	00	00	01	N	04	00	48	F	03	07	01	00	00	01	N	00	00	64	M
090650104	04	27000042	1	Minneapolis	02/10/2009	1926	C	0	02	07	30	01	01	01	03	04	03	00	02	01	02	03	03	01	04	05	01	N	99	01	52	M	01	03	11	01	00	01	C	03	01	65	M
110320295	04	27000042	1	Minneapolis	12/30/2010	2045	N	0	02	00	30	01	05	00	03	04	05	00	02	00	00	03	07	01	00	00	01	N	04	00	66	F	02	05	01	00	00	01	N	00	00	37	M
121820111	04	27000042	1	Minneapolis	06/30/2012	1540	N	0	02	04	30	01	01	01	03	01	01	01	01	01	08	03	03	01	15	18	01	N	04	02	34	F	03	03	11	01	01	01	N	04	01	39	M
133020106	04	27000042	1	Minneapolis	09/25/2013	1945	N	0	02	00	25	01	05	00	03	01	01	00	01	00	00	01	01	01	00	00	01	N	04	00	57	F	02	07	32	00	00	01	N	00	00	56	M
142590034	04	27000042	1	Minneapolis	09/16/2014	0755	C	0	01	04	30	07	05	01	03	01	01	01	01	01	08	01	03	01	32	00	01	N	04	01	25	M	51	01	36	01	01	22	C	98	01	28	F
151160089	04	27000042	1	Minneapolis	04/26/2015	1901	C	0	01	04	30	06	90	01	03	01	01	00	01	01	08	01	07	01	05	00	01	N	99	01	20	M	53	98	01	01	00	25	C	98	01	54	F



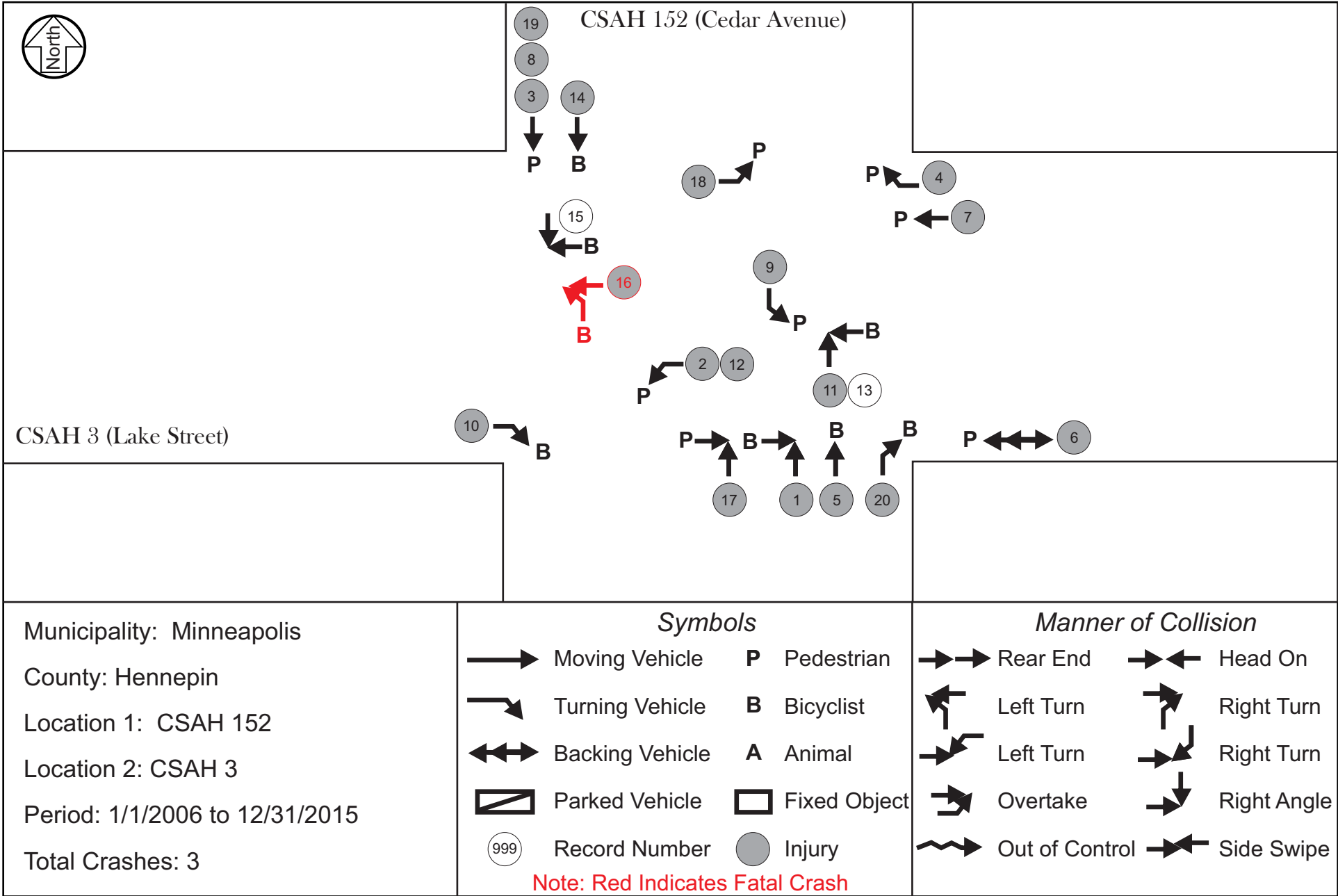






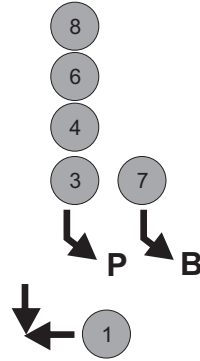


## **Attachment F – Collision Diagrams**



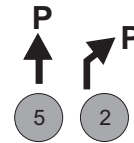
**Collision Diagram (Pedestrian, Bicycle, and Severe Crashes)**

CSAH 152 (Cedar Avenue) & CSAH 3 (Lake Street) Intersection  
 Hennepin County, Minnesota



CSAH 152 (Cedar Avenue)

CSAH 42 ( 42nd Street)



Municipality: Minneapolis

County: Hennepin

Location 1: CSAH 152 (Cedar Avenue)

Location 2: CSAH 42 (42nd Street)

Period: 1/1/2006 to 12/31/2015

Total Crashes: 1

*Symbols*

- Moving Vehicle
- Turning Vehicle
- Backing Vehicle
- Parked Vehicle
- Record Number
- P Pedestrian
- B Bicyclist
- A Animal
- Fixed Object
- Injury

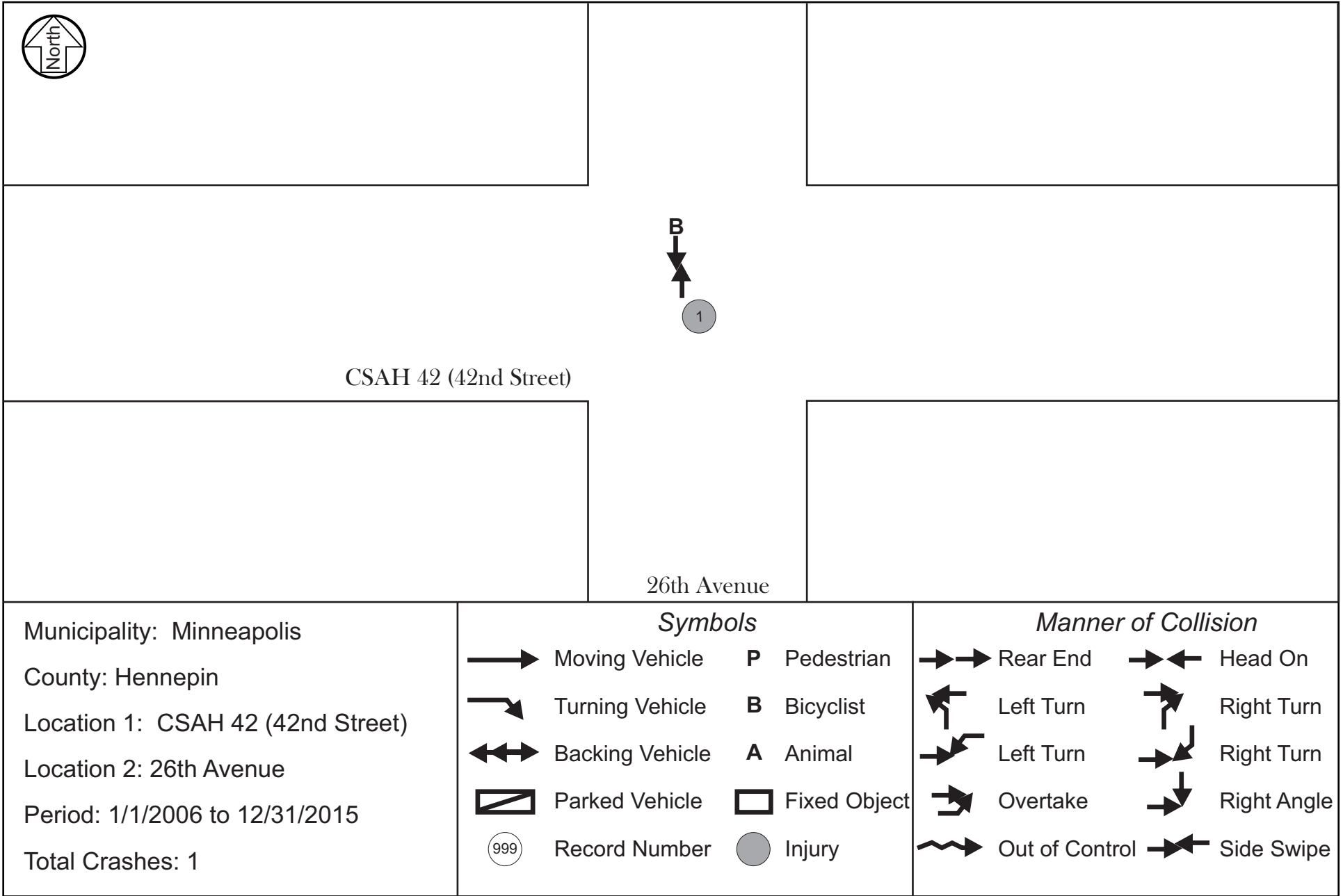
*Manner of Collision*

- Rear End
- Head On
- Left Turn
- Right Turn
- Left Turn
- Right Turn
- Overtake
- Right Angle
- Out of Control
- Side Swipe

