Application

10355-2018 Roadway System Management
11034 - Dakota County CSAH 38 Roadway System Management
Regional Solicitation - Roadways Including Multimodal Elements
Status: Submitted
Submitted Date:
07/12/2018 2:01 PM

## Primary Contact

| Name:* | Sarah |  |  |
| :---: | :---: | :---: | :---: |
|  | Salutation | Name | Last Name |
| Title: | Assistant Traff | ineer |  |
| Department: |  |  |  |
| Email: | sarah.tracy@co.dakota.mn.us |  |  |
| Address: | 14955 Galaxie Avenue |  |  |
|  | Transportation - 3rd Floor |  |  |
| * | Apple Valley | Minnesota | 55124 |
|  | City | State/Province | Postal Code/Zip |
| Phone:* | 952-891-7177 | Ext. |  |
|  | Phone |  |  |
| Fax: |  |  |  |
| What Grant Programs are you most interested in? | Regional Solicitation - Roadways Including Multimodal Elements |  |  |

## Organization Information

Name:

| Jurisdictional Agency (if different): |  |  |
| :--- | :--- | :--- |
| Organization Type: | County Government |  |
| Organization Website: |  |  |
| Address: | TRANSPORTATION DEPT |  |
|  | 14955 GALAXIE AVE |  |
| * |  |  |
| County: | APPLE VALLEY | Minnesota |

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

Dakota County CSAH 38 Roadway System Management
Dakota
Burnsville \& Apple Valley

The project is fiber optic cable installation for traffic signal interconnection and traffic signal revisions at twelve intersections to improve traffic operations along CSAH 38 in Dakota County. CSAH 38 is classified as an A-minor arterial. Flashing yellow arrow additions, signal equipment upgrades and camera installations will be completed as part of the project. The final phase of the project will be corridor retiming through the County's Advanced Traffic Management System.
(Limit 2,800 characters; approximately 400 words)
TIP Description Guidance (will be used in TIP if the project is selected for funding)

Project Length (Miles)

CMAQ
7.0

## Project Funding

| Are you applying for competitive funds from another source(s) to implement this project? | No |
| :---: | :---: |
| If yes, please identify the source(s) |  |
| Federal Amount | \$1,440,000.00 |
| Match Amount | \$360,000.00 |
| Minimum of 20\% of project total |  |
| Project Total | \$1,800,000.00 |
| Match Percentage | 20.0\% |
| Minimum of 20\% |  |
| Compute the match percentage by dividing the match amount by the project total |  |
| Source of Match Funds | County \& City local funds |
| A minimum of $20 \%$ of the total project cost must come from non-federal sources; additional match funds over the $20 \%$ minimum can come from other federal sources |  |
| Preferred Program Year |  |
| Select one: | 2022 |
| Select 2020 or 2021 for TDM projects only. For all other applications, select 2022 or 2023. |  |
| Additional Program Years: |  |
| Select all years that are feasible if funding in an earlier year becomes available. |  |

## Project Information: Roadway Projects

| County, City, or Lead Agency | Dakota County |
| :--- | :--- |
| Functional Class of Road | A-minor Arterial |
| Road System | CSAH |
| TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET |  |
| Road/Route No. | 38 |
| i.e., 53 for CSAH 53 | McAndrews Road |
| Name of Road |  |
| Example; 1st ST., MAIN AVE | 55124 |
| Zip Code where Majority of Work is Being Performed | $06 / 01 / 2022$ |
| (Approximate) Begin Construction Date | $09 / 30 / 2022$ |
| (Approximate) End Construction Date | CSAH 38 \& CSAH 5 Intersection |
| TERMINI:(Termini listed must be within 0.3 miles of any work) |  |
| From: |  |
| (Intersection or Address) | Just east of CSAH 38 \& CSAH 31 Intersection |
| To: |  |

Or At

Primary Types of Work ITS \& Signal
Examples: GRADE, AGG BASE, BIT BASE, BIT SURF,
SIDEWALK, CURB AND GUTTER,STORM SEWER,
SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS,
BRIDGE, PARK AND RIDE, ETC.
BRIDGE/CULVERT PROJECTS (IF APPLICABLE)
Old Bridge/Culvert No.:
New Bridge/Culvert No.:
Structure is Over/Under
(Bridge or culvert name):

## Requirements - All Projects

## All Projects

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

Check the box to indicate that the project meets this requirement. Yes
2. The project must be consistent with the 2040 Transportation Policy Plan. Reference the 2040 Transportation Plan goals, objectives, and strategies that relate to the project.

