Application

17071 - 2022 Roadway Spot Mobility

17571 - CSAH 9 (Rockford Rd) Spot Mobility and Safety Project

Regional Solicitation - Roadways Including Multimodal Elements

Status:	Submitted
Submitted Date:	04/12/2022 7:20 PM

Primary Contact

Name:*	He/him/his	Jason	Richard	Pieper
	Pronouns	First Name	Middle Name	Last Name
Title:	Transportation Engineer			
Department:	Hennepin County - Transportation Department			
Email:	jason.pieper@hennepin.us			
Address:	1600 Prairie Drive			
*	Medina	Minnesota	53340	
	City	State/Province	Postal Code/Zip	
Phone:*	612-596-0241			
	Phone		Ext.	
Fax:				
What Grant Programs are you most interested in?	Regional Solicitation - Roadways Including Multimodal Elements			

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

Project Information

Project Name	CSAH 9 (Rockford Rd) Spot Mobility and Safety Project
Primary County where the Project is Located	Hennepin
Cities or Townships where the Project is Located:	Plymouth
Jurisdictional Agency (If Different than the Applicant):	

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

This project will improve mobility and safety at the CSAH 9 (Rockford Rd) and CSAH 61 (Northwest Blvd) intersection in the City of Plymouth. CSAH 9 (Rockford Rd) is an A-Minor Augmenter, and CSAH 61 (Northwest Blvd) is an A-Minor Reliever. Both roadways are 4-lane divided roadways that include dedicated left-turn lanes, as well as channelized right-turn islands. Attachment 2 includes a map illustrating the project location.

This existing intersection design is relatively wide that not only makes it difficult for nonmotorized users to cross, but also presents an uncomfortable experience as people driving can complete right turns at a higher speed due to the presence of channelized turn islands. It is especially uncomfortable for those using mobility devices and the elderly. With several trails converging at this location, it is expected that this intersection will be used by many people walking, rolling, and biking. This intersection also serves as a secondary crossing for the Medicine Lake Regional Trail; which is a Tier 1 alignment on the Regional Bicycle Transportation Network (RBTN), as well as the trail segment south and west of the intersection. Attachment 3 includes photos of the existing conditions at the intersection.

Between 2019-2021, 40 crashes occurred at this intersection; including a relatively high percentage of left-turn (48%) and rear-end (43%) related. A detailed listing of crashes can be found in Attachment 4. Hennepin County's County Road Safety Plan ranks intersections based on their number of risk factors. This intersection is identified as a priority location in both the vehicle related and bike/ped categories. The risk factors for the vehicle related category include traffic control, approach configuration, and adjacent development; and risk

factors for the bike/ped related category include traffic control, adjacent development, and pedestrian crossing type.

The project objectives include improving accessibility, mobility, and safety at the CSAH 9 (Rockford Rd) and CSAH 61 (Northwest Blvd) intersection through proven safety countermeasures to specifically target left-turn and rear-end related crashes. Changes that are anticipated as part of this project may include the following; as illustrated in the potential concept in Attachment 5:

- Elimination of four channelized right-turn islands to introduce a more compact intersection design and slow right-turning vehicles

- Improve the alignment of the left-turn lanes along CSAH 9 (Rockford Rd) to reduce negative offset

- Replace and upgrade the traffic signal system to the latest technologies

- Upgrade ADA accommodations to current design standards; including pedestrian ramps, landings, and APS

- Modify the trail alignments on each approach (as necessary)

(Limit 2,800 characters; approximately 400 words)

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

CSAH 9 (Rockford Rd) and CSAH 61 (Northwest Blvd) in the City of Plymouth

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

Project Length (Miles) 0.23

to the nearest one-tenth of a mile

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 $1,624,000.00

Match Amount $406,000.00

Minimum of 20% of project total

Project Total $2,030,000.00

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

Match Percentage 20.0%

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: 2026

Select 2024 or 2025 for TDM and Unique projects only. For all other applications, select 2026 or 2027.

Additional Program Years:

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

Project Information: Roadway Projects

County, City, or Lead Agency Hennepin

Functional Class of Road CSAH 9 - A-Minor Arterial (Augmenter)

CSAH 61 - A-Minor Arterial (Reliever)

Road System CSAH

TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET

Road/Route No. 9

i.e., 53 for CSAH 53

Name of Road Rockford Rd

Example; 1st ST., MAIN AVE

Zip Code where Majority of Work is Being Performed 55441

(Approximate) Begin Construction Date	05/01/2026
(Approximate) End Construction Date	10/30/2026

TERMINI:(Termini listed must be within 0.3 miles of any work)

From:
(Intersection or Address)

To:
(Intersection or Address)

DO NOT INCLUDE LEGAL DESCRIPTION

Or At	CSAH 61 (Northwest Blvd)
Miles of Sidewalk (nearest 0.1 miles)	0
Miles of Trail (nearest 0.1 miles)	0
Miles of Trail on the Regional Bicycle Transportation Network (nearest 0.1 miles)	0
Primary Types of Work	REMOVE CHANNELIZED RIGHT TURN ISLANDS, REPLACE SIGNAL SYSTEM, BIKE/PED/ADA IMPROVEMENTS

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.

BRIDGE/CULVERT PROJECTS (IF APPLICABLE)

Old Bridge/Culvert No.:

New Bridge/Culvert No.:

Structure is Over/Under
(Bridge or culvert name):

Requirements - All Projects

All Projects

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

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

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

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

A) Transportation System Stewardship (p 2.2-2.4)

Objectives A & B; Strategies A1 & A2

The project represents a strategic investment to address safety concerns and promote transportation alternatives at the CSAH 9 (Rockford Rd) and CSAH 61 (Northwest Blvd) intersection. The project will resurface multiuse trail facilities at the intersection to improve connections with existing regional trail networks.

B) Safety and Security (p 2.5-2.9)

Objectives A & B; Strategies B1, B3, B4, B6

The project will address safety concerns due to the existing intersection geometry. Channelized right-turn island removal, pedestrian ramp upgrades, APS installation, and trail resurfacing are anticipated.

The intersection has experienced a relatively high frequency of crashes when compared to similar intersections throughout Hennepin County; specifically rear-end and left-turn related. Deferring improvements will likely result in continued high crash rates at an intersection located immediately adjacent to the Medicine Lake Regional Trail.

C) Access to Destinations (p 2.10-2.25)

Objectives A, B, C, D, and E; Strategies C1, C2, C3, C4, C8, C9, C15, C16, C17

The project will enhance connections to the

Medicine Lake Regional Trail for people walking and biking. CSAH 9 (Rockford Rd) currently includes multi-use trails that connect to major commercial and employment destinations. CSAH 61 (Northwest Blvd) south of intersection also includes multi-use trails that connect to Abbott Northwestern WestHealth, a major healthcare destination.

D) Competitive Economy (p2.26-2.29)

Objectives A, B & C; Strategies D1, D3, D4, D5

The intersection provides regional connections to commercial developments and employment centers along CSAH 130 (Elm Creek Blvd) in Maple Grove and TH 55 in Plymouth. The project will improve user mobility and safety at a key intersection immediately east of I-494, a Tier 1 Regional Truck Corridor.

E) Healthy and Equitable Communities (p 2.30-2.34)

Objectives A, B, C, D; Strategies E1, E3, E4, E5, E6, E7

This project provides an opportunity to improve safety for the vulnerable road users through upgrades to pedestrian ramps, medians, and boulevards. Safety improvements will expand active transportation opportunities and connections to the Medicine Lake Regional Trail.

F) Leveraging Transportation Investments to Guide Lane Use (p 2.35-2.41)

Objectives: A & C; Strategies: F1, F2, F5, F6, F7

Complete streets design elements, such as the elimination of channelized right-turn islands, will promote walking and biking in the area; complementing the nearby Medicine Lake Regional Trail. Increased user comfort will promote alternative transportation options for nodes of employment concentrations in areas such as retail, light manufacturing, and healthcare.

Limit 2,800 characters, approximately 400 words

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

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

1. Hennepin County Board Resolution 22-0109 - Regional Solicitation (Attachment 6)

2. Hennepin County - County Road Safety Plan (Attachment 7)

- Ranked #633 for priority locations involving people driving at urban intersections (Page 1 of 2)

- Ranked #802 for priority locations involving people walking and biking at urban intersections (Page 2 of 2)

3. Hennepin County 2040 Transportation Plan (pages 2-11 - 2-18)

URL: hennepin.us/-/media/hennepinus/your-government/projects-initiatives/2040-comprehensive-plan/comp-plan-2040-2-transportation.pdf

4. Hennepin County Climate Action Plan (pages 50-54)

URL: hennepin.us/climate-action/-/media/climateaction/ hennepin-county-climate-action-plan-final.pdf

5. Hennepin County Complete Streets Policy

URL: hennepin.us/completestreets

6.Hennepin County Bike Plan (page 36)

URL: hennepin.us/-/media/hennepinus/residents/transportation/biking/b

icyc

le-transportation-plan.pdf

7.Hennepin County Pedestrian Plan (page 8)

URL: hennepin.us/-/media/hennepinus/residents/transportation/documents/

pedestrian-plan.pdf

Limit 2,800 characters, approximately 400 words

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

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

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

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

6.Applicants must not submit an application for the same project 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 in Table 1. For unique projects, the minimum award is $500,000 and the maximum award is the total amount available each funding cycle (approximately $4,000,000 for the 2022 funding cycle).
Strategic Capacity (Roadway Expansion): *$1,000,000 to $10,000,000*
Roadway Reconstruction/Modernization: *$1,000,000 to $7,000,000*
Traffic Management Technologies (Roadway System Management): *$500,000 to $3,500,000*
Spot Mobility and Safety: *$1,000,000 to $3,500,000*
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 a current Americans with Disabilities Act (ADA) self-evaluation or transition plan that covers the public right of way/transportation, as required under Title II of the ADA. The plan must be completed by the local agency before the Regional Solicitation application deadline. For the 2022 Regional Solicitation funding cycle, this requirement may include that the plan is updated within the past five years.

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

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

Date plan completed: 08/31/2015

Link to plan: hennepin.us/-/media/hennepinus/residents/transportation/documents/ada-sidewalk-transition-plan.pdf

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

Date self-evaluation completed:

Link to plan:

Upload plan or self-evaluation if there is no link

Upload as PDF

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

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

11.The owner/operator of the facility must operate and maintain the project year-round for the useful life of the improvement, per FHWA direction established 8/27/2008 and updated 6/27/2017. Unique projects are exempt from this qualifying requirement.

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

12.The project must represent a permanent improvement with independent utility. The term independent utility means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match. Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

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

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

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

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

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

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 Strategic Capacity 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 and Strategic Capacity 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 MnDOTs 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.

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.

Bridge Rehabilitation/Replacement projects only:

5.The length of the bridge clear span must exceed 20 feet.

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

6. The bridge must have a National Bridge Inventory Rating of 6 or less for rehabilitation projects and 4 or less for replacement projects.

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

Roadway Expansion, Reconstruction/Modernization, 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 as described in Appendix F of the 2040 Transportation Policy Plan.

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

Requirements - Roadways Including Multimodal Elements

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	$68,000.00
Removals (approx. 5% of total cost)	$68,000.00
Roadway (grading, borrow, etc.)	$55,000.00
Roadway (aggregates and paving)	$133,000.00
Subgrade Correction (muck)	$0.00
Storm Sewer	$152,000.00
Ponds	$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	$187,000.00
Traffic Control	$68,000.00
Striping	$8,000.00

Signing	$5,000.00
Lighting	$50,000.00
Turf - Erosion & Landscaping	$25,000.00
Bridge	$0.00
Retaining Walls	$0.00
Noise Wall (not calculated in cost effectiveness measure)	$0.00
Traffic Signals	$540,000.00
Wetland Mitigation	$0.00
Other Natural and Cultural Resource Protection	$0.00
RR Crossing	$0.00
Roadway Contingencies	$407,000.00
Other Roadway Elements	$0.00
Totals	**$1,766,000.00**

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	$113,000.00
Sidewalk Construction	$0.00
On-Street Bicycle Facility Construction	$0.00
Right-of-Way	$0.00
Pedestrian Curb Ramps (ADA)	$20,000.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	$5,000.00
Pedestrian-scale Lighting	$0.00
Streetscaping	$25,000.00
Wayfinding	$0.00
Bicycle and Pedestrian Contingencies	$61,000.00
Other Bicycle and Pedestrian Elements	$40,000.00
Totals	**$264,000.00**

Specific Transit and TDM Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Fixed Guideway Elements	$0.00
Stations, Stops, and Terminals	$0.00

Support Facilities	$0.00
Transit Systems (e.g. communications, signals, controls, fare collection, etc.)	$0.00
Vehicles	$0.00
Contingencies	$0.00
Right-of-Way	$0.00
Other Transit and TDM Elements	$0.00
Totals	**$0.00**

Transit Operating Costs

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

Totals

Total Cost	$2,030,000.00
Construction Cost Total	$2,030,000.00
Transit Operating Cost Total	$0.00

Congestion within Project Area:

Free-Flow Travel Speed:	46
The free-flow travel speed is the black number	
Peak Hour Travel Speed:	31
The peak hour travel speed is the red number	
Percentage Decrease in Travel Speed in Peak Hour Compared to Free-Flow (calculation):	32.61%
Upload the "Level of Congestion" map:	1649076762673_2022 RS Map 01 - CSAH 9 (Rockford Rd) Spot Mobility and Safety Project - Level of Congestion.pdf

Congestion on adjacent Parallel Routes:

Adjacent Parallel Corridor	Hwy 169
Adjacent Parallel Corridor Start and End Points:	
Start Point:	CSAH 9 (Rockford Rd)

End Point:	CSAH 10 (Bass Lake Rd)
Free-Flow Travel Speed:	64
The Free-Flow Travel Speed is black number.	
Peak Hour Travel Speed:	51
The Peak-Hour Travel Speed is red number.	
Percentage Decrease in Travel Speed in Peak Hour Compared to Free-Flow (calculation):	20.31%
Upload the "Level of Congestion" map:	1649076762665_2022 RS Map 01 - CSAH 9 (Rockford Rd) Spot Mobility and Safety Project - Level of Congestionv2.pdf

Principal Arterial Intersection Conversion Study:

Proposed at-grade project that reduces delay at a High Priority Intersection:	
(70 Points)	
Proposed at-grade project that reduces delay at a Medium Priority Intersection:	
(65 Points)	
Proposed at-grade project that reduces delay at a Low Priority Intersection:	
(60 Points)	
Not listed as a priority in the study:	Yes
(0 Points)	

Congestion Management and Safety Plan IV:

Proposed at-grade project that reduces delay at a CMSP opportunity area:	
(70 Points)	
Not listed as a CMSP priority location:	Yes
(0 Points)	

Measure C: Current Heavy Commercial Traffic

RESPONSE: Select one for your project, based on the updated 2021 Regional Truck Corridor Study:

Along Tier 1:	
Miles:	0
(to the nearest 0.1 miles)	
Along Tier 2:	
Miles:	0

(to the nearest 0.1 miles)

Along Tier 3:

Miles: 0

(to the nearest 0.1 miles)

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

None of the tiers: Yes

Measure A: Engagement

i.Describe any Black, Indigenous, and People of Color populations, low-income populations, disabled populations, youth, or older adults within a ½ mile of the proposed project. Describe how these populations relate to regional context. Location of affordable housing will be addressed in Measure C.
ii.Describe how Black, Indigenous, and People of Color populations, low-income populations, persons with disabilities, youth, older adults, and residents in affordable housing were engaged, whether through community planning efforts, project needs identification, or during the project development process.
iii.Describe the progression of engagement activities in this project. A full response should answer these questions:

According to 2020 Census data, the share of Black, Indigenous, and People of Color (BIPOC) populations for census tracts within 0.5 miles of the CSAH 9 (Rockford Rd) and CSAH 61 (Northwest Blvd) intersection range from 13.7% (Census Tract 27053026509) to 20% (Census Tract 27053026515). Utilizing 2014-2018 5-year American Community Survey data, the population under the federal poverty level ranges from 2.3% to 7.2%, and the population of those with disabilities of any kind range from 5.2% to 9.5% within 0.5 miles of the project area. In addition, within 0.5 miles of the project area, 16% to 21.2% of the population are under 18 years of age, and 12.7% to 20.9% are over 65 years of age.