**Collision Diagram (Pedestrian, Bicycle, and Severe Crashes)**

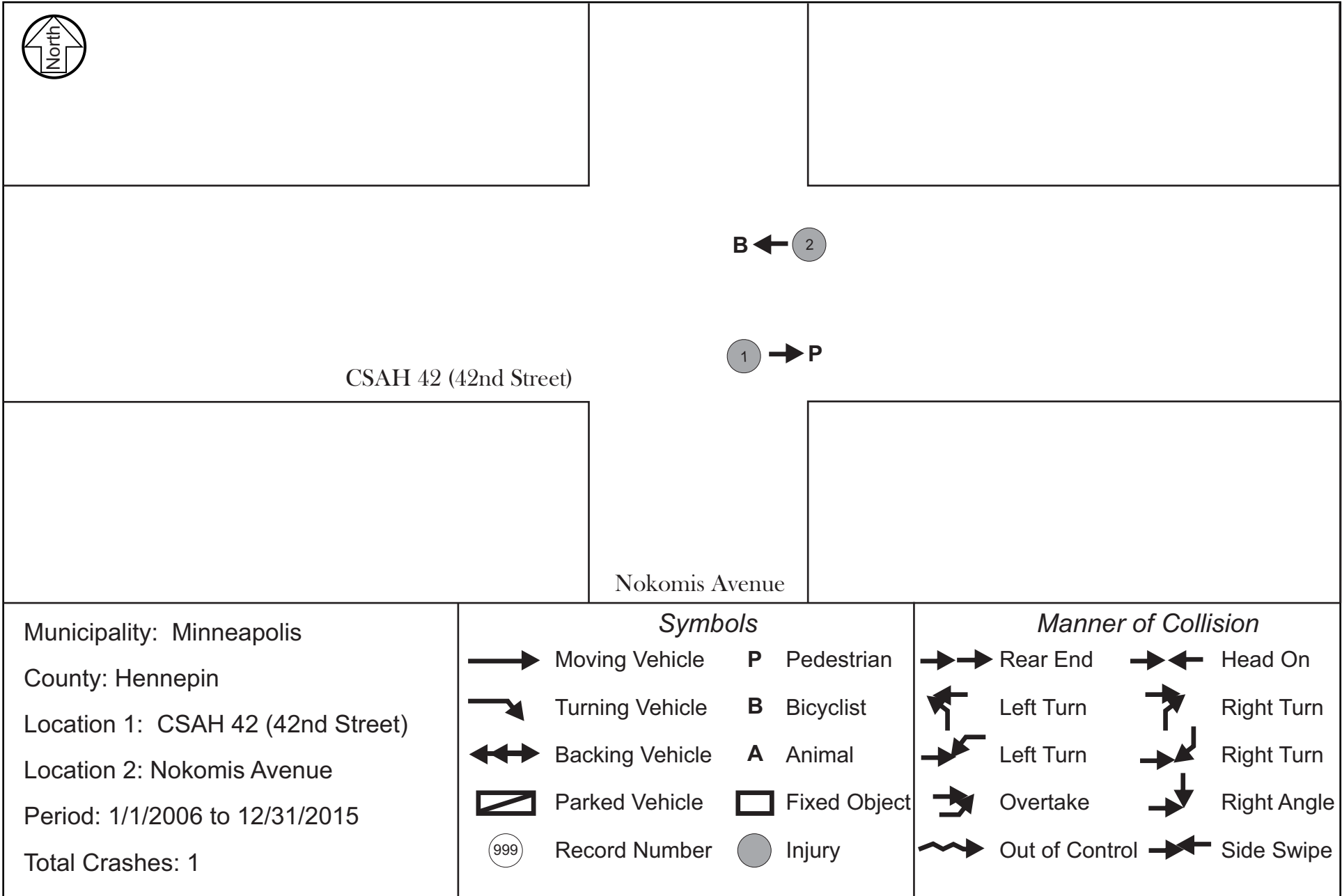
CSAH 152 (Cedar Avenue) & CSAH 42 (42nd Street) Intersection  
Hennepin County, Minnesota





**Collision Diagram (Pedestrian, Bicycle, and Severe Crashes)**

CSAH 42 (42nd Street) and 26th Avenue  
 Hennepin County, Minnesota



**Collision Diagram (Pedestrian, Bicycle, and Severe Crashes)**

CSAH 42 (42nd Street) and Nokomis Avenue  
 Hennepin County, Minnesota

## **Attachment G – Documentation of CRFs**

Countermeasures	Crash Type	Crash Severity	Area Type	Ref	Obs	Effectiveness				Study Type
						Crash Reduction Factor / Function	Std Error	Range		
								Low	High	
<b>GEOMETRIC COUNTERMEASURES</b>										
Convert unsignalized intersection to roundabout	Pedestrian	Fatal/Injury	Urban	11		27	12	44	3	
Convert intersection to roundabout	Pedestrian	All		55		89				
Install pedestrian overpass/underpass	Pedestrian	All		15		86				
	Pedestrian	All		1	14	90		60	95	
	Pedestrian	Fatal/Injury		15		90				
	Pedestrian	PDO		15		90				
	Pedestrian	All		15		100				
	Pedestrian	All		15		67				
	Pedestrian	All		15		5				
Pedestrian	All		15		90					
Install pedestrian overpass/underpass (unsignalized intersection)	Pedestrian	All		28		13				
Install raised median	Pedestrian	All		15		25				
Install raised median (marked crosswalk) at unsignalized intersection	Pedestrian	All		60		46				
Install raised median (unmarked crosswalk) at unsignalized intersection	Pedestrian	All		60		39				
Install raised median (unsignalized intersection)	Pedestrian	All		28		69				
Install raised pedestrian crossing	All	All		5		30	67			Meta-analysis
	All	Fatal/Injury		5		36	54			Meta-analysis
	Pedestrian	All		28		8				
Install refuge islands	Pedestrian	All		28		56				
Install sidewalk (to avoid walking along roadway)	Pedestrian	All		15		74				
	Pedestrian	All		36		88		43	99	Case-Control Study

Desktop Reference for Crash Reduction Factors

Intersection Crashes

Countermeasure(s)	Crash Type	Crash Severity	Area Type	Config	Control	Major	Minor	Ref	Obs	Effectiveness				Study Type
						Daily Traffic				Crash Reduction	Std	Range		
						Volume (veh/day)						Factor / Function	Error	
Install pedestrian crossing (signed and marked with curb ramps and extensions)	All	All			No signal			28		37		25	48	
Install pedestrian overpass/underpass	Ped	All			No signal			28		13				
Install stop signs at alternate intersections in residential areas	All	All	Urban		Stop			53		50		45	55	
	All	Fatal/Injury	Urban		Stop			53		67		61	72	
Vary frequency of driveways within 250 ft of intersection	All	All	Rural		Signal			6		100(1-EXP(0.046(Nd-3))); Nd=number of driveways on the major road within 250ft of the intersection				
	All	All	Rural		Stop			6		100(1-EXP(0.056(Nd-3))); Nd=number of driveways on the major road within 250ft of the intersection				
Vary lane width	All	All	Urban		Signal			6		100(1-EXP(-0.053(WI-12))); WI=lane width (ft)				
	All	All	Urban		Stop			6		100(1-EXP(-0.057(WI-12))); WI=lane width (ft)				
Vary sight distance	All	All	Rural		Signal			6		0				
Vary through lanes	All	All	Rural		Signal			6		100(1-EXP(0.007(NIn-2))); NIn=number of through lanes on the road				
	All	All	Rural		Stop			6		100(1-EXP(-0.093(NIn-2))); NIn=number of through lanes on the road				
Vary truck presence	All	All	Rural	4-Leg	Signal			6		100(1-EXP(0.026(Pt-9))); Pt=percent truck during the peak hour (average for all intersection movements)				
	All	Fatal/Injury	Rural	3-Leg	Stop			6		100(1-EXP(-0.0253(Pt-9))); Pt=percent truck during the peak hour (average for all intersection movements)				



▼ Countermeasure: Install pedestrian countdown timer

<a href="#">Compare</a>	CMF	CRF(%)	Quality	Crash Type	Crash Severity	Area Type	Reference	Comments
<input type="checkbox"/>	0.3	70	★★★★★	Vehicle/pedestrian	All	Not specified	<a href="#">Van Houten et al., 2012</a>	The study did not adjust ... [ <a href="#">read more</a> ]
<input type="checkbox"/>	0.85	15	★★★★★	Other	All	Not specified	<a href="#">Kwigizile et al., 2016</a>	CMFs of crashes involve drivers ... [ <a href="#">read more</a> ]
<input type="checkbox"/>	0.48	52	★★★★★	Other	K,A,B,C	Not specified	<a href="#">Kwigizile et al., 2016</a>	CMFs of crashes involve drivers ... [ <a href="#">read more</a> ]
<input type="checkbox"/>	0.45	55	★★★★★	Vehicle/pedestrian	All	Not specified	<a href="#">Van Houten et al., 2012</a>	The study did not adjust ... [ <a href="#">read more</a> ]

[Compare](#) [Reset Compare](#)

\*NOTE: You can compare CMFs across countermeasures, subcategories, and categories.

