Application
19837-2024 Roadway Spot Mobility
20144 - CSAH 11 and CSAH 44 Intersection
Regional Solicitation - Roadways Including Multimodal Elements
Status:
Submitted
Submitted Date: 12/11/2023 4:08 PM

## Primary Contact

Feel free to edit your profile any time your information changes. Create your own personal alerts using My Aerts.

| Name:* | He/him/his | Jack |  | Johansen |
| :---: | :---: | :---: | :---: | :---: |
|  | Pronouns | First Name | Middle Name | Last Name |
| Title: | Transportation Planner |  |  |  |
| Department: | Carver County Public Works |  |  |  |
| Email: | jjohansen@co.canver.mn.us |  |  |  |
| Address: | 11360 Highway 212 |  |  |  |
|  | Suite 1 |  |  |  |
| * | Cologne | Minnesota |  | 55322 |
|  | City | State/Province |  | Postal Code/Zip |
| Phone:* | 612-231-9170 |  |  |  |
|  | Phone |  |  | Ext. |

## Fax:

What Grant Programs are you most interested in?

## Regional Solicitation - Roadways Including Multimodal Elements

## Organization Information

Name:
Jurisdictional Agency (if different):
Organization Type:
Organization Website:
Address:

County:
Phone:*

Fax:
PeopleSoft Vendor Number

CARVER COUNTY

County Government

PUBLIC WORKS
11360 HWY 212 W \#1

| COLOGNE | Minnesota <br> City | State/Province |
| :--- | :--- | :--- |

Carver

Ext.

0000026790A12

## Project Information

Project Name
Primary County where the Project is Located
Cities or Townships where the Project is Located:
Jurisdictional Agency (If Different than the Applicant):

CSAH 11 and CSAH 44 Intersection Safety Improvements
Canver
City of Chaska and Dahlgren Township

Brief Project Description (Include location, road name/functional class, The proposed project includes constructing a single lane roundabout at the type of improvement, etc.) intersection and reconstructing a 10-foot multiuse trail separated by a boulevard. The crash rate ( 0.79 per million entering vehicles (MEV)) in the last five years is over two times higher than the critical crash rate and nearly eight times higher than the average crash rate for similar intersections. In the last 10 years there have been a total of 17 crashes, of which nine were injury crashes including two serious injury (type A) crashes at the intersection. Seventy-five percent of the crashes were right-angle crashes including all of the injury crashes which will be eliminated with the construction of a roundabout at the intersection.

The intersection of County State Aid Highway (CSAH) 11 (Jonathan Carver Parkway) and CSAH 44 (Big Woods Blvd) is a four-way side-street stopcontrolled intersection, with stop signs located only on the east and west approaches. CSAH 11 is a two-lane undivided rural road, with a posted speed limit of 55 miles per hour (mph). CSAH 44 is a two-lane rural road with a speed limit of 55 mph . West of CSAH 11, it is a Major Collector roadway and east of CSAH 11 it is an A-minor expander. CSAH 11 is classified as an A-minor connector.

The CSAH 11 and CSAH 44 Intersection Safety Improvements project aims to eliminate right-angle crashes and reduce the severity of crashes by reducing conflict points to ensure the safety of motorists, pedestrians, and bicyclists. The existing two-way stop-controlled intersection will be replaced with a roundabout which includes safety measures such as splitter islands and raised medians. The roundabout will also have additional safety measures including high visibility marked crossings at each leg and pedestrian refuge islands. The proposed project will include construction of a 10 -foot bituminous multiuse trail separated by a boulevard path along CSAH 11 which is identified as a Tier 2 Regional Bicycle Transportation Network (RBTN) alignment. This trail will be separated from the road to ensure proper clear zone to ensure the safety of pedestrians and cyclists.
(Limit 2,800 characters; approximately 400 words)
TRANSPORTATIONIMPROVEMENT PROGRAM (TIP) DESCRIPTION- will be used in TIP RECONSTRUCT CSAH 11 AND CSAH 44 INTERSECTION FROM TWO-WAY if the project is selected for funding. See MnDOT's TIP description guidance. STOP-CONTROLLED INTERSECTION TO A ROUNDABOUT. CONSTRUCT SHARED-USE PATH
Include both the CSA-HMSAS/TH references and their corresponding street names in the TP Description (see Resources link on Regional Solicitation webpage for examples).
Project Length (Miles)
0.6
to the nearest one-tenth of a mile

## Project Funding

Are you applying for competitive funds from another source(s) to implement this Yes
project?
Highway Safety Improvement Program
If yes, please identify the source(s)
\$1,988,000.00
Federal Amount
$\$ 497,000.00$
Match Amount
Minimumof 20\% of project total
Project Total \$2,485,000.00
For transit projects, the total cost for the application is total cost minus fare revenues.
Match Percentage 20.0\%
Minimumof 20\%
Compute the match percentage by dividing the match anount by the project total
Source of Match Funds County State Aid and/or Local Funds
A minimum of $20 \%$ of the total project cost must come fromnon-federal sources; additional match funds over the 20\% minimumcan come fromother federal sources
Preferred Program Year
Select one:
2028, 2029
Select 2026 or 2027 for TDM and Unique projects only. For all other applications, select 2028 or 2029.
Additional Program Years:
Select all years that are feasible if funding in an earlier year becones available.

NOTE: If your project has already been assigned a State Aid Project \# (SAP or SP), please Indicate SAP\# here

SAP\#:
County, City, or Lead Agency
Functional Class of Road
Road System
TH, СSAH, MSAS, CO. RD., TMP. RD., GTY STREET
Road/Route No.
i.e., 53 for CSAH 53

Name of Road
Example; 1st ST., MAINAVE
TERMIN:(Termini listed must be within 0.3 miles of any work)
From:
Road System
Road/Route No.
i.e., 53 for CSAH 53

Name of Road
Example; 1st ST., MAINAVE
To:
Road System
DO NOT INCLUDE LEGAL DESCRIPTION
Road/Route No.
i.e., 53 for CSAH 53

Name of Road
Example; 1st ST., MAINAVE
In the City/Cities of:
(List all cities within project limits)
OR:
At:
Road System
(TH, CSAH, MSAS, CO. RD., TMP. RD., City Street)
Road/Route №.
i.e., 53 for CSAH 53

Name of Road
Example; 1st ST., MAINAVE
In the City/Cities of:
(List all cities within project linits)
PROJECT LENGTH
Miles
(nearest 0.1 miles)
Primary Types of Work (check all the apply)
New Construction
Reconstruction
Resurfacing
Bituminous Pavement
Concrete Pavement
Roundabout
New Bridge
Bridge Replacement
Bridge Rehab
New Signal
Signal Replacement/Revision
Bike Trail
Other (do not include incidental items)

BRIDGE/CULVERT PROJECTS (IF APPLCABLE)
Old Bridge/Culvert No.:
New Bridge/Culvert No.:
Structure is Over/Under
(Bridge or culvert name):
OTHER INFORMATION:

Carver County
A-Minor Connector/A-Minor Expander/Major Collector CSAH

## 11

Jonathan Carver Parkway, Big Woods Blvd

CSAH 11 and CSAH 44 Intersection

## 11

Jonathan Carver Parkway, Big Woods Blvd

City of Chaska and Dahlgren Township
0.6

Yes

Yes
Yes
Yes

Yes
GRADE, PED RAMPS, BIT BASE, BIT SURF, CURB AND GUTTER, SHARED USE TRALL, STORM SEWER

| Zip Code where Majority of Work is Being Performed | 55318 |
| :--- | :--- |
| Approximate Begin Construction Date | $05 / 01 / 2029$ |
| Approximate End Construction Date | $10 / 31 / 2029$ |
| Miles of Trail (nearest 0.1 miles) | 0.4 |
| Miles of Sidewalk (nearest 0.1 miles) | 0 |
| Miles of trail on the Regional Bicycle Transportation Network (nearest 0.1 miles): | 0.4 |
| Is this a new trail? | No |

## 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: Goal A: Transportation System Stewardship; Objective A: Efficiently preserve and maintain the regional transportation system in a state of good repair; Strategy A2 (Page 2.6): Regional transportation partners should regularly review planned maintenance preservation and reconstruction projects to identify cost-effective opportunities to incorporate improvements for safety, lower-cost congestion management and mitigation, MnPASS, strategic capacity, transit, bicycle, and pedestrian facilities.

Goal B: Safety and Security; Objective A: Reduce fatal and serious injury crashes and improve safety and security for all modes of passenger travel and freight transport; Strategy B1 (Page 2.7): Regional transportation partners will incorporate safety and security considerations for all modes and users throughout the processes of planning, funding, construction, and operation. Strategy B4 (Page 2.7): Regional transportation partners will support the state's vision of moving toward zero traffic fatalities and serious injuries, which includes supporting educational and enforcement programs to increase awareness of regional safety issues, shared responsibility, and safe behavior.

Goal C: Access to Destinations; Objective A: Increase the availability of multimodal travel options, especially in congested highway corridors Strategy C2 (Page 2.9): The Council will support investments in A-minor arterials that build, manage, or improve the system's ability to supplement the capacity of the principal arterial system and support access to the region's job, activity, and industrial and manufacturing concentrations. Strategy C2 (Page 2.9): Regional transportation partners will manage access to principal and A-minor arterials to preserve and enhance their safety
and capacity. The Council will work with MnDOT to review interchange requests for the principal arterial system.

Goal D: Competitive Economy; The regional transportation system supports the economic
competitiveness, vitality, and prosperity of the region and state. Strategy D1 (2-11) The Council and its transportation partners will identify and pursue the level of increased funding needed to create a multimodal transportation system that is safe, well-maintained, offers modal choices, manages and eases congestion, provides reliable access to jobs and opportunities, facilitates the shipping of freight, connects and enhances communities, and shares benefits and impacts equitably among all communities and users

## 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 Carter County Capital Improvement Plan: Project Name: Reconstruction of from this qualifying requirement because of their innovative nature. Highway 44 from 0.15 mile West, 0.15 mile South, 0.2 mile North of the Highway 11 to and Highway 44 intersection to 100 feet West of the US 212 interchange western ramp intersection. "Description: Reconstruction of Highway 44 from 0.15 mile West, 0.15 mile South, 0.2 mile North of the Highway 11 to and Highway 44 intersection to 100 feet West of the US 212 interchange western ramp intersection."

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 belowin Table 1. For unique projects, the minimum award is $\$ 500,000$ and the maximum award is the total amount available each funding cycle (approximately $\$ 4,000,000$ for the 2024 funding cycle).

Strategic Capacity (Roadway Expansion): \$1,000,000 to \$10,000,000
Roadway Reconstruction/M odernization: \$1,000,000 to \$7,000,000
Traffic M anagement Technologies (Roadway System M anagement): \$500,000 to \$3,500,000
Spot M obility and Safety: $\$ 1,000,000$ to $\$ 3,500,000$
Bridges Rehabilitation/Repla cement: \$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 future Regional Solicitation funding cycles, this requirement may include that the plan has undergone a recent update, e.g., within five years prior to application.

The applicant is a public agency that employs 50 or more people and has a completed ADA transition plan that covers the public right of way/transportation Yes
(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:
02/18/2014
Link to plan:
https://www.co.carver.mn.us/home/showdocument?id=1164
The applicant is a public agency that employs fewer than 50 people and has a
completed ADA self-evaluation that covers the public right of way/transportation.
Date self-evaluation completed:
Link to plan:
Upload plan or self-evaluation if there is no link
Upload as PDF
10. The project must be accessible and open to the general public.