# This project will do the following: <br> Increase safety (by reducing delay) 

## Maintaining infrastructure in a state of good repair(updating current cabinets and controllers)

## Reducing congestion (by increasing through put)

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

# Improving efficiency and reliability (re-timing coordinates signals better) <br> Creating environmental sustainability (reduces vehicle omissions) 

## See page 2.4 of the 2040 TPP

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

Check the box to indicate that the project meets this requirement. Yes
5.Applicants that are not cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.

Check the box to indicate that the project meets this requirement. Yes
6.Applicants must not submit an application for the same project elements in more than one funding application category.

Check the box to indicate that the project meets this requirement. Yes
7.The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below.
Roadway Expansion: \$1,000,000 to \$7,000,000
Roadway Reconstruction/ Modernization Modernization and Spot Mobility: \$1,000,000 to \$7,000,000
Traffic Management Technologies (Roadway System Management): \$250,000 to \$7,000,000
Bridges Rehabilitation/ Replacement: \$1,000,000 to \$7,000,000
Check the box to indicate that the project meets this requirement. Yes
8. The project must comply with the Americans with Disabilities Act (ADA).

Check the box to indicate that the project meets this requirement. Yes
9.In order for a selected project to be included in the Transportation Improvement Program (TIP) and approved by USDOT, the public agency sponsor must either have, or be substantially working towards, completing a current Americans with Disabilities Act (ADA) self-evaluation or transition plan that covers the public right of way/transportation, as required under Title II of the ADA.

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

The applicant is a public agency that employs 50 or more people Yes

01/01/2016

Date process started

12/31/2019
Date of anticipated plan completion/adoption

The applicant is a public agency that employs fewer than $\mathbf{5 0}$ people and has a completed ADA self-evaluation that covers the public rights of way/transportation.

Date self-evaluation completed

The applicant is a public agency that employs fewer than 50 people and is working towards completing an ADA self-evaluation that covers the public rights of way/transportation.
(TDM Applicants Only) The applicant is not a public agency
subject to the self-evaluation requirements in Title II of the ADA.
10.The project must be accessible and open to the general public.

Check the box to indicate that the project meets this requirement. Yes
11.The owner/operator of the facility must operate and maintain the project year-round for the useful life of the improvement, per FHWA direction established 8/27/2008 and updated 6/27/2017.

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

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

Check the box to indicate that the project meets this requirement. Yes
14.The project applicant must send written notification regarding the proposed project to all affected state and local units of government prior to submitting the application.

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

## Roadways Including Multimodal Elements

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

Check the box to indicate that the project meets this requirement. Yes
Roadway Expansion and Reconstruction/Modernization and Spot Mobility projects only:
2.The project must be designed to meet 10 -ton load limit standards.

Check the box to indicate that the project meets this requirement.
Bridge Rehabilitation/Replacement projects only:
3.Projects requiring a grade-separated crossing of a principal arterial freeway must be limited to the federal share of those project costs identified as local (non-MnDOT) cost responsibility using MnDOTs Cost Participation for Cooperative Construction Projects and Maintenance Responsibilities manual. In the case of a federally funded trunk highway project, the policy guidelines should be read as if the funded trunk highway route is under local jurisdiction.

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

> 4.The bridge must carry vehicular traffic. Bridges can carry traffic from multiple modes. However, bridges that are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are ineligible for funding.
> Check the box to indicate that the project meets this requirement.
> 5.The length of the bridge must equal or exceed 20 feet.
> Check the box to indicate that the project meets this requirement.
> 6. The bridge must have a sufficiency rating less than 80 for rehabilitation projects and less than 50 for replacement projects. Additionally, the bridge must also be classified as structurally deficient or functionally obsolete.
> Check the box to indicate that the project meets this requirement.
> Roadway Expansion, Reconstruction/Modernization and Spot Mobility, and Bridge Rehabilitation/Replacement projects only:
> 7. All roadway projects that involve the construction of a new/expanded interchange or new interchange ramps must have approval by the Metropolitan Council/MnDOT Interchange Planning Review Committee prior to application submittal. Please contact Michael Corbett at MnDOT (Michael.J.Corbett@state.mn.us or $651-234-7793)$ to determine whether your project needs to go through this process.