**ACTION TRANSMITTAL – 2022-05**

**DATE:** December 29, 2021

**TO:** Technical Advisory Committee

**FROM:** TAC Funding & Programming Committee

**PREPARED BY:** Joe Barbeau, Senior Planner ([joe.barbeau@metc.state.mn.us](mailto:joe.barbeau@metc.state.mn.us))

**SUBJECT:** Scope Change / TIP Amendment Request for Hennepin County CSAH 42 and CSAH 3 Signal Revisions and Pedestrian Improvements

**REQUESTED ACTION:** Hennepin County requests a scope change for its CSAH 42 / CSAH 3 signal revisions and pedestrian improvements project (S.P. # 027-030-050) to remove BRT station underground and flatwork along with one intersection and approve an amendment to the 2022-2025 TIP reflecting this change.

**RECOMMENDED MOTION:** That the Technical Advisory Committee recommend that TAB:

- Approve Hennepin County’s request to remove BRT station underground and flatwork along with one intersection from Hennepin County’s CSAH 42 / CSAH 3 signal revisions and pedestrian improvements project (S.P. # 027-030-050) while retaining all its original federal funding and
- Recommend the Council approve an amendment to the 2022-2025 TIP reflecting this change.

**BACKGROUND AND PURPOSE OF ACTION:** Hennepin County was awarded \$828,000 in Highway Safety Improvement Program (HSIP) funds for 2022 in the proactive category as part of the 2018 HSIP Solicitation. The award was to fund pedestrian crossing improvements (curb extensions, raised medians, crossing beacons, ADA pavement markings, and signage) at five intersections:

- CSAH 3 (Lake Street) and CSAH 152 (Cedar Avenue)
- CSAH 42 (42<sup>nd</sup> Street) and CSAH 152 (Cedar Avenue)
- CSAH 42 and 21<sup>st</sup> Avenue
- CSAH 42 and 26<sup>th</sup> Avenue
- CSAH 42 and Nokomis Avenue

The project was included in the 2021-2024 TIP with the following description:

**Various locations on CSAH 3 (Lake St) and CSAH 42 (42nd St) in Mpls – Ped crossing safety improvements: curb extensions, raised medians, crossing beacons, ADA, pavement markings, signage**

In March of 2021, staff worked with MnDOT Metro District State Aid to approve an informal scope change request to add transit station work related to the B-Line arterial bus rapid transit (ABRT) project. Because the station work would be paid for with local funds and the local work

would not diminish the HSIP project, the informal scope change was acceptable. The project is currently shown in the TIP with the following description:

**Various locations on CSAH 3 (Lake St) and CSAH 42 (42nd St) in Mpls – Ped crossing safety improvements: curb extensions, raised medians, crossing beacons, ADA, pavement markings, signage. Two bus rapid transit stations underground and flatwork**

The federal funding amount remains unchanged, though the total cost has increased from \$993,600 to \$1,193,600. Hennepin County is requesting the following changes to the project:

1. Remove the ABRT station underground and flatwork. On its own, this change would return the project back to its original scope.
2. Remove the CSAH 3 / CSAH 152 intersection from project. This would enable the signal and pedestrian facilities to be constructed as part of the Metro Transit B-Line ABRT project, along with enhanced improvements<sup>1</sup> at the intersection. This would result in completion of one project at the intersection, rather than two. Note that the HSIP project is scheduled for 2022 and the Metro Transit project is scheduled for 2023.
3. Change “crossing beacons” to “signal.” This would apply to the four remaining intersections.

The requested change would bring the total project cost to \$1,030,000. The proposed scope change / TIP amendment would result in the following description (matching the original description except that “signal” would replace “crossing beacons”):

**Various locations on CSAH 42 (42nd St) in Mpls- Ped crossing safety improvements: curb extensions, raised medians, signal, ADA, pavement markings, signage**

Hennepin County states that the intersection proposed for removal accounts for \$190,000, of the original application, which would mean \$171,000 in federal funding (per the 90/10 HSIP split). The county requests retention of all its federal funding.

**RELATIONSHIP TO REGIONAL POLICY:** Projects that receive funding through the Regional Solicitation and HSIP Solicitation processes are subject to the regional scope change policy. The purpose of this policy is to ensure that the project is designed and constructed according to the plans and intent described in the original application. The scope change policy allows project sponsors to adjust their projects as needed while still providing substantially the same benefits described in their original project applications.

Federal law requires that all TIP amendments meet the following four tests: fiscal constraint; consistency with the adopted regional transportation plan; air quality conformity; and opportunity for public input. It is the TAB’s responsibility to adopt and amend the TIP per these four requirements.

---

<sup>1</sup> This includes ADA accommodations designed to be fully compliant and a new signals system, beyond what is feasible as part of the current project.

**STAFF ANALYSIS:**

Approval/Denial of the Scope Change: A scoring analysis is provided in Table 1. This application was scored through a MnDOT process. Hennepin County states that the Metro Transit project that will be completed one year following the HSIP project will include completion of the intersection being removed.

Table 1: Scoring Analysis

Measure	Max Score	Original Score	Scope Change	Notes
1. Connection to 2014-19 MN Strategic Highway Safety Plan	100	60	0	
2. Cost per Mile or Intersection	200	10	0	One of five intersections, worth 20.7% of the original project cost.
3. Wide Strategy Deployment vs. Single Spot Location	200	100	0	Reduction from five to four intersections
4. Average Annual Daily Traffic	50	14	-	Removing Lake Street likely reduces the ADT (though the score was already low)
5. Fatal and Serious Injury Crashes (10 years)	50	18	--	17 of the project's 28 injury crashes, along with the only fatality, were at the removed intersection.
6. Crash Reduction Factor	250	182	0	
7. Part of a Plan	150	150	0	
<b>TOTAL</b>	<b>1,000</b>	<b>534</b>	-	

\* 0 = no change

+ = small improvement, ++ = moderate improvement, +++ = large improvement

- = small diminishment, -- = moderate diminishment, --- = large diminishment

The highest-scoring unfunded project in the category scored 499 points. While omission of the busiest amongst these intersections would have led to a reduced score, it likely would have been funded. Further, history has shown that requests for which removed project elements are completed elsewhere are usually approved without concern for scoring.

Funding: Provided the scope change is approved, staff provides the following two options:

1. Allow the applicant to retain the full award in recognition that the full project will be built.
2. Reduce the federal award by \$171,000 corresponding to the federal share of CSAH 3 portion of the original project.

Recent precedent has allowed for funding of removed elements to be retained if those elements are being paid for by local funds, as is the case here. That said, any local funds would pay for existing project elements, essentially covering cost increases from the original application, potentially resulting in return of some of those funds, should the total cost be low enough.

TIP Amendment: Assuming a scope change is approved, a TIP amendment reflecting the change should be approved as well. The TIP amendment meets fiscal constraint because the federal and local funds are sufficient to fully fund the project. This amendment is consistent with the Metropolitan Council Transportation Policy Plan, adopted by the Metropolitan Council on November 18, 2020 with FHWA/FTA conformity determination established on December 4, 2020. Public input opportunity for this amendment is provided through the TAB's and the

Council’s regular meetings. The Minnesota Interagency Air Quality and Transportation Planning Committee determined that the project is exempt from air quality conformity analysis.

**COMMITTEE COMMENTS AND ACTION:** At its December 16, 2021, meeting, the TAC Funding & Programming Committee voted unanimously to recommend approval of Hennepin County’s request to remove BRT station underground and flatwork along with one intersection from Hennepin County’s CSAH 42 / CSAH 3 signal revisions and pedestrian improvements project while retaining all of its original federal funding. Also included in the motion was recommendation of approval of an amendment to the 2022-2025 TIP reflecting this change.

Discussion focused on the retention of the full federal funds and in the end the committee recommended that the applicant keep the full original award. Given that the same amount of federal funding can essentially only cover cost increases to the remaining intersections, there was question as to whether this is appropriate, as cost increases are not supposed to be funded. Staff reported that while there is minimal precedence, recent history shows that full funding has been retained if the removed project elements are being completed in other projects—and paid for by the applicant—as is the case in this request.

Scope change decisions since approval of the current Scope Change Policy that could inform this point include:

- [2021-37](#); Hennepin County’s signal revisions and pedestrian improvements on CSAH 52 and CSAH 35. Similar action with six intersections being reduced to five (and the removed intersection to be constructed as part of another project). All federal funds retained. The federal portion attached to the removed elements was \$165,600. The applicant retained the original federal amount. The rationale was that the county’s objectives remained unchanged.
- [2021-05](#); St. Louis Park’s CSAH 25/Beltline Blvd Pedestrian Improvements. Two project segments removed (to be constructed as part of other projects). Full federal funding retained. The federal portion attached to the removed elements was \$44,994. The applicant retained the original federal amount. The rationale was that the proposed amount of federal funding to remove was small and the city was spending additional money on other efforts to complete the full original project.