Check the box to indicate that the project meets this requirement. Yes
11. The owner/operator of the facility must operate and maintain the project year-round for the useful life of the improvement. This includes assurance of year-round use of bicycle, pedestrian, and transit facilities, per FHWA direction established 8/27/2008 and updated 4/15/2019. Unique projects are exempt from this qualifying requirement.
Check the box to indicate that the project meets this requirement.
Yes
12. The project must represent a permanent improvement with independent utility. The term ?independent utility? means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match. Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

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

## Yes

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

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

## Roadways Including Multimodal Elements

1. All roadway 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. Bridge Rehabilitation/Replacement projects must be located on a minor collector and above functionally classified roadway in the urban areas or a major collector and above in the rural areas
Check the box to indicate that the project meets this requirement.

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.
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 MnDOT?s ?Cost Participation for Cooperative Construction Projects and Maintenance Responsibilities? manual. In the case of a federally funded trunk highway project, the policy guidelines should be read as if the funded trunk highway route is under local jurisdiction.
Check the box to indicate that the project meets this requirement.
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 in-place structure is 20 feet or longer.

Check the box to indicate that the project meets this requirement.
6. The bridge must have a Local Planning Index (LPI) of less than 60 OR a National Bridge Inventory (NBI) Rating of 3 or less for either Deck Geometry, Approach Roadway, or Waterway Adequacy as reported on the most recent Minnesota Structure Inventory Report.
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 newexpanded interchange or newinterchange ramps must have approval by the Metropolitan Council/MnDOT Interchange Planning Review Committee prior to application submittal. Please contact David Evin at MnDOT (David.Evin@state.mn.us or 651-234-7795) 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 EEMENTS/COST ESTIMATES | Cost |
| Mobilization (approx 5\% of total cost) | $\$ 85,000.00$ |
| Removals (approx 5\% of total cost) | $\$ 130,000.00$ |
| Roadway (grading, borrow, etc.) | $\$ 130,000.00$ |
| Roadway (aggregates and paving) | $\$ 580,000.00$ |
| Subgrade Correction (muck) | $\$ 0.00$ |
| Storm Sewer | $\$ 285,000.00$ |
| Ponds | $\$ 30,000.00$ |
| Concrete ltems (curb \& gutter, sidewalks, median barriers) | $\$ 280,000.00$ |
| Traffic Control | $\$ 135,000.00$ |
| Striping | $\$ 5,000.00$ |
| Signing | $\$ 20,000.00$ |
| Lighting | $\$ 25,000.00$ |
| Turf - Erosion \& Landscaping | $\$ 175,000.00$ |
| Bridge | $\$ 0.00$ |
| Retaining Walls | $\$ 0.00$ |
| Noise Wall (not calculated in cost effectiveness measure) | $\$ 0.00$ |
| Traffic Signals | $\$ 0.00$ |
| Wetland Mtigation | $\$ 0.00$ |
| Other Natural and Cultural Resource Protection | $\$ 0.00$ |
| RR Crossing | $\$ 0.00$ |
| Roadway Contingencies | $\$ 415,000.00$ |
| Other Roadway Elements | $\$ 170,000.00$ |
| Totals | $\$ 2,465,000.00$ |


| Specific Bicycle and Pedestrian Elements | cost |
| :--- | ---: |
| CONSTRUCTION PROJECT EEMENTS/COST ESTIMATES | $\$ 20,000.00$ |
| Path/Trail Construction | $\$ 0.00$ |
| Sidewalk Construction | $\$ 0.00$ |
| On-Street Bicycle Facility Construction | $\$ 0.00$ |
| Right-of-Way | $\$ 0.00$ |
| Pedestrian Curb Ramps (ADA) | $\$ 0.00$ |
| Crossing Aids (e.g., Audible Pedestrian Signals, HAWK) | $\$ 0.00$ |
| Pedestrian-scale Lighting | $\$ 0.00$ |


| Wayfinding |  | \$0.00 |
| :---: | :---: | :---: |
| Bicycle and Pedestrian Contingencies |  | \$0.00 |
| Other Bicycle and Pedestrian Elements |  | \$0.00 |
| Totals |  | \$20,000.00 |
| Specific Transit and TDM Elements |  |  |
| CONSTRUCTION PROJECT E EMENTS/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 TDMElements |  | \$0.00 |
| Totals |  | \$0.00 |
| Transit Operating Costs |  |  |
| Number of Platform hours | 0 |  |
| Cost Per Platform hour (full loaded Cost) | \$0.00 |  |
| Subtotal | \$0.00 |  |
| Other Costs - Administration, Overhead,etc. | \$0.00 |  |
| PROTECT Funds Eligibility |  |  |
| One of the newfederal funding sources is Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT). Please describe which specific elements of your project and associated costs out of the Total TAB-Eligible Costs are eligible to receive PROTECT funds. Examples of potential eligible items may inc/ude: storm sener, ponding, erosion control/landscaping, retaining walls, new bridges over floodplains, and road realignments out of floodplains. |  |  |
| INFORMATION: Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Formula Program Imolementation Guidance (dot.gov). |  |  |
| Response: | The C incorp system provid Interse and na costs eleme followi high in transp design systen protec increa MnDO vegeta roadw contro | t will ation The projec 44 <br> events astructure Project clude the to include uface 100-year portation osion will be ed following These are mprove sion |

## Totals

| Total Cost | $\$ 2,485,000.00$ |
| :--- | :--- |
| Construction Cost Total | $\$ 2,485,000.00$ |
| Transit Operating Cost Total | $\$ 0.00$ |

## Congestion within Project Area:

Free-Flow Travel Speed: 60
The free-flow travel speed is the black number
Peak Hour Travel Speed: 56
The peak hour travel speed is the red number
Percentage Decrease in Travel Speed in Peak Hour Compared to Free-Fow (calculation):
Upload the "Level of Congestion" map:

## Congestion on adjacent Parallel Routes:

| Adjacent Parallel Corridor | CSAH 10 (County Road) |
| :--- | :--- |
| Adjacent Parallel Corridor Start and End Points: |  |
| Start Point: | Creek Road |
| End Point: | 56 |
| Free-Fow Travel Speed: |  |
| The Free-How Travel Speed is black number. | 40 |
| Peak Hour Travel Speed: <br> The Peak-Hour Travel Speed is red number. |  |
| Percentage Decrease in Travel Speed in Peak Hour Compared to Free-Fow <br> (calculation): | $28.57 \%$ |
| Upload the "Level of Congestion" map: | 1702250004976_1_CSAH44-11_LevelofCongestionAdjacent.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:

Yes

None of the tiers:

## Measure A: Engagement

ii. Describe how Black, Indigenous, and People of Color populations, low-income populations, persons with disabilities, youth, older adults, and residents in affordable housing were engaged, whether through community planning efforts, project needs identification, or during the project development process.
iii. Describe the progression of engagement activities in this project. A full response should answer these questions:

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

Environmental Protection Agency's (EPA) EJScreen Community Report is a mapping tool that combines environmental and socioeconomic data. The project area, with a $1 / 2$ mile buffer, houses 28 people, 16 percent of whom are people of color. The Black population makes up eight percent of the total population, followed by Asian (four percent), Two or more races (three percent) and Two or more races (one percent). People with disabilities makes up seven percent of the total population.

As a part of The City of Chaska Pedestrian and Bicycle Master Plan, the City made efforts to ensure diversity was included in the planning process. With a Hispanic population of 8.2 percent according to the 2022 Census Population estimation, the project team included translators at all meetings, including the River City Days event, and at various apartment complexes throughout the city. This included Lake Grace apartments and townhomes, which provide affordable units administered by the Carver County Development Agency (CDA).

During the completion of the Master Plan, a variety of online platforms, including a project website, an interactive online map, social media, and an online survey, to engage with the community. The online survey asked for feedback on preferred bike and pedestrian facilities, as well as comfort and safety levels, which was crucial in creating an All Ages and Ability (AAA) network. The AAA network is a framework for designing streets that are safe, comfortable, and equitable for everyone. Collaboration with the City?s Human Rights Commission to build relationships with BIPOC, low-income, and elderly communities was done during the development of the Master Plan. The community identified the eastern segment of the project corridor as a potential location for a new path during the outreach. This path, which begins at the US-212 intersection, will serve as a vital connection to the north/south 10-foot multiuse trail being constructed with the CSAH 11 and CSAH 44 Intersection Safety Improvements project. The pedestrian connections included with the proposed project will aid in linking community members to various Chaska destinations.

Carver County also engaged the community when developing its 2040 Comprehensive Plan. Online and in-person activities, including public meetings, were used for outreach. The eastern segment of the project was identified as a Priority A project, included in the Capital Improvement Plan, and underwent public hearings.

## Measure B: Disadvantaged Communities Benefits and Impacts

 relate to:? pedestrian and bicycle safety improvements;
? public health benefits;
? direct access improvements for residents or improved access to destinations such as jobs, school, health care, or other;
? travel time improvements;
? gap closures;
? newtransportation services or modal options;
? leveraging of other beneficial projects and investments;
? and/or community connection and cohesion improvements.
This is not an exhaustive list. A full response will support the benefits claimed, identify benefits specific to Disadvantaged communities residing or engaged in activities near the project area, identify benefits addressing a transportation issue affecting Disadvantaged communities specifically identified through engagement, and substantiate benefits with data.

Acknowledge and describe any negative project impacts to Black, Indigenous, and People of Color populations, low-income populations, children, people with disabilities, youth, and older adults. Describe measures to mitigate these impacts. Unidentified or unmitigated negative impacts may result in a reduction in points.
Belowis a list of potential negative impacts. This is not an exhaustive list.
? Decreased pedestrian access through sidewalk removal / narrowing, placement of barriers along the walking path, increase in auto-oriented curb cuts, etc.
? Increased speed and/or ?cut-through? traffic.
? Removed or diminished safe bicycle access.
? Inclusion of some other barrier to access to jobs and other destinations.

This project will provide direct safety, public health, transportation, and access benefits to equity populations. Both motorized and non-motorized travel time improvements intersection will be realized by low-income, persons with disabilities, and BIPOC populations by replacing the two-way stop intersection with a roundabout. Other benefits include:

Direct access improvements: The roundabout will improve the geometrics, access, and operations of the four-leg intersection, while reducing queuing, and minimizing conflict points for those navigating the intersection. This provides improved access to destinations such as jobs, schools, daycares, social services, and community center, as shown in the Equity Populations and Destinations map.

Gap Closures: The project will address a Tier 3 barrier on the eastern segment. Currently, there is no connection between the multiuse trail along CSAH 11 and the grade-separated trail along CSAH 44 that goes over US 212 to the east. This trail runs along CSAH 44 beyond the proposed project, continues into the City of Chaska where it connects with various regional trails. The proposed project will include 10-foot multiuse trail at the intersection and then an 8 -foot paved shoulder along CSAH 44 and CSAH 11 outside of the intersection which replaces the narrow 2 -foot shoulder that exists today, thereby addressing the current gaps within the trail network. This wider shoulder space and multiuse trail will provide safer, reliable access to destinations throughout the County including Chaska's City Square Park and employers such as Continental Engineering and Manufacturing and Lakeview Industries.

New Modal Options: Many commuters in Carver County currently travel to work alone in their cars, making up 84.8 percent of the workforce. Carpooling to work is the second most common way of commuting, accounting for 5.9 percent. For households with low incomes, transportation costs can be a burden, resulting in difficulties in paying rent or other expenses. The proposed 10 -foot multiuse trail and 8-foot shoulders will provide additional transportation options for commuters who travel by bicycle. This also increases transportation options and livability for residents of all ages and socioeconomic backgrounds and encourages an active lifestyle.

There will be construction activities that will directly impact the traveling public and nearby residents and businesses, however, these impacts will be temporary. Project construction will incorporate proper noise, storm water management, traffic management mitigation, and access management for motorists, bicyclists, and pedestrians as well as planned detour routes to consider the needs of property owners and stakeholders.

## Measure C: Affordable Housing Access

Describe any affordable housing developments?existing, under construction, or planned?within $1 / 2$ 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 howa project connects affordable housing residents to destinations (e.g., childcare, grocery stores, schools, places of worship).