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

## Specific Roadway Elements

## CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES <br> Cost

Mobilization (approx. $5 \%$ of total cost) $\$ 0.00$

Removals (approx. 5\% of total cost) \$0.00
Roadway (grading, borrow, etc.) \$0.00
Roadway (aggregates and paving) \$0.00
Subgrade Correction (muck) \$0.00
Storm Sewer \$0.00
Ponds \$0.00
Concrete Items (curb \& gutter, sidewalks, median barriers) \$0.00
Traffic Control \$0.00
Striping \$0.00
Signing \$0.00
Lighting \$0.00
Turf - Erosion \& Landscaping \$0.00
Bridge \$0.00
Retaining Walls \$0.00
Noise Wall (not calculated in cost effectiveness measure) \$0.00
Traffic Signals ..... \$1,800,000.00
Wetland Mitigation ..... $\$ 0.00$
Other Natural and Cultural Resource Protection ..... $\$ 0.00$
RR Crossing ..... $\$ 0.00$
Roadway Contingencies ..... $\$ 0.00$
Other Roadway Elements ..... $\$ 0.00$
Totals ..... \$1,800,000.00
Specific Bicycle and Pedestrian Elements
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES ..... Cost
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 ..... $\$ 0.00$
Streetscaping ..... $\$ 0.00$
Wayfinding ..... $\$ 0.00$
Bicycle and Pedestrian Contingencies ..... $\$ 0.00$
Other Bicycle and Pedestrian Elements ..... $\$ 0.00$
Totals ..... $\$ 0.00$
Specific Transit and TDM Elements
CONSTRUCTION PROJECT ELEMENTS/COST
ESTIMATES ..... Cost
Fixed Guideway Elements ..... $\$ 0.00$
Stations, Stops, and Terminals ..... $\$ 0.00$
Support Facilities ..... $\$ 0.00$
Transit Systems (e.g. communications, signals, controls, fare collection, etc.) ..... $\$ 0.00$
Vehicles ..... $\$ 0.00$
Contingencies ..... $\$ 0.00$
Right-of-Way ..... $\$ 0.00$
$\begin{array}{ll}\text { Totals } & \$ 0.00\end{array}$

## Transit Operating Costs

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

## Totals

| Total Cost | $\$ 1,800,000.00$ |
| :--- | :--- |
| Construction Cost Total | $\$ 1,800,000.00$ |
| Transit Operating Cost Total | $\$ 0.00$ |

## Measure A: Functional Classification of Project

The majority of the project funds will be invested on the principal arterial system:
(50 points)
The majority of the project funds will be invested on the A-minor arterial system:
(25 points)
The majority of the project funds will be invested on the collector or local system with some investment either on the principal arterial or A-minor arterial system:
(0 points)

## Measure 1B: Regional Truck Corridor Tiers

RESPONSE (Select one for your project, based on the Regional Truck Corridor Study):
The majority of the project funds will be invested on either a Tier 1, Tier 2, or Tier 3 corridor:
(50 Points)
A majority of the project funds will NOT be invested on a Tier 1, Tier 2, or Tier 3 corridor, but at least 10 percent of the funds will Yes be invested on these corridors:
(25 Points)
No project funds will be invested on a Tier 1, Tier 2, or Tier 3 corridor:

## Measure C: Integration within existing traffic management systems

The project will install fiber optic traffic signal interconnect for twelve existing traffic signal systems along CSAH 38 from CSAH 5 to CSAH 31. These twelve existing systems are not currently interconnected. Additionally, traffic signal equipment upgrades including traffic signal controller and/or cabinet replacements, flashing yellow arrow revisions, and Pan, Tilt, Zoom cameras will be installed. The communication and equipment upgrades will allow Dakota County to retime the corridor through the County's Advanced Traffic Management System (ATMS), which is already in use along various major County corridors.

## Measure D: Coordination with other agencies

The traffic signal retiming and infrastructure enhancement project will execute a needed signal coordination project between Dakota County and the Cities of Burnsville and Apple Valley. This includes adding communications interconnect via fiber and traffic management tools using the County's ATMS as well as CCTV (closed circuit television cameras). Left turn flashing yellow arrows will also be installed as needed to further improve traffic signal coordination. The project will also upgrade signal cabinets, signal controllers and MMU's (Malfunction Management Units) to current standards.