**ROUTING**

<b>TO</b>	<b>ACTION REQUESTED</b>	<b>DATE SCHEDULED / COMPLETED</b>
TAC Planning or TAC Funding & Programming Committee	Review & Recommend	12/16/2021
Technical Advisory Committee	Review & Recommend	1/5/2022
Transportation Advisory Board	Review & Recommend TIP Amendment & Adopt Scope Change	1/19/2022
Metropolitan Council Transportation Committee	Review & Recommend (TIP Amendment Only)	1/24/2022
Metropolitan Council	Review & Adopt (TIP Amendment Only)	1/26/2022



# HENNEPIN COUNTY

## MINNESOTA

November 22, 2021

Michael Thompson  
Chair, TAC Funding and Programming Committee  
Metropolitan Council  
390 Robert Street North  
Saint Paul, MN 55101-1805

**Re: Scope Change request to S.P. 027-030-050 - CSAH 3 (Lake Street) and CSAH 42 (42<sup>nd</sup> Street) Signal Revisions and Pedestrian Improvements**

Dear Mr. Thompson,

Hennepin County respectfully requests that the Funding and Programming Committee consider the attached Scope Change request for the above referenced project.

In 2018, Hennepin County was awarded federal funding as part of the Highway Safety Improvement Program (HSIP) to make safety and mobility improvements to the following intersections in Minneapolis:

Along CSAH 3 (Lake Street)

- CSAH 152 (Cedar Avenue)

Along CSAH 42 (42<sup>nd</sup> Street)

- CSAH 152 (Cedar Avenue)
- 21<sup>st</sup> Avenue
- 26<sup>th</sup> Avenue
- Nokomis Avenue

The current 2022-2025 State Transportation Improvement Program (STIP) identifies \$828,000 in federal funding and \$365,600 in local match funding for the project, for a STIP total of \$1,193,600. The program year for this project is 2022.

Project development has been ongoing since 2020; and it has become known that both Metro Transit and Hennepin County both have separate projects planned for the CSAH 3 (Lake Street) and CSAH 152 (Cedar Avenue) intersection. The Hennepin County led, and subject line project is planned for construction in 2022, and the Metro Transit led B Line Bus Rapid Transit (BRT) project is anticipated to begin construction in 2023. Therefore, it's in the public's best interest for agencies to coordinate planned activities to minimize impacts to the public.

At this time, Hennepin County requests a scope change that would remove the planned improvements at the CSAH 3 (Lake Street) and CSAH 152 (Cedar Avenue) intersection from the subject line project as the Metro Transit B Line Bus Rapid Transit (BRT) project will reconstruct the signal and pedestrian facilities. Approval of this scope change request will allow for enhanced improvements at this intersection including ADA accommodations designed to be fully compliant and a new signal system, beyond what is feasible as part of the county's current signal revision and an ADA retrofit project. The change would also result in

Hennepin County Transportation Project Delivery  
Public Works Facility, 1600 Prairie Drive, Medina, MN 55340  
612-596-0300 | hennepin.us



# HENNEPIN COUNTY

## MINNESOTA

only one project (rather than two) at this intersection which will further minimize impacts to the local community and traveling public. The proposed cost estimate of the work at CSAH 3 (Lake Street) and CSAH 152 (Cedar Avenue) is \$190,000 and applying the 90/10 HSIP split results in a \$171,000 federal portion and \$19,000 local match.

With your approval, the improvements at CSAH 3 (Lake Street) and CSAH 152 (Cedar Avenue) will be delivered with the Metro Transit B Line BRT project, in which Hennepin County intends to cost participate with local funds. Therefore, we kindly request to retain the full original federal funding amount of \$828,000.

With your approval, we respectfully request the above-mentioned revision be made to the new 2022-2025 STIP. Please advise of any additional information you may need and contact me with any questions.

Sincerely,



Kelly Agosto, PE

Cc: Colleen Brown, MnDOT Metro State Aid  
Carla Stueve, PE, PTOE  
Jessa Trbojevich, PE  
Chad Ellos, PE  
Jason Pieper, PE

## FUNDING DATA FOR SCOPE CHANGE REQUEST

### 1. Original Application

Regional Solicitation Year	N/A
Application Funding Category	N/A
HSIP Solicitation	Yes - 2018
Application Total Project Cost	\$920,000
Federal Award	\$828,000
Application Federal Percentage of Total Project Cost	90%

Project Elements Being Removed:	Original Application Cost
Work at Lake St./Cedar Ave. intersection	\$190,000

### 2. Funding Scenario

Table 1 | Current Construction Cost Breakdown

Location	Construction Costs	Percentage of Total Project
4 Intersections along 42 <sup>nd</sup> St.	\$1,030,000	84%
Lake St./Cedar Ave.	\$190,000	16%
Total	\$1,220,000	100%

Table 2 | Federal Fund Breakdown for Current Construction Cost

	Federal Share	Local Share	Total Construction
4 intersections along 42 <sup>nd</sup> St.	\$699,049	\$330,951	\$1,030,000
Lake St./Cedar Ave.	\$128,951	\$61,049	\$190,000

# HENNEPIN COUNTY

## MINNESOTA

Table 3 | Proposed Construction Cost and Federal Funding Breakdown  
(Lake St./Cedar Ave. Removed)

	Option 1 No Federal Funds Removed	Option 2 Federal Funds Removed
Construction Total	\$1,030,000	\$1,030,000
Federal	\$828,000	\$699,049
Local Match	\$202,000	\$330,951
% Federal	80%	68%

### 3. Attachments

#### Attachment 1

Project map identifying location of work to be removed.

#### Attachment 2

Letter of support and commitment from Metro Transit and City of Minneapolis.

**ATTACHMENT 1**

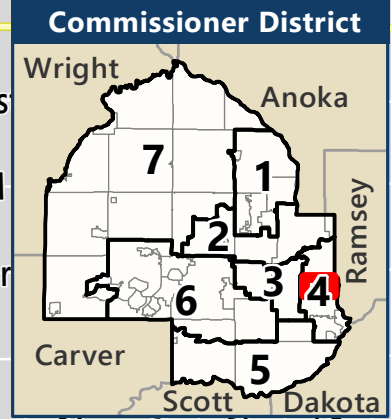
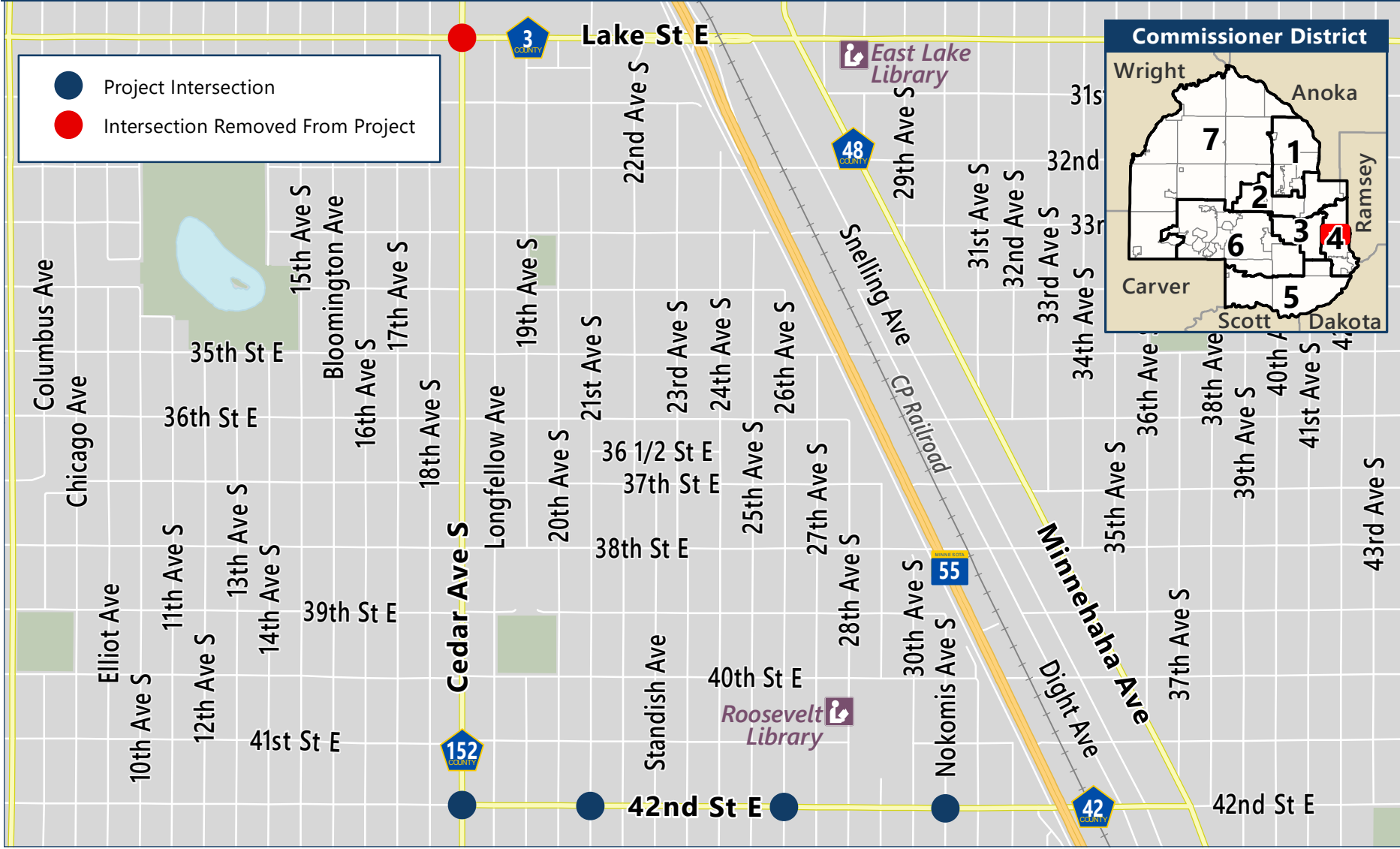
PROJECT MAP



# S.P. 027-030-050 Scope Change

CSAH 3 & CSAH 42 Intersection Improvements | CP 2191800

- Project Intersection
- Intersection Removed From Project



**ATTACHMENT 2**

AGENCY LETTERS OF SUPPORT AND COMMITMENT



November 12, 2021

Carla Stueve, P.E., P.T.O.E.  
Director of Transportation Project Delivery and County Engineer  
Hennepin County Public Works  
1600 Prairie Drive  
Medina, MN 55340

RE: 2022 Highway Safety Improvement Project – Letter of Understanding

Dear Carla:

Metro Transit presents this letter of understanding to Hennepin County regarding the county's 2022 Highway Safety Improvement Project (Hennepin County Project No. 2191800); specifically, the planned ADA work and lighting updates at the CSAH 3 (Lake Street) and CSAH 152 (Cedar Ave) intersection.