Response:

While Hennepin County has not yet begun formal public engagement activities related to this project, if funding is awarded, public engagement strategies will target residents appropriately, including BIPOC. Since the project will impact all users groups, it will be critical to communicate project impacts during construction, including: project schedule, road closures, and detour routes. As appropriate, public engagement will include maintaining communication with key user groups and stakeholders such as the City of Plymouth, Three Rivers Park District, local business owners, and users of the Medicine Lake Regional Trail. Public engagement strategies will also include staff from the county's Communications and Engagement Team to encourage use of plain language and best practices throughout the design and construction process.

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

Measure B: Equity Population Benefits and Impacts

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

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

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

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

Response:

The CSAH 9 (Rockford Rd) Spot Mobility and Safety project will provide benefit to Black, Indigenous, People of Color, low-income populations, people with disabilities, youth, and older adults through design strategies that improve user accessibility, mobility, and safety; including conditions for people walking and biking.

The proposed project aims to remove four channelized right-turn islands; creating a more compact intersection geometry which reduces crossing distances, slows vehicle speeds and creates greater visibility for people walking and biking. Those with limited mobility and vision impairments will particularly benefit from this change, as the existing channelized right-turn islands include relatively poor ADA accommodations due to the absence of truncated domes and poor ramp/landing placement and orientation. As part of the design process, the existing raised medians will be evaluated to determine if they can be modified to provide pedestrian crossing refuge; benefiting those who may need additional time to cross the intersection. The project will also resurface existing trails at the intersection approaches to retain connections to the Medicine Lake Regional Trail.

The project will especially benefit households with children under 18 as the Medicine Lake Regional Trail (a 20-mile paved multiuse trail maintained by Three Rivers Park District) and French Regional Park are located immediately east of the intersection. Both represent significant recreational assets which draw pedestrian and bicycle traffic. Improving safety and comfort for those walking and biking at the CSAH 9 (Rockford Rd) and CSAH 61 (Northwest Blvd) intersection will ensure that those households who choose not to drive are provided

equal access to active transportation and recreation opportunities.

Outside of the Medicine Lake Regional Trail, the proposed project is tied into a significant network of off-street bicycle infrastructure along CSAH 9 (Rockford Rd). These facilities offer safe and comfortable access to employment and daily needs at multiple commercial developments along the corridor; particularly for low-income populations. These destinations include schools, parks, places of worship, and healthcare facilities as outlined in the Socio-Economic Equity Map (see Attachment 8). Overall, the project will make significant improvements to the pedestrian and bicyclist environment by addressing a busy intersection that experiences heavy turning movements.

Increased noise and impacts to the roadway, sidewalks, and trails are anticipated during construction. The contractor will be required to follow temporary traffic control plans which provide instructions on detours routes for all people traveling through the corridor.

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

Measure C: Affordable Housing Access

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

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

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

Response:

As identified in the Met Council-generated Socio-Economic Conditions map, 180 subsidized affordable housing units exist in census tracts within 0.5 miles of the project. While data available for staff analysis did not identify large affordable housing developments within 0.5 miles of the project area, two significant housing developments are approximately two miles west of the project, Vicksburg Crossing (96 units) and Plymouth Towne Square (99 units). While these developments are not within the immediate project area, both are connected to off-street bicycle infrastructure which extends the length of CSAH 9 (Rockford Rd)/CSAH 24 from CSAH 101 in Medina to TH 169 in Plymouth. For those walking, rolling, and cycling from the two developments referred to above, CSAH 9 (Rockford Rd) serves as the primary east-west corridor as TH 55 to the south does not provide dedicated facilities for people walking and biking. Attachment 9 provides a geographic overview of these existing subsidized housing units outside of the 0.5-mile buffer of the project area.

Medicine Lake Regional Trail, a 20-mile paved trail maintained by the Three Rivers Park District which provides connections to Elm Creek Park Reserve, Fish Lake, and French Regional Parks, is located approximately 200' west of the project location. Directly northwest of the intersection is Rockford Road Plaza, which offers daily necessities and employment opportunities. Abbott Northwestern WestHealth Hospital is a major regional healthcare destination that provides both health services and employment opportunities that can be accessed via multiuse trails along CSAH 9 (Rockford Rd) and CSAH 61 (Northwest Blvd). Other community assets that may be accessed via the project location includes French Regional Park, the Mount Olivet Lutheran Church of Plymouth, and Zachary Lane Elementary School. The proposed project

would provide direct benefit to residents of affordable housing who live along CSAH 9 (Rockford Rd) through traffic calming design strategies, accessible crossings for people walking and biking, and compliant ADA ramps at all intersection quadrants.

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

Measure D: BONUS POINTS

Project is located in an Area of Concentrated Poverty:	
Projects census tracts are above the regional average for population in poverty or population of color (Regional Environmental Justice Area):	
Project located in a census tract that is below the regional average for population in poverty or populations of color (Regional Environmental Justice Area):	Yes
Upload the Socio-Economic Conditions map used for this measure.	1648733488083_2022 RS Map 03 - CSAH 9 (Rockford Rd) Spot Mobility and Safety Project - Socio Economic Conditions.pdf

Measure A: Congestion Reduction/Air Quality

Total Peak Hour Delay Per Vehicle Without The Project (Seconds/ Vehicle)	Total Peak Hour Delay Per Vehicle With The Project (Seconds/ Vehicle)	Total Peak Hour Delay Per Vehicle Reduced by Project (Seconds/ Vehicle)	Volume without the Project (Vehicles per hour)	Volume with the Project (Vehicles Per Hour):	Total Peak Hour Delay Reduced by the Project:	Total Peak Hour Delay Reduced by the Project:	EXPLANATION of methodology used to calculate railroad crossing delay, if applicable.	Synchro or HCM Reports
28.0	26.0	2.0	2996	2996	5992.0	5992.0	N/A	1649517123767_CSAH 9 (Rockford Rd) Spot Mobility Project - Synchro Report for Congestion.pdf
						5992		

Vehicle Delay Reduced

Total Peak Hour Delay Reduced	5992.0
Total Peak Hour Delay Reduced	5992.0

Measure B:Roadway projects that do not include new roadway segments or railroad grade-separation elements

Total (CO, NOX, and VOC) Peak Hour Emissions without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
4.82	4.75	0.07
5	**5**	**0**

Total

Total Emissions Reduced:	0.07
Upload Synchro Report	1649517270948_CSAH 9 (Rockford Rd) Spot Mobility Project - Synchro Report for Emissions.pdf

Please upload attachment in PDF form. (Save Form, then click 'Edit' in top right to upload file.)

Measure B: Roadway projects that are constructing new roadway segments, but do not include railroad grade-separation elements (for Roadway Expansion applications only):

Total (CO, NOX, and VOC) Peak Hour Emissions without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
0	**0**	**0**

Total Parallel Roadway

Emissions Reduced on Parallel Roadways	0
Upload Synchro Report	

Please upload attachment in PDF form. (Save Form, then click 'Edit' in top right to upload file.)

New Roadway Portion:

Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons:	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or Produced on New Roadway (Kilograms):	0
EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)	
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0.0

Measure B:Roadway projects that include railroad grade-separation elements

Cruise speed in miles per hour without the project:	0
Vehicle miles traveled without the project:	0
Total delay in hours without the project:	0
Total stops in vehicles per hour without the project:	0
Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons (F1)	0
Fuel consumption in gallons (F2)	0
Fuel consumption in gallons (F3)	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0
EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)	

Measure A: Benefit of Crash Reduction

Crash Modification Factor Used:

(Limit 700 Characters; approximately 100 words)

Attachment 4 lists reported crashes (2019-2021) along the project, and Attachment 10 lists CMFs applied in the B/C Analysis.

XX) Countermeasure: Crashes Targeted (CMF ID, % Reduction)

01) Install additional primary signal head: LT & RA crashes (CMF 1414, 28% reduction)

02) Improve offset for LT lanes: LT crashes along CSAH 9 (CMF 6097, 38% reduction)

03) Improve angle of channelized RT lane: RE crashes involving right-turning vehicles (CMF 8428, 44.2% reduction)

The Benefit/Cost Analysis evaluated each of the crashes to target crash themes. Up to two (of the three selected) CMFs were applied to each crash based on the reported crash type, along with the anticipated benefit provided by each safety countermeasure. Three CMFs were considered at the intersection since the project area experiences diverse crash types among people walking, biking, and driving.

Rationale for Crash Modification Selected:

The expected service life for each improvement was assumed to be 20 years based on service life values included in the 2022 Highway Safety Improvement Program criteria.

The overall crash reduction expected from the project is 29% (based on a 61% crash modification factor). Approximately 29% (4 crashes) of the total number of reported crashes from the years 2019-2021 will be reduced annually through the implementation of various safety countermeasures for this project.

(Limit 1400 Characters; approximately 200 words)

Project Benefit ($) from B/C Ratio	$7,605,057.00
Total Fatal (K) Crashes:	0
Total Serious Injury (A) Crashes:	1
Total Non-Motorized Fatal and Serious Injury Crashes:	0
Total Crashes:	40
Total Fatal (K) Crashes Reduced by Project:	0
Total Serious Injury (A) Crashes Reduced by Project:	1
Total Non-Motorized Fatal and Serious Injury Crashes Reduced by Project:	0
Total Crashes Reduced by Project:	11
Worksheet Attachment	1649782594563_CSAH 9 (Rockford Rd) Spot Mobility & Safety Project - BC Analysis Worksheets.pdf

Upload Crash Modification Factors and B/C Worksheet in PDF form.

Measure A: Pedestrian Safety

Determine if these measures do not apply to your project. *Does the project match either of the following descriptions?*
If either of the items are checked yes, then ***score for entire pedestrian safety measure is zero****. Applicant does not need to respond to the sub-measures and can proceed to the next section.*

Project is primarily a freeway (or transitioning to a freeway) and does not provide safe and comfortable pedestrian facilities and crossings.	No
Existing location lacks any pedestrian facilities (e.g., sidewalks, marked crossings, wide shoulders in rural contexts) and project does not add pedestrian elements (e.g., reconstruction of a roadway without sidewalks, that doesnt also add pedestrian crossings and sidewalk or sidepath on one or both sides).	No

SUB-MEASURE 1: Project-Based Pedestrian Safety Enhancements and Risk Elements
To receive maximum points in this category, pedestrian safety countermeasures selected for implementation in projects should be, to the greatest extent feasible, consistent with the countermeasure recommendations in the Regional Pedestrian Safety Action Plan and state and national best practices. Links to resources are provided on the Regional Solicitation Resources web page.
Please answer the following two questions with as much detail as possible based on the known attributes of the proposed design. If any aspect referenced in this section is not yet determined, describe the range of options being considered, to the greatest extent available. If there are project elements that may increase pedestrian risk, describe how these risks are being mitigated.
1. Describe how this project will address the safety needs of people crossing the street at signalized intersections, unsignalized intersections, midblock locations, and roundabouts.
Treatments and countermeasures should be well-matched to the roadways context (e.g., appropriate for the speed, volume, crossing distance, and other location attributes). Refer to the Regional Solicitation Resources web page for guidance links.

Response:

The intersection of CSAH 9 (Rockford Rd) & CSAH 61 (Northwest Blvd) operates under signalized control and includes 4-lane divided configuration on all four approaches. Each leg of the intersection includes both dedicated left-turn lanes and channelized right-turn islands. The free-right turn lanes create four 'porkchop islands' at each intersection quadrant, which have pedestrian ramps that do not meet current ADA design standards. In addition, the dedicated left-turn lanes along CSAH 9 (Rockford Rd) include negative offsets that limit sight lines for queued vehicles waiting to complete a left-turn during permissive signal operation.

The proposed project is anticipated to improve safety for those crossing at this signalized intersection; primarily through the removal of the channelized right-turn islands to create a more compact intersection design with tighter turning radii. Also, raised median designs will be evaluated during project development to determine whether the introduction of a pedestrian refuge is feasible. In addition, the existing alignment of eastbound and westbound dedicated left-turn lanes will be adjusted to improve their offset for better sightlines. Furthermore, ADA accommodations will be upgraded to meet current ADA design standards in terms of ramp placement and orientation; along with the installation of APS.

The proposed project also presents an opportunity to replace and upgrade the existing traffic signal system to the latest technologies. The existing signal system already includes some effective design elements (such as flashing yellow arrows, video detection, and countdown timers) that will be replaced/upgraded as part of the project. In addition, the following design elements are anticipated to be included as well:

- Installation of additional primary signal heads along the CSAH 61 (Northwest Blvd) to improve signal visibility

- Addition of luminaires in intersection quadrants where they don't currently exist

- Upgraded conduit, wiring, and handholes to minimize on-going maintenance costs

(Limit 2,800 characters; approximately 400 words)

Is the distance in between signalized intersections increasing (e.g., removing a signal)?

Select one: No

If yes, describe what measures are being used to fill the gap between protected crossing opportunities for pedestrians (e.g., adding High-Intensity Activated Crosswalk beacons to help motorists yield and help pedestrians find a suitable gap for crossing, turning signal into a roundabout to slow motorist speed, etc.).

Response: As the project is primarily focused on improvements to the signalized CSAH 9 (Rockford Rd) and CSAH 61 (Northwest Blvd) intersection, it is not anticipated that distance between signalized intersections will increase.

(Limit 1,400 characters; approximately 200 words)

Will your design increase the crossing distance or crossing time across any leg of an intersection? (e.g., by adding turn or through lanes, widening lanes, using a multi-phase crossing, prohibiting crossing on any leg of an intersection, pedestrian bridge requiring length detour, etc.). This does not include any increases to crossing distances solely due to the addition of bike lanes (i.e., no other through or turn lanes being added or widened).

Select one: No

If yes,
How many intersections will likely be affected?

Response: 0

Describe what measures are being used to reduce exposure and delay for pedestrians (e.g., median crossing islands, curb bulb-outs, etc.)

Response: Although contingent on the project development process, the removal of 4 free-right turns and associated "porkchops" will create a more compact intersection design, that not only reduces pedestrian crossing distances, but also improves pedestrian visibility for right turning vehicles.

(Limit 1,400 characters; approximately 200 words)

If grade separated pedestrian crossings are being added and increasing crossing time, describe any features that are included that will reduce the detour required of pedestrians and make the separated crossing a more appealing option (e.g., shallow tunnel that doesnt require much elevation change instead of pedestrian bridge with numerous switchbacks).

Response:

Although contingent on the project development process, no new grade separated pedestrian crossings are anticipated to be introduced as part of the CSAH 9 (Rockford Rd) Spot Mobility and Safety Project. However, it should be noted that the existing regional trail crosses under CSAH 9 200 ft east of the intersection.

(Limit 1,400 characters; approximately 200 words)

If mid-block crossings are restricted or blocked, explain why this is necessary and how pedestrian crossing needs and safety are supported in other ways (e.g., nearest protected or enhanced crossing opportunity).

Response:

As the project is focusing primarily on the signalized intersection of CSAH 9 (Rockford Rd) and CSAH 61 (Northwest Blvd), no mid-block crossings are anticipated to be prohibited. This intersection will serve as the crossing for the Medicine Lake Regional Trail approximately 200 ft to the east of this intersection. This intersection serves as a secondary crossing for the trail.

(Limit 1,400 characters; approximately 200 words)

2. Describe how motorist speed will be managed in the project design, both for through traffic and turning movements. *Describe any project-related factors that may affect speed directly or indirectly, even if speed is not the intended outcome (e.g., wider lanes and turning radii to facilitate freight movements, adding turn lanes to alleviate peak hour congestion, etc.). Note any strategies or treatments being considered that are intended to help motorists drive slower (e.g., visual narrowing, narrow lanes, truck aprons to mitigate wide turning radii, etc.) or protect pedestrians if increasing motorist speed (e.g., buffers or other separation from moving vehicles, crossing treatments appropriate for higher speed roadways, etc.).*

Response:

The CSAH 9 (Rockford Rd) Spot Mobility and Safety Project will introduce proven design strategies to promote uniform, safe, and reasonable speeds for people driving through the intersection. It is anticipated that the intersection will be evaluated for the removal of four existing free-right turns to create a more compact intersection design, which will encourage slower speeds for people driving. The eastbound and westbound left turn lanes will be realigned, if feasible, to provide a positive offset, increasing sightlines and decreasing the likelihood that a driver fails to yield to pedestrians in the crosswalk.

(Limit 2,800 characters; approximately 400 words)

If known, what are the existing and proposed design, operation, and posted speeds? Is this an increase or decrease from existing conditions?