## Measure A: Current Daily Person Throughput

Current AADT Volume
Existing transit routes at the location noted above
Upload "Transit Connections" map
Please upload attachment in PDF form.
25000.0

440, 475, 476, 477, 478, 479, 903-METRO Red Line
1531326015984_CSAH 38_Transit Connections Map.pdf

## Response - Daily Person Throughput

| Average Annual Daily Transit Ridership | 7127.0 |
| :--- | :--- |
| Current Daily Person Throughput | 39627.0 |

## Measure B: 2040 Forecast ADT

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

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

Forecast (2040) ADT volume

Dakota County 2030 model number with no growth projected out to 2040 per County 1.0 growth factor provided by MnDOT

26000

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

Select one:
Project located in Area of Concentrated Poverty with 50\% or more of residents are people of color (ACP50):
(up to $100 \%$ of maximum score)
Project located in Area of Concentrated Poverty:
(up to $80 \%$ of maximum score )
Projects census tracts are above the regional average for population in poverty or population of color:
(up to $60 \%$ of maximum score )
Project located in a census tract that is below the regional average for population in poverty or populations of color or Yes includes children, people with disabilities, or the elderly:
(up to $40 \%$ of maximum score )
1.(0 to 3 points) A successful project is one that has actively engaged low-income populations, people of color, children, persons with disabilities, and the elderly during the project's development with the intent to limit negative impacts on them and, at the same time, provide the most benefits.
Describe how the project has encouraged or will engage the full cross-section of community in decision-making. Identify the communities to be engaged and where in the project development process engagement has occurred or will occur. Elements of quality engagement include: outreach to specific communities and populations that are likely to be directly impacted by the project; techniques to reach out to populations traditionally not involved in the community engagement related to transportation projects; residents or users identifying potential positive and negative elements of the project; and surveys, study recommendations, or plans that provide feedback from populations that may be impacted by the proposed project. If relevant, describe how NEPA or Title VI regulations will guide engagement activities.

Response:

## N/A

(Limit 1,400 characters; approximately 200 words)
2.(0 to 7 points) Describe the projects benefits to low-income populations, people of color, children, people with disabilities, and the elderly. Benefits could relate to safety; public health; access to destinations; travel time; gap closure; leveraging of other beneficial projects and investments; and/or community cohesion. Note that this is not an exhaustive list.

Increased safety by providing safer travel through the corridors.


#### Abstract

Maintaining infrastructure in a state of good repair which reduces the need to close the roadway and provides reliable travel times and time saving efficiencies to the traveling public.


Response:
Reducing congestion not only helps alleviate the roadway users burdens of time but also helps the local population with short trip destinations.

> Creating environmental sustainability by reducing omissions and keeping the population from localized vehicle exhaust pollution.
3.(-3 to 0 points) Describe any negative externalities created by the project along with measures that will be taken to mitigate them. Negative externalities can result in a reduction in points, but mitigation of externalities can offset reductions.
Below is a list of negative impacts. Note that this is not an exhaustive list.
Increased difficulty in street crossing caused by increased roadway width, increased traffic speed, wider turning radii, or other elements that negatively impact pedestrian access.
Increased noise.
Decreased pedestrian access through sidewalk removal / narrowing, placement of barriers along the walking path, increase in auto-oriented curb cuts, etc.
Project elements that are detrimental to location-based air quality by increasing stop/start activity at intersections, creating vehicle idling areas, directing an increased number of vehicles to a particular point, etc.
Increased speed and/or cut-through traffic.
Removed or diminished safe bicycle access.
Inclusion of some other barrier to access to jobs and other destinations.
Displacement of residents and businesses.
Construction/implementation impacts such as dust; noise; reduced access for travelers and to businesses; disruption of utilities; and eliminated street crossings. These tend to be temporary.
Other
Efficiency and reliability leads to more traffic.

Attraction of short trip destinations increases
congestion which is being mitigated by the project.

Response:
Mitigation includes weighing both the traveling public's need for more reliable commutes with the locals need for accommodations. This project will need to weigh both of these and determine a successful solution.
(Limit 2,800 characters; approximately 400 words)

Upload Map
1531327237812_CSAH 38_Socio-Economic Conditions
Map.pdf

## Measure B: Affordable Housing

| City | Funds to be spent <br> within each City | Score | Funds/Total <br> Funds | Percent of total <br> funds to be spent <br> within City |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Apple Valley | 900000.0 | 94.0 | 0.5 | 47.0 |
| Burnsville | 900000.0 | 98.0 | 0.5 | 49.0 |
|  | 1800000 |  |  | 96 |

## Affordable Housing Scoring

## Measure A: Upgrades to obsolete equipment

The following equipment will either be improved or replaced relative to its age and/or functionality as part of this project:

Traffic signal controllers (based upon an assessment of age and functionality with the County?s ATMS); controllers in proper working order and able to function with the ATMS will not be replaced

## RESPONSE:

Traffic signal cabinets (based upon an assessment of age and functionality with the County?s ATMS); cabinets in proper working order and able to function with the ATMS will not be replaced

Traffic signal modifications such as flashing yellow arrows, pedestrian countdown timers and placing signal heads over each lane will be deployed as needed.
(Limit 2,800 characters; approximately 400 words)

## Measure A: Congested Roadway

RESPONSE:
Corridor:
CSAH 38
Corridor Start and End Points:
Start Point:
CSAH 5
End Point:
CSAH 31

Free-Flow Travel Speed is black number.
Peak Hour Travel Speed: 52.0
Peak Hour Travel Speed is red number.
Percentage Decrease in Travel Speed in Peak Hour Compared to Free-Flow (online calculation):

Upload the "Level of Congestion" map used for this measure. 1531334173187_CSAH 38_Level of Congestion Map.pdf

## Measure 5B: Emissions and congestion benefits of project

When the twelve signals along the CSAH 38 corridor are not coordinated, the emission levels in kg are as follows: $\mathrm{CO}=61.76$; $\mathrm{NOx}=12.02$; and VOC = 14.31.

Response:
This project would coordinate the signals and have the following emission levels in kg : $\mathrm{CO}=57.58$; NOx = 11.20; and VOC = 13.35.

The project results in overall reduction in CO, NOx and VOC emission levels.

## Measure A: Benefit of Crash Reduction

Crash Modification Factor Used:
(Limit 700 Characters; approximately 100 words)

Rationale for Crash Modification Selected:

CMF ID 380

Based on CMF information found in the "Changes
in Crash Risk Following Re-Timing of Traffic Signal Change Intervals". This corresponds to a CRF of (8\%) - [which is a decrease] for the retiming effort. Includes "ALL" crash types and "ALL" crash severity as stated in the Crash Modification Factors Clearinghouse.

## Measure 6B: Safety issues in project area

The Dakota County Highway Safety Plan identifies a rear end crash issue along CSAH 38 the full length of this project. Retiming of this corridor will improve safety and will likely reduce the rear ends.

The following intersections along CSAH 38 are on the County Road Safety Plan's urban right angle intersection listing/prioritization:

CSAH 5 \#94

CSAH 11 \#44

CSAH 11 \#48

Response:
CSAH 31

Aldrich \#130

Nicollet \#52

Portland \#125

Gardenview \#91

Galaxie \#15

Johnny Cake \#92

It is anticipated that better, coordinated timing along the CSAH 38 corridor will result in a safety improvement.

## Measure A: Multimodal Elements and Existing Connections

Within the project limits there is Lebanon Hills Regional Park (County), Wolk Park (City), Nordic Park (City), and Findlay Park (City) with access to the trail system plus numerous pedestrian/bicycle accommodations including multi-use trails. Pedestrian accommodations are also provided by sidewalks along portions of the corridor.

Response:
To accommodate pedestrian needs, all pedestrian signal timing will be reviewed and adjusted to reflect the latest requirements in the MnMUTCD. Pedestrians will be counted during the data collection task and considered when developing the signal timing plans. During the signal timing implementation, pedestrian activity will again be observed to verify that all pedestrians are able to cross in a safe manner. This will enhance pedestrian safety at all intersections in the project.

Regarding transit, there are several bus routes along the project corridor.

## Transit Projects Not Requiring Construction

If the applicant is completing a transit application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.
Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.
Check Here if Your Transit Project Does Not Require Construction

## Measure A: Risk Assessment - Construction Projects

1)Layout (30 Percent of Points)

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

Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties that the project goes through or agencies that maintain the roadway(s)). A PDF of the layout must be attached along with letters from each jurisdiction to receive points.
100\%
Attach Layout
Please upload attachment in PDF form.
Layout completed but not approved by all jurisdictions. A PDF of the layout must be attached to receive points.