As the County is aware, Metro Transit is developing the B Line bus rapid transit (BRT) project with planned station construction primarily along Lake Street, including a station with platforms on two corners of the CSAH 3 (Lake Street) and CSAH 152 (Cedar Ave) intersection. The project is currently fully funded with construction planned for 2023-2024. We appreciate Hennepin County's ongoing partnership around the B Line project and broader improvements being studied on Lake Street.

It is understood that Hennepin County has received federal funding to support intersection improvements at various intersections along CSAH 152 (Cedar Ave) and CSAH 42 (42<sup>nd</sup> St), including the intersection of CSAH 3 (Lake Street) and CSAH 152 (Cedar Ave). Such work at this intersection includes addition of curb extensions, pedestrian ramp upgrades, addition of accessible pedestrian signals (APS) and push buttons, and lighting updates at all four quadrants. It is further understood that Hennepin County is seeking to remove this intersection from the overall 2022 Highway Safety Improvement Project, and deliver the work with Metro Transit's B Line project. This will allow agencies to best coordinate the planned improvements, and allow for County decisions anticipated by the end of 2021 to inform the design of both these intersection improvements and B Line stations at Lake Street and Cedar Avenue.

Metro Transit understands that Hennepin County commits to participating in the full cost of those scoped improvements, and intends to enter into agreements with Metro Transit to formalize that commitment for design and construction.

Pending future formal funding participation commitment, Metro Transit supports consolidating Hennepin County's work at the Lake Street and Cedar Ave intersection into B Line project

A service of the Metropolitan Council

delivery. In conjunction with the planned B Line project, Metro Transit commits to partnering with Hennepin County to include those improvements at the CSAH 3 (Lake Street) and CSAH 152 (Cedar Ave) intersection that would have otherwise been delivered as part of Hennepin County's Project No. 2191800. Such consolidation will not only minimize construction impacts to the local community and roadway users; it will also allow for the construction of superior ADA accommodations due to the opportunity to substantially modify curb lines in conjunction with the B Line project.

We look forward to continued coordination with Hennepin County on the B Line project.

Sincerely,



Katie Roth

Assistant Director, Bus Rapid Transit Projects

cc: Nick Thompson, Deputy General Manager  
Charles Carlson, Director, BRT Projects  
Luke Sandstrom, Principal Engineer

November 10, 2021

Carla Stueve, P.E., P.T.O.E  
Director of Transportation Project Delivery and County Engineer  
Hennepin County Public Works  
1600 Prairie Drive  
Medina, MN 55340

Re: CSAH 3 (Lake St) and CSAH 42 (42<sup>nd</sup> St) Pedestrian Crossing Safety Improvements – Letter of Support

Dear Ms Stueve:

The City of Minneapolis formally presents this letter of support to Hennepin County regarding the county's 2022 Highway Safety Improvement Project (Hennepin County Project No. 2191800), specifically regarding the pedestrian safety improvements at the intersection of CSAH 3 (Lake St) and CSAH 152 (Cedar Ave).

It is understood that Hennepin County has received federal funding via the Highway Safety Improvement Program (HSIP) for pedestrian safety improvements at five intersections, including CSAH 3 (Lake St) and CSAH 152 (Cedar Ave). This work includes construction of curb extensions, pedestrian ramp upgrades, accessible pedestrian signals (APS) and lighting. It is further understood that Hennepin County is seeking to remove this intersection from the overall 2022 HSIP Project and deliver the work as a part of Metro Transit's B Line BRT project.

Furthermore, Metro Transit has full funding to construct the METRO B Line bus rapid transit (BRT) project that is planned for construction in 2023-2024. The METRO B Line is a planned BRT project that will provide faster and more reliable transit service in the Route 21 corridor along Lake Street and Marshall and Selby avenues. At this time, it is anticipated that the METRO B Line BRT project will be delivered in 2023-24 by Metro Transit and will include new BRT stations with curb extensions, pedestrian ramp upgrades, accessible pedestrian signals (APS) and lighting at two corners of the CSAH 3 (Lake St) and CSAH 152 (Cedar Ave) intersection.

In order to promote efficient project delivery, Hennepin County and Metro Transit have indicated it will be in the best interest of the public and all involved agencies to remove this intersection from the HSIP project and have all improvements be delivered with the METRO B Line BRT project. The City of Minneapolis supports this consolidation of work, understanding that Hennepin County commits to participating in the full cost of the scoped improvements and intends to enter into agreements with Metro Transit to formalize that commitment for design and construction. Consolidating the County's work in conjunction with Metro Transit's METRO B Line BRT project will not only minimize construction impacts to the local community and roadway users, but will also allow for construction of superior ADA accommodations due to the opportunity to substantially modify curb lines to support BRT service and improved conditions for people walking and rolling as originally outlined in the HSIP application.

The City of Minneapolis looks forward to continued coordination with Hennepin County on the HSIP project, as well as advancing the improvements at CSAH 3 (Lake St) and CSAH 152 (Cedar Ave) with Metro Transit.

Sincerely,



Jenifer Hager  
Director of Transportation Planning & Programming  
Minneapolis Public Works

Please amend the 2022-2025 Transportation Improvement Program (TIP) to amend this project in program year 2022. This project is being submitted with the following information:

**PROJECT IDENTIFICATION:**

Seq #	State Fiscal Year	ATP/ Dist	Route System	Project Number	Agency	Description
1447	2022	M	CSAH 42	027-030-050	Hennepin County	Various locations on <del>CSAH 3 (Lake St)</del> and CSAH 42 (42nd St) in Mpls- Ped crossing safety improvements: curb extensions, raised medians, <del>crossing beacons</del> , signal, ADA, pavement markings, signage. <del>Two bus rapid transit stations underground and flatwork</del>

Miles	Prog	Type of Work	Prop Funds	Total \$	FHWA \$	Other \$
0	SH	Pedestrian Ramps	HSIP	<del>1,193,600</del> <u>1,030,000</u>	828,000	<del>365,600</del> <u>202,000</u>

**PROJECT BACKGROUND:**

1. Briefly describe why amendment is needed (e.g., project in previous TIP but not completed; illustrative project and funds now available; discretionary funds received; inadvertently not included in TIP).

This amendment is needed to update the project description and costs due to an approved scope change.

2. How is Fiscal Constraint Maintained as required by 23 CFR 450.216 (check all that apply)?
  - New Money
  - Anticipated Advance Construction
  - ATP or MPO or MnDOT Adjustment by deferral of other projects
  - Earmark or HPP not affecting fiscal constraint
  - X Other

No additional federal funds are being added to the project. Therefore, fiscal constraint is maintained.

**CONSISTENCY WITH MPO LONG RANGE PLAN:**

This amendment is consistent with the Metropolitan Council Transportation Policy Plan, adopted by the Metropolitan Council on November 18, 2020 with FHWA/FTA conformity determination established on December 4, 2020.

**AIR QUALITY CONFORMITY:**

- Subject to conformity determination
- Exempt from regional level analysis
- N/A (not in a nonattainment or maintenance area)

\*Exempt Project Category AQ-2. Bicycle and pedestrian facilities per Section 93.126 of the Conformity Rules.



## INFORMATION ITEM

**DATE:** December 29, 2021  
**TO:** Technical Advisory Committee  
**PREPARED BY:** Joe Barbeau, Senior Planner ([joseph.barbeau@metc.state.mn.us](mailto:joseph.barbeau@metc.state.mn.us))  
**SUBJECT:** Proposed TAC Bylaws Changes

Attached are proposed changes to the TAC Bylaws, as suggested by the TAC Executive Committee and technical committee staff. The impetus to the update was formalization of the role of technical working groups. Article V, Part D (pages 8-9) addresses this topic. This enables a more direct relationship between TAC and specialized working groups that will provide recommendations on matters that require specialized technical expertise that is requested by TAC and/or not adequately or comprehensively represented on TAC or its standing committees.

The process led to several other proposed changes as well. These are summarized below.