Response:	The current post speed limit along CSAH 9 (Rockford Rd) is 40 mph for eastbound traffic and 45 mph for westbound traffic. The current posted speed limit along CSAH 61 (Northwest Blvd) is 45 mph. The proposed design speed limit(s) will be determined as part of the project development process based on data analysis, stakeholder input, and environmental review. At this time, no changes to the existing speed limit(s) are anticipated as a result of this project that is primarily focused at one intersection. However, this project won't preclude a lower speed limit along CSAH 9 (Rockford Rd) or CSAH 61 (Northwest Blvd) should corridor-wide improvements be implemented in the future.

(Limit 1,400 characters; approximately 200 words)

SUB-MEASURE 2: Existing Location-Based Pedestrian Safety Risk Factors

These factors are based on based on trends and patterns observed in pedestrian crash analysis done for the Regional Pedestrian Safety Action Plan. Check off how many of the following factors are present. Applicants receive more points if more risk factors are present.

Existing road configuration is a One-way, 3+ through lanes or	
Existing road configuration is a Two-way, 4+ through lanes	Yes
Existing road has a design speed, posted speed limit, or speed study/data showing 85th percentile travel speeds in excess of 30 MPH or more	Yes
Existing road has AADT of greater than 15,000 vehicles per day	Yes
List the AADT	20800

SUB-MEASURE 3: Existing Location-Based Pedestrian Safety Exposure Factors

These factors are based on based on trends and patterns observed in pedestrian crash analysis done for the Regional Pedestrian Safety Action Plan. Check off how many of the following existing location exposure factors are present. Applicants receive more points if more risk factors are present.

Existing road has transit running on or across it with 1+ transit stops in the project area (If flag-stop route with no fixed stops, then 1+ locations in the project area where roadside stops are allowed. Do not count portions of transit routes with no stops, such as non-stop freeway sections of express or limited-stop routes. If service was temporarily reduced for the pandemic but is expected to return to 2019 levels, consider 2019 service for this item.)	

Existing road has high-frequency transit running on or across it and 1+ high-frequency stops in the project area (high-frequency defined as service at least every 15 minutes from 6am to 7pm weekdays and 9am to 6pm Saturdays. If service frequency was temporarily reduced for the pandemic but is expected to return to 2019 levels, consider 2019 frequency for this item.)

Existing road is within 500 of 1+ shopping, dining, or entertainment destinations (e.g., grocery store, restaurant)

Yes

If checked, please describe:

The CSAH 9 (Rockford Rd) and CSAH 61 (Northwest Blvd) is directly southwest of Rockford Road Plaza, a significant concentration of shopping and dining. While the development is home to grocery stores, pharmacies and restaurants, the following are within 500' of the proposed intersection:

-Anytime Fitness (Gym)

-Homegoods (Shopping)

-Petsmart (Shopping)

-Banfield Pet Hospital (Veterinarian)

-TopLine Federal Credit Union (Financial Services)

In addition to the commercial destinations at Rockford Road Plaza, the project is approximately 200' west of access to the Medicine Lake Regional Trail. Maintained by Three Rivers Park District, the Medicine Lake Regional Trail is a 20-mile paved multi-use trail which connects to Elm Creek Park Reserve, Fish Lake and French Regional Parks, as well as other local and regional trail facilities.

(Limit 1,400 characters; approximately 200 words)

Existing road is within 500 of other known pedestrian generators (e.g., school, civic/community center, senior housing, multifamily housing, regulatorily-designated affordable housing)

Yes

If checked, please describe:

While the CSAH 9 (Rockford Rd) and CSAH 61 (Northwest Blvd) corridors are home to a number of civic and residential developments which are connected via county-owned off-street bicycle facilities, the project location is in a suburban context generally farther than 500' away from local destinations. As previously mentioned, the Medicine Lake Regional Trail connects to a number of community facilities throughout the corridor. Within the 500' buffer area from the proposed intersection, St. Joseph Catholic Community provides religious services and organizes community events such as food drives and support groups. French Lake Regional Park directly abuts the project area to the southwest, and provides miles of recreational trails, picnic areas, playgrounds, fishing, as well as a field operations center for Three Rivers Park District.

(Limit 1,400 characters; approximately 200 words)

Measure A: Multimodal Elements and Existing Connections

Response:

This project will improve conditions for people walking, biking, and using mobility devices by eliminating four free-right turn lanes. The reduced turning radii will slow motor vehicle traffic and improve visibility between motor vehicle users and people crossing.. The project will include multiuse trail in all four quadrants and connect to the existing trails. Multimodal connections near the project area are illustrated in Attachment 11.

The intersection's ramps and signals are identified as deficient in Hennepin County's ADA transition plan. The location of signal poles and corresponding handholes present obstructions for people with limited mobility. The signals will be updated to include accessible pedestrian signals and new pedestrian ramps will replace the existing noncompliant pedestrian ramps. Drainage also will be improved so water does not pool in the pedestrian ramps as it does today.

The western, southern, and eastern intersection legs are Regional Bicycle Transportation Network Tier 1 corridors. Improving this intersection will create a more direct and visible crossing for people biking this route, resulting in improved safety. People biking will benefit from the improved intersection with connections to Medicine Lake Regional Trail less than 200 feet to the east.

The intersection currently does not carry regular fixed route transit. It is, however, within 0.25 mile of Plymouth Metrolink Route 777 that includes a station at the nearby CSAH 9 (Rockford Rd)/Vinewood Ln intersection. In addition, the Nathan Ln Park and Ride is about 2 miles from the project location. The proposed crossing improvements at this intersection will facilitate

important first and last mile connections for people using transit.

(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.Public Involvement (20 Percent of Points)

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

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

100%

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

50%

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

50%

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

25%

No outreach has led to the selection of this project. Yes

0%

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

Response:

The CSAH 9 (Rockford Rd) Spot Mobility and Safety Project was selected for pursuit of Regional Solicitation funding based on the recent crash rate experienced at the intersection when compared to similar locations countywide.

At this time, county staff have not begun public engagement specific to the project. However, county staff worked closely with MnDOT and transportation safety professionals in the development of the County Road Safety Plan. The CSAH 9 (Rockford Rd) and CSAH 61 (Northwest Blvd) intersection includes a number of design deficiencies that have shown to create the potential for high crash frequencies.

If funded, Hennepin County will coordinate with the City of Plymouth and Three Rivers Park District to determine an appropriate plan for moving forward with engagement, which would likely include engaging nearby residents, people who frequently travel through the intersection, and users of the Medicine Lake Regional Trail.

(Limit 2,800 characters; approximately 400 words)

2.Layout (25 Percent of Points)

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

Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties/MnDOT. If a MnDOT trunk highway is impacted, approval by MnDOT must have occurred to receive full points. A PDF of the layout must be attached along with letters from each jurisdiction to receive points.

100%

A layout does not apply (signal replacement/signal timing, stand-alone streetscaping, minor intersection improvements). Applicants that are not certain whether a layout is required should contact Colleen Brown at MnDOT Metro State Aid colleen.brown@state.mn.us.

100%

For projects where MnDOT trunk highways are impacted and a MnDOT Staff Approved layout is required. Layout approved by the applicant and all impacted local jurisdictions (i.e., cities/counties), and layout review and approval by MnDOT is pending. A PDF of the layout must be attached along with letters from each jurisdiction to receive points.

75%

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

50%

Layout has been started but is not complete. A PDF of the layout must be attached to receive points.

25%

Layout has not been started

0%

Attach Layout 1649774079801_Attachment 05 - Potential Concept.pdf

Please upload attachment in PDF form.

Additional Attachments

Please upload attachment in PDF form.

3.Review of Section 106 Historic Resources (15 Percent of Points)

No known historic properties eligible for or listed in the National Register of Historic Places are located in the project area, and project is not located on an identified historic bridge Yes

100%

There are historical/archeological properties present but determination of no historic properties affected is anticipated.

100%

Historic/archeological property impacted; determination of no adverse effect anticipated

80%

Historic/archeological property impacted; determination of adverse effect anticipated

40%

Unsure if there are any historic/archaeological properties in the project area.

0%

Project is located on an identified historic bridge

4.Right-of-Way (25 Percent of Points)

Right-of-way, permanent or temporary easements, and MnDOT agreement/limited-use permit either not required or all have been acquired

100%

Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - plat, legal descriptions, or official map complete

50%

Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - parcels identified	Yes

25%

Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - parcels not all identified

0%

5.Railroad Involvement (15 Percent of Points)

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

100%

Signature Page

Please upload attachment in PDF form.

Railroad Right-of-Way Agreement required; negotiations have begun

50%

Railroad Right-of-Way Agreement required; negotiations have not begun.

0%

Measure A: Cost Effectiveness

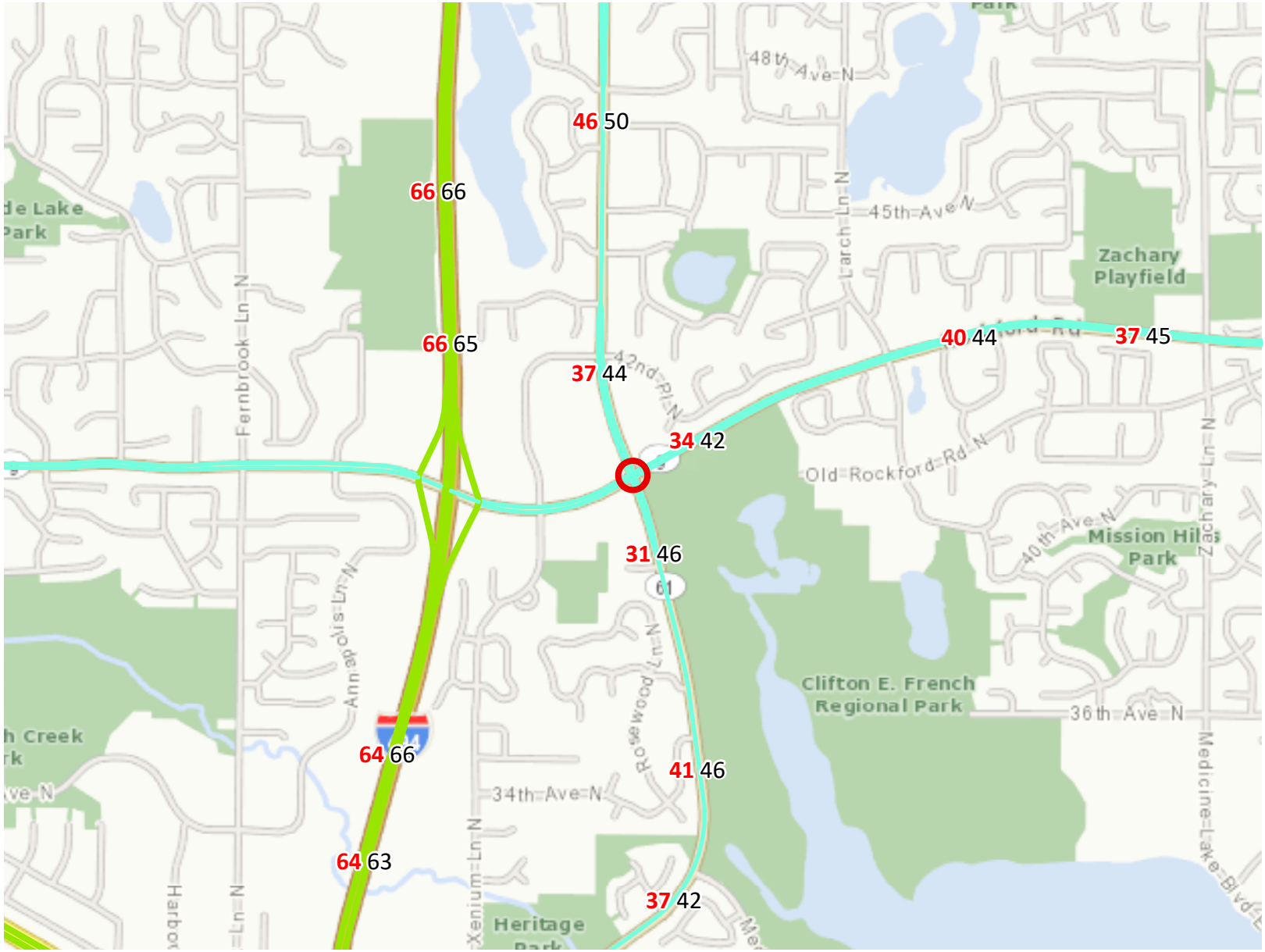
Total Project Cost (entered in Project Cost Form):	$2,030,000.00
Enter Amount of the Noise Walls:	$0.00
Total Project Cost subtract the amount of the noise walls:	$2,030,000.00
Enter amount of any outside, competitive funding:	$0.00
Attach documentation of award:	
Points Awarded in Previous Criteria	
Cost Effectiveness	$0.00

Other Attachments

File Name	Description	File Size
Attachment 00 - List of Attachments.pdf	Attachment 00 - List of Attachments	79 KB
Attachment 01 - Project Narrative.pdf	Attachment 01 - Project Narrative	214 KB
Attachment 02 - Project Location Map.pdf	Attachment 02 - Project Location Map	613 KB
Attachment 03 - Existing Roadway Condition Photos.pdf	Attachment 03 - Existing Roadway Condition Photos	1.3 MB
Attachment 04 - Crash Map and Detail Listing.pdf	Attachment 04 - Crash Map and Detail Listing	622 KB
Attachment 05 - Potential Concept.pdf	Attachment 05 - Potential Concept	1.3 MB
Attachment 06 - Hennepin County Board Resolution 22-0109.pdf	Attachment 06 - Hennepin County Board Resolution 22-0109	518 KB
Attachment 07 - CRSP Intersection Risk Factors.pdf	Attachment 07 - CRSP Intersection Risk Factors	40 KB
Attachment 08 - Socio-Economic Equity Map.pdf	Attachment 08 - Socio-Economic Equity Map	496 KB
Attachment 09 - Affordable Housing Access Map.pdf	Attachment 09 - Affordable Housing Access Map	1.0 MB
Attachment 10 - Crash Modification Factors.pdf	Attachment 10 - Crash Modification Factors	613 KB
Attachment 11 - Multimodal Connections Map.pdf	Attachment 11 - Multimodal Connections Map	720 KB
Attachment 12 - City of Plymouth Support Letter.pdf	Attachment 12 - City of Plymouth Support Letter	274 KB

Level of Congestion

Roadway Spot Mobility & Safety Project: CSAH 9 (Rockford Rd) Spot Mobility and Safety Project | Map ID: 1646858389566