Describe the project?s benefits to current and future affordable housing residents within $1 ⁄ 2$ mile of the project. Benefits must relate to affordable housing residents. Examples may include:
? specific direct access improvements for residents
? improved access to destinations such as jobs, school, health care or other;
? newtransportation services or modal options;
? and/or community connection and cohesion improvements.
This is not an exhaustive list. Since residents of affordable housing are more likely not to own a private vehicle, higher points will be provided to roadway projects that include other multimodal access improvements. A full response will support the benefits claimed, identify benefits specific to residents of affordable housing, identify benefits addressing a transportation issue affecting residents of affordable housing specifically identified through engagement, and substantiate benefits with data.

Response:
According to the Socio-Economic Conditions map, there are a total of 141 rental housing units that are publicly subsidized in the census tracts located within a $1 / 2$ mile radius of the proposed project. The area has many affordable housing options, including apartment complexes, duplexes, and multi-family homes. The Equity and Affordable Housing (supplemental) map confirms the availability of affordable housing options within a two-mile buffer: Chaska Village Townhomes 28 units, The Landing - 54 units, Waybury - 114 units, Tahleim (Chaska Manor) 58 units. The City of Chaska has a 2021 Housing Performance Score of 100.

According to the United States Census Bureau, Carver County had 37,386 households in 2020 and is projected to have 161,400 households by 2040, a more than 50 percent increase. The Carver County Comprehensive Plan recommends sustainable growth with transition areas for annexation outside city limits. The plan aims to provide additional housing, including affordable housing, to meet the projected demand of 8,144 units by 2040 . The County plans to offer senior affordable housing ( 1,522 units), affordable housing ( 1,433 units), and subsidized housing ( 380 units). The project is in transitional areas that have the potential to be used for affordable housing, especially near the intersection and North and West segments.

With planned growth for potential affordable housing and development in the area, the project includes sidewalks and trail improvements for these residents of affordable housing that use bicycling and walking as their preferred mode of transportation for short trips. The installation of the roundabout will not only improve vehicle circulation, but it will also facilitate safer and easier crossing for pedestrians and bicyclists. With improved access, benefits will include:

- Access to economic opportunities,
- Increased physical activity, and
- Decrease in the potential of pedestrian injuries and fatalities.

This project improves the CSAH 11 and CSAH 44 intersection, providing upgraded multimodal access and operations for all users through the intersection. The project is designed to provide direct safety and transportation benefits to current residents of affordable housing by giving improved access to destinations through the intersection. Activities in the area include places of worship such as St. Nicholas Catholic Church and Grace Baptist Church; picking up children at one of the many childcare centers and in-home facilities, and schools; and getting food at the Cooper's Grocery.

Project?s 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 Yes in poverty or populations of color (Regional Environmental Justice Area):
Upload the ?Socio-Economic Conditions? map used for this measure. 1702250479730_2_CSAH44-11_Socio-EconomicConditions.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 <br> Peak <br> Hour <br> Delay without the Project: | Total <br> Peak Hour Delay by the Project: | Total <br> Peak <br> hour <br> Delay <br> Reduced by project | EXPLANATION <br> of methodology used to calculate railroad crossing delay, if applicable. | Synchro or HCM Reports |
| 6.0 | 5.2 | 0.8 | 748 | 748 | 4488.0 | 3889.6 <br> 3890 | 598.4 |  | 0618750_3_CSAH44fficOps.pdf |


| Vehicle |  |  |
| :---: | :---: | :---: |
| Tolay | Reduced |  |
| Total | Total | Delay |
| Peak | Peak | Reduced |
| Hour | Hour | Total |
| Delay | Delay |  |
| Reduced | Reduced |  |
| 598.4 | 3889.6 | 0 |

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

| Total (CO, | Total (CO, | Total (CO, |
| :---: | :---: | :---: |
| NOX, and | NOX, and | NOX, and |
| VOC) Peak | VOC) Peak | VOC) Peak |
| Hour | Hour | Hour |
| Emissions | Emissions | Emissions |
| without the | with the | Reduced by <br> Project |
| Project | the Project |  |
| (Kilograms): | (Kilograms): | (Kilograms): |
| 1.23 | 1.32 | -0.09 |
| 1 | $\mathbf{1}$ | $\mathbf{0}$ |

## Total

Total Emissions Reduced: $\quad-0.09$

Upload Synchro Report 1702250684873_3_CSAH44-11_TrafficOps.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 gradeseparation elements (for Roadway Expansion applications only):

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

## Total Parallel Roadway

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 0
Roadway (Kilograms):
Roadway (Kilograms):
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):

## 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 0 (Kilograms):
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)
Rationale for Crash Modification Selected:
(Limit 1400 Characters; approximately 200 words)
Project Benefit (\$) from B/C Ratio
Total Fatal (K) Crashes:
Total Serious Injury (A) Crashes:
Total Non-Motorized Fatal and Serious Injury Crashes:
Total Crashes:
Total Fatal (K) Crashes Reduced by Project:
Total Serious Injury (A) Crashes Reduced by Project:
Total Non-Motorized Fatal and Serious Injury Crashes Reduced by Project:
Total Crashes Reduced by Project:
Worksheet Attachment
Upload Orash Modification Factors and B/C Worksheet in PDF form

A crash reduction of 100 percent was used for angle and left-turn crashes.

Based on engineering judgment, angle and left-turn crashes are no longer able to occur for the roundabout configuration.

## Measure B: 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 No safe and comfortable pedestrian facilities and crossings.
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 doesn?t also add pedestrian crossings and sidewalk or sidepath on one or both sides).

SUB-M EASURE 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 howthese risks are being mitigated.
 roundabouts

Treatments and countermeasures should be well-matched to the roadway?s 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 is a four-way side-street stop-controlled intersection, with stop signs located only on the east and west approaches. The crash rate ( 0.79 per million entering vehicles (MEV)) in the last five years is over two times higher than the critical crash rate and nearly eight times higher than the average crash rate for similar intersections. In the last 10 years there have been a total of 17 crashes, of which nine were injury crashes including two serious injury (type A) crashes at the intersection. Additionally, the posted speed limit on CSAH 11 and CSAH 44 is 55 mph.

Currently, there is only one crosswalk available for non-motorized users, which connects them to a shared path situated on the eastern side of the intersection. However, the crossing distance is 78 feet, and there are no other crosswalks on the remaining legs. Although no conflicts with pedestrians or cyclists have occurred, the current environment endangers those accessing the trails located north and south of the intersection, as well as those having to cross the remaining legs. The design of roundabout will reduce the pedestrian crossing distance by almost half and will provide better visibility of pedestrians and bicycles at the intersection thereby increasing their safety. Roundabouts are designed to slow vehicles at intersections and facilitate transitions from high-speed roadways to lower speeds.

According to the PEDSAFE and FHWA Proven Safety Countermeasures resources, the installation of a roundabout will reduce speeds and improve safety at all intersections by eliminating angle collisions. The lower vehicular speeds and reduced conflict environment creates a more comfortable environment for walking and biking. A reduction in injury type crashes provides a safer environment for all modes of transportation traveling through the newly constructed roundabout.

The project design includes other PEDSAFE countermeasures that have safety benefits for pedestrians and bicyclist navigating the roundabout:

- Using curb ramps with marked crosswalks improves orientation for visually impaired pedestrians and allows people using wheelchairs, strollers, or walkers to navigate the crossing.
- Providing crossing/pedestrian refuge islands are shown to reduce pedestrian crashes by 32 percent.
- Using lighting and illumination increases the number of pedestrians who purposefully use the crosswalk and cars who yield to pedestrians, ultimately leading to a safer crossing.
(Limit 2,800 characters; approximately 400 words)
Is the distance in between signalized intersections increasing (e.g., removing a signal)?
Select one:

Response:
(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:
If yes,
? How many intersections will likely be affected?
Response:
? Describe what measures are being used to reduce exposure and delay for pedestrians (e.g., median crossing islands, curb bulb-outs, etc.)
Response:
(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., shallowtunnel that doesn?t require much elevation change instead of pedestrian bridge with numerous switchbacks).

Response:
(Limit 1,400 characters; approximately 200 words)
If mid-block crossings are restricted or blocked, explain why this is necessary and howpedestrian crossing needs and safety are supported in other ways (e.g., nearest protected or enhanced crossing opportunity).
Response:
(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, narrowlanes, 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:
At the intersection of CSAH 11 and CSAH 44, stop signs are present only on the east and west approaches, making it a two-way stop intersection. In addition, each leg of the intersection has a dedicated right turn lane, left turn lane, and travel lane. Given the historically high crash rate at this intersection and the potential for high speeds, the chances of severe injury and fatalities are increased. The roundabout geometric countermeasure has been recommended as the most effective strategy for reducing speed and improving safety at this location.

Roundabouts are designed to slow vehicles at intersections and facilitate transitions from high-speed roadways to lower speeds. According to the PEDSAFE and FHWA Proven Safety Countermeasures resources, the installation of a roundabout will reduce speeds and improve safety at all intersections by eliminating angle collisions.

The intersection of CSAH 11/CSAH 44 will be converted from a side-street stopcontrolled intersection to a roundabout. Relative to side-street stop-controlled intersections, roundabouts are known to reduce travel speeds as vehicles need to slow on approach to the intersection and yield to opposing traffic within the roundabout. The slight curve in the approaching roadways also helps motorists to begin slowing down before reaching the roundabout. In general, speeds in a roundabout are typically between 15 and 20 miles per hour.

A 10-foot multiuse trail, identified as a Tier 2 RBTN alignment, will be constructed along CSAH 11 on the eastern side that will cross through that intersection. The roundabout is expected to be intentionally designed to reduce speeds entering and exiting the roundabout intersection. Additionally, the proposed project includes the installation of raised medians at each leg of the intersection. The primary objective of installing raised medians is to eliminate the risk of left-turn conflict intersections, reduce conflict points, and decrease the frequency and severity of related crashes.

As part of the proposed project, the number of total lanes and total roadway width for each approach will be reduced with the roundabout design by implementing pedestrian refuges islands and raised medians. This will provide several countermeasures, such as an improvement in the quality of service, a decrease in the frequency of stopping, and a reduction in vehicle speed. The reduction in vehicle speed can help reduce the severity of crashes involving pedestrians and bicyclists while creating more consistent traffic flow.

If known, what are the existing and proposed design, operation, and posted speeds? Is this an increase or decrease from existing conditions?
Response:
Both CSAH 11 and CSAH 44 have posted speeds of 55 mph . After installation of the roundabout, speeds will be reduced to 20 mph within the roundabout.
(Limit 1,400 characters; approximately 200 words)
SUB-M EASURE 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 howmany 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
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
List the AADT
SUB-M EASURE 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.)
Existing road has high-frequency transit running on or across it and 1+ highfrequency 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.)
Existing road is within 500 ? of $1+$ shopping, dining, or entertainment destinations (e.g., grocery store, restaurant)

If checked, please describe:
(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- Yes designated affordable housing)
If checked, please describe:
(Linit 1,400 characters; approximately 200 words)

There are existing ten-foot trails on both the northern and southern sides of the intersection, which connect to various destinations such as Westbrook Community Church, Lakeview Industries, and Fleet Farm. Future improvements will further enhance these pedestrian routes, providing a safer and more reliable connection for both pedestrians and bicyclists to regional and county destinations. The trail is also designated as a RBTN Tier 2 alignment.

## Measure A: Multimodal Elements and Existing Connections

The project includes bicycle and pedestrian elements that will improve the travel experience for all modes of transportation. Currently, the project intersection discourages non-vehicular travel, makes it challenging to access travel through the area by walking or biking, and poses hardships for disabled individuals. The proposed project will include construction of a 10 -foot bituminous multiuse trail separated by a boulevard path along CSAH 11 which is identified as a Tier 2 RBTN alignment. ADA compliant ramps will be constructed, greatly improving the pedestrian experience. Medians will also be constructed, which will reduce vehicle/pedestrian conflicts and provide refuge areas at intersections.