- I. Article I: Name and Purpose (Page 2)
  - Part B. Expansion of the TAC's purpose.
- II. Article II: Membership of the TAC (Pages 2-3)
  - Part A. Change TAC from 32 to 34 members:
    - Split "non-motorized" member into "bicycle" member and "pedestrian" member, adding one member. This part also tasks the Bicycle/ Pedestrian Planning Technical Working Group with recommending these members for approval by the TAC Executive Committee.
    - Addition of Minnesota Department of Natural Resources (DNR) member.
- III. Article III: Officers of the TAC (Pages 3-4)
  - Part A. Change of chairperson terms from three years to two years. Due to more frequent turnover, also shown is that a chairperson can serve multiple terms but not consecutively (current language allows for only one term altogether). New chairperson would start in odd-numbered years, starting in 2023.
- IV. Article IV: Meetings of the TAC (Pages 4-6)
  - (No significant changes suggested)
- V. Article V: Committees (Pages 6-9)
  - Part C. Establishment of vice chairs for the Funding & Programming and Planning Committees
  - Part C. Clarification of how to assign new members to standing committees, when needed.
  - Part C. #1 and #2 show several new objectives added to the Funding & Programming (F&P) and Planning Committees. These include:
    - Evaluate the Regional Solicitation (F&P)
    - Make HSIP funding recommendations (F&P)

- Assist in development, review, and recommendation of performance measures (Planning)
- Review and provide input on planning studies (Planning)
- Part D. Mostly new language on technical working groups. Membership, process, and purpose of the groups are addressed.

VI. Article VI: Amendment (Page 10)  
(No changes suggested)

VII. Other/General

- The current version of the Bylaws is inconsistent by interchangeably referring to Funding & Programming and Planning Committees as “standing committees” and “subcommittees.” The proposed update uses the former.
- The current version of the Bylaws is inconsistent in use of “special task force,” “technical work group,” and “technical working group.” The proposed uses the latter.

Following review by TAC, the proposed update to the Bylaws will be shared as an information item with the Planning and Funding & Programming Committees before being brought back to TAC as an action item in February.

# METROPOLITAN COUNCIL

# BYLAWS

of

## The Technical Advisory Committee (TAC) of the Transportation Advisory Board

Adopted ~~February 6, 2019~~ February 2, 2022

These bylaws explain the TAC's purpose, membership composition, election of officers, structure and schedule of meetings, conduct of business, and standing committee ~~subcommittee~~ responsibilities and structure. These bylaws were adopted by the TAC on ~~February 6, 2019~~ February 2, 2022.

**ARTICLE I: NAME AND PURPOSE**

A. Name

The name of this body shall be the Technical Advisory Committee (hereinafter called the TAC).

B. Purpose

The Transportation Advisory Board (TAB) has established the TAC, for which the primary function is to provide technical advice to the TAB. The committee shall include the following purposes and objectives:~~The purposes of the TAC are:~~

1. Provide the technical evaluation, assistance~~advice~~, and coordination recommendations necessary for the Transportation Advisory Board (hereinafter called the TAB) to carry out its duties and responsibilities;
2. Assure state, regional, county and municipal involvement and coordination in transportation decisions of metropolitan significance;
3. Provide a forum for professional staff from planning and implementing agencies to address discussion of metropolitan transportation issues facing the region by professional staff of planning and implementing agencies.
- 3-4. Review MPO planning studies and programs, provided by the standing committees, for TAB

**ARTICLE II: MEMBERSHIP OF THE TAC**

A. Composition

The TAC shall be composed of the following professional staff:

Designated representatives or their designated alternate of:

- |   |     |
|---|-----|
| Association of Metropolitan Municipalities  | (8) |
| Metropolitan Airports Commission ( <u>MAC</u> )   | (1) |
| Mn Dept of Employment and Economic Development ( <u>DEED</u> )  | (1) |
| Minnesota Department of Transportation ( <u>MnDOT</u> )   | (1) |
| Minnesota Pollution Control Agency ( <u>MPCA</u> )  | (1) |
| USDOT (FHWA) (non-voting)   | (1) |
| Suburban Transit Provider (designated by Suburban Transit Association)                                  | (1) |
| <del>Non-motorized</del> <u>Bicycle</u> Transportation ( <u>designated by TAC Executive Committee</u> ) | (1) |
| <u>Pedestrian Transportation (designated by TAC Executive Committee)</u>                                | (1) |
| Freight (designated by MnDOT Freight Office)  | (1) |
| <u>Minnesota Department of Natural Resources</u>  | (1) |
| <del>And the following individuals (or their representative):</del>                                     |     |
| Metropolitan Council  | (3) |
| - Dir. Of Metropolitan Transportation Services (MTS)  |     |
| - Dir. Of Community Development   |     |
| - General Manager of Metro Transit  |     |

County Engineer of each of the Seven Metropolitan Counties	(7)
Region 7W (represent the areas of Sherburne and Wright Counties in the Twin Cities Urbanized Area)	(1)
Minneapolis City Engineer and Planning Director	(2)
St. Paul City Engineer and Planning Director	(2)
Transportation Advisory Board Coordinator	(1)
	<del>3234</del>

B. Appointment and Changes of Representatives to the TAC

The agencies listed in Article II A. shall notify the TAC Chair in writing of any changes to its designated representative and alternate representative.

The change shall take effect upon the Chairperson’s receipt of such notification. When a vacancy occurs, the Chairperson shall immediately notify the appointing body and request that a new representative be appointed.

C. Qualifications of Members and Alternates

The representative should be able to speak for the organization or mode he/she/they represents and be a participant in its decision-making process.

D. Terms of Office

All designated representatives shall serve at the pleasure of their respective organizations.

E. Responsibilities

It is the responsibility of each member or alternate to attend TAC meetings on a regular basis to be informed on matters coming before the TAC and to participate in the Standing standing Committeescommittees.

F. Attendance.

Attendance is an essential component of Committee work. All members are recommended to have an assigned alternate that is kept up to date on TAC issues. Should a TAC or standing cCommittee member or alternate miss attending any four regular meetings in a six-month period without reasonable excuse for such absences, that member shall be considered to have resigned from the Committee. The TAC Committee Chair will notify the appointing agency, and that agency must reappoint a member to the Committee. The same attendance criteria as stipulated above shall also apply to regularly scheduled standing committee meetings. While regular attendance is expected, remote attendance will be accommodated in certain circumstances.

**ARTICLE III: OFFICERS OF THE TAC**

A. Chairperson

The Chairperson shall be a member of the TAC. The Chairperson shall serve for a term of twothree years beginning January 1 of odd-numbered years. The Chairperson cannot serve more than one consecutive term. The Chairperson must be able to devote the time that is necessary to work effectively and cooperatively with the members of the TAC and

TAB. The Chairperson shall preside at all meetings of the TAC and shall have duties and responsibilities as are normally attendant upon that office and as are prescribed by these bylaws and as are specifically delegated or assigned by the TAC. The Chairperson shall appoint the vice-chair~~person~~ of the TAC and the chairs of the standing committees~~and task forces~~. The Chairperson shall represent the TAC at meetings of the TAB and other meetings as authorized by the TAC and shall act as liaison with the TAB. In such capacity, the Chairperson shall express the collective views of the TAC.

B. Vice-Chairperson

The Vice-Chairperson shall be a member of the TAC. The Vice-Chairperson shall be appointed by the Chairperson. The Vice-Chairperson shall act for the Chairperson during temporary absence and shall perform such duties as may be delegated by the Chairperson. The term shall be concurrent with that of the Chairperson.

C. Secretary

The Metropolitan Council's Director of Metropolitan Transportation Services, after consultation with the TAC Chairperson, shall designate one of his/her professional staff as Secretary of the TAC. The Secretary shall maintain a current copy of these bylaws and shall provide a copy to each newly appointed TAC member. Upon revision, the Secretary shall promptly update these bylaws and furnish each TAC member with an updated copy. The Secretary shall keep all TAC minutes; shall oversee the production and distribution of materials for upcoming TAC meetings as directed by the Chairperson and with the TAB Coordinator shall oversee the production of TAC materials for presentation to the TAB. The Secretary shall keep a record of the attendance of TAC members and shall report to the Executive Committee on a regular basis. The TAC Secretary shall also serve as Secretary to the Executive Committee.

**ARTICLE IV: MEETINGS OF THE TAC**

A. Regular Meetings

Regular meetings of the TAC shall be held on the first Wednesday of every month at a time and location determined by the members. Members of the TAC shall be sent notification of the specific time and place and tentative agenda, together with appropriate material pertaining to agenda items at least five days prior to the meeting. These materials will also be available to the public on the Council's website.

B. Cancellation

Regular meetings of the TAC may be cancelled by a majority vote of the members or by the Chairperson. The TAC Chairperson may not cancel two successive regular meetings without the approval of the Executive Committee.

C. Special Meetings

Special meetings of the TAC may be held upon the call of the Chairperson or a majority of the members of the TAC. Notice of a special meeting shall include the date, time, place and agenda for that meeting and shall be sent to the TAC members three days prior to the



meeting. Business at special meetings shall be limited to the subject(s) stated in the call.

D. Quorum

A simple majority of TAC members shall constitute a quorum for the conduct of business at any meeting of the TAC. If a quorum exists at any time during the meeting, a quorum is then determined to exist for the remainder of the meeting.

E. Non-Member Participation

All meetings of the TAC ~~and~~, its standing committees and ~~task forces~~ shall be open to the public. ~~Non~~Time limits on non-member participation shall be at the discretion of the Chairperson.

F. Order of Business

The business of the TAC shall contain the following elements:

- 1) Call to Order
- 1)2) Approval of the Agenda
- 2)3) Approval of the Minutes of Previous Meetings
- 3)4) TAB Report
- 4)5) Consent Items
- 5)6) Reports of Committee Reports
- 6)7) Special Agenda Information Items
- 7)8) Agency Reports
- 8)9) Other Business
- 9)10) Adjournment

G. Conduct of Business

1) Roberts Rules of Order

The rules contained in the current edition of the Roberts Rules of Order shall govern the TAC to the extent that they are not inconsistent with these bylaws.