Project Points

A Minor Arterials

A Minor Arterials Planned

Principal Arterials

Principal Arterials Planned

0 0.175 0.35 0.7 1.05 1.4 Miles

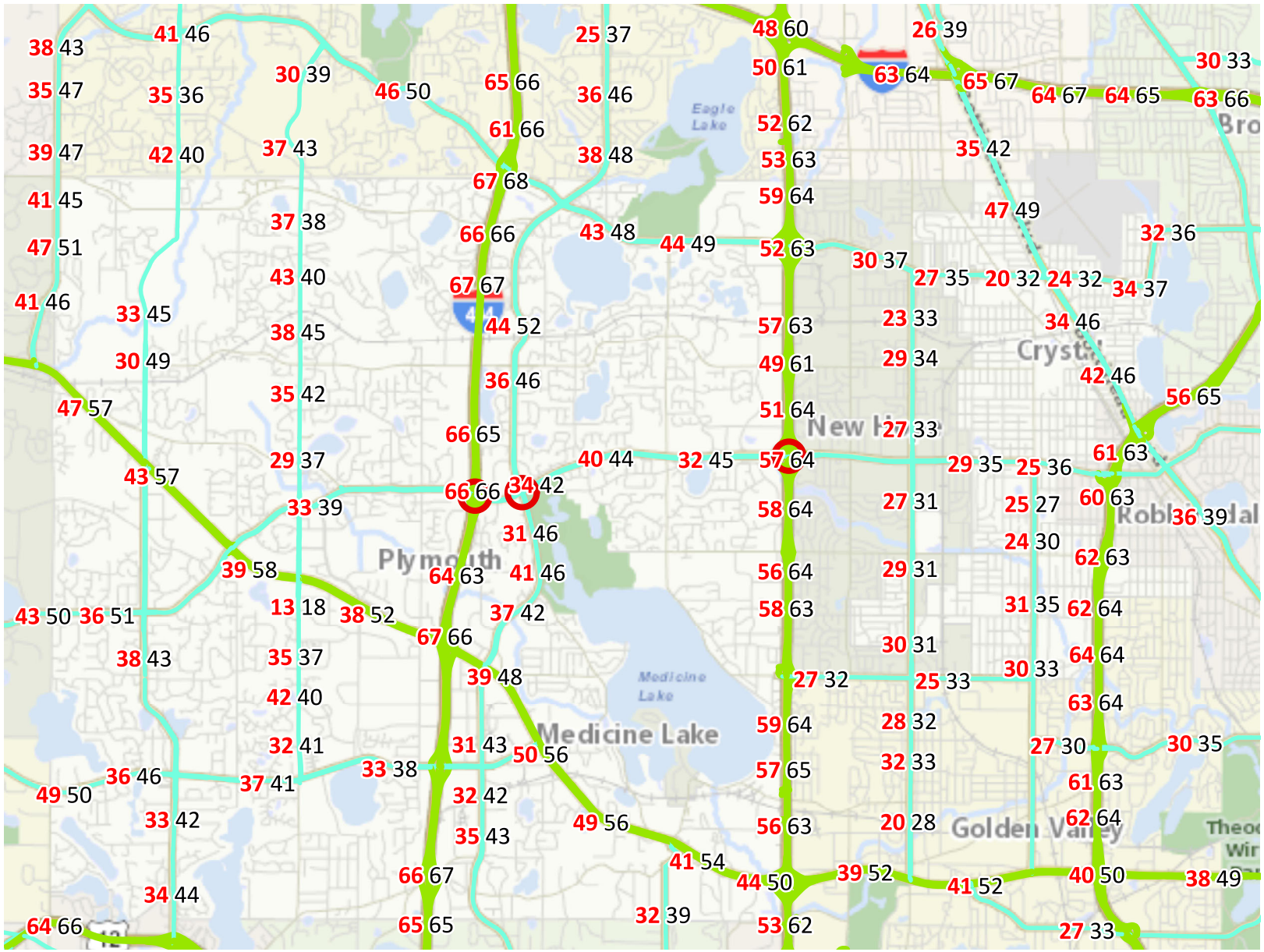
Created: 3/9/2022
LandscapeRSA1

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

METROPOLITAN COUNCIL

Level of Congestion

Roadway Spot Mobility & Safety Project: CSAH 9 (Rockford Rd) Spot Mobility & Safety Project | Map ID: 1649076562990



Project Points
A Minor Arterials
A Minor Arterials Planned
Principal Arterials
Principal Arterials Planned

0 0.75 1.5 3 4.5 6 Miles

Created: 4/4/2022
LandscapeRSA1

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

METROPOLITAN COUNCIL

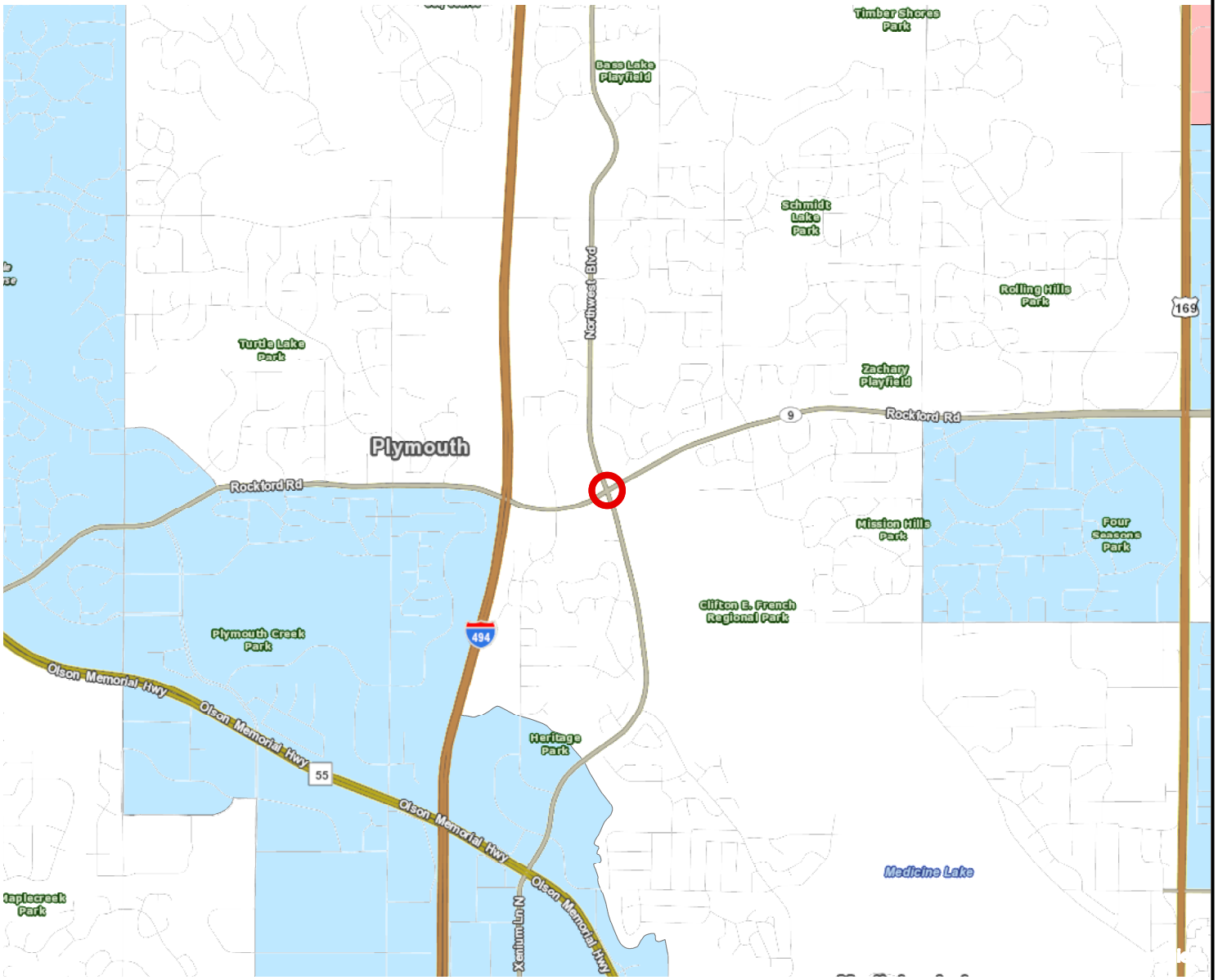
Socio-Economic Conditions

Roadway Spot Mobility & Safety Project: CSAH 9 (Rockford Rd) Spot Mobility and Safety Project | Map ID: 1646858389566

Results

Total of publicly subsidized rental housing units in census tracts within 1/2 mile: 180

Project located in census tracts that are BELOW the regional average for population in poverty or population of color.



Points

Regional Environmental Justice Area

Area of Concentrated Poverty

0 0.35 0.7 1.4 2.1 2.8 Miles

Created: 3/9/2022
LandscapeRSA2

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

METROPOLITAN COUNCIL

CSAH 9 (Rockford Rd) Spot Mobility and Safety Project

Synchro Report – Congestion Reduction

Existing conditions (PM Peak)

Rockford RS 04/03/2022
Existing PM

3: Northwest Blvd & Rockford Rd

Direction	All
Future Volume (vph)	2996
Total Delay / Veh (s/v)	28
CO Emissions (kg)	3.38
NOx Emissions (kg)	0.66
VOC Emissions (kg)	0.78

Proposed conditions (PM Peak)

Rockford RS 04/03/2022
Build PM

3: Northwest Blvd & Rockford Rd

Direction	All
Future Volume (vph)	2996
Total Delay / Veh (s/v)	26
CO Emissions (kg)	3.33
NOx Emissions (kg)	0.65
VOC Emissions (kg)	0.77

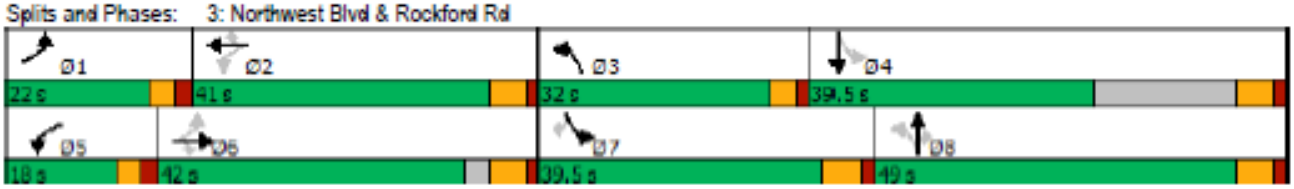
Rockford RS
Existing PM

04/03/2022
3: Northwest Blvd & Rockford Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	116	834	86	142	754	96	94	299	278	75	145	77
Future Volume (vph)	116	834	86	142	754	96	94	299	278	75	145	77
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	custom
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8		8	4		7
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	7
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	12.5	42.0	42.0	12.5	41.0	41.0	12.5	39.5	39.5	39.5	39.5	39.5
Total Split (s)	22.0	42.0	42.0	18.0	41.0	41.0	32.0	49.0	49.0	39.5	39.5	39.5
Total Split (%)	14.5%	27.7%	27.7%	11.9%	27.1%	27.1%	21.1%	32.3%	32.3%	26.1%	26.1%	26.1%
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	1.5	1.5	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	45.8	35.4	35.4	48.9	36.9	36.9	28.0	17.1	17.1	33.7	21.5	12.3
Actuated g/C Ratio	0.46	0.36	0.36	0.49	0.37	0.37	0.28	0.17	0.17	0.34	0.22	0.12
v/c Ratio	0.39	0.72	0.14	0.50	0.62	0.15	0.26	0.53	0.72	0.22	0.21	0.30
Control Delay	16.7	32.3	2.2	19.0	28.9	3.0	22.9	40.6	26.6	23.2	33.0	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	32.3	2.2	19.0	28.9	3.0	22.9	40.6	26.6	23.2	33.0	9.2
LOS	B	C	A	B	C	A	C	D	C	C	C	A
Approach Delay		28.0			25.0			32.3			24.3	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 151.5	
Actuated Cycle Length: 98.9	
Natural Cycle: 135	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 27.6	Intersection LOS: C
Intersection Capacity Utilization 70.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Northwest Blvd & Rockford Rd



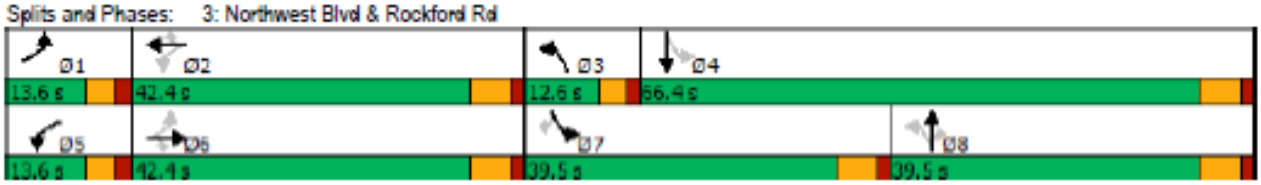
Rockford RS
Build PM

04/03/2022
3: Northwest Blvd & Rockford Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	116	834	86	142	754	96	94	299	278	75	145	77
Future Volume (vph)	116	834	86	142	754	96	94	299	278	75	145	77
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	custom
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8		8	4		7
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	7
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	12.5	42.0	42.0	12.5	41.0	41.0	12.5	39.5	39.5	39.5	39.5	39.5
Total Split (s)	13.6	42.4	42.4	13.6	42.4	42.4	12.6	39.5	39.5	39.5	66.4	39.5
Total Split (%)	10.1%	31.4%	31.4%	10.1%	31.4%	31.4%	9.3%	29.3%	29.3%	29.3%	49.2%	29.3%
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	1.5	1.5	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	42.1	32.7	32.7	42.7	33.0	33.0	25.8	16.4	16.4	34.4	22.3	12.2
Actuated g/C Ratio	0.45	0.35	0.35	0.46	0.35	0.35	0.28	0.18	0.18	0.37	0.24	0.13
v/c Ratio	0.42	0.73	0.14	0.56	0.65	0.16	0.27	0.52	0.70	0.21	0.19	0.27
Control Delay	17.5	30.8	1.3	21.9	28.7	1.9	21.6	38.3	23.4	21.3	29.3	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	30.8	1.3	21.9	28.7	1.9	21.6	38.3	23.4	21.3	29.3	6.3
LOS	B	C	A	C	C	A	C	D	C	C	C	A
Approach Delay		26.9			25.1			29.8			21.3	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 135	
Actuated Cycle Length: 93.2	
Natural Cycle: 135	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 26.4	Intersection LOS: C
Intersection Capacity Utilization 70.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Northwest Blvd & Rockford Rd



CSAH 9 (Rockford Rd) Spot Mobility and Safety Project

Synchro Report – Emission Reduction

Existing conditions (PM Peak)

Rockford RS 04/03/2022
Existing PM

3: Northwest Blvd & Rockford Rd

Direction	All
Future Volume (vph)	2996
Total Delay / Veh (s/v)	28
CO Emissions (kg)	3.38
NOx Emissions (kg)	0.66
VOC Emissions (kg)	0.78

Proposed conditions (PM Peak)

Rockford RS 04/03/2022
Build PM

3: Northwest Blvd & Rockford Rd

Direction	All
Future Volume (vph)	2996
Total Delay / Veh (s/v)	26
CO Emissions (kg)	3.33
NOx Emissions (kg)	0.65
VOC Emissions (kg)	0.77

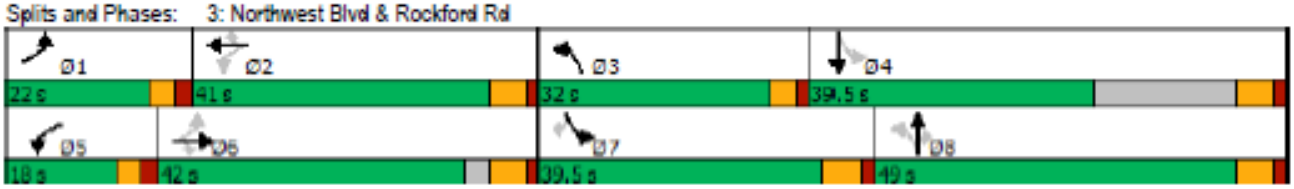
Rockford RS
Existing PM

04/03/2022
3: Northwest Blvd & Rockford Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	116	834	86	142	754	96	94	299	278	75	145	77
Future Volume (vph)	116	834	86	142	754	96	94	299	278	75	145	77
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	custom
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8		8	4		7
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	7
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	12.5	42.0	42.0	12.5	41.0	41.0	12.5	39.5	39.5	39.5	39.5	39.5
Total Split (s)	22.0	42.0	42.0	18.0	41.0	41.0	32.0	49.0	49.0	39.5	39.5	39.5
Total Split (%)	14.5%	27.7%	27.7%	11.9%	27.1%	27.1%	21.1%	32.3%	32.3%	26.1%	26.1%	26.1%
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	1.5	1.5	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	45.8	35.4	35.4	48.9	36.9	36.9	28.0	17.1	17.1	33.7	21.5	12.3
Actuated g/C Ratio	0.46	0.36	0.36	0.49	0.37	0.37	0.28	0.17	0.17	0.34	0.22	0.12
v/c Ratio	0.39	0.72	0.14	0.50	0.62	0.15	0.26	0.53	0.72	0.22	0.21	0.30
Control Delay	16.7	32.3	2.2	19.0	28.9	3.0	22.9	40.6	26.6	23.2	33.0	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	32.3	2.2	19.0	28.9	3.0	22.9	40.6	26.6	23.2	33.0	9.2
LOS	B	C	A	B	C	A	C	D	C	C	C	A
Approach Delay		28.0			25.0			32.3			24.3	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 151.5	
Actuated Cycle Length: 98.9	
Natural Cycle: 135	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 27.6	Intersection LOS: C
Intersection Capacity Utilization 70.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Northwest Blvd & Rockford Rd