The proposed project is designed to follow the guiding principles outlined in the 2040 Transportation Policy Plan, which includes "overcoming physical barriers and eliminating critical system gaps, facilitating safe and continuous trips to regional destinations, and connecting to local, state, and national bikeway networks." Furthermore, the project includes reconstruction of the eastern leg of the intersection and will include eight-foot shoulders. Pedestrians and bicyclist will be able to transition from the 10 -foot multiuse trail to the 8 -foot shoulders which provide adequate space for pedestrians and bicyclist traveling east through the US 212 interchange, a tier three barrier, into the City of Chaska. FHWA documents that wider shoulders, measuring eight feet instead of the recommended six feet, can reduce pedestrian and cyclist crashes by 71 percent.

Pedestrian crossings of the roundabout will incorporate a two-stage pedestrian crossing with pedestrian refuge islands and high visibility crossings. These refuges will increase pedestrian visibility and reduce high vehicle speeds. Pedestrians will be able to focus on one direction of traffic at a time as they cross, making it a safer crossing. Furthermore, crosswalks will have high-visibility crosswalk markings. This reinforces the presence of pedestrians and cyclists, ensuring that drivers are aware of their surroundings and can take necessary precautions.

This highlights the need for additional investment in the corridor, providing nonmotorized users with a safer alternative to the City of Chaska and Carver unincorporated townships. The proposed paths will also connect into various regional paths, such as the Minnesota River Bluffs Regional Trail and Southwest Regional Trail in Chaska.

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, howthe 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 Yes
have been used to help identify the project need.
100\%
At least one meeting specific to this project with the general public has been used to help identify the project need.
50\%
At least online/mail outreach effort specific to this project with the general public has been used to help identify the project need.
50\%
No meeting or outreach specific to this project was conducted, but the project was identified through meetings and/or outreach related to a larger planning effort.

25\%
No outreach has led to the selection of this project.
0\%
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:
During the development of Carver County's 2040 Comprehensive Plan, there were multiple opportunities for community engagement. These opportunities included both in-person and online activities. For online engagement, an online questionnaire was used to gain a deeper understanding of land use, parks and natural resources, and transportation. Additionally, a "Social Pinpoint" tool was utilized, allowing community members to select areas and provide feedback on geographic locations. Outreach efforts included public meetings, pop-up events, and open houses. Pop-up meetings were held at various locations such as Carver County Libraries and the County Fair, while four Open Houses were conducted for each stage of the planning process.

As a result of the outreach efforts, the eastern segment of the project was identified and prioritized as a Priority A project. This segment was later included in the County's 2018-2023 Capital Improvement Plan (CIP) for roadway reconstruction. Public hearings have been conducted, and the project is currently in the concept design phase. The expected completion date for the project is 2029.

The Pedestrian and Bicycle Master Plan of the City of Chaska utilized various online engagement tools and tactics to ensure that the community members? opinions were heard during the planning process. One such tool was the Wikimap developed by the Chaska Bike Ped Master Plan team where community members could locate areas that required bike, pedestrian, or multi-modal infrastructure and identify areas that posed obstacles or were destinations. This data was then integrated into a GIS environment and geocoded to identify areas where new infrastructure could be developed. The CSAH 44 to US 212 - segment was selected as a potential walking and bike route.

[^0]
## 2. Layout ( 25 Percent of Points)

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

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)
100\%
Signature Page
Please upload attachrent in PDF form
Railroad Right-of-Way Agreement required; negotiations have begun
50\%
Railroad Right-of-Way Agreement required; negotiations have not begun.

## Measure A: Cost Effectiveness

| Total Project Cost (entered in Project Cost Form): | $\$ 2,485,000.00$ |
| :--- | :--- |
| Enter Amount of the Noise Walls: | $\$ 0.00$ |
| Total Project Cost subtract the amount of the noise walls: | $\$ 2,485,000.00$ |
| Enter amount of any outside, competitive funding: | $\$ 0.00$ |
| Attach documentation of award: |  |
| Points Awarded in Previous Criteria | $\$ 0.00$ |

## Other Attachments

| File Name | Description | File Size |
| :--- | :--- | :--- |
| OtherAttach_ChaskaLOS_CSAH44-11.pdf | Chaska Letter of Support | 363 KB |
| OtherAttach_CountyRes_CSAH44-11.pdf | County Resolution | 173 KB |
| OtherAttach_CSAH44-11_Onepager.pdf | Project Summary | 153 KB |
| OtherAttach_CSAH44-11_RBTN2.pdf | RBTN Map | 815 KB |




Socio-Economic Conditions
Roadway Spot Mobility \& Safety Project: CSAH 11 (Jonathan Carver Parkway)/ CSAH 44 (Big Woods Blvd) | Map ID: 169765

Results

Total of publicly subsidized rental
housing units in census
tracts within $1 / 2$ mile: 141
Project located in census tracts
that are BELOW the regional average
for population in poverty or
population of color.


Points
Area of Concentrated Poverty

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


## \&EPA <br> EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

# Carver County, MN 

.5 miles Ring around the Corridor
Population: 28
Area in square miles: 0.95


## LANGUAGES SPOKEN AT HOME

| LANGUAGE | PERCENT |
| :--- | :---: |
|  |  |
|  | No language data available. |

COMMUNITY INFORMATION

| Low income: <br> 9 percent | People of color: <br> 16 percent | Less than high <br> school elucation: <br> 5 percent |
| :---: | :---: | :---: | | Limited English |
| :---: |
| houssonds: |
| 0 percent |

## BREAKDOWN BY RACE



LIMITED ENGLISH SPEAKING BREAKDOWN

|  | Speak Spanish |
| :--- | :--- |
|  | Speak Other Indo-European Languages |
|  | Speak Asian-Pacific Island Languages |
|  | Speak Other Languages |

[^1]
## Environmental Justice \& Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen E indexes and supplemental indexes in
ESScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the ESCrreen website.

## EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator:

EJ INDEXES FOR THE SELECTED LOCATION


SUPPLEMENTAL INDEXES
The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION


These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.
Report for . 5 miles Ring around the Corridor

## EJScreen Environmental and Socioeconomic Indicators Data

| SELECTED VARIABLES | VALUE | $\begin{aligned} & \text { STATE } \\ & \text { AVERAGE } \end{aligned}$ | PERCENTILE IN STATE | USA AVERAGE | PERCENTILE IN USA |
| :---: | :---: | :---: | :---: | :---: | :---: |
| POLLUTION AND SOURCES |  |  |  |  |  |
| Particulate Matter ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) | 6.71 | 6.78 | 37 | 8.08 | 15 |
| Ozone (ppb) | 59.2 | 58.2 | 79 | 61.6 | 33 |
| Diesel Particulate Matter ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) | 0.161 | 0.21 | 44 | 0.261 | 34 |
| Air Toxics Cancer Risk* (lifetime risk per million) | 20 | 22 | 12 | 25 | 5 |
| Air Toxics Respiratory H1* | 0.2 | 0.26 | 7 | 0.31 | 4 |
| Toxic Releases to Air | 490 | 1,500 | 39 | 4,600 | 46 |
| Traffic Proximity (daily traffic count/distance to road) | 31 | 140 | 39 | 210 | 31 |
| Lead Paint (\% Pre-1960 Housing) | 0.067 | 0.33 | 23 | 0.3 | 29 |
| Superfund Proximity (site count/km distance) | 0.06 | 0.19 | 44 | 0.13 | 49 |
| RMP Facility Proximity (facility count/km distance) | 0.13 | 0.48 | 30 | 0.43 | 39 |
| Hazardous Waste Proximity (facility count/km distance) | 0.14 | 1.3 | 36 | 1.9 | 26 |
| Underground Storage Tanks (count/km²) | 0.68 | 1.8 | 52 | 3.9 | 43 |
| Wastewater Discharge (toxicity-weighted concentration/m distance) | 0.0015 | 0.19 | 72 | 22 | 52 |
| SOCIOECONOMIC INDICATORS |  |  |  |  |  |
| Demographic Index | 13\% | 22\% | 32 | 35\% | 15 |
| Supplemental Demographic Index | 7\% | 11\% | 25 | 14\% | 14 |
| People of Color | 16\% | 20\% | 56 | 39\% | 32 |
| Low Income | 9\% | 23\% | 23 | 31\% | 16 |
| Unemployment Rate | 2\% | 4\% | 35 | 6\% | 31 |
| Limited English Speaking Households | 0\% | 2\% | 0 | 5\% | 0 |
| Less Than High School Education | 5\% | 7\% | 55 | 12\% | 37 |
| Under Age 5 | 8\% | 6\% | 78 | 6\% | 78 |
| Over Age 64 | 8\% | 17\% | 20 | 17\% | 20 |
| Low Life Expectancy | 17\% | 17\% | 40 | 20\% | 24 |

Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

## Sites reporting to EPA within defined area:

Superfund0
Hazardous Waste, Treatment, Storage, and Disposal Facilities ..... 0
Water Dischargers .....  0
Air Pollution ..... 0
Brownfields ..... 0
Toxic Release Inventory ..... 0

## Other community features within defined area:

Schools ...................................................................... 0
Hospitals 0
Places of Worship ..... 0

## Other environmental data:

```Air Non-attainmentNo
```

Impaired Waters ..... Yes
Selected location contains American Indian Reservation Lands№
Selected location contains a "Justice40 (CEJST)" disadvantaged community ..... No
Selected location contains an EPA IRA disadvantaged community ..... No

## EJScreen Environmental and Socioeconomic Indicators Data

| HEALTH INDICATORS |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| INDICATOR | HEALTH VALUE | STATE AVERAGE | STATE PERCENTILE | US AVERAGE | US PERCENTILE |
| Low Life Expectancy | $17 \%$ | $17 \%$ | 40 | $20 \%$ | 24 |
| Heart Disease | 4 | 5.6 | 16 | 6.1 | 10 |
| Asthma | 8.5 | 9 | 21 | 10 | 13 |
| Cancer | 5.1 | 6.4 | 18 | 6.1 | 26 |
| Persons with Disabilities | $4.6 \%$ | $11.4 \%$ | 4 | $13.4 \%$ | 4 |


| CLIMATE INDICATORS |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| INDICATOR | HEALTH VaLuE | STATE AVERAGE | STATE PERCENTILE | US AVERAGE | US PERCENTILE |
| Flood Risk | $9 \%$ | $8 \%$ | 61 | $12 \%$ | 60 |
| Wildfire Risk | $0 \%$ | $4 \%$ | 0 | $14 \%$ | 0 |


| CRITICAL SERVICE GAPS |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| INDICATOR | HEALTH VaLUE | STATE AVERAGE | STATE PERCENTILE | US AVERAGE | US PERCENTILE |
| Broadband Internet | $9 \%$ | $11 \%$ | 48 | $14 \%$ | 44 |
| Lack of Health Insurance | $2 \%$ | $5 \%$ | 21 | $9 \%$ | 12 |
| Housing Burden | N 0 | $\mathrm{~N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |
| Transportation Access | Yes | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |
| Food Desert | N 0 | $\mathrm{~N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |

Footnotes

Regional Solicitation - Carver County

| CSAH 11 and 44 |  |  |
| :--- | ---: | :--- |
| Existing Volume | 748 | vehicles |
| Existing Delay | 6 | sec/veh |
| Existing Total Delay | 4488 | seconds |
| Future Volume | 748 | vehicles |
| Future Delay | 5.2 | sec/veh |
| Future Total Delay | 3889.6 | seconds |
| Total Delay Reduction | 598.4 | seconds |