50\%
Attach Layout
Please upload attachment in PDF form.
Layout has not been started Yes

0\%
Anticipated date or date of completion
2)Review of Section 106 Historic Resources (20 Percent of Points)

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

100\%
There are historical/archeological properties present but determination of no historic properties affected is anticipated.
$100 \%$
Historic/archeological property impacted; determination of no adverse effect anticipated

80\%
Historic/archeological property impacted; determination of adverse effect anticipated

40\%
Unsure if there are any historic/archaeological properties in the project area.
$0 \%$
Project is located on an identified historic bridge
3)Right-of-Way ( 30 Percent of Points)

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

100\%
Right-of-way, permanent or temporary easements required, plat, legal descriptions, or official map complete

50\%
Right-of-way, permanent or temporary easements required, parcels identified
Right-of-way, permanent or temporary easements required,
parcels not all identified
$0 \%$
Anticipated date or date of acquisition
4)Railroad Involvement (20 Percent of Points)
No railroad involvement on project or railroad Right-of-Way
agreement is executed (include signature page, if applicable)
100\%
Signature Page
Please upload attachment in PDF form.
Railroad Right-of-Way Agreement required; negotiations have
begun
$50 \%$
Railroad Right-of-Way Agreement required; negotiations have not
begun.
0\%
Anticipated date or date of executed Agreement

## Measure A: Cost Effectiveness

| Total Project Cost (entered in Project Cost Form): | $\$ 1,800,000.00$ |
| :--- | :--- |
| Enter Amount of the Noise Walls: | $\$ 0.00$ |
| Total Project Cost subtract the amount of the noise walls: | $\$ 1,800,000.00$ |
| Points Awarded in Previous Criteria | $\$ 0.00$ |

## Other Attachments

File Name
Attach 1_Project Summary.pdf
Attach 2_Photo.pdf
Attach 3_Maps.pdf
Attach 4_Synchro.pdf
Attach 5_Board Resolution.pdf

Description
Project Summary Sheet
Photo
Maps
Synchro
County Board Resolution

File Size
222 KB
207 KB
10.5 MB

947 KB
130 KB



## Level of Congestion

Roadway System Management Project: Dakota County CSAH 38 Roadway System Management | Map ID: 1530554465871


- Project Points


## Project



| Desc. | Clearance Interval to ITE <br> 1985 |
| :---: | :---: |
| CMF ID | 380 |
| CRF | 8 |
| Crash Type | All |
| Severity | All |
| Area Type |  |
| Intersection |  |
| AADT |  |

## CMF / CRF Details

CMF ID: 380

Modify change plus clearance interval to ITE 1985 Proposed Recommended Practice

Description:
Prior Condition: No Prior Condition(s)
Category: Intersection traffic control
Study: Changes in Crash Risk Following Re-Timing of Traffic Signal Change Intervals, Retting, R.A. and Chapline, J.F., 2002

```
Star Quality Rating:
```


## Crash Modification Factor (CMF)

## Value: <br> 0.92

Adjusted Standard Error:
0.1

```
Unadjusted Standard Error:
    0.09
```


## Crash Reduction Factor (CRF)

Value: 8 (This value indicates a decrease in crashes)

| Applicability |  |
| :---: | :---: |
| Crash Type: | All |
| Crash Severity: | All |
| Roadway Types: | Not Specified |
| Number of Lanes: |  |
| Road Division Type: |  |
| Speed Limit: |  |
| Area Type: | Not Specified |
| Traffic Volume: |  |
| Time of Day: |  |
| If countermeasure is intersection-based |  |
| Intersection Type: | Roadway/roadway (not interchange related) |
| Intersection Geometry: | 4-leg |
| Traffic Control: | Signalized |
| Major Road Traffic Volume: |  |
| Minor Road Traffic Volume: |  |


| Date Range of Data Used: |
| :---: |
| Municipality: |
| State: |


| Country: |  |
| :---: | :---: | :---: |
| Type of Methodology Used: | Simple before/after |
| Sample Size Used: |  |
|  |  |

## Other Details

## Included in Highway Safety Manual?

Date Added to Clearinghouse:

Comments:
Yes. HSM lists this CMF in bold font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less. However, it also includes an asterisk (*) to indicate that the CMF value itself is within the range 0.90 to 1.10 , but that the confidence interval defined by the CMF $\pm$ two times the standard error may contain the value 1.0. This is important to note since a treatment with such an CMF could potentially result in (a) a reduction in crashes (safety benefit), (b) no change, or (c) an increase in crashes (safety disbenefit). HSM recommends that this CMF should be used with caution.

Dec-01-2009

Countermeasure name changed from "retiming signal change intervals to ITE standards" to match HSM

This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center

The information contained in the Crash Modification Factors (CMF) Clearinghouse is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for the use of the information contained in the CMF Clearinghouse. The information contained in the CMF Clearinghouse does not constitute a standard, specification, or regulation, nor is it a substitute for sound engineering judgment.