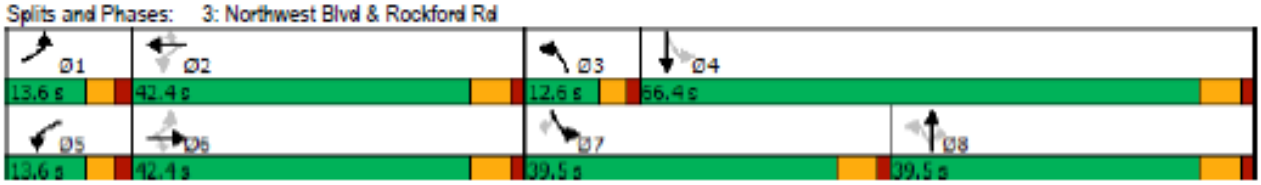
Rockford RS
Build PM

04/03/2022
3: Northwest Blvd & Rockford Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	116	834	86	142	754	96	94	299	278	75	145	77
Future Volume (vph)	116	834	86	142	754	96	94	299	278	75	145	77
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	custom
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8		8	4		7
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	7
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	12.5	42.0	42.0	12.5	41.0	41.0	12.5	39.5	39.5	39.5	39.5	39.5
Total Split (s)	13.6	42.4	42.4	13.6	42.4	42.4	12.6	39.5	39.5	39.5	66.4	39.5
Total Split (%)	10.1%	31.4%	31.4%	10.1%	31.4%	31.4%	9.3%	29.3%	29.3%	29.3%	49.2%	29.3%
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	1.5	1.5	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	42.1	32.7	32.7	42.7	33.0	33.0	25.8	16.4	16.4	34.4	22.3	12.2
Actuated g/C Ratio	0.45	0.35	0.35	0.46	0.35	0.35	0.28	0.18	0.18	0.37	0.24	0.13
v/c Ratio	0.42	0.73	0.14	0.56	0.65	0.16	0.27	0.52	0.70	0.21	0.19	0.27
Control Delay	17.5	30.8	1.3	21.9	28.7	1.9	21.6	38.3	23.4	21.3	29.3	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	30.8	1.3	21.9	28.7	1.9	21.6	38.3	23.4	21.3	29.3	6.3
LOS	B	C	A	C	C	A	C	D	C	C	C	A
Approach Delay		26.9			25.1			29.8			21.3	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 135	
Actuated Cycle Length: 93.2	
Natural Cycle: 135	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 26.4	Intersection LOS: C
Intersection Capacity Utilization 70.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Northwest Blvd & Rockford Rd



Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 9	**District**	Metro	**County**	Hennepin County
Begin RP	2.50	**End RP**	2.56	**Miles**	0.06
Location	At CSAH 61 (Northwest Blvd)				

B. Project Description

Proposed Work	CSAH 9: Improve offset for LT lane and improve angle of channelized RT lane CSAH 61: Install additional primary signal head and improve angle of channelized RT lane		
Project Cost*	$2,030,000	**Installation Year**	2026
Project Service Life	20 years	**Traffic Growth Factor**	0.5%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	CMF 06097: Improve offset for LT lane (38% reduction)
	Serious Injury (A) Crashes		CMF 08428: Improve angle of channelized RT lane (44.2% reduction)
0.62	**Moderate Injury (B) Crashes**	**Crash Type**	CMF 06097: LT
0.70	**Possible Injury (C) Crashes**		CMF 08428: RE
0.87	**Property Damage Only Crashes**		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	CMF 01414: Install additional primary signal head (28% reduction)
0.72	**Serious Injury (A) Crashes**		CMF 08428: Improve angle of channelized RT lane (44.2% reduction)
0.72	**Moderate Injury (B) Crashes**	**Crash Type**	CMF 01414: LT & RA
0.67	**Possible Injury (C) Crashes**		CMF 08428: RE
0.65	**Property Damage Only Crashes**		www.CMFclearinghouse.org

E. Crash Data

Begin Date	1/1/2019	**End Date**	12/31/2021	3 years
Data Source	MnCMAT Version 2.0			

Crash Severity	CMF 06097: LT CMF 08428: RE	CMF 01414: LT & RA CMF 08428: RE
K crashes	0	0
A crashes	0	1
B crashes	3	3
C crashes	5	6
PDO crashes	9	13

F. Benefit-Cost Calculation

$7,605,057	**Benefit (present value)**	**B/C Ratio = 3.75**
$2,030,000	**Cost**	

Proposed project expected to reduce 4 crashes annually, 1 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,500,000
A crashes	$750,000
B crashes	$230,000
C crashes	$120,000
PDO crashes	$13,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate	0.7%
Traffic Growth Rate	0.5%
Project Service Life	20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.28	0.09	$70,000
B crashes	1.98	0.66	$151,800
C crashes	3.52	1.17	$140,960
PDO crashes	5.70	1.90	$24,717
			$387,477

H. Amortized Benefit

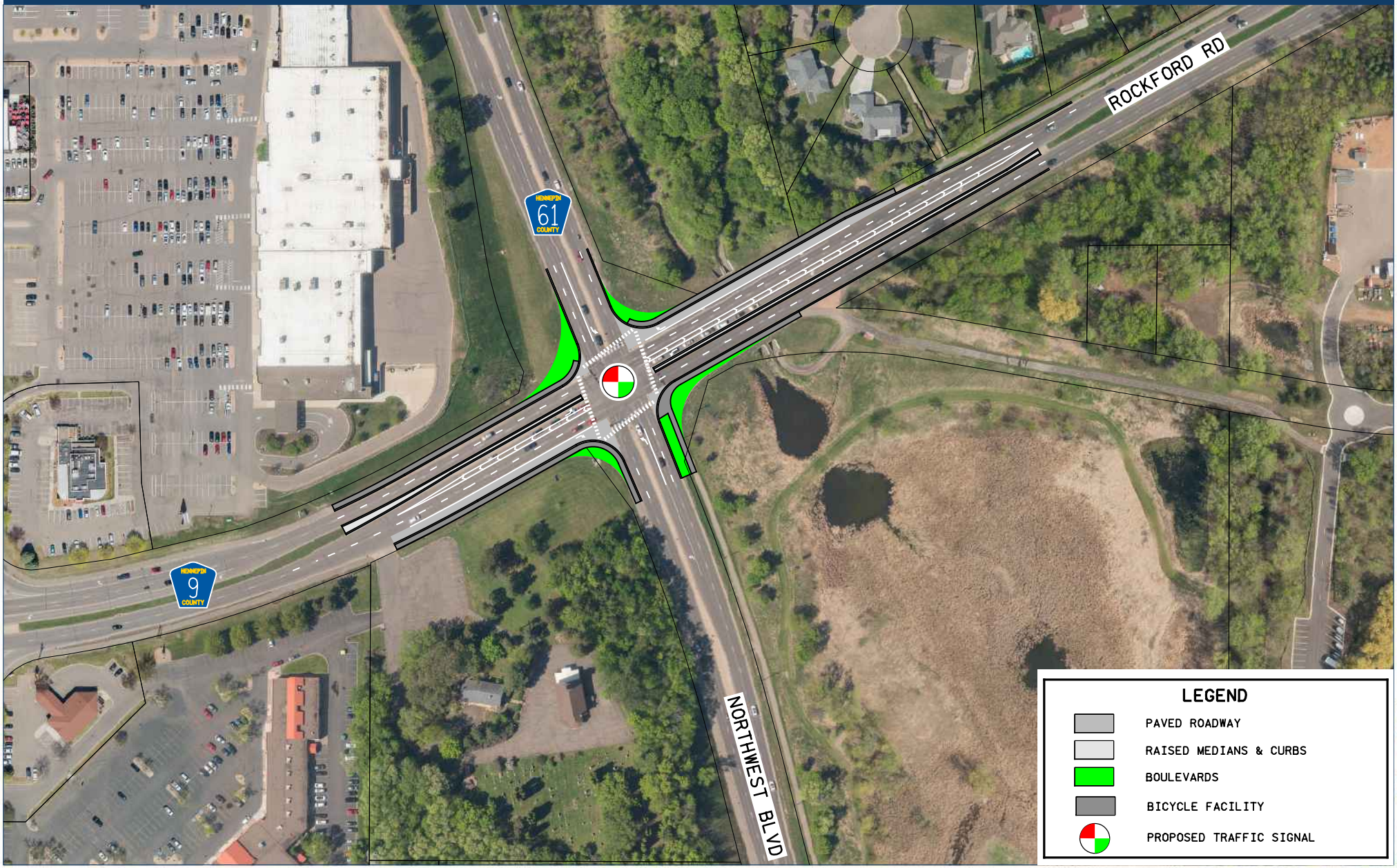
Year	Crash Benefits	Present Value
2026	$387,477	$387,477
2027	$389,415	$386,708
2028	$391,362	$385,940
2029	$393,319	$385,173
2030	$395,285	$384,408
2031	$397,262	$383,645
2032	$399,248	$382,883
2033	$401,244	$382,122
2034	$403,250	$381,363
2035	$405,267	$380,606
2036	$407,293	$379,850
2037	$409,329	$379,096
2038	$411,376	$378,343
2039	$413,433	$377,591
2040	$415,500	$376,841
2041	$417,578	$376,093
2042	$419,666	$375,346
2043	$421,764	$374,600
2044	$423,873	$373,857
2045	$425,992	$373,114
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $7,605,057

CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 05 | Potential Concept

HENNEPIN COUNTY
MINNESOTA



Job #14870
4/12/2022
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CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

List of attachments

1. Project Narrative
2. Project Location Map
3. Existing Roadway Condition Photos
4. Crash Map and Detail Listing
5. Potential Concept
6. Hennepin County Board Resolution 22-0109
7. CRSP Intersection Risk Factors
8. Socio-Economic Equity Map
9. Affordable Housing Access Map
10. Crash Modification Factors
11. Multimodal Connections Map
12. City of Plymouth Support Letter

CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

HENNEPIN COUNTY
MINNESOTA

Attachment 01 | Project Narrative

Project Name
CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

City(ies)
Plymouth

Commissioner District(s)
2 7

Capital Project Number
CP 2220400

Project Category
Safety

Scoping Manager
Emily Buell

Scoping Form Revision Dates
4/9/2022

Project Summary

Safety improvements at the intersection of Rockford Road (CSAH 9) and Northwest Boulevard (CSAH 61) in the City of Plymouth.

Roadway History

The existing intersection of Rockford Road (CSAH 9) at Northwest Boulevard (CSAH 61) experiences a relatively high number of crashes when compared to similar intersections throughout the county. The predominant crash types at this intersection are left-turn and rear-end related. The existing design includes channelized right-turn islands in all four quadrants that present sight distance challenges for right-turning vehicles. In addition, relatively long crossing distances are required for people walking and biking through the intersection since both Rockford Road (CSAH 9) and Northwest Boulevard (CSAH 61) are 4-lane roadways; creating a sense of discomfort for multimodal users.

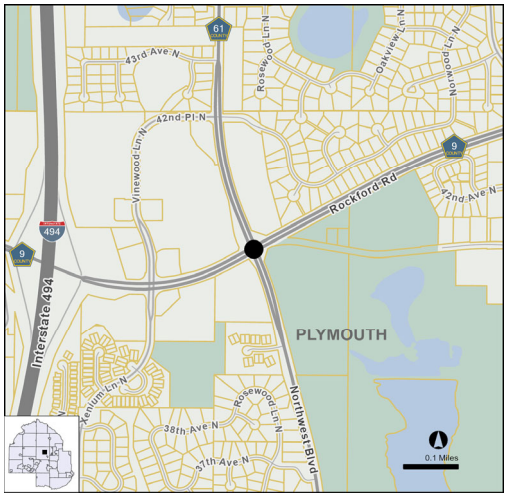
Project Description and Benefits

The proposed project will improve accessibility, mobility, and safety by implementing the following project elements that aim to address crash themes.

- Elimination of channelized right-turn islands
- Improved alignment of the left-turn lanes along Rockford Road (CSAH 9)
- Replacement and upgrading of the existing traffic signal system
- Upgrading of ADA accommodations to current design stands
- Modification to trail alignments on each approach (as necessary)

Project Risks & Uncertainties

Project Map



Project Timeline

Scoping:	Q1 2022 - Q4 2023
Design:	Q1 2024 - Q4 2025
R/W Acquisition:	Q1 2025 - Q4 2025
Bid Advertisement:	Q1 2026
Construction:	Q2 2026 - Q4 2026

Project Delivery Responsibilities

Preliminary Design:	Consultant
Final Design:	Consultant
Construction Services:	Consultant

Project Budget -		Project Level
Construction:	$	1,560,000
Cost Estimate Year:		2022
Construction Year:		2026
Annual Inflation Rate:		2.0%
Inflated Construction:	$	1,690,000
Design Services:	$	250,000
R/W Acquisition:	$	-
Other (Utility Burial):	$	-
Construction Services:	$	170,000
Contingency:	$	470,000
Total Project Budget:	**$**	**2,580,000**

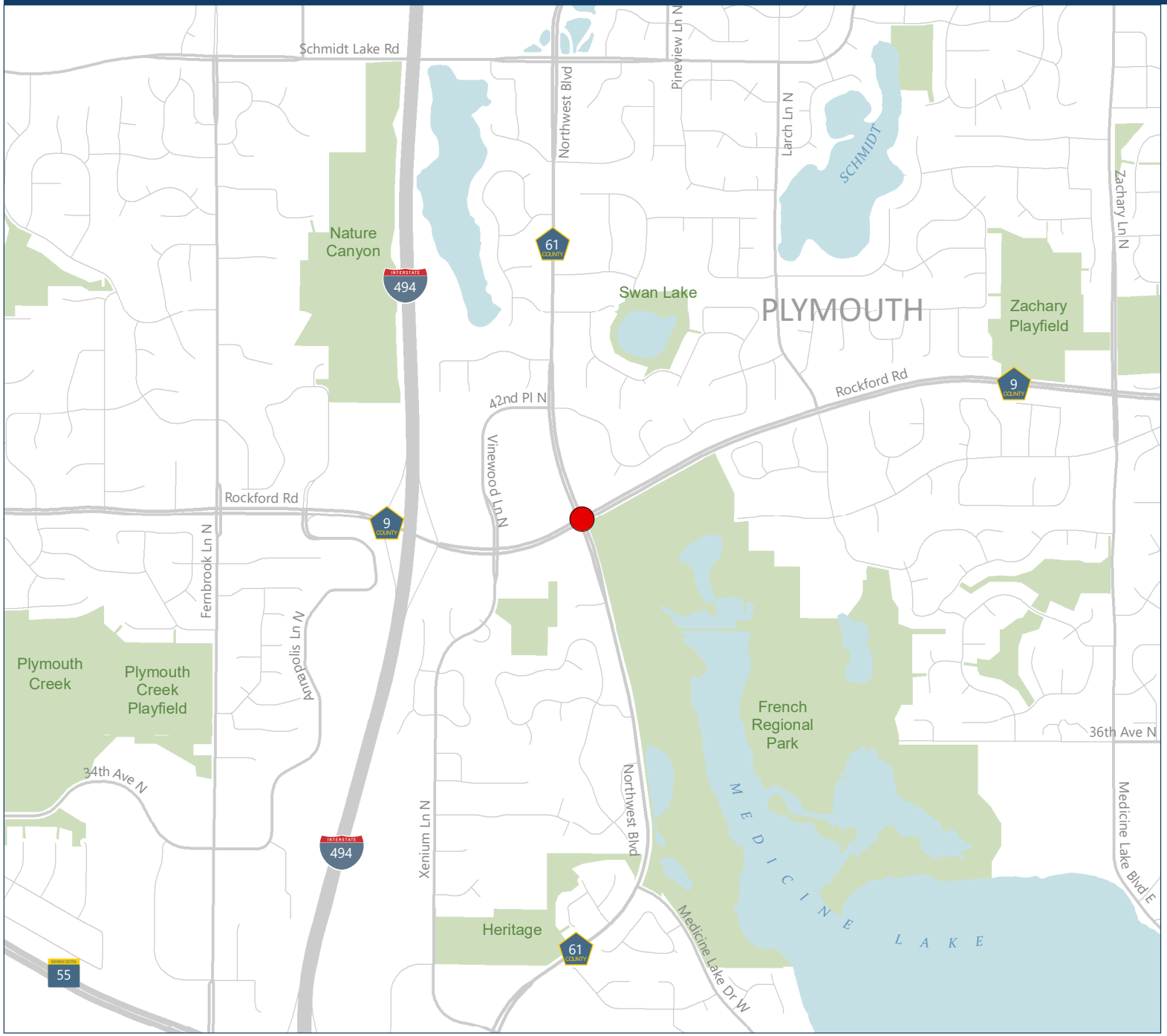
Funding Notes

This project is eligible for federal funding through the Metropolitan Council's Regional Solicitation due to the two roadways' functional classification as A-Minor Arterials.

CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 02 | Project Location Map

HENNEPIN COUNTY
MINNESOTA



Key

- Project Location

0 0.25 0.5 Miles

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.

Published date: 3/23/2022

N

Hennepin

CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 03 | Existing Roadway Condition Photos

View from the southwest intersection quadrant.