Emissions

| Existing | 1 | Total |
| :--- | ---: | ---: |
| CO | 0.86 | 0.86 |
| NO | 0.17 | 0.17 |
| VOC | 0.2 | 0.2 |
| Network Total |  |  |


| Build | 1 | Total |
| :--- | ---: | ---: |
| CO | 0.93 | 0.93 |
| NO | 0.18 | 0.18 |
| VOC | 0.21 | 0.21 |
| Network Total |  | 1.32 |

## 10: CSAH 11 \& CSAH 44

| Direction | All |
| :--- | ---: |
| Future Volume (vph) | 748 |
| Total Delay / Veh (s/v) | 6 |
| CO Emissions $(\mathrm{kg})$ | 0.86 |
| NOx Emissions $(\mathrm{kg})$ | 0.17 |
| VOC Emissions $(\mathrm{kg})$ | 0.20 |


| Intersection |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Intersection Delay, s/veh | 5.2 |  |  |  |
| Intersection LOS | A |  |  |  |
| Approach | EB | WB | SB |  |
| Entry Lanes | 1 | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 76 | 135 | 273 | 329 |
| Demand Flow Rate, veh/h | 77 | 137 | 278 | 336 |
| Vehicles Circulating, veh/h | 383 | 239 | 76 |  |
| Vehicles Exiting, veh/h | 29 | 246 | 207 | 300 |
| Ped Vol Crossing Leg, \#/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 4.7 | 4.5 | 5.2 | A |
| Approach LOS | A | A | A |  |


| Lane | Left | Left | Left | Left |
| :--- | :---: | :---: | :---: | :---: |
| Designated Moves | LTR | LTR | LTR | LTR |
| Assumed Moves | LTR | LTR | LTR |  |
| RT Channelized |  |  |  |  |
| Lane Util | 1.000 | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 | 4.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 | 336 |
| Entry Flow, veh/h | 77 | 137 | 278 | 1277 |
| Cap Entry Lane, veh/h | 934 | 1081 | 1117 | 0.980 |
| Entry HV Adj Factor | 0.985 | 0.983 | 0.981 | 329 |
| Flow Entry, veh/h | 76 | 135 | 1251 |  |
| Cap Entry, veh/h | 920 | 1063 | 1096 | 0.263 |
| V/C Ratio | 0.082 | 0.127 | 0.249 | 5.2 |
| Control Delay, s/veh | 4.7 | 4.5 | 5.6 | A |
| LOS | A | 0 | 1 | 1 |

10: CSAH 11 \& CSAH 44

| Direction | All |
| :--- | ---: |
| Future Volume (vph) | 748 |
| CO Emissions $(\mathrm{kg})$ | 0.93 |
| NOx Emissions $(\mathrm{kg})$ | 0.18 |
| VOC Emissions $(\mathrm{kg})$ | 0.21 |

Traffic Safety Benefit-Cost Calculation
Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

## A. Roadway Description

| Route | CSAH 44 | District | County | Carver |
| :---: | :---: | :---: | :---: | :---: |
| Begin RP |  | End RP | Miles |  |
| Location | CSAH 44 and CSAH 11 |  |  |  |

## B. Project Description

| Proposed Work | Convert to Roundabout |  |  |
| :---: | :---: | :---: | :---: |
|  | \$2,280,000 | Installation Year | 2026 |
| Project Service Life | 20 years | Traffic Growth Factor | 2.0\% |
| * exclude Right of Way from Project Cost |  |  |  |

## C. Crash Modification Factor

| 0.00 | Fatal (K) Crashes | Reference | Engineering Judgement |
| :--- | :--- | :--- | :--- |
| 0.00 | Serious Injury (A) Crashes |  |  |
| 0.00 | Moderate Injury (B) Crashes | Crash Type |  |
| 0.00 | Angle - All |  |  |
| 0.00 | Possible Injury (C) Crashes |  |  |

D. Crash Modification Factor (optional second CMF)

| Fatal (K) Crashes | Reference |  |
| :---: | :---: | :---: |
| Serious Injury (A) Crashes |  |  |
| Moderate Injury (B) Crashes | Crash Type |  |
| Possible Injury (C) Crashes |  |  |
| Property Damage Only Crashes |  | www.CMFclearinghouse.org |


F. Analysis Assumptions

| Crash Severity | Crash Cost |  |  |
| :--- | ---: | ---: | :--- |
| K crashes | $\$ 1,600,000$ | Link: | mndot.gov/planning/program/appendix_a.html |
| A crashes | $\$ 800,000$ |  |  |
| B crashes | $\$ 250,000$ | Real Discount Rate | $0.7 \%$ |
| C crashes | $\$ 130,000$ | Traffic Growth Rate | $2.0 \%$ |
| PDO crashes | $\$ 15,000$ | 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 | 0.00 | 0.00 | $\$ 0$ |
| B crashes | 3.00 | 1.00 | $\$ 250,000$ |
| C crashes | 1.00 | 0.33 | $\$ 43,333$ |
| PDO crashes | 3.00 | 1.00 | $\$ 15,000$ |


| H. Amortized Benefit |  |  |  |
| :---: | :---: | :---: | :---: |
| Year | Crash Benefits | Present Value |  |
| 2026 | \$308,333 | \$308,333 | Total $=\$ 6,984,888$ |
| 2027 | \$314,500 | \$312,314 |  |
| 2028 | \$320,790 | \$316,346 |  |
| 2029 | \$327,206 | \$320,430 |  |
| 2030 | \$333,750 | \$324,566 |  |
| 2031 | \$340,425 | \$328,756 |  |
| 2032 | \$347,233 | \$333,000 |  |
| 2033 | \$354,178 | \$337,299 |  |
| 2034 | \$361,262 | \$341,654 |  |
| 2035 | \$368,487 | \$346,064 |  |
| 2036 | \$375,857 | \$350,532 |  |
| 2037 | \$383,374 | \$355,057 |  |
| 2038 | \$391,041 | \$359,641 |  |
| 2039 | \$398,862 | \$364,284 |  |
| 2040 | \$406,839 | \$368,986 |  |
| 2041 | \$414,976 | \$373,750 |  |
| 2042 | \$423,276 | \$378,575 |  |
| 2043 | \$431,741 | \$383,462 |  |
| 2044 | \$440,376 | \$388,412 |  |
| 2045 | \$449,183 | \$393,427 |  |
| 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 |  |

## CSAH 44 and CSAH 11

| IN |  | CO |  | MNDOT_D | STATE_PATITR | D | ACCIDEN | SH_MC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1032369 04-CSAH | 11 | 7.351 Carver | Dahlgren | D-METRO | Golden Valley | 22019149 | $2.22 \mathrm{E}+08$ | 7-Jul |
| 1061016 04-CSAH | 11 | 7.359 Carver | Dahlgren | D-METRO | Golden Valley | 22034962 | $2.23 \mathrm{E}+08$ | 11-Nov |
| 939569 04-CSAH | 11 | 7.361 Carver | Dahlgren | D-METRO | Golden Valley | 21024700 | $2.13 \mathrm{E}+08$ | 9-Sep |
| 1034962 04-CSAH | 11 | 7.365 Carver | Dahlgren | D-METRO | Golden Valley | 22020739 | $2.22 \mathrm{E}+08$ | 7-Jul |
| 941010 04-CSAH | 44 | 2.031 Carver | Dahlgren | D-METRO | Golden Valley | 21025519 | $2.13 \mathrm{E}+08$ | 9-Sep |
| 1047905 04-CSAH | 44 | 2.035 Carver | Dahlgren | D-METRO | Golden Valley | 22028496 | $2.23 \mathrm{E}+08$ | 9-Sep |
| 815497 04-CSAH | 44 | 2.036 Carver | Dahlgren | D-METRO | Golden Valley | 20017044 | $2.02 \mathrm{E}+08$ | 6-Jun |

CRASH DA CRASH YEICRASH DA CRASH HCDIVIDEDRD CRASHSEVERITY


NUMBERKII NUMBEROI MANNEROI FIRSTHARN RELATIVE L RELATIONT

| 0 | 2 Angle | Motor Vehic On Roadwa Four-Way If |
| :--- | :--- | :--- |
| 0 | 2 Angle | Motor Vehic On Roadwa Four-Way Ir |
| 0 | 2 Angle | Motor Vehic On Roadwa Four-Way Ir |
| 0 | 2 Angle | Motor Vehic On Roadwa Four-Way Ir |
| 0 | 2 Angle | Motor Vehic On Roadwa Interchangt |
| 0 | 2 Angle | Motor Vehic On Roadwa Four-Way Ir |
| 0 | 2 Angle | Motor Vehic On Roadwa Four-Way Ir |

LIGHTCON WEATHERP WEATHERS RDWYSURF WORKZONI ROADWAY_INTERSECT ROUTE_ID BASIC_TYPIUNITTYPEUVEHICLETY DIRECTION PRECRASH

| Daylight | Clear | Dry | NOT APPLİ JONATHAN CSAH 44 | 040000659 Angle | Motor Vehic Pickup Westbound Moving Fon |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Daylight | Clear | Dry | NOT APPLI( JONATHAN CARVER P | 040000659 Angle | Motor Vehic Passenger ' Northbounı Moving Fon |
| Sunset | Clear | Dry | NOT APPLII JONATHAN CSAH 140 | 040000659 Angle | Motor Vehic Passenger 'Westbound Moving Forn |
| Daylight | Clear | Dry | NOT APPLI( JONATHAN CSAH 44 | 040000659 Angle | Motor Vehic Passenger I Westbound Moving Forn |
| Sunset | Clear | Dry | NOT APPLIC CSAH 140 JONATHAN | 040000659 Angle | Motor Vehic Passenger ' Westbound Moving Forn |
| Daylight | Clear | Dry | NOT APPLIC CSAH 44 CO RD 11 | 040000659 Angle | Motor Vehic Passenger ' Northboun Moving Forn |
| Daylight | Cloudy | Dry | NOT APPLİ CSAH 140 | 040000659 Angle | Motor Vehic Passenger I Northboun Moving Forn |

PHYSICALC CONTRIBF/CONTRIBF/ NONMOTO NONMO

Apparently Ran Stop Sign
Apparently No Clear Contributing Action
Apparently Ran Stop Sign
Apparently Failure to Yield Right-of-Way
Apparently Failure to Yield Right-of-Way
Apparently No Clear Contributing Action
Apparently No Clear Contributing Action

| Two-Way, ^ Stop Sign | 55 Straight | Level | Motor Vehic |
| :--- | :--- | :--- | :--- |
| Two-Way, ^ No Control: | 55 Straight | Level | Motor Vehic |
| Two-Way, ^ Stop Sign | 50 Straight | Level | Motor Vehic |
| Two-Way, ^ Stop Sign | 55 Straight | Level | Motor Vehic |
| Two-Way, ^ Stop Sign | 55 Straight | Level | Motor Vehic |
| Two-Way, ^ No Control: | 55 Curve Left Level | Motor Vehic |  |
| Two-Way, ^ Stop Sign | 50 Curve Left Level | Motor Vehic |  |


| VEHICLETY | ASH AGEU2 | SEXU2 | PH | RDWYDESI TRAFFICCC |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pickup | Southboun Moving Fon | 43 Male | Apparently No Clear Contributing Action | Two-Way, A No Control: | 55 |
| Passenger | (Eastbound Moving Fon | 62 Male | Apparently Failure to Yield Right-of-Way | Two-Way, ^ Stop Sign | 55 |
| Passenger | 'Northbounc Moving Fon | 44 Female | Apparently No Clear Contributing Action | Two-Way, ^ No Control: | 55 |
| Passenger | ( Northbounc Moving Fon | 36 Female | Apparently No Clear Contributing Action | Two-Way, ^ No Control: | 55 |
| Passenger | ( Northbounc Moving Fon | 19 Female | Apparently No Clear Contributing Action | Two-Way, ^ No Control: | 55 |
| Pickup | Westbound Moving Fon | 28 Male | Apparently Failure to Yield Right-of-Way | Two-Way, ^ Stop Sign | 50 |
| Pickup | Northbounc Moving Fon | 60 Female | Apparently Failure to Yield Right-of-Way | Two-Way, ^ Stop Sign | 50 |