PROJECT SUMMARY
County Road 38 Roadway Management System
Burnsville \& Apple Valley
July 11, 2018

## Project Overview

To provide a safe and efficient transportation system, Dakota County and the Cities of Burnsville and Apple Valley are proceeding with the County Road 38 Roadway System Management project. The project is fiber optic cable installation for traffic signal interconnection as well as signal equipment upgrades to improve traffic operations along CSAH 38 from CSAH 5 to CSAH 31. The project will enhance traffic management, improve traffic flow, reduce congestion and reduce vehicle emissions.

Work on the project is anticipated to include:

- Installation of fiber optic cable and equipment for traffic signal interconnection
- Fiber connection and/or other communication equipment installation at signals
- Traffic signal controller and/or cabinet replacement at signals
- Traffic signal revisions: installation of flashing yellow arrow left turn signal indications at signals
- Installation of Pan/Tilt/Zoom cameras for traffic monitoring


## Project Benefits

The roadway system management project will provide several benefits to the corridor and the area. The proposed project will:

- Increase safety by reducing delay
- Maintain infrastructure in a state of good repair by updating traffic signal equipment
- Reduce congestion by increasing traffic throughput
- Improve corridor efficiency and reliability through traffic signal retiming
- Create environmental sustainability by reducing vehicle emissions


## Project Schedule

- Design: 2020 \& 2021
- Right of Way Acquisition: Not Anticipated
- Construction: 2022


## For More Information

- Contact:

Sarah Tracy, Dakota County Assistant
Traffic Engineer
952.891.7177
sarah.tracy@co.dakota.mn.us



## Dakota County, MN



July 11, 2018


## Level of Congestion

Roadway System Management Project: Dakota County CSAH 38 Roadway System Management | Map ID: 1530554465871


- Project Points


## Project




CSAH 38

| Direction | EB | WB | All |
| :--- | ---: | ---: | ---: |
| Total Delay (hr) | 88 | 52 | 140 |
| Stops (\#) | 7318 | 4832 | 12150 |
| Average Speed (mph) | 26 | 28 | 27 |
| Total Travel Time (hr) | 235 | 152 | 387 |
| Distance Traveled (mi) | 6136 | 4300 | 10436 |
| Fuel Consumed (gal) | 360 | 242 | 602 |
| Fuel Economy (mpg) | 17.0 | 17.8 | 17.3 |
| CO Emissions (kg) | 25.17 | 16.91 | 42.08 |
| NOx Emissions (kg) | 4.90 | 3.29 | 8.19 |
| VOC Emissions (kg) | 5.83 | 3.92 | 9.75 |
| Unserved Vehicles (\#) | 31 | 0 | 31 |
| Vehicles in dilemma zone (\#) | 272 | 171 | 443 |
| Performance Index | 108.2 | 65.6 | 173.8 |

Network Totals

| Number of Intersections | 14 |
| :--- | ---: |
| Total Delay (hr) | 257 |
| Stops (\#) | 20776 |
| Average Speed (mph) | 23 |
| Total Travel Time (hr) | 570 |
| Distance Traveled (mi) | 13121 |
| Fuel Consumed (gal) | 884 |
| Fuel Economy (mpg) | 14.9 |
| CO Emissions (kg) | 61.76 |
| NOx Emissions (kg) | 12.02 |
| VOC Emissions (kg) | 14.31 |
| Unserved Vehicles (\#) | 31 |
| Vehicles in dilemma zone (\#) | 625 |
| Performance Index | 314.8 |

## CSAH 38

| Direction | EB | WB | All |
| :--- | ---: | ---: | ---: |
| Total Delay (hr) | 49 | 43 | 92 |
| Stops (\#) | 4898 | 4125 | 9023 |
| Average Speed (mph) | 31 | 30 | 31 |
| Total Travel Time (hr) | 196 | 143 | 339 |
| Distance Traveled (mi) | 6136 | 4300 | 10436 |
| Fuel Consumed (gal) | 307 | 227 | 534 |
| Fuel Economy (mpg) | 20.0 | 19.0 | 19.6 |
| CO Emissions (kg) | 21.47 | 15.84 | 37.30 |
| NOx Emissions (kg) | 4.18 | 3.08 | 7.26 |
| VOC Emissions (kg) | 4.98 | 3.67 | 8.65 |
| Unserved Vehicles (\#) | 59 | 0 | 59 |
| Vehicles in dilemma zone (\#) | 274 | 151 | 425 |
| Performance Index | 62.4 | 54.3 | 116.7 |