Aging pedestrian ramps lacking truncated domes at the southwest porkchop.

Aging Accessible Pedestrian Signal, southwest intersection quadrant.

Southern pedestrian crossing across CSAH 61.

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

CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 03 | Existing Roadway Condition Photos

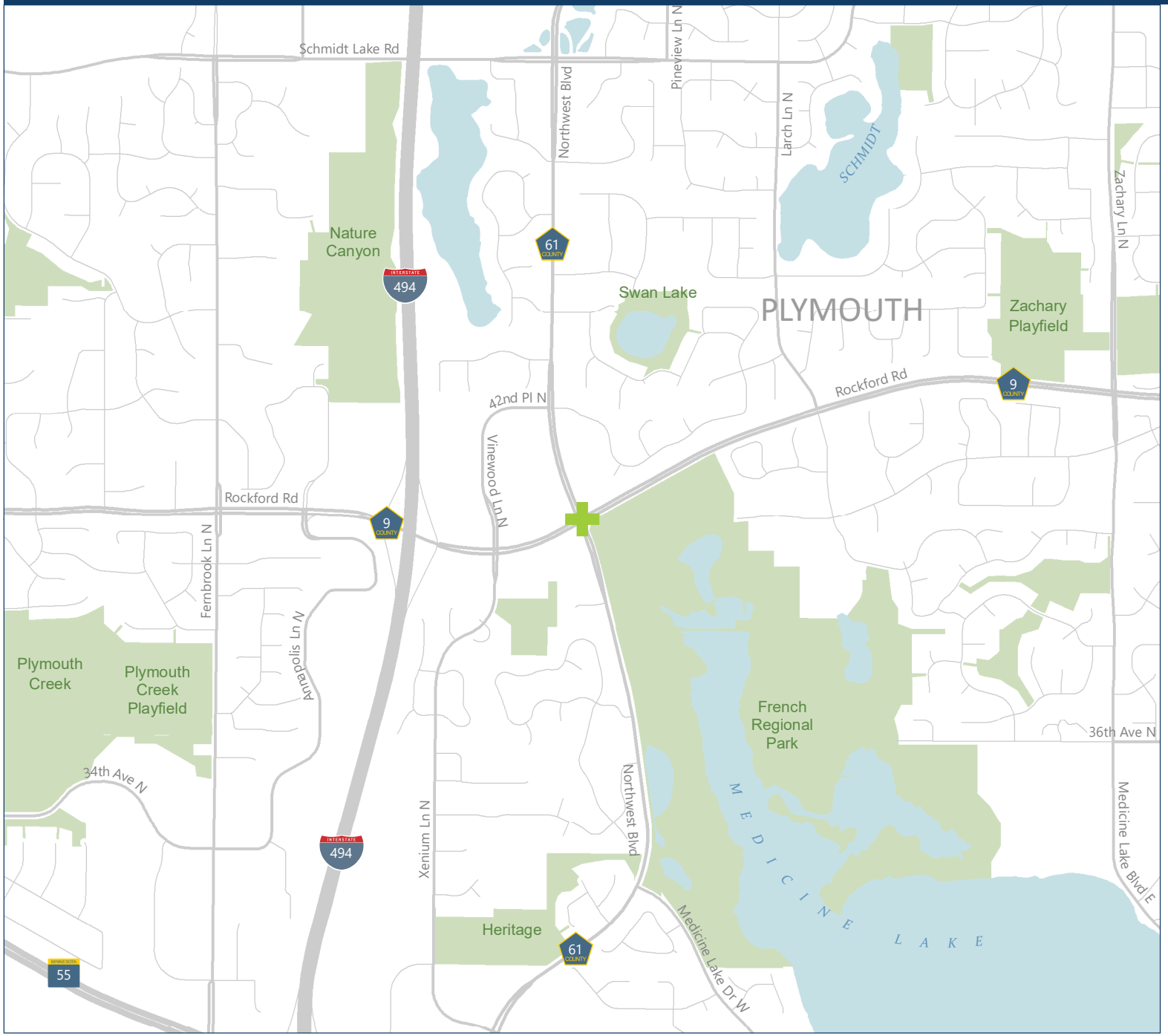
Eastern pedestrian crossing across CSAH 9.

Eastern signal leg, originally constructed in 1987.

CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 04 | Crash Map and Detail Listing

HENNEPIN COUNTY
MINNESOTA



Key

Crash Analysis Intersection

0 0.25 0.5 Miles

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.

Published date: 4/8/2022

N

Hennepin

CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 04 | Crash Map and Detail Listing

Intersection A l At CSAH 61 (Northwest Boulevard)

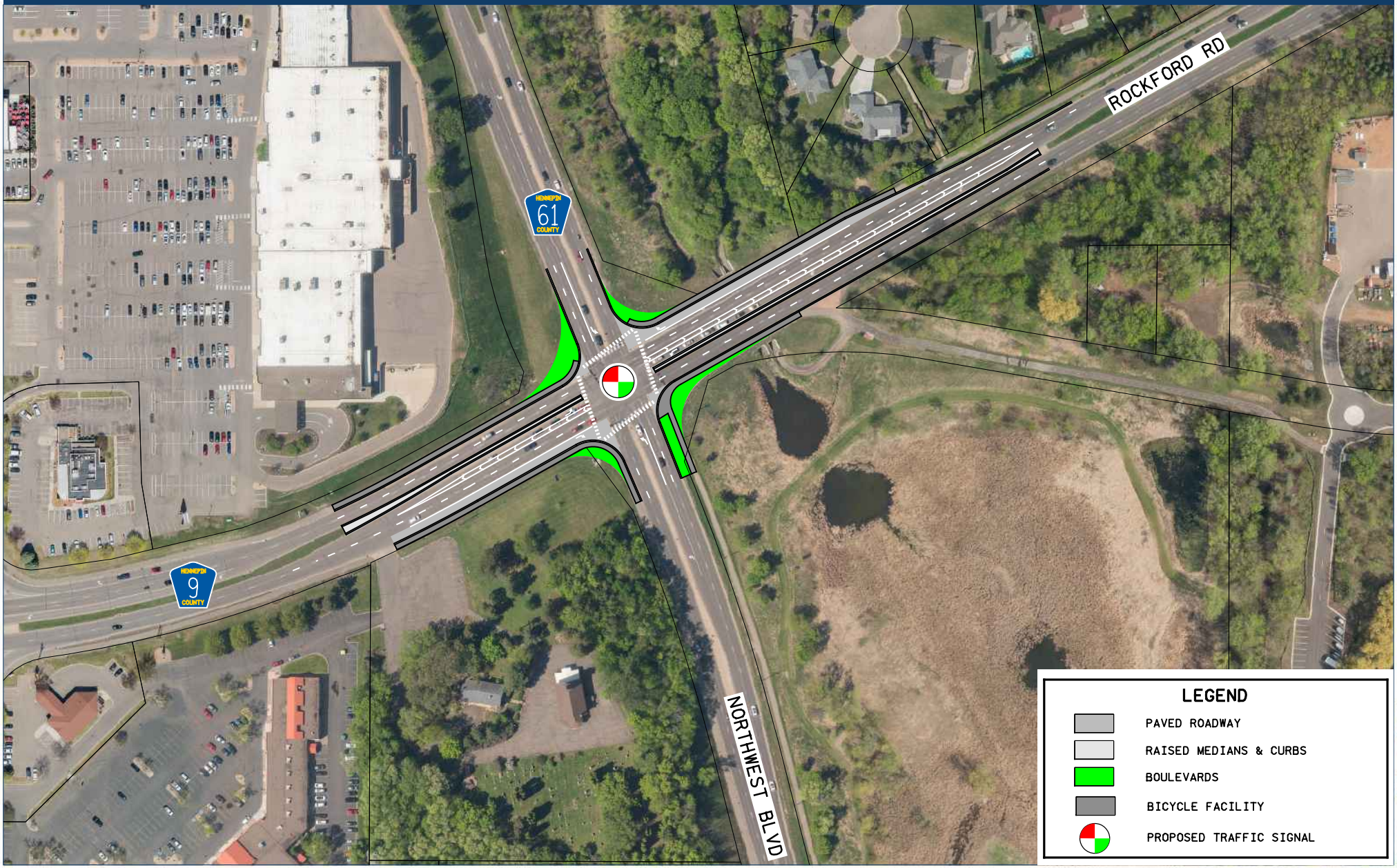
Incident ID	Roadway	Month	Day	Year	Hour	Sev	Number K's	Number of Veh	Contributing Factor	Latitude	Longitude
00760397	ROCKFORD RD	11	6	2019	18	5	0	2	70	45.02869	-93.4451475
00724591	ROCKFORD RD	5	17	2019	14	5	0	2	70	45.02869	-93.4451314
00842801	ROCKFORD RD	9	25	2020	17	3	0	3	1	45.02879	-93.4448906
00772671	ROCKFORD RD	12	18	2019	20	3	0	2	2	45.02881	-93.4448365
00866056	ROCKFORD RD	12	1	2020	15	4	0	2	1	45.02882	-93.4448136
00730257	ROCKFORD RD	6	29	2019	14	5	0	2	1	45.02883	-93.4447965
00804869	ROCKFORD RD	3	21	2020	16	4	0	2	99	45.02883	-93.4447985
00688391	ROCKFORD RD	2	14	2019	19	5	0	2	1	45.02884	-93.4447784
00739676	ROCKFORD RD	8	11	2019	19	5	0	2	1	45.02884	-93.4447712
00817132	ROCKFORD RD	6	30	2020	6	4	0	2	1	45.02882	-93.4448167
00699356	ROCKFORD RD	3	14	2019	8	5	0	2	99	45.02884	-93.4447577
00813008	ROCKFORD RD	6	4	2020	8	3	0	2	2	45.02884	-93.4447656
00865240	ROCKFORD RD	11	25	2020	11	3	0	2	63	45.02886	-93.4447077
00966899	ROCKFORD RD	10	14	2021	20	2	0	2	2	45.02887	-93.4446962
00763972	ROCKFORD RD	11	20	2019	20	5	0	2	1	45.02889	-93.444647
00933979	ROCKFORD RD	8	13	2021	10	4	0	3	2	45.0289	-93.4446274
00973800	ROCKFORD RD	11	15	2021	18	5	0	2	1	45.02907	-93.4449621
00747535	ROCKFORD RD	9	15	2019	17	5	0	2	1	45.02891	-93.4446096
00775450	ROCKFORD RD	12	30	2019	11	4	0	3	2	45.02909	-93.4449311
00977953	ROCKFORD RD	12	6	2021	16	5	0	2	1	45.02893	-93.4445413
00702660	ROCKFORD RD	4	10	2019	10	5	0	2	90	45.02912	-93.4448513
00867169	NORTHWEST BLVD	12	8	2020	22	4	0	2	1	45.0285	-93.4448078
00759506	NORTHWEST BLVD	10	28	2019	13	3	0	3	2	45.02867	-93.4449112
00745857	NORTHWEST BLVD	9	8	2019	17	5	0	2	1	45.02873	-93.4449489
00749475	NORTHWEST BLVD	9	23	2019	16	5	0	2	1	45.02874	-93.4449561
00976466	NORTHWEST BLVD	11	30	2021	10	5	0	2	2	45.02876	-93.4449569
00762714	NORTHWEST BLVD	11	13	2019	18	3	0	2	2	45.02879	-93.444984
00841112	NORTHWEST BLVD	9	16	2020	18	5	0	2	4	45.02871	-93.4445703
00936252	NORTHWEST BLVD	8	24	2021	16	5	0	2	10	45.02871	-93.4445666
00784917	NORTHWEST BLVD	2	1	2020	16	4	0	2	1	45.02877	-93.4446006
00738143	NORTHWEST BLVD	8	4	2019	14	5	0	2	1	45.02878	-93.4446022
00773660	NORTHWEST BLVD	12	22	2019	17	5	0	2	1	45.02896	-93.4450826
00759711	NORTHWEST BLVD	11	5	2019	8	5	0	2	70	45.02886	-93.4446489
00972445	NORTHWEST BLVD	11	10	2021	8	5	0	2	4	45.02887	-93.444655
00937524	NORTHWEST BLVD	8	30	2021	21	5	0	2	1	45.0291	-93.4451612
00770528	NORTHWEST BLVD	12	12	2019	9	4	0	2	1	45.02898	-93.444719
00734255	NORTHWEST BLVD	7	17	2019	22	4	0	2	1	45.02901	-93.444741
00733974	NORTHWEST BLVD	7	16	2019	20	4	0	2	1	45.02908	-93.4447845
00727783	NORTHWEST BLVD	6	18	2019	18	5	0	3	1	45.02914	-93.4448282
00945863	NORTHWEST BLVD	10	8	2021	21	4	0	2	2	45.02921	-93.4448709
	Subtotal:	**40**									
	Project Total:	**40**									

Note: Crashes highlighted in **red** were determined to not be located within the project limits.

CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 05 | Potential Concept

HENNEPIN COUNTY
MINNESOTA



Job #14870
4/12/2022
H:\Projects\14000\14870\Design\Graphics\Concept Graphics\CSAH 61 & CR 9\14870_gr01_CSAH61&CR9.dgn

HENNEPIN COUNTY
MINNESOTA

Hennepin County, Board of Commissioners

RESOLUTION 22-0109

2022

The following resolution was moved by Commissioner Angela Conley and seconded by Commissioner Debbie Goettel:

BE IT RESOLVED, that Hennepin County be authorized to apply for federal funding through the Regional Solicitation for the following projects (separated by category) on various County State Aid Highways (CSAHs) throughout the county:

Roadway Reconstruction/Modernization

Projects programmed in the 2022-2026 CIP:

- Franklin Avenue (CSAH 5) from Lyndale Avenue (CSAH 22) to Blaisdell Avenue in Minneapolis
- Dayton River Road (CSAH 12) from Colburn Street to North Diamond Lake Road (CSAH 144) in Dayton and Champlin
- Lyndale Avenue (CSAH 22) from the Hennepin County Regional Railroad Authority (HCRRA) bridge to Franklin Avenue (CSAH 5) in Minneapolis

Projects identified in the county's 10-year work-plan, but not programmed in the 2022-2026 CIP:

- Penn Avenue (CSAH 32) from 75th Street to the Trunk Highway 62 South Ramp in Richfield
- Cedar Avenue (CSAH 152) from Lake Street (CSAH 3) to 24th Street in Minneapolis

Bridge Rehabilitation/Replacement

Project programmed in the 2022-2026 CIP:

- Bass Lake Road (CSAH 10) bridge over the Twin Lakes Inlet in Brooklyn Center and Crystal

Projects identified in the county's 10-year work-plan, but not programmed in the 2022-2026 CIP:

- Pioneer Trail (CSAH 1) bridge over the HCRRA corridor in Eden Prairie
- Eden Prairie Road (CSAH 4) bridge over Twin Cities and Western Railroad in Eden Prairie

Multiuse Trails/Bicycle and Pedestrian Facilities (sidewalks, streetscaping and improved accessibility)

Project partially programmed in the 2022-2026 CIP:

- Lake Street (CSAH 3) from Dupont Avenue to the Mississippi River

Project identified in the county's 10-year work-plan, but not programmed in the 2022-2026 CIP:

- Marshall Street NE (CSAH 23) from Third Avenue NE to Lowry Avenue NE (CSAH 153).