ALIGNMEN GRADEU2 UNITTYPEUVEHICLETY DIRECTION PRECRASH AGEU3
Straight Level
Straight Level
Curve Left Level
Straight Level
Straight Level
Straight Level
Curve Left Level

CONTRIBF/NONMOTO NONMOTO RDWYDESI TRAFFICCC SPEEDLIMI ALIGNMEN' GRADEU4 UTMX UTMY LATITUDE LONGITUDICRASH_DA 449190.41:4959934.4 44.79101 -93.6423 \#\#\#\#\#\#\#\# 449186.75 (4959946.7: 44.79112 -93.6424 \#\#\#\#\#\#\#\# 449185.47!4959950.1t 44.79115 -93.6424 \#\#\#\#\#\#\#\# 449182.47،4959956.6! 44.79121-93.6424 \#\#\#\#\#\#\#\# 449179.5214959948.4i 44.79114 -93.6425 \#\#\#\#\#\#\#\# 449187.04!4959948.6، 44.79114 -93.6424 \#\#\#\#\#\#\#\# 449188.10؛4959948.6 44.79114 -93.6424 \#\#\#\#\#\#\#\#

STATUS STATUS_NCAGENCY_OAGENCY_O NARRATIVE
Accepted Reportable Carver Cou Sheriff Unit 1 was
Accepted Reportable Carver Cou Sheriff On
Accepted Reportable Carver Cou Sheriff UNIT 1 WAS TRAVELLING WESTBOUND ON BIG WOODS BLVD [CORD 44] AND UNIT 2 WAS TRAVELLING NI
Accepted Reportable Carver Cou Sheriff Unit 2 was travelling NB on Co Rd 11. Unit 1 was travelling WB on Big Woods Blvd. The driver of Unit 1 admit
Accepted Reportable Carver Cou Sheriff UNIT\#1
Accepted Reportable Carver Cou Sheriff Unit 1 was northbound on Jonathan Carver Parkway and was at the intersection with Big Woods Blvd (Co Rc
Accepted Reportable Carver Cou Sheriff Driver of vehicle 2 stopped for stop sign on County Road 44. She thought it was a four way stop intersectior

ORTHBOUND ON CORD 11 IN DAHLGREN TWP., CARVER COUNTY. UNIT 2 HAS RIGHT OF WAY WITH THROUGH TRAFFIC AND NO STOP/LIGHT CONTROL: tted to stopping at the stop sign at the intersection of Big Woods Blvd/Co Rd 11, looking both ways, then entering the intersection. The driver of Unit 1 state
d44) when Unit 2, which had been westbound on Big Woods Blvd and stopped for its stop sign, entered the intersection to continue west. The front of Unit 1. Driver of Vehicle 2 pulled out after stopping, and struck Vehicle 1 heading northbound on County Road 11. Vehicle 1 did not have a stop sign.
S. UNIT 1 HAD AN OPERATIONAL STOP SIGN AT THE INTERSECTION. UNIT 1 FAILED TO STOP FOR THE STOP SIGN FOR WESTBOUND TRAFFIC TO STOP AT d she never saw Unit 2. Unit 2 had the right of way. Unit 2 "t-boned" Unit 1, causing the curtain airbags to deploy on Unit 1. No injuries were reported.

2 struck the right side of Unit 1 near its rear wheel.

CORD 11. THE DRIVER OF UNIT 1 ADVISED THE SUNSET WAS IN HER EYES, CAUSING DIFFICULT VIEW OF VISION. THE DRIVER OF UNIT 1 STATED THE RC

JUTE SHE WAS DRIVIGN WAS NOT A ROUTE SHE WAS USED TO. UNIT 1 ENTERED THE INTERSECTION STRIKING UNIT 2 IN THE PASSENGER FRONT DOOR.

UND THE VEHICLE. THE DRIVER OF UNIT 1 WAS TRANSPORTED TO THE HOSP. FOR SUSPECTED INJURIES. THE PASSENGER OF UNIT 2 WAS ATTENDED B'

Regional Solicitation - Carver County

| CSAH 11 and 44 |  |  |
| :--- | ---: | :--- |
| Existing Volume | 748 | vehicles |
| Existing Delay | 6 | sec/veh |
| Existing Total Delay | 4488 | seconds |
| Future Volume | 748 | vehicles |
| Future Delay | 5.2 | sec/veh |
| Future Total Delay | 3889.6 | seconds |
| Total Delay Reduction | 598.4 | seconds |

Emissions

| Existing | 1 | Total |
| :--- | ---: | ---: |
| CO | 0.86 | 0.86 |
| NO | 0.17 | 0.17 |
| VOC | 0.2 | 0.2 |
| Network Total |  |  |


| Build | 1 | Total |
| :--- | ---: | ---: |
| CO | 0.93 | 0.93 |
| NO | 0.18 | 0.18 |
| VOC | 0.21 | 0.21 |
| Network Total |  | 1.32 |

## 10: CSAH 11 \& CSAH 44

| Direction | All |
| :--- | ---: |
| Future Volume (vph) | 748 |
| Total Delay / Veh (s/v) | 6 |
| CO Emissions $(\mathrm{kg})$ | 0.86 |
| NOx Emissions $(\mathrm{kg})$ | 0.17 |
| VOC Emissions $(\mathrm{kg})$ | 0.20 |


| Intersection |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Intersection Delay, s/veh | 5.2 |  |  |  |
| Intersection LOS | A |  |  |  |
| Approach | EB | WB | SB |  |
| Entry Lanes | 1 | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 76 | 135 | 273 | 329 |
| Demand Flow Rate, veh/h | 77 | 137 | 278 | 336 |
| Vehicles Circulating, veh/h | 383 | 239 | 76 |  |
| Vehicles Exiting, veh/h | 29 | 246 | 207 | 300 |
| Ped Vol Crossing Leg, \#/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 4.7 | 4.5 | 5.2 | A |
| Approach LOS | A | A | A |  |


| Lane | Left | Left | Left | Left |
| :--- | :---: | :---: | :---: | :---: |
| Designated Moves | LTR | LTR | LTR | LTR |
| Assumed Moves | LTR | LTR | LTR |  |
| RT Channelized |  |  |  |  |
| Lane Util | 1.000 | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 | 4.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 | 336 |
| Entry Flow, veh/h | 77 | 137 | 278 | 1277 |
| Cap Entry Lane, veh/h | 934 | 1081 | 1117 | 0.980 |
| Entry HV Adj Factor | 0.985 | 0.983 | 0.981 | 329 |
| Flow Entry, veh/h | 76 | 135 | 1251 |  |
| Cap Entry, veh/h | 920 | 1063 | 1096 | 0.263 |
| V/C Ratio | 0.082 | 0.127 | 0.249 | 5.2 |
| Control Delay, s/veh | 4.7 | 4.5 | 5.6 | A |
| LOS | A | 0 | 1 | 1 |

10: CSAH 11 \& CSAH 44

| Direction | All |
| :--- | ---: |
| Future Volume (vph) | 748 |
| CO Emissions $(\mathrm{kg})$ | 0.93 |
| NOx Emissions $(\mathrm{kg})$ | 0.18 |
| VOC Emissions $(\mathrm{kg})$ | 0.21 |

Traffic Safety Benefit-Cost Calculation
Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

## A. Roadway Description

| Route | CSAH 44 | District | County | Carver |
| :---: | :---: | :---: | :---: | :---: |
| Begin RP |  | End RP | Miles |  |
| Location | CSAH 44 and CSAH 11 |  |  |  |

## B. Project Description

| Proposed Work | Convert to Roundabout |  |  |
| :---: | :---: | :---: | :---: |
|  | \$2,280,000 | Installation Year | 2026 |
| Project Service Life | 20 years | Traffic Growth Factor | 2.0\% |
| * exclude Right of Way from Project Cost |  |  |  |

## C. Crash Modification Factor

| 0.00 | Fatal (K) Crashes | Reference | Engineering Judgement |
| :--- | :--- | :--- | :--- |
| 0.00 | Serious Injury (A) Crashes |  |  |
| 0.00 | Moderate Injury (B) Crashes | Crash Type |  |
| 0.00 | Angle - All |  |  |
| 0.00 | Possible Injury (C) Crashes |  |  |

D. Crash Modification Factor (optional second CMF)

| Fatal (K) Crashes | Reference |  |
| :---: | :---: | :---: |
| Serious Injury (A) Crashes |  |  |
| Moderate Injury (B) Crashes | Crash Type |  |
| Possible Injury (C) Crashes |  |  |
| Property Damage Only Crashes |  | www.CMFclearinghouse.org |


F. Analysis Assumptions

| Crash Severity | Crash Cost |  |  |
| :--- | ---: | ---: | :--- |
| K crashes | $\$ 1,600,000$ | Link: | mndot.gov/planning/program/appendix_a.html |
| A crashes | $\$ 800,000$ |  |  |
| B crashes | $\$ 250,000$ | Real Discount Rate | $0.7 \%$ |
| C crashes | $\$ 130,000$ | Traffic Growth Rate | $2.0 \%$ |
| PDO crashes | $\$ 15,000$ | 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 | 0.00 | 0.00 | $\$ 0$ |
| B crashes | 3.00 | 1.00 | $\$ 250,000$ |
| C crashes | 1.00 | 0.33 | $\$ 43,333$ |
| PDO crashes | 3.00 | 1.00 | $\$ 15,000$ |


| H. Amortized Benefit |  |  |  |
| :---: | :---: | :---: | :---: |
| Year | Crash Benefits | Present Value |  |
| 2026 | \$308,333 | \$308,333 | Total $=\$ 6,984,888$ |
| 2027 | \$314,500 | \$312,314 |  |
| 2028 | \$320,790 | \$316,346 |  |
| 2029 | \$327,206 | \$320,430 |  |
| 2030 | \$333,750 | \$324,566 |  |
| 2031 | \$340,425 | \$328,756 |  |
| 2032 | \$347,233 | \$333,000 |  |
| 2033 | \$354,178 | \$337,299 |  |
| 2034 | \$361,262 | \$341,654 |  |
| 2035 | \$368,487 | \$346,064 |  |
| 2036 | \$375,857 | \$350,532 |  |
| 2037 | \$383,374 | \$355,057 |  |
| 2038 | \$391,041 | \$359,641 |  |
| 2039 | \$398,862 | \$364,284 |  |
| 2040 | \$406,839 | \$368,986 |  |
| 2041 | \$414,976 | \$373,750 |  |
| 2042 | \$423,276 | \$378,575 |  |
| 2043 | \$431,741 | \$383,462 |  |
| 2044 | \$440,376 | \$388,412 |  |
| 2045 | \$449,183 | \$393,427 |  |
| 0 | \$0 | \$0 |  |
| 0 | \$0 | \$0 |  |
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| 0 | \$0 | \$0 |  |
| 0 | \$0 | \$0 |  |

## CSAH 44 and CSAH 11

| IN |  | CO |  | MNDOT_D | STATE_PATITR | D | ACCIDEN | SH_MC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1032369 04-CSAH | 11 | 7.351 Carver | Dahlgren | D-METRO | Golden Valley | 22019149 | $2.22 \mathrm{E}+08$ | 7-Jul |
| 1061016 04-CSAH | 11 | 7.359 Carver | Dahlgren | D-METRO | Golden Valley | 22034962 | $2.23 \mathrm{E}+08$ | 11-Nov |
| 939569 04-CSAH | 11 | 7.361 Carver | Dahlgren | D-METRO | Golden Valley | 21024700 | $2.13 \mathrm{E}+08$ | 9-Sep |
| 1034962 04-CSAH | 11 | 7.365 Carver | Dahlgren | D-METRO | Golden Valley | 22020739 | $2.22 \mathrm{E}+08$ | 7-Jul |
| 941010 04-CSAH | 44 | 2.031 Carver | Dahlgren | D-METRO | Golden Valley | 21025519 | $2.13 \mathrm{E}+08$ | 9-Sep |
| 1047905 04-CSAH | 44 | 2.035 Carver | Dahlgren | D-METRO | Golden Valley | 22028496 | $2.23 \mathrm{E}+08$ | 9-Sep |
| 815497 04-CSAH | 44 | 2.036 Carver | Dahlgren | D-METRO | Golden Valley | 20017044 | $2.02 \mathrm{E}+08$ | 6-Jun |