2) Suspension of Rules

Roberts Rules of Order may be suspended by a two-thirds vote of the TAC members present.

3) Voting, Motions, Recording

Only members of the TAC may vote on matters, introduce or second a motion before the group. There shall be no voting by proxy and each member shall be entitled to only one vote on any issue. The chairperson shall be a voting member of the TAC. Voting on any matter shall be by voice vote provided that a roll call vote shall be called and recorded on any issue if requested by the Chairperson or a majority of members present. Upon request of any member, the Secretary shall repeat the motion and the name of the mover and seconder immediately preceding a vote by the TAC.

In situations when the TAC meeting has been canceled but an item requires TAC action, the TAC Chair may offer the members the opportunity to vote electronically. The electronic votes must be received from a quorum of the members for the vote to be valid. The TAC Secretary will record the electronic vote and forward the action to the TAB, if necessary. The results of the electronic vote, the action transmittal and all appropriate materials pertaining to the item will be sent to the TAC members and posted on the website. The item will be on the TAC agenda the following month for information.

## **ARTICLE V: COMMITTEES**

### **A. TAC Chairperson Nominating Committee**

At the November TAC meeting, in the third year of the Chair's term, the members shall caucus within their respective groups representing the cities, the counties and the agencies. The caucuses shall select one person from their caucus to be a member of the TAC Chairperson Nominating Committee. At the December TAC meeting, the TAC Chairperson Nominating Committee shall nominate a candidate for TAC Chair.

### **B. Executive Committee**

The Executive Committee shall be composed of the TAC Chairperson, the Vice-Chairperson and the chairpersons of the standing committees, the MnDOT TAC member, the Metropolitan Council's MTS TAC member, the TAB Coordinator, the immediate past TAC Chair and such other TAC members as the TAC Chairperson may appoint. The Executive Committee will be chaired by the TAC Chairperson and will meet at his/her discretion to coordinate TAC activities.

### **C. Standing Committees and Subcommittees**

Standing committees are created or discharged only by action of the TAC. These committees are to perform as delineated within the purposes and objectives for each committee as adopted by the TAC. These committees shall make a report of activities at each regular TAC meeting. The committee chairperson shall be selected by the TAC chairperson from the members of the TAC. The committee vice-chairperson shall be recommended by the committee chairperson and approved by the TAC Executive Committee. The term of the committee chairperson and vice chairperson shall be concurrent with that of the TAC Chairperson. Each standing committee chair shall propose the membership for his/her/their standing committee to the Executive Committee, which shall consider each proposal and propose the membership of each standing committee to the TAC each January. When new members are added to TAC during the year, the TAC Executive Committee will assign them to the appropriate standing committee, if necessary. The membership ~~and purpose statement~~ of the standing committees shall be approved by the TAC annually at its January meeting. When new members are added to TAC during the year, the TAC Executive Committee will assign them to the appropriate standing committee, if necessary. The ~~two~~ standing committees of the TAC are the Funding and Programming Committee and the Planning Committee. Standing committee chairpersons may establish appropriate subcommittees and appoint the subcommittee chairperson from among the members of the parent standing committee. The purpose, objective and membership of the subcommittee shall be approved by the parent standing

committee.

1) Funding and Programming Committee

The TAC shall establish a TAC Funding and Programming Committee. The primary function of the committee shall be to advise on the use of and to manage federal transportation funds available to the region. The committee shall include the following purposes and objectives:

- Prepare and ~~process~~ make recommendations on the regional Transportation Improvement Program (TIP) and TIP amendments
- Carry out the application development, scoring, qualifying review, and appeal process for the Regional Solicitation for Federal Funds
- Evaluate the Regional Solicitation process and implemented projects and make recommendations for improvements to the process
- Make recommendations for Highway Safety Improvement Program (HSIP) funding
- Assist in the development and review of ~~the TPP and MnDOT's Metro Highway Investment Plan~~ investment programs carried out in a regional or statewide planning process (e.g. Transportation Policy Plan, MnDOT plans such as MnSHIP)
- Review ~~scope change and program year extension~~ program year date and scope change requests
- ~~Review the status of the programmed Regional Solicitation projects~~ Prepare the annual implementation report on regionally solicited and federally funded transportation improvement projects and programs

The membership of the committee shall include (1) representative (or alternate) from:

- At least five ~~Counties~~ counties
- At least five ~~Cities~~ cities
- MnDOT Metro District
- MnDOT State Aid Office
- Metropolitan Council staff
- MPCA
- Department of Natural Resources (DNR)
- Suburban Transit Providers
- Metro Transit
- MnDOT Metro District Multimodal Planning
- TAB Coordinator
- FHWA (non-voting)

2) Planning Committee

The TAC shall establish a TAC Planning Committee. The primary function of the committee shall be to address transportation planning and policy issues. The

committee shall include the following purposes and objectives:

- Interpret new or revised changes in federal law or guidance, and their impact on TAC/TAB/metropolitan planning organization (MPO) roles.
- Give direction to the TAC, TAB, MPO in carrying out new or revised roles due to changes in federal law or guidance
- Manage the Functional Classification Procedure system and make recommendations on change requests
- Assist in the development and review of the TPP, Unified Planning Work Program (UPWP), and MnDOT's State Multimodal Transportation Plan (SMTTP), Metro Capital Highway Investment Plan, modal plans, and other planning documents of regional or statewide significance
- Assist in the development, review, and recommendation of performance measures for federal requirements and the TPP
- Review and provide input on planning studies that will inform the Transportation Policy Plan or other planning processes in the MPO role
- Review Airport Comprehensive Plans
- Review Airport Land Use Compatibility Guidelines/Procedures
- Review the design and application of airport noise mitigation plans
- Review and comment on highway traffic forecast models, transit ridership forecasts, aviation forecasts
- Review and make recommendations on the MAC Annual Capital Improvements Plan (CIP) and Environmental Review

The membership of the committee shall include (1) representative (or alternate) from:

- At least four counties
- At least four cities
- MnDOT Metro District
- Metropolitan Council staff
- MPCA
- MAC
- Metro Transit
- TAB Coordinator
- FHWA (non-voting)

D. Special Task Force Technical Working Groups

The TAC may establish ~~task forces~~ standing technical working groups and develop their charge subject to approval by the Executive Committee. Activities shall be reported to the TAC or its standing committees at regular meetings and the results are subject to approval by the TAC membership. The membership ~~and~~, purpose statement, and any specific advisory roles (e.g., input on action items) of each ~~task force technical working group~~ shall be approved by the TAC executive committee. The primary function of the ~~task force technical working groups~~ shall be to provide recommendations to the TAC or TAC ~~subcommittees standing committees~~ when they consider matters that require

specialized technical expertise that is requested by TAC and/or not adequately or comprehensively represented on TAC or its standing committees. These working groups are not expected to take formal actions or votes; rather they shall provide qualitative advisory feedback to the TAC or its standing committees at their discretion. These working groups do not necessarily replace the role of project- or study-specific technical groups that have a narrow scope and time-limited focus.

The following are ~~examples of specific tasks~~ technical working groups that might be assigned to this task force:

- Bicycle and Pedestrian Planning
- Transit Planning

~~Defin~~The membership of the ~~task force should include (1) representative from~~ technical working groups will be specific to the expertise needed, but should at least include county and city governments, Met Council, TAB Coordinator, and agency-specific staff (e.g., MnDOT or transit providers). TAC will approve a membership list when any ~~the group is formed. The technical working groups shall self-select a chair and vice chair person, subject to approval from the TAC Executive Committee, to report activities to TAC and its standing committees. Additional technical working groups may be formed in the future but should follow the requirements listed in here.~~

E. TAC Membership on MnDOT's Capital Improvements Committee (CIC)

Eight representatives from the TAC or its standing committees, in addition to the a Metropolitan Council representative, and the TAB Coordinator, shall be appointed by the TAC Chair to the MnDOT Metro District Capital Improvements Committee. TAC's CIC membership should include the TAC Chair, the Funding and Programming Committee Chair, and the Planning Committee chair. TAC's CIC membership should strive to achieve geographic balance through the appointment of city and county representatives. CIC Meetings are open to agencies and regional partners.

F. Voting

Only established members, or alternates, of a given committee ~~or task force~~ may vote on matters, or introduce or second a motion before that group. Non-member participation, excluding voting, shall be at the discretion of the committee/~~task force~~ chair. Technical working groups are not expected to vote on items but may consider providing options as advisory comments to TAC or its standing committees, if consensus is not reached.