Project not currently identified in the county's 2022-2026 CIP or 10-year work-plan:

- Park Avenue (CSAH 33) and Portland Avenue (CSAH 35) from Lake Street (CSAH 3) to the I-94/I-35W Bridge in Minneapolis

Mobility and Safety

Projects not currently identified in the county's 10-year work-plan or 5-year CIP:

- Rockford Road (CSAH 9) and Northwest Boulevard (CSAH 61) in Plymouth
- Hemlock Lane (CSAH 61) and Elm Creek Boulevard (CSAH 130) in Maple Grove

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

County of Hennepin
Board of County Commissioners

YEAS	NAYS	ABSTAIN	ABSENT
Marion Greene			
Debbie Goettel			
Irene Fernando			
Angela Conley			
Jeff Lunde			
Chris LaTondresse			
Kevin Anderson			

RESOLUTION ADOPTED ON **3/22/2022**

ATTEST: M. Rose

Deputy/Clerk to the County Board

CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 7 | CRSP Intersection Risk Factors

DRAFT

Urban Intersection Prioritization Hennepin County - VEHICLE RELATED

List No.	County Rank	County ID	Route System	Route No.	County	Description	Risk Factors: Area Type	Traffic Control	Entering ADT OR Cross Product	Leg Configuration	Adjacent Development	Major Approach Left Turn Phasing	Total Stars	Tiebreaker: Crash Cost
823	599	660108	NV	66	Hennepin	County Road 66 at Monroe Street Northeast		★		★		★	★★★	$2,223,600
763	600	610090	NV	61	Hennepin	County Road 61 at State Highway 7		★		★		★	★★★	$2,100,800
897	601	880001	NV	88	Hennepin	County Road 88 at Interstate 35W Northbound Ramps		★		★		★	★★★	$2,058,400
389	602	220066	NV	22	Hennepin	County Road 22 at 26th Street West	★	★	★				★★★	$2,002,600
661	603	520042	NV	52	Hennepin	County Road 52 at American Boulevard West / American Boulevard East		★		★	★		★★★	$1,915,000
805	604	620035	NV	62	Hennepin	County Road 62 at Interstate 494 Southbound Ramps		★	★	★			★★★	$1,886,400
281	605	140020	NV	14	Hennepin	County Road 14 at CSAH 109 (85th Avenue North)		★		★	★		★★★	$1,841,000
1089	606	1520299	NV	152	Hennepin	County Road 152 at 68th Avenue North		★		★	★		★★★	$1,818,200
880	607	810083	NV	81	Hennepin	County Road 81 at CSAH 8 (West Broadway)		★		★	★		★★★	$1,773,400
1095	608	1520328	NV	152	Hennepin	County Road 152 at Kentucky Avenue North		★		★	★		★★★	$1,732,400
60	609	20086	NV	2	Hennepin	County Road 2 at 42nd Avenue North		★		★		★	★★★	$1,703,000
72	610	30078	NV	3	Hennepin	County Road 3 at 11th Avenue South	★	★		★			★★★	$1,670,000
1050	611	1520108	NV	152	Hennepin	County Road 152 at 2nd Avenue South	★	★		★			★★★	$1,667,800
285	612	140032	NV	14	Hennepin	County Road 14 at CSAH 30 (93rd Avenue North)		★		★	★		★★★	$1,661,000
439	613	300044	NV	30	Hennepin	County Road 30 at Dunkirk Lane North / Maple Grove Parkway North	★	★		★			★★★	$1,608,000
822	614	660100	NV	66	Hennepin	County Road 66 at Washington Street Northeast		★		★		★	★★★	$1,604,200
727	615	600008	NV	60	Hennepin	County Road 60 at CSAH 39 (Valley View Road)		★		★		★	★★★	$1,599,400
620	616	460018	NV	46	Hennepin	County Road 46 at Stevens Avenue South		★		★		★	★★★	$1,594,600
926	617	1010168	NV	101	Hennepin	County Road 101 at State Highway 55 (East Junction) / Peony Lane N		★		★	★		★★★	$1,511,600
874	618	810066	NV	81	Hennepin	County Road 81 at Corvallis Avenue North / 51st Avenue North		★	★	★			★★★	$1,492,400
130	619	40010	NV	4	Hennepin	County Road 4 at CSAH 1 (Pioneer Trail)		★		★		★	★★★	$1,439,800
885	620	810090	NV	81	Hennepin	County Road 81 at CSAH 109 (85th Avenue North)		★		★	★		★★★	$1,433,400
247	621	100206	NV	10	Hennepin	County Road 10 at Xerxes Avenue North		★		★	★		★★★	$1,406,200
882	622	810086	NV	81	Hennepin	County Road 81 at 79th Avenue North		★			★	★	★★★	$1,392,200
1092	623	1520308	NV	152	Hennepin	County Road 152 at Regent Avenue North		★		★	★		★★★	$1,386,600
157	624	50252	NV	5	Hennepin	County Road 5 at 13th Avenue South	★		★		★		★★★	$1,347,600
842	625	730028	NV	73	Hennepin	County Road 73 at Cedar Lake Road		★		★	★		★★★	$1,340,400
873	626	810062	NV	81	Hennepin	County Road 81 at 47th Avenue North		★	★	★			★★★	$1,323,000
386	627	220056	NV	22	Hennepin	County Road 22 at 32nd Street West	★			★	★		★★★	$1,320,800
760	628	610070	NV	61	Hennepin	County Road 61 at CSAH 3 (Excelsior Boulevard)		★		★	★		★★★	$1,311,400
964	629	1090003	NV	109	Hennepin	County Road 109 at 83rd Way North		★		★	★		★★★	$1,277,800
25	630	10129	NV	1	Hennepin	County Road 1 at Xerxes Avenue South		★	★	★			★★★	$1,275,000
80	631	30142	NV	3	Hennepin	County Road 3 at Wooddale Avenue	★	★			★		★★★	$1,272,800
578	632	370006	NV	37	Hennepin	County Road 37 at 17th Avenue Southeast		★		★		★	★★★	$1,180,400
787	633	610224	NV	61	Hennepin	County Road 61 at CSAH 9 (Rockford Road)		★		★	★		★★★	$1,176,400
1000	634	1300064	NV	130	Hennepin	County Road 130 at 73rd Avenue North		★		★		★	★★★	$1,147,000
208	635	90058	NV	9	Hennepin	County Road 9 at Hampshire Avenue Norh	★		★	★			★★★	$1,113,800
326	636	170054	NV	17	Hennepin	County Road 17 at 70th Street West	★	★			★		★★★	$1,073,800
363	637	210018	NV	21	Hennepin	County Road 21 at Upton Avenue South		★		★		★	★★★	$1,071,800
917	638	1010094	NV	101	Hennepin	County Road 101 at Wayzata Boulevard East / Central Avenue South		★		★	★		★★★	$1,033,800
61	639	20090	NV	2	Hennepin	County Road 2 at CSAH 152 (44th Avenue North)		★			★	★	★★★	$1,019,800
826	640	660124	NV	66	Hennepin	County Road 66 at Buchanan Street Northeast			★	★		★	★★★	$1,019,800
659	641	520032	NV	52	Hennepin	County Road 52 at 84th Street West / 84th Street East		★		★		★	★★★	$1,000,400
889	642	810111	NV	81	Hennepin	County Road 81 at Elm Creek Boulevard North		★		★		★	★★★	$991,800
962	643	1090001	NV	109	Hennepin	County Road 109 at Interstate 94 Eastbound Ramp		★		★	★		★★★	$984,600
965	644	1090004	NV	109	Hennepin	County Road 109 at Vinewood Lane North		★			★	★	★★★	$982,800

CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 7 | CRSP Intersection Risk Factors

DRAFT

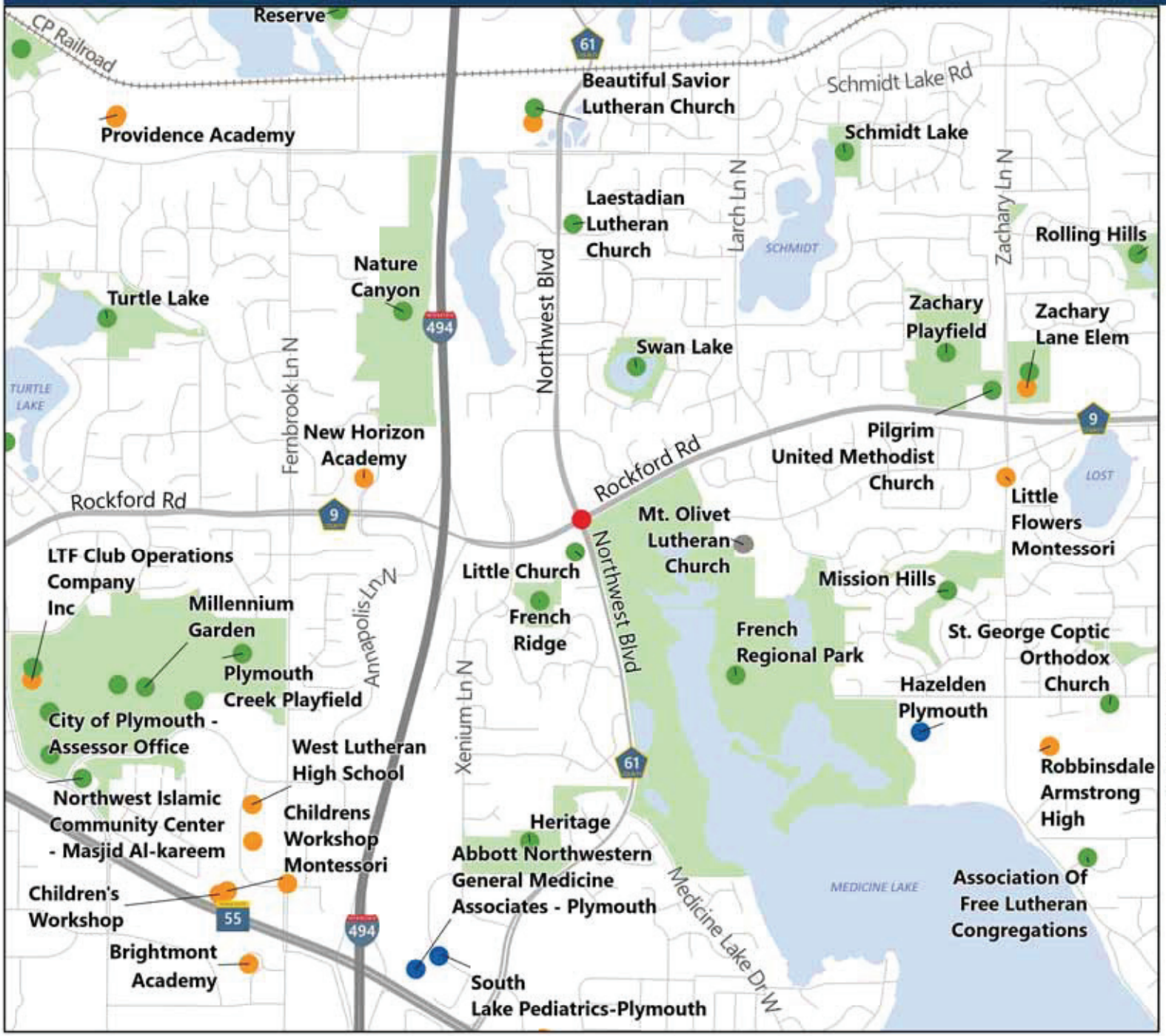
Urban Intersection Prioritization for Hennepin County - PED/BIKE RELATED

List No.	County Rank	CRSP 2 ID	Route System	Route No.	County	Description	Risk Factors: Traffic Control	Entering ADT	Adjacent Development	Max Number of Lanes Crossed	Presence of Refuge Island	Pedestrian Crossing Type	Presence of Transit Stop	Total Stars	Tiebreaker: Crash Cost
1079	801	1520272	NV	152	Hennepin	County Road 152 at 51st Avenue North		★		★	★			★★★	$1,197,600
787	802	610224	NV	61	Hennepin	County Road 61 at CSAH 9 (Rockford Road)	★		★			★		★★★	$1,176,400
1051	803	1520110	NV	152	Hennepin	County Road 152 at Marquette Avenue	★		★	★				★★★	$1,155,600
841	804	730026	NV	73	Hennepin	County Road 73 at Cedar Ponte Drive North / Greenbrier Road			★		★		★	★★★	$1,099,000
1109	805	1530070	NV	153	Hennepin	County Road 153 at 4th Street Northeast			★	★	★			★★★	$1,078,600
326	806	170054	NV	17	Hennepin	County Road 17 at 70th Street West	★		★	★				★★★	$1,073,800
560	807	350172	NV	35	Hennepin	County Road 35 at 84th Street East				★	★		★	★★★	$999,800
889	808	810111	NV	81	Hennepin	County Road 81 at Elm Creek Boulevard North	★			★		★		★★★	$991,800
937	809	1020022	NV	102	Hennepin	County Road 102 at Sandburg Road			★			★	★	★★★	$980,800
867	810	810052	NV	81	Hennepin	County Road 81 at 36th Avenue North	★			★		★		★★★	$919,400
256	811	120010	NV	12	Hennepin	County Road 12 at 93rd Avenue North			★	★	★			★★★	$905,000
242	812	100142	NV	10	Hennepin	County Road 10 at Sherburne Avenue North	★		★			★		★★★	$880,400
19	813	10072	NV	1	Hennepin	County Road 1 at Highway 169 Southbound Ramps	★				★	★		★★★	$870,400
568	814	360010	NV	36	Hennepin	County Road 36 at 14th Avenue Southeast	★				★	★		★★★	$859,800
771	815	610164	NV	61	Hennepin	County Road 61 at Ridgedale Drive	★		★			★		★★★	$805,200
644	816	480044	NV	48	Hennepin	County Road 48 at 31st Street East			★		★		★	★★★	$730,800
229	817	100080	NV	10	Hennepin	County Road 10 at Wedgwood Road North / 63rd Avenue North	★		★			★		★★★	$722,000
749	818	610039	NV	61	Hennepin	County Road 61 at CSAH 39 (Valley View Road) / Prairie Center Drive	★			★		★		★★★	$722,000
51	819	20040	NV	2	Hennepin	County Road 2 at 16th Avenue North (North Junction)	★				★		★	★★★	$719,200
773	820	610168	NV	61	Hennepin	County Road 61 at Ridgedale Lane / Interstate 394 Eastbound Ramps	★		★	★				★★★	$718,000
976	821	1090027	NV	109	Hennepin	County Road 109 at Wyoming Avenue North			★	★	★			★★★	$711,400
493	822	330022	NV	33	Hennepin	County Road 33 at 35th Street East	★				★	★		★★★	$675,000
758	823	610062	NV	61	Hennepin	County Road 61 at Dominick Drive / Smetana Road	★			★		★		★★★	$655,600
1021	824	1520032	NV	152	Hennepin	County Road 152 at 40th Street East	★					★	★	★★★	$647,800
974	825	1090024	NV	109	Hennepin	County Road 109 at Highway 169 Northbound Ramps	★			★		★		★★★	$623,400
290	826	140052	NV	14	Hennepin	County Road 14 at Oxbow Creek Drive North	★			★		★		★★★	$608,800
516	827	340016	NV	34	Hennepin	County Road 34 at 94th Street West / Poplar Bridge Road	★	★				★		★★★	$607,800
360	828	210004	NV	21	Hennepin	County Road 21 at Chowen Avenue South	★		★			★		★★★	$603,800
280	829	140012	NV	14	Hennepin	County Road 14 at Candlewood Drive North				★	★		★	★★★	$588,200
452	830	310008	NV	31	Hennepin	County Road 31 at Parklawn Avenue			★	★			★	★★★	$560,800
170	831	60106	NV	6	Hennepin	County Road 6 at Vicksburg Lane North	★	★				★		★★★	$549,200
656	832	520004	NV	52	Hennepin	County Road 52 at 95th Street				★		★	★	★★★	$541,200
662	833	520044	NV	52	Hennepin	County Road 52 at Interstate 494 Eastbound Ramps	★			★		★		★★★	$520,800
191	834	90004	NV	9	Hennepin	County Road 9 at Vicksburg Lane North	★					★	★	★★★	$484,400
708	835	530052	NV	53	Hennepin	County Road 53 at 1st Avenue South			★	★	★			★★★	$470,000
343	836	170130	NV	17	Hennepin	County Road 17 at 39th Street West		★			★	★		★★★	$453,200
1123	837	1560024	NV	156	Hennepin	County Road 156 at Duluth Street					★	★	★	★★★	$450,400
982	838	1090072	NV	109	Hennepin	County Road 109 at Edinbrook Parkway North	★		★			★		★★★	$450,400
218	839	90096	NV	9	Hennepin	County Road 9 at Indiana Avenue North (East Junction)	★				★		★	★★★	$431,000
369	840	220000	NV	22	Hennepin	County Road 22 at 58th Street West	★		★			★		★★★	$422,000
474	841	320056	NV	32	Hennepin	County Road 32 at 82nd Street West (North Junction)			★			★	★	★★★	$410,400
230	842	100083	NV	10	Hennepin	County Road 10 at Interstate 494 Southbound Ramps	★		★			★		★★★	$409,200
603	843	400108	NV	40	Hennepin	County Road 40 at Royalston Avenue North / 12th Street North	★		★			★		★★★	$406,400
192	844	90006	NV	9	Hennepin	County Road 9 at Plymouth Boulevard			★	★			★	★★★	$406,400
3	845	10015	NV	1	Hennepin	County Road 1 at Dell Road	★			★	★			★★★	$402,600
739	846	610014	NV	61	Hennepin	County Road 61 at College View Drive	★			★		★		★★★	$398,600
214	847	90080	NV	9	Hennepin	County Road 9 at Regent Avenue North				★	★		★	★★★	$383,000
949	848	1030002	NV	103	Hennepin	County Road 103 at Candlewood Drive North				★	★		★	★★★	$383,000
243	849	100144	NV	10	Hennepin	County Road 10 at Elmhurst Avenue North			★			★	★	★★★	$379,200
282	850	140024	NV	14	Hennepin	County Road 14 at Creekview Lane North / Edinbrook Terrace North			★	★			★	★★★	$375,200

CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 08 | Socio-Economic Equity Map

HENNEPIN COUNTY
MINNESOTA



Key

- Project Location

Resource Category

- Healthcare Facilities
- Schools & Childcare
- Community Facilities
- Homeless Shelters
- Food Shelves

0 0.25 0.5 Miles

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.