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| 0 | 2 Angle | Motor Vehic On Roadwa Interchangt |
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LIGHTCON WEATHERP WEATHERS RDWYSURF WORKZONI ROADWAY_INTERSECT ROUTE_ID BASIC_TYPIUNITTYPEUVEHICLETY DIRECTION PRECRASH

| Daylight | Clear | Dry | NOT APPLİ JONATHAN CSAH 44 | 040000659 Angle | Motor Vehic Pickup Westbound Moving Fon |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Daylight | Clear | Dry | NOT APPLI( JONATHAN CARVER P | 040000659 Angle | Motor Vehic Passenger ' Northbounı Moving Fon |
| Sunset | Clear | Dry | NOT APPLII JONATHAN CSAH 140 | 040000659 Angle | Motor Vehic Passenger 'Westbound Moving Forn |
| Daylight | Clear | Dry | NOT APPLI( JONATHAN CSAH 44 | 040000659 Angle | Motor Vehic Passenger I Westbound Moving Forn |
| Sunset | Clear | Dry | NOT APPLIC CSAH 140 JONATHAN | 040000659 Angle | Motor Vehic Passenger ' Westbound Moving Forn |
| Daylight | Clear | Dry | NOT APPLIC CSAH 44 CO RD 11 | 040000659 Angle | Motor Vehic Passenger ' Northboun Moving Forn |
| Daylight | Cloudy | Dry | NOT APPLİ CSAH 140 | 040000659 Angle | Motor Vehic Passenger I Northboun Moving Forn |

PHYSICALC CONTRIBF/CONTRIBF/ NONMOTO NONMO

Apparently Ran Stop Sign
Apparently No Clear Contributing Action
Apparently Ran Stop Sign
Apparently Failure to Yield Right-of-Way
Apparently Failure to Yield Right-of-Way
Apparently No Clear Contributing Action
Apparently No Clear Contributing Action

| Two-Way, ^ Stop Sign | 55 Straight | Level | Motor Vehic |
| :--- | :--- | :--- | :--- |
| Two-Way, ^ No Control: | 55 Straight | Level | Motor Vehic |
| Two-Way, ^ Stop Sign | 50 Straight | Level | Motor Vehic |
| Two-Way, ^ Stop Sign | 55 Straight | Level | Motor Vehic |
| Two-Way, ^ Stop Sign | 55 Straight | Level | Motor Vehic |
| Two-Way, ^ No Control: | 55 Curve Left Level | Motor Vehic |  |
| Two-Way, ^ Stop Sign | 50 Curve Left Level | Motor Vehic |  |


| VEHICLETY | ASH AGEU2 | SEXU2 | PH | RDWYDESI TRAFFICCC |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pickup | Southboun Moving Fon | 43 Male | Apparently No Clear Contributing Action | Two-Way, A No Control: | 55 |
| Passenger | (Eastbound Moving Fon | 62 Male | Apparently Failure to Yield Right-of-Way | Two-Way, ^ Stop Sign | 55 |
| Passenger | 'Northbounc Moving Fon | 44 Female | Apparently No Clear Contributing Action | Two-Way, ^ No Control: | 55 |
| Passenger | ( Northbounc Moving Fon | 36 Female | Apparently No Clear Contributing Action | Two-Way, ^ No Control: | 55 |
| Passenger | ( Northbounc Moving Fon | 19 Female | Apparently No Clear Contributing Action | Two-Way, ^ No Control: | 55 |
| Pickup | Westbound Moving Fon | 28 Male | Apparently Failure to Yield Right-of-Way | Two-Way, ^ Stop Sign | 50 |
| Pickup | Northbounc Moving Fon | 60 Female | Apparently Failure to Yield Right-of-Way | Two-Way, ^ Stop Sign | 50 |

ALIGNMEN GRADEU2 UNITTYPEUVEHICLETY DIRECTION PRECRASH AGEU3
Straight Level
Straight Level
Curve Left Level
Straight Level
Straight Level
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Curve Left Level

CONTRIBF/NONMOTO NONMOTO RDWYDESI TRAFFICCC SPEEDLIMI ALIGNMEN' GRADEU4 UTMX UTMY LATITUDE LONGITUDICRASH_DA 449190.41:4959934.4 44.79101 -93.6423 \#\#\#\#\#\#\#\# 449186.75 (4959946.7: 44.79112 -93.6424 \#\#\#\#\#\#\#\# 449185.47!4959950.1t 44.79115 -93.6424 \#\#\#\#\#\#\#\# 449182.47،4959956.6! 44.79121-93.6424 \#\#\#\#\#\#\#\# 449179.5214959948.4i 44.79114 -93.6425 \#\#\#\#\#\#\#\# 449187.04!4959948.6، 44.79114 -93.6424 \#\#\#\#\#\#\#\# 449188.10؛4959948.6 44.79114 -93.6424 \#\#\#\#\#\#\#\#

STATUS STATUS_NCAGENCY_OAGENCY_O NARRATIVE
Accepted Reportable Carver Cou Sheriff Unit 1 was
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Accepted Reportable Carver Cou Sheriff Unit 1 was northbound on Jonathan Carver Parkway and was at the intersection with Big Woods Blvd (Co Rc
Accepted Reportable Carver Cou Sheriff Driver of vehicle 2 stopped for stop sign on County Road 44. She thought it was a four way stop intersectior

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d44) when Unit 2, which had been westbound on Big Woods Blvd and stopped for its stop sign, entered the intersection to continue west. The front of Unit 1. Driver of Vehicle 2 pulled out after stopping, and struck Vehicle 1 heading northbound on County Road 11. Vehicle 1 did not have a stop sign.
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2 struck the right side of Unit 1 near its rear wheel.

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UND THE VEHICLE. THE DRIVER OF UNIT 1 WAS TRANSPORTED TO THE HOSP. FOR SUSPECTED INJURIES. THE PASSENGER OF UNIT 2 WAS ATTENDED B'

Traffic Safety Benefit-Cost Calculation
Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

## A. Roadway Description

| Route | CSAH 44 | District | County | Carver |
| :---: | :---: | :---: | :---: | :---: |
| Begin RP |  | End RP | Miles |  |
| Location | CSAH 44 and CSAH 11 |  |  |  |

## B. Project Description

| Proposed Work | Convert to Roundabout |  |  |
| :---: | :---: | :---: | :---: |
|  | \$2,280,000 | Installation Year | 2026 |
| Project Service Life | 20 years | Traffic Growth Factor | 2.0\% |
| * exclude Right of Way from Project Cost |  |  |  |

## C. Crash Modification Factor

| 0.00 | Fatal (K) Crashes | Reference | Engineering Judgement |
| :--- | :--- | :--- | :--- |
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| 0.00 | Moderate Injury (B) Crashes | Crash Type |  |
| 0.00 | Angle - All |  |  |
| 0.00 | Possible Injury (C) Crashes |  |  |

D. Crash Modification Factor (optional second CMF)

| Fatal (K) Crashes | Reference |  |
| :---: | :---: | :---: |
| Serious Injury (A) Crashes |  |  |
| Moderate Injury (B) Crashes | Crash Type |  |
| Possible Injury (C) Crashes |  |  |
| Property Damage Only Crashes |  | www.CMFclearinghouse.org |


F. Analysis Assumptions

| Crash Severity | Crash Cost |  |  |
| :--- | ---: | ---: | :--- |
| K crashes | $\$ 1,600,000$ | Link: | mndot.gov/planning/program/appendix_a.html |
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| B crashes | $\$ 250,000$ | Real Discount Rate | $0.7 \%$ |
| C crashes | $\$ 130,000$ | Traffic Growth Rate | $2.0 \%$ |
| PDO crashes | $\$ 15,000$ | 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 | 0.00 | 0.00 | $\$ 0$ |
| B crashes | 3.00 | 1.00 | $\$ 250,000$ |
| C crashes | 1.00 | 0.33 | $\$ 43,333$ |
| PDO crashes | 3.00 | 1.00 | $\$ 15,000$ |


| H. Amortized Benefit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Crash Benefits | Present Value |  |  |
| 2026 | \$308,333 | \$308,333 | Total $=$ | \$6,984,888 |
| 2027 | \$314,500 | \$312,314 |  |  |
| 2028 | \$320,790 | \$316,346 |  |  |
| 2029 | \$327,206 | \$320,430 |  |  |
| 2030 | \$333,750 | \$324,566 |  |  |
| 2031 | \$340,425 | \$328,756 |  |  |
| 2032 | \$347,233 | \$333,000 |  |  |
| 2033 | \$354,178 | \$337,299 |  |  |
| 2034 | \$361,262 | \$341,654 |  |  |
| 2035 | \$368,487 | \$346,064 |  |  |
| 2036 | \$375,857 | \$350,532 |  |  |
| 2037 | \$383,374 | \$355,057 |  |  |
| 2038 | \$391,041 | \$359,641 |  |  |
| 2039 | \$398,862 | \$364,284 |  |  |
| 2040 | \$406,839 | \$368,986 |  |  |
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| 2043 | \$431,741 | \$383,462 |  |  |
| 2044 | \$440,376 | \$388,412 |  |  |
| 2045 | \$449,183 | \$393,427 |  |  |
| 0 | \$0 | \$0 |  |  |
| 0 | \$0 | \$0 |  |  |
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| 0 | \$0 | \$0 |  |  |
| 0 | \$0 | \$0 |  |  |
| 0 | \$0 | \$0 |  |  |

## CSAH 44 and CSAH 11

| IN |  | CO |  | MNDOT_D | STATE_PATITR | D | ACCIDEN | SH_MC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1032369 04-CSAH | 11 | 7.351 Carver | Dahlgren | D-METRO | Golden Valley | 22019149 | $2.22 \mathrm{E}+08$ | 7-Jul |
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| 939569 04-CSAH | 11 | 7.361 Carver | Dahlgren | D-METRO | Golden Valley | 21024700 | $2.13 \mathrm{E}+08$ | 9-Sep |
| 1034962 04-CSAH | 11 | 7.365 Carver | Dahlgren | D-METRO | Golden Valley | 22020739 | $2.22 \mathrm{E}+08$ | 7-Jul |
| 941010 04-CSAH | 44 | 2.031 Carver | Dahlgren | D-METRO | Golden Valley | 21025519 | $2.13 \mathrm{E}+08$ | 9-Sep |
| 1047905 04-CSAH | 44 | 2.035 Carver | Dahlgren | D-METRO | Golden Valley | 22028496 | $2.23 \mathrm{E}+08$ | 9-Sep |
| 815497 04-CSAH | 44 | 2.036 Carver | Dahlgren | D-METRO | Golden Valley | 20017044 | $2.02 \mathrm{E}+08$ | 6-Jun |