Network Totals

| Number of Intersections | 14 |
| :--- | ---: |
| Total Delay (hr) | 220 |
| Stops (\#) | 17753 |
| Average Speed (mph) | 25 |
| Total Travel Time (hr) | 532 |
| Distance Traveled (mi) | 13121 |
| Fuel Consumed (gal) | 824 |
| Fuel Economy (mpg) | 15.9 |
| CO Emissions (kg) | 57.58 |
| NOx Emissions (kg) | 11.20 |
| VOC Emissions (kg) | 13.35 |
| Unserved Vehicles (\#) | 98 |
| Vehicles in dilemma zone (\#) | 716 |
| Performance Index | 268.9 |

# BOARD OF COUNTY COMMISSIONERS DAKOTA COUNTY, MINNESOTA 

# Approval Of Grant Application Submittals For Transportation Advisory Board 2018 Federal Funding Solicitation Process 

WHEREAS, the Transportation Advisory Board (TAB) is requesting project submittals for federal funding under the Fixing America's Surface Transportation (FAST) Act; and

WHEREAS, these federal programs fund up to 80 percent of project construction costs; and
WHEREAS, federal funding of projects reduces the burden local taxpayers for regional improvements; and
WHEREAS, non-federal funds must be at least 20 percent of the project costs; and

WHEREAS, project submittals are due on July 13, 2018; and

WHEREAS, all projects proposed are consistent with the adopted Dakota County Comprehensive Plan; and

WHEREAS, subject to federal funding award, the Dakota County Board of Commissioners would be asked to consider authorization to execute a grant agreement at a future meeting.

NOW, THEREFORE, BE IT RESOLVED, That the Dakota County Board of Commissioners hereby approves the following County led projects for submittal to the TAB for federal funding:

1. County State Aid Highway (CSAH) 26 (Lone Oak Road/70th Street) from Trunk Highway (TH) 55 to west of TH 3 (Robert Street) in Eagan and Inver Grove Heights
2. CSAH 32 (Cliff Road) at its intersection with CSAH 31 (Pilot Knob Road) in Eagan
3. CSAH 70 (215th Street) from Kensington Boulevard to CSAH 23 (Cedar Avenue) in Lakeville
4. Advanced Traffic Management System along CSAH 5 and CSAH 38 (McAndrews Road) in Burnsville and Apple Valley
5. CSAH 23 (Cedar Avenue) Grade Separated Trail north of 140 th Street in Apple Valley
6. River to River Greenway - Valley Park \& TH 149 Underpass in Mendota Heights
7. Minnesota River Greenway - Fort Snelling segment in Eagan
8. CSAH 42 Trail \& Grade Separation between Flagstaff Avenue and CSAH 31 (Pilot Knob Road) in Apple Valley
9. North Creek Greenway - Lakeville/Farmington gaps
; and

STATE OF MINNESOTA


BE IT FURTHER RESOLVED. That the Dakota County Board of Commissioners hereby supports the following
submittals by others:
10. Cliff Road (CSAH 32) \& I-35W West Ramp Intersection Improvements - Lead Agency: Burnsville
11. TH 13 Grade Separated Trail at Nicollet Avenue - Lead Agency: Burnsville
12. CSAH 38 (McAndrews Road) Trail from Gardenview Drive to Galaxie Avenue - Lead Agency: Apple Valley
13. CSAH 23 (Cedar Avenue) Pedestrian Overpass at 147th Street Station - Lead Agency: Apple Valley (support is contingent upon agreement by the City and Metro Transit in addressing operations costs)
14. CSAH 73 Trail between 1-494 and 55th Street - Lead Agency: Inver Grove Heights
15. North Creek Greenway (Johnny Cake Ridge Road) - Lead Agency: Apple Valley
16. Rosemount Greenway (Downtown Rosemount to Lebanon Hills) - Lead Agency: Rosemount
17. CSAH 8 (Wentworth Avenue) Trail from Robert Street to CSAH 73 (Oakdale Avenue) - Lead Agency: West
St Paul
; and

BE IT FURTHER RESOLVED, That, subject to federal funding award of the city-led projects, the Dakota County Board of Commissioners will provide the local match for regional greenway projects, and for non-greenway projects will provide Dakota County's share of the matching funds consistent with Dakota County transportation cost share policies.

STATE OF MINNESOTA
County of Dakota