Published date: 3/22/2022

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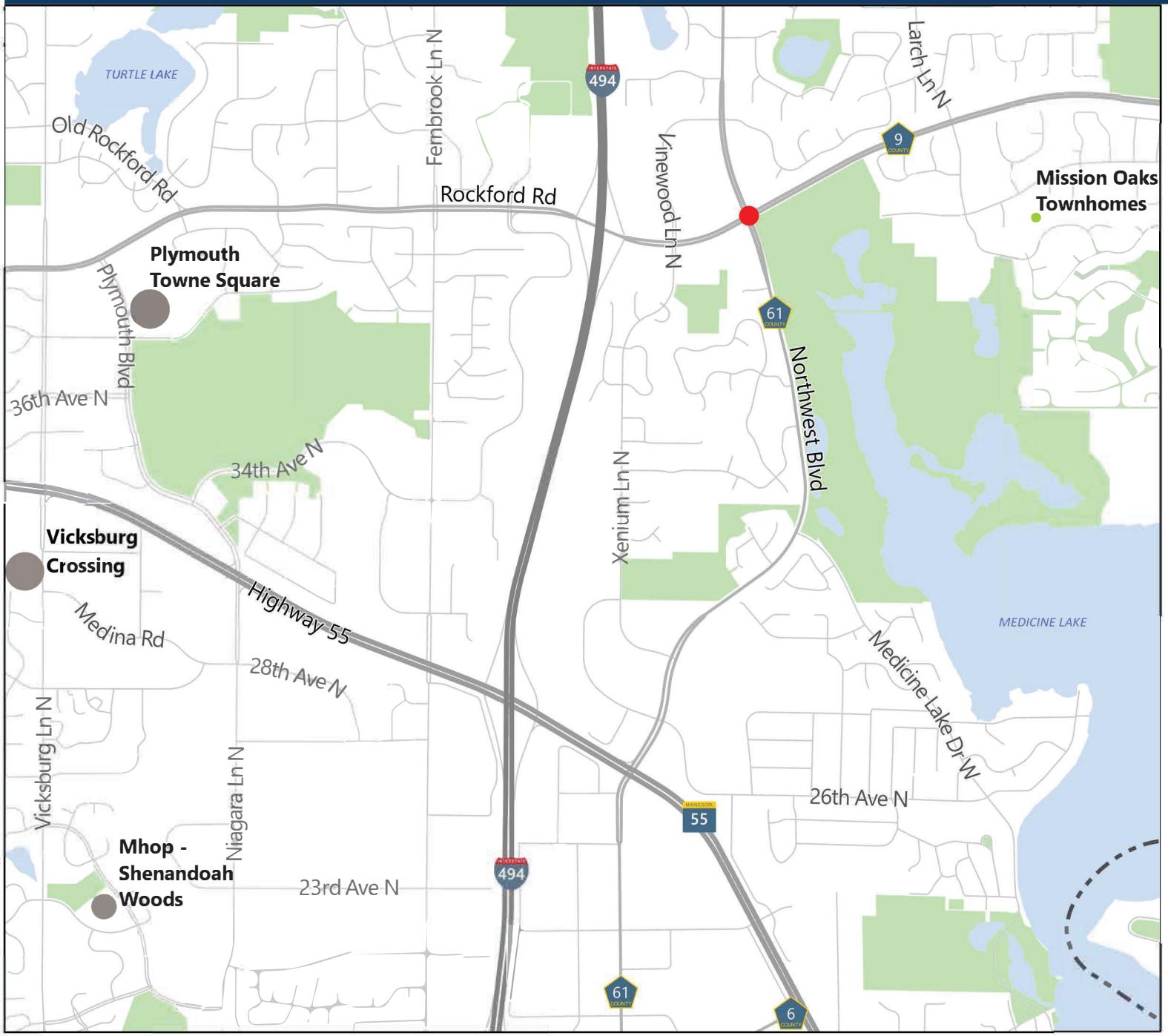
CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 09 | Affordable Housing Access Map

HENNEPIN COUNTY
MINNESOTA



Key

- Project Location

Population Served

- Family
- Elderly
- People with Disabilities
- Multiple
- Homeless
- No Information

Affordable Units

- 1-25
- 26-50
- 51-75
- 76-100

Construction Status

- Existing Affordable Housing
- Under Construction

0 0.25 0.5 Miles

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Published date: 3/7/2022

N

Hennepin

CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 10 | Crash Modification Factors

CMF / CRF DETAILS

CMF ID: 1414

ADD SIGNAL (ADDITIONAL PRIMARY HEAD)

DESCRIPTION:

PRIOR CONDITION: INTERSECTION HAS ONE PRIMARY SIGNAL HEAD PER APPROACH

CATEGORY: INTERSECTION TRAFFIC CONTROL

STUDY: *SAFETY BENEFITS OF ADDITIONAL PRIMARY SIGNAL HEADS*, FELIPE ET AL., 1998

Star Quality Rating:	CANNOT BE RATED (INSUFFICIENT INFORMATION)
Rating Points Total:	

Crash Modification Factor (CMF)

Value:	0.72
Adjusted Standard Error:	
Unadjusted Standard Error:	

Crash Reduction Factor (CRF)

Value:	28 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Signalized
Major Road Traffic Volume:	
Minor Road Traffic Volume:	
Average Major Road Volume :	
Average Minor Road Volume :	

Development Details

Date Range of Data Used:	
Municipality:	Richmond, British Columbia
State:	
Country:	Canada
Type of Methodology Used:	2
Sample Size (sites):	8 sites after

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Dec-01-2009
Comments:	The authors state that "three year of data were used for this analysis" (p. 7). This statement does not indicate if the b was 3 years, the after period was 3 years, both were 3 years, or the total time period was 3 years (i.e. 1.5 years for bef and 1.5 years for after period).

VIEW THE FULL STUDY DETA

EXPORT DETAIL PAGE AS A F

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For more information, contact Karen Scurry at **karen.scurry@dot.gov**

CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 10 | Crash Modification Factors

CMF / CRF DETAILS

CMF ID: 6097

IMPROVE LEFT-TURN LANE OFFSET TO CREATE POSITIVE OFFSET

DESCRIPTION: IMPROVE LEFT-TURN LANE OFFSET TO MAKE THE LEFT-TURN LANES WITH POSITIVE OFFSET

PRIOR CONDITION: LEFT-TURN LANES WITH NEGATIVE OFFSET

CATEGORY: INTERSECTION GEOMETRY

STUDY: *SAFETY EVALUATION OF OFFSET IMPROVEMENTS FOR LEFT-TURN LANES*, PERSAUD ET AL., 2009

IMAGE: *VIEW THE COUNTERMEASURE IMAGE.*

Star Quality Rating:	★★★☆☆ [VIEW SCORE DETAILS]
Rating Points Total:	80

Crash Modification Factor (CMF)

Value:	0.62
Adjusted Standard Error:	
Unadjusted Standard Error:	0.089

Crash Reduction Factor (CRF)

Value:	38 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	8.9

Applicability

Crash Type:	Left turn
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Not specified
Traffic Volume:	
Average Traffic Volume:	

Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	
Intersection Geometry:	4-leg
Traffic Control:	
Major Road Traffic Volume:	Minimum of 7,150 to Maximum of 29,200 Annual Average Daily Traffic (AADT)
Minor Road Traffic Volume:	Minimum of 2,200 to Maximum of 13,350 Annual Average Daily Traffic (AADT)
Average Major Road Volume :	18,892 Annual Average Daily Traffic (AADT)
Average Minor Road Volume :	6,668 Annual Average Daily Traffic (AADT)

Development Details

Date Range of Data Used:	1983 to 2005
Municipality:	
State:	WI
Country:	
Type of Methodology Used:	2
Sample Size (crashes):	287 crashes before, 59 crashes after
Sample Size (sites):	12 sites before, 12 sites after
Sample Size (site-years):	87 site-years before, 33 site-years after

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Dec-08-2014
Comments:	CMF of shifting the left-turn lane further away from the adjacent through lane and result in a less negative offset or r

VIEW THE FULL STUDY DETA

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CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 10 | Crash Modification Factors

CMF / CRF DETAILS

CMF ID: 8428

IMPROVE ANGLE OF CHANNELIZED RIGHT TURN LANE

DESCRIPTION: CHANGES MADE TO THE STUDY APPROACHES INCLUDE: SHARPENING THE FLAT APPROACH ANGLE TYPICAL IN TRADITIONAL DESIGNS, REDUCING THE RADIUS, ADJUSTING THE STOP BAR POSITION, AND MODIFYING THE CO INCREASE THE LINE OF SIGHT OF APPROACHING THROUGH TRAFFIC.

PRIOR CONDITION: VARIED DEPENDING ON INTERSECTION

CATEGORY: INTERSECTION GEOMETRY

STUDY: *SAFETY IMPACTS OF A MODIFIED RIGHT TURN LANE DESIGN AT INTERSECTIONS*, SCHATTLER AND HANSON, 2016

Star Quality Rating:	★★★★☆ [VIEW SCORE DETAILS]
Rating Points Total:	110

Crash Modification Factor (CMF)

Value:	0.558
Adjusted Standard Error:	
Unadjusted Standard Error:	0.114

Crash Reduction Factor (CRF)

Value:	44.2 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	11.4

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	1 to 3
Road Division Type:	
Speed Limit:	
Area Type:	Not specified
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	All

	If countermeasure is intersection-based
Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	Not specified
Traffic Control:	Other
Major Road Traffic Volume:	
Minor Road Traffic Volume:	
Average Major Road Volume :	
Average Minor Road Volume :	

Development Details

Date Range of Data Used:	2003 to 2016
Municipality:	Peoria
State:	IL
Country:	USA
Type of Methodology Used:	2
Sample Size (crashes):	274 crashes before, 161 crashes after
Sample Size (sites):	7 sites before, 7 sites after
Sample Size (site-years):	21 site-years before, 21 site-years after

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Jan-17-2017
Comments:	Total intersection AADT ranged from 3300 to 41300. Group of intersections analyzed included both signalized and s controlled intersections.

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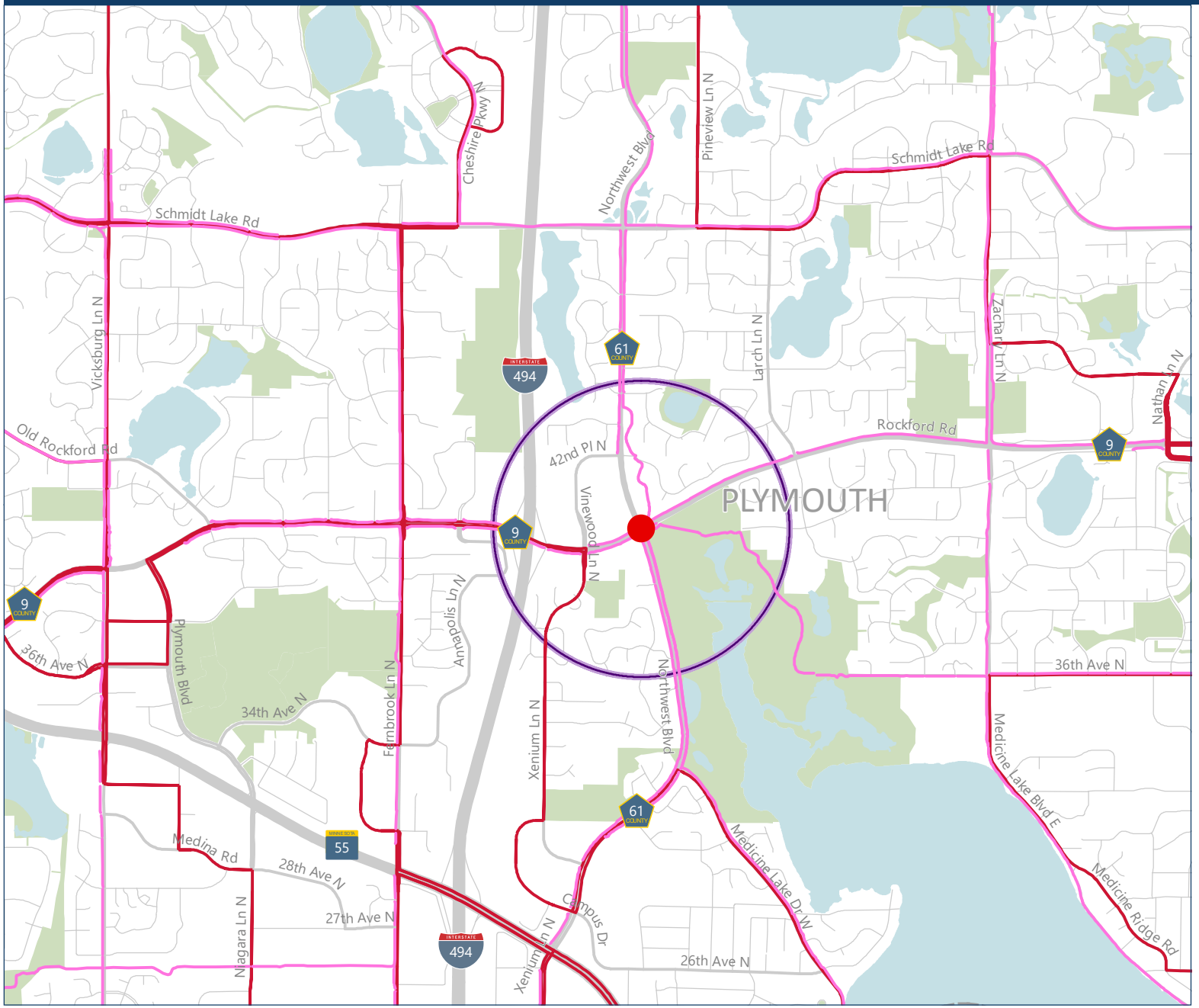
CSAH 9 (Rockford Rd) Spot Mobility & Safety Project

Attachment 11 | Multimodal Connections Map

HENNEPIN COUNTY
MINNESOTA



Key

- Project Location
- 1/2 mi Buffer

Bikeways

- Off-Street
- Transit Routes

0 0.25 0.5 Miles

N

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Published date: 3/23/2022

City of Plymouth

March 21, 2022

Ms. Carla Stueve, PE
Director and County Highway Engineer
Hennepin County Transportation Project Delivery
1600 Prairie Drive
Medina, MN 5534

RE: Letter of Support for Hennepin County's 2022 Regional Solicitation Grant Application: CSAH 9 (Rockford Rd) and CSAH 61 (Northwest Blvd) Safety Project in Plymouth

Dear Ms. Stueve:

The City of Plymouth fully supports Hennepin County's Regional Solicitation federal funding application for proposed safety improvements at the intersection of CSAH 9 (Rockford Rd) & CSAH 61 (Northwest Blvd) in Plymouth.

Over the past five years, this intersection has reported the fifth highest number of crashes of any intersection within the City of Plymouth and ranks the highest of any intersection fully under Hennepin County jurisdiction. We understand that this project will involve safety improvements at the intersection, which may include the replacement of the existing traffic signal, modification of the channelized right turn islands, adjustments to lane configurations, and upgrades to existing ADA accommodations. Not only will this project address a top crash location in Hennepin County and the City of Plymouth, but we're confident that providing additional accessibility and mobility for people walking, using transit, biking, and driving, will enhance the livability and quality of life for Plymouth and Hennepin County residents.

Thank you for making us aware of this application and providing the City of Plymouth an opportunity to write a letter of support. We hope that the Transportation Advisory Board gives this their full consideration and support.

Sincerely,

Chris LaBounty, PE
Deputy Public Works Director/City Engineer