CRASH DA CRASH YEICRASH DA CRASH HCDIVIDEDRD CRASHSEVERITY


NUMBERKII NUMBEROI MANNEROI FIRSTHARN RELATIVE L RELATIONT

| 0 | 2 Angle | Motor Vehic On Roadwa Four-Way If |
| :--- | :--- | :--- |
| 0 | 2 Angle | Motor Vehic On Roadwa Four-Way Ir |
| 0 | 2 Angle | Motor Vehic On Roadwa Four-Way Ir |
| 0 | 2 Angle | Motor Vehic On Roadwa Four-Way Ir |
| 0 | 2 Angle | Motor Vehic On Roadwa Interchangt |
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LIGHTCON WEATHERP WEATHERS RDWYSURF WORKZONI ROADWAY_INTERSECT ROUTE_ID BASIC_TYPIUNITTYPEUVEHICLETY DIRECTION PRECRASH

| Daylight | Clear | Dry | NOT APPLİ JONATHAN CSAH 44 | 040000659 Angle | Motor Vehic Pickup Westbound Moving Fon |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Daylight | Clear | Dry | NOT APPLI( JONATHAN CARVER P | 040000659 Angle | Motor Vehic Passenger ' Northbounı Moving Fon |
| Sunset | Clear | Dry | NOT APPLII JONATHAN CSAH 140 | 040000659 Angle | Motor Vehic Passenger 'Westbound Moving Forn |
| Daylight | Clear | Dry | NOT APPLI( JONATHAN CSAH 44 | 040000659 Angle | Motor Vehic Passenger I Westbound Moving Forn |
| Sunset | Clear | Dry | NOT APPLIC CSAH 140 JONATHAN | 040000659 Angle | Motor Vehic Passenger ' Westbound Moving For |
| Daylight | Clear | Dry | NOT APPLIC CSAH 44 CO RD 11 | 040000659 Angle | Motor Vehic Passenger ' Northboun Moving Forn |
| Daylight | Cloudy | Dry | NOT APPLİ CSAH 140 | 040000659 Angle | Motor Vehic Passenger I Northboun Moving Forn |

PHYSICALC CONTRIBF/CONTRIBF/ NONMOTO NONMO

Apparently Ran Stop Sign
Apparently No Clear Contributing Action
Apparently Ran Stop Sign
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| Two-Way, ^ Stop Sign | 55 Straight | Level | Motor Vehic |
| :--- | :--- | :--- | :--- |
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| VEHICLETY | ASH AGEU2 | SEXU2 | PH | RDWYDESI TRAFFICCC |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
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ALIGNMEN GRADEU2 UNITTYPEUVEHICLETY DIRECTION PRECRASH AGEU3
Straight Level
Straight Level
Curve Left Level
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CONTRIBF/NONMOTO NONMOTO RDWYDESI TRAFFICCC SPEEDLIMI ALIGNMEN' GRADEU4 UTMX UTMY LATITUDE LONGITUDICRASH_DA 449190.41:4959934.4 44.79101 -93.6423 \#\#\#\#\#\#\#\# 449186.75 (4959946.7: 44.79112 -93.6424 \#\#\#\#\#\#\#\# 449185.47!4959950.1t 44.79115 -93.6424 \#\#\#\#\#\#\#\# 449182.47،4959956.6! 44.79121-93.6424 \#\#\#\#\#\#\#\# 449179.5214959948.4i 44.79114 -93.6425 \#\#\#\#\#\#\#\# 449187.04!4959948.6، 44.79114 -93.6424 \#\#\#\#\#\#\#\# 449188.10؛4959948.6 44.79114 -93.6424 \#\#\#\#\#\#\#\#

STATUS STATUS_NCAGENCY_OAGENCY_O NARRATIVE
Accepted Reportable Carver Cou Sheriff Unit 1 was
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Accepted Reportable Carver Cou Sheriff Unit 2 was travelling NB on Co Rd 11. Unit 1 was travelling WB on Big Woods Blvd. The driver of Unit 1 admit
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Accepted Reportable Carver Cou Sheriff Driver of vehicle 2 stopped for stop sign on County Road 44. She thought it was a four way stop intersectior

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UND THE VEHICLE. THE DRIVER OF UNIT 1 WAS TRANSPORTED TO THE HOSP. FOR SUSPECTED INJURIES. THE PASSENGER OF UNIT 2 WAS ATTENDED B'



## CITY OF CHASKA ONE CITY HALL PLAZA / CHASKA MN 55318-1962

November 7, 2023
Elaine Koutsoukos - TAB Coordinator
Metropolitan Council
390 North Robert Street
St. Paul, MN 55101
Re: Support for 2024 Regional Solicitation Application for the CSAH 11 (Jonathan Carver Parkway)/ CSAH 44 (Big Woods Blvd) Intersection Safety Improvements

Dear Ms. Koutsoukos,
The City of Chaska supports Carver County's federal funding application through the 2024 Regional Solicitation for the proposed CSAH 11 and CSAH 44 Intersection Safety Improvements and Multimodal Trails, which will include the following benefits:

- Increased safety,
- Decreased the severity of crashes,
- Reduced conflict points,
- Increased health benefits,
- Protection of cyclists and pedestrians, and
- Increased connectivity to various regional trails and key destinations.

The City of Chaska supports Carver County in its efforts to construct a new roundabout and improve and implement trails which will connect into The City of Chaska and Minnesota River Bluffs and Southwest Regional Trails. These improvements will reduce the severity of crashes, limit conflict points, and ensure the safety of pedestrians and bicyclists.
The City of Chaska is committed to working with Carver County to see this project to fruition.

Sincerely,


Mayor

# BOARD OF COUNTY COMMISSIONERS CARVER COUNTY, MINNESOTA 

Date: November 14, 2023
Motion by Commissioner:

Degler

Resolution No: __ 85-23
Seconded by Commissioner: _Lynch

## RESOLUTION TO AUTHORIZE SUBMITTAL AND SUPPORT OF TRANSPORTATION PROJECT APPLICATIONS TO THE METROPOLITAN COUNCIL'S REGIONAL SOLICITATION

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

WHEREAS, every two years the Metropolitan Council solicits funding applications for the Regional Solicitation to distribute federal transportation funds to locally initiated projects serving regional transportation needs; and

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

WHEREAS, eligible projects compete for funding within three modal categories, each with subcategories: Roadways Including Multimodal Elements; Transit and Travel Demand Management; and Bicycle and Pedestrian Facilities and the County has identified competitive, eligible projects to submit in the following funding categories: Roadway Strategic Capacity, Roadway Spot Mobility and Safety, Roadway Reconstruction/Modernization, Roadway Traffic Management Technologies, and Multiuse Trails and Bicycle Facilities; and

WHEREAS, the following project applications are recommended to be submitted to the Metropolitan Council's Regional Solicitation process for federal transportation funding:
A. Highway 5/Highway 41 Intersection Reconstruction Project
B. Highway 5 Victoria Mobility and Safety Improvement from $80^{\text {th }}$ Street to west of Highway 13 (Rolling Acres Road)
C. Highway 13 and Lake Minnetonka Regional Trail Grade Separation Project
D. Highway 11/Highway 44 Intersection Improvement Project
E. Minnesota River Bluffs Regional Trail Connection from Bluff Creek Drive to Highway 14 (Pioneer Trail)

WHEREAS, these projects are identified in adopted County transportation plans including but not limited to the Arboretum Area Transportation Plan, 2040 Comprehensive Plan, and the Capital Improvement Plan; and

WHEREAS, the County supports the proposed projects and recognizes the local and regional transportation benefits the projects will provide; and

WHEREAS, the Board of Commissioners adopted a $1 / 2$ percent local option sales tax in May 2017 dedicated for transportation projects, of which several of the projects are eligible to utilize as the required local match. County is committed to meeting the local match requirements per this federal transportation grant program; and

WHEREAS, Carver County is the fastest growing county in Minnesota and completion of these projects are critical to support planned growth for jobs and housing in the area as well as improving safety and relieving congestion; and,

WHEREAS, Carver County has identified transportation system deficiencies, existing poor operating conditions and safety that these projects will address; and

WHEREAS, once funded and constructed, these projects will provide safer, faster, and more reliable movement of goods and people through Carver County and the metropolitan region.

NOW THERE FORE BE IT RESOLVED, that Carver County Board of Commissioners, supports and authorizes the County Engineer, or their designee, to submit the above identified project applications for the Metropolitan Council's Regional Solicitation.

BE IT FURTHER RESOLVED that Carver County has the legal authority to apply for financial assistance, and the institutional, managerial, and financial capability to ensure matching funds and adequate construction of the proposed project; and,

BE IT FURTHER RESOLVED that Carver County has not violated any Federal, State, or local laws pertaining to fraud, bribery, graft, kickbacks, collusion, conflict of interest or other unlawful or corrupt practice; and,

BE IT FURTHER RESOLVED that Carver County is committed to the local match requirement and if the project costs increase above the amount listed in the applications, Carver County will provide or secure all additional funds necessary to complete the projects; and,

BE IT FURTHER RESOLVED that Carver County will comply with all applicable laws, regulations, and rules of the application; and,

BE IT FURTHER RESOLVED that the sources and uses, private investors, equity, and other financing commitments represented in the applications are accurate.

|  | No |  |
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## STATE OF MINNESOTA

## COUNTY OF CARVER

I, Dave Hemze, duly appointed and qualified County Administrator of the County of Carver, State of Minnesota, do hereby certify that I have compared the foregoing copy of this resolution with the original minutes of the proceedings of the Board of County Commissioners, Carver County, Minnesota, at its session held on the $14^{\text {th }}$ day of November, 2023, now on file in the Administration office, and have found the same to be a tru and correct copy thereof.

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## CSAH 11 and CSAH 44 Intersection Safety Improvements



Image A: Existing Condition, CSAH 11 south of CSAH 44


Image B: Existing Condition, CSAH 44 West of CSAH 11

Existing Conditions

## Project Benefits

- Increased safety
- Decreased the severity of crashes
- Reduced conflict points
- Protection of bicyclists and pedestrians
- Connectivity to various regional trails and destinations

| Applicant: | Carver County |
| :--- | :--- |
| City Where Project Is Located: | City of Chaska and <br> Dahlgren Township |
| County Where Project Is Located: | Carver County |
| Requested Award Amount: | $\$ 1,988,000$ |
| Total Project Cost: | $\$ 2,485,000$ |

## Project Description

The proposed project includes constructing a single lane roundabout at the intersection and adding a 10-foot multiuse trail separated by a boulevard. The crash rate ( 0.79 per million entering vehicles (MEV)) in the last five years is over two times higher than the critical crash rate and nearly eight times higher than the average crash rate for similar intersections. In the last 10 years there have been a total of 17 crashes, of which nine were injury crashes including two serious injury (type A) crashes at the intersection. Seventy-five percent of the crashes were right-angle crashes including all of the injury crashes which will be eliminated with the construction of a roundabout at the intersection.

The intersection of County State Aid Highway (CSAH) 11 (Jonathan Carver Parkway) and CSAH 44 (Big Woods Blvd) is a four-way side-street stop-controlled intersection, with stop signs located only on the east and west approaches. CSAH 11 is a two-lane undivided rural road, with a posted speed limit of 55 miles per hour (mph). CSAH 44 is a two-lane rural road with a speed limit of 55 mph . West of CSAH 11, it is a Major Collector roadway and east of CSAH 11 it is an A-minor expander. CSAH 11 is classified as an A-minor connector.

The CSAH 11 and CSAH 44 Intersection Safety Improvements project aims to eliminate right-angle crashes and reduce the severity of crashes by reducing conflict points to ensure the safety of motorists, pedestrians, and bicyclists. The existing twoway stop-controlled intersection will be replaced with a roundabout which includes safety measures such as splitter islands and raised medians. The roundabout will also have additional safety measures including high visibility marked crossings at each leg and pedestrian refuge islands. As part of the project, the intersection will construct a 10-foot bituminous multiuse trail separated by a boulevard path along CSAH 11 which is identified as a Tier 2 Regional Bicycle Transportation Network (RBTN) route. This trail will be separated from the road to ensure proper clear zone to ensure the safety of pedestrians and cyclists.



[^0]:    (Linit 2,800 characters; approximately 400 words)

[^1]:    Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race.
    Source: U.S. Census Bureau, American Community Survey (ACS) 2017-2021. Life expectancy data omes from the Centers for Disease Control.