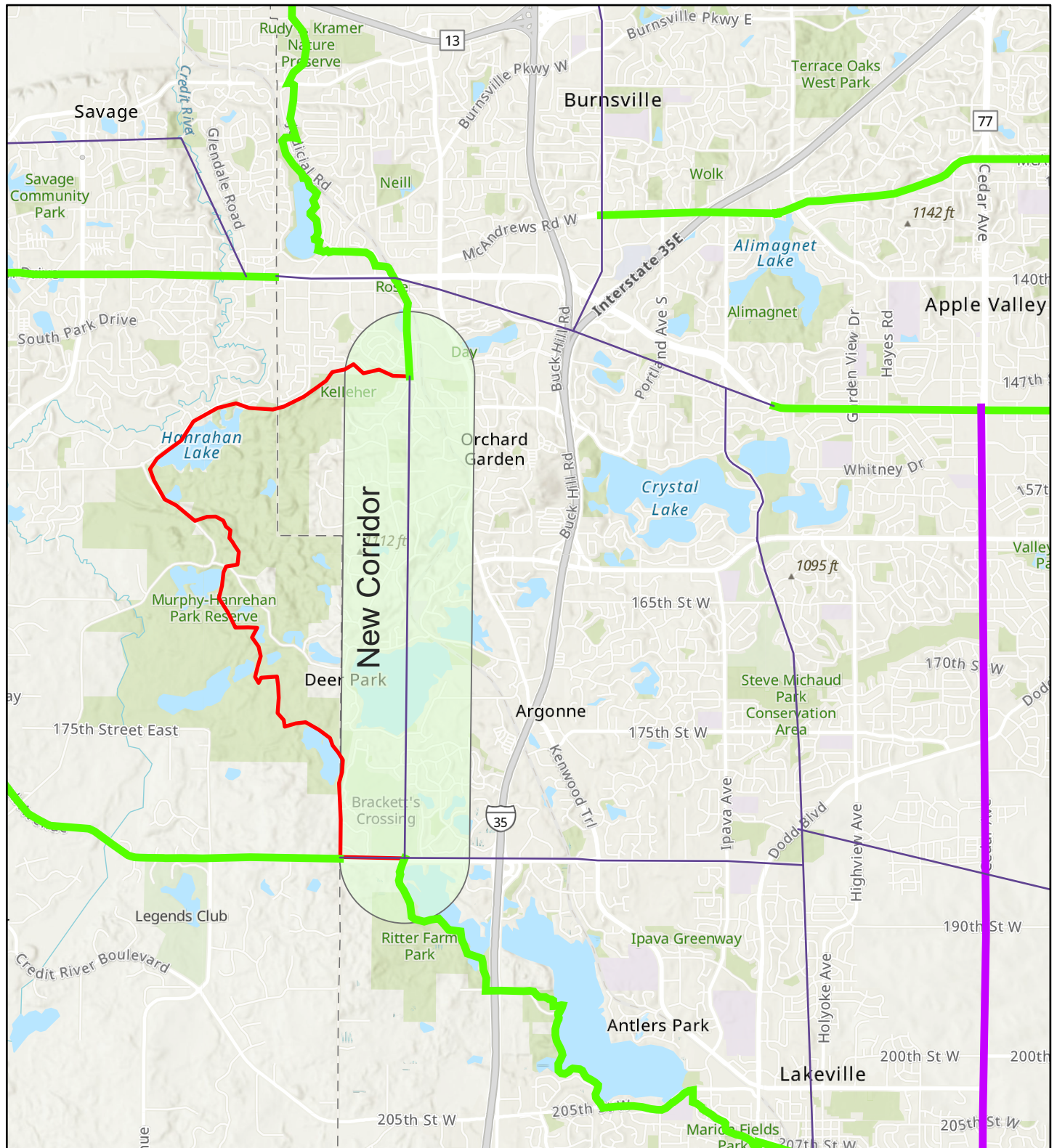
In situations when a TAC Standing Committee meeting has been canceled but an item requires TAC Committee action, the Committee Chair may offer the members the opportunity to vote electronically. The electronic votes must be received from a quorum of the members for the vote to be valid. The TAC Standing Committee Secretary will record the electronic vote and forward the action to the TAC, if necessary. The results of the electronic vote, the action transmittal and all appropriate materials pertaining to the item will be sent to the TAC Standing Committee members and posted on the website. The item will be on the TAC Standing Committee agenda the following month for information.

**ARTICLE VI: AMENDMENT**

These bylaws may be amended by a two-thirds vote of the TAC members present, provided that written notice setting forth in detail the content of the proposed amendment(s) has been given to the TAC at the preceding regular TAC meeting. Upon adoption by the TAC, these bylaws and any amendments thereto shall be forwarded to the TAB for its information.



# December 2021 RBTN Alignment Correction



- 2021 RBTN Alignments**
- TIER
  - 1
  - 2
  - Removed Segment

- 2021 RBTN Corridors**
- Tier
  - 1
  - 2

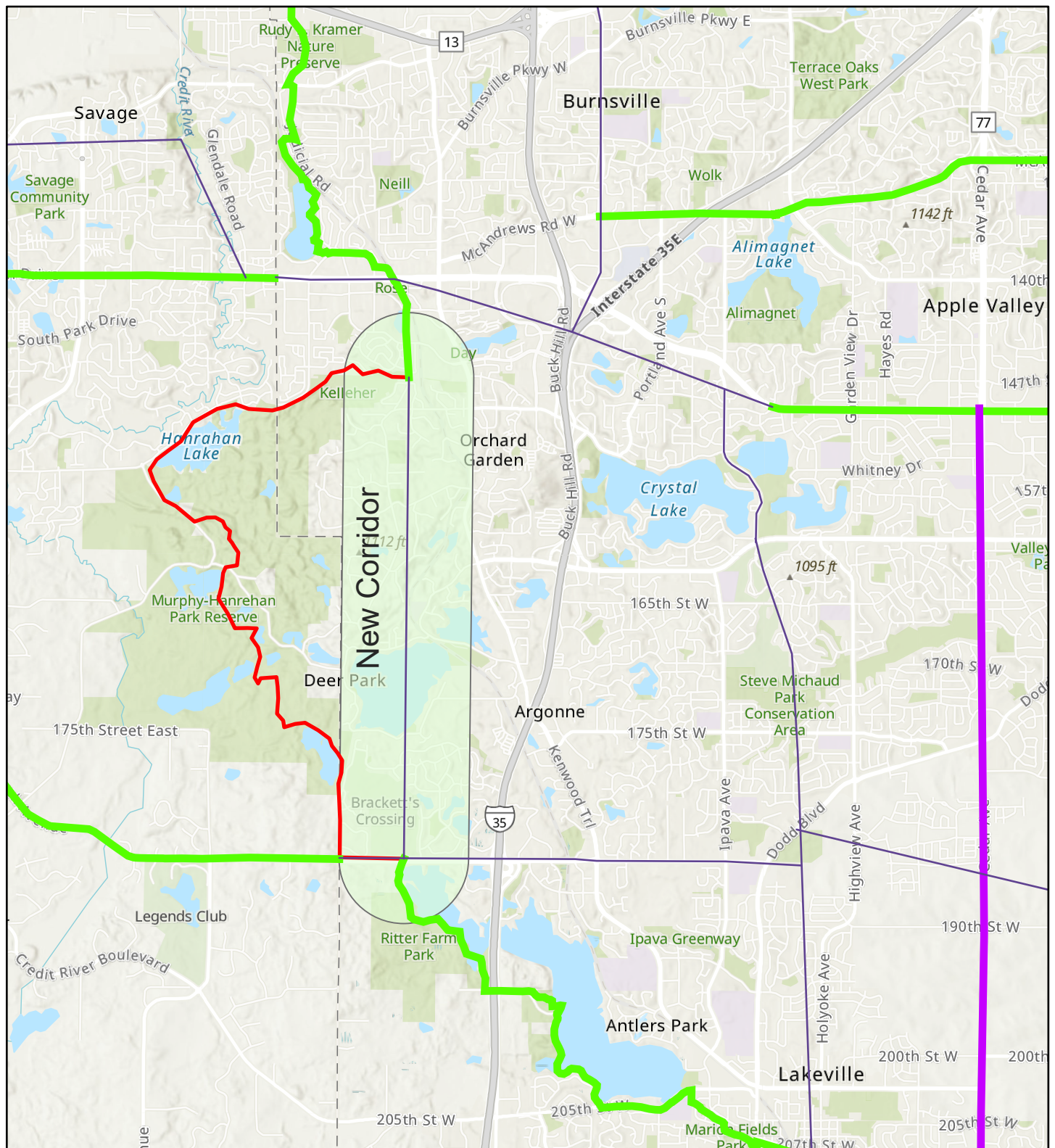
## RBTN/Regional Bicycle Barriers Comment Summary

Dec. 9, 2021

Comment Category	Key Themes	# of Comments	% of Respondents Mentioning
RBTN/Reg. Bicycle Barriers	Support extension of Midtown Greenway into Saint Paul	11	61.1%
RBTN/Reg. Bicycle Barriers	Support for separated bicycle facility in Snelling Ave corridor in St. Paul, particularly across rail corridor	6	33.3%
RBTN	Suggested improvements needed along specific routes	5	27.8%
Regional Bicycle Barriers	Safe biking routes are missing/limited due to major bicycle barriers.	4	22.2%
RBTN/Reg. Bicycle Barriers	Improve connectivity between downtown Saint Paul and surrounding neighborhoods	3	16.7%
RBTN	Expanding separated/safe bicycle facilities for commuter transportation should be a priority	2	11.1%
RBTN	Make connectivity between bike trails a priority	1	5.6%
Other	Bike paths negatively impact traffic; stop making roads less efficient for biking minority.	1	5.6%
RBTN	Importance of regional/state trails to commuting & recreational biking	1	5.6%
RBTN	Opposition to proposed alignment through Murphy-Hanrahan Park Preserve	1	5.6%
Other	Push for updated bicycle facility design standards	1	5.6%
Regional Bicycle Barriers	Significance of temporary bicycle route closures as barriers	1	5.6%



# December 2021 RBTN Alignment Correction



- 2021 RBTN Alignments**
- TIER
  - 1
  - 2
  - Removed Segment

- 2021 RBTN Corridors**
- Tier
  - 1
  - 2