

Application

04751 - 2016 Roadway Expansion		
05081 - Anoka County CSAH 116 Expansion		
Regional Solicitation - Roadways Including Multimodal Elements		
Status:	Submitted	
Submitted Date:	07/15/2016 11:48 AM	

Primary Contact

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

Organization Information

Name:

Organization Type:	County Government
Organization Website:	
Address:	1440 BUNKER LAKE BLVD

*	ANDOVER	Minnesota	55304
	City	State/Province	Postal Code/Zip
County:	Anoka		
Phone:*	763-862-4200		
		Ext.	
Fax:			
PeopleSoft Vendor Number	0000003633A15		

Project Information

Project Name	CSAH 116 Expansion
Primary County where the Project is Located	Anoka
Jurisdictional Agency (If Different than the Applicant):	

Brief Project Description (Limit 2,800 characters; approximately 400 words)

The proposed project expands CSAH 116 (Bunker Lake Boulevard) from two lanes to four lanes between Van Buren Street and Highway 65 in the City of Ham Lake. This 1.0-mile section will complete the final missing section of 11.1 miles of four-lane roadway that currently spans eastward from Highway 65 to CSAH 52 (Radisson Road) and westward from CSAH 57 (Sunfish Lake Boulevard) to

Van Buren Street. The last part of the westward stretch from CSAH 78 (Hanson Boulevard) to Van Buren Street will be completed in the summer of 2017.

The proposed project expands the roadway from an undivided rural two-lane section to a four-lane divided urban facility with turn lanes, raised medians, and paved shoulders. A separated pedestrian/bicycle path, which is an extension of the Central Anoka County Regional Trail will be added on the north side of CSAH 116. Access management, including restricting turning movements at several intersections, will also be implemented along the corridor.

Include location, road name/functional class, type of improvement, etc.

<u>TIP Description Guidance</u> (will be used in TIP if the project is selected for funding) Project Length (Miles) CSAH 116 (Bunker Lake Boulevard), 4-lane expansion between Van Buren Street and TH 65

1.0

Project Funding

Are you applying for funds from another source(s) to implement this project?	No
If yes, please identify the source(s)	
Federal Amount	\$3,360,000.00
Match Amount	\$840,000.00

Minimum of 20% of project total			
Project Total	\$4,200,000.00		
Match Percentage	20.0%		
Minimum of 20% Compute the match percentage by dividing the match amount by the project total			
Source of Match Funds	Anoka County Highway Fund		
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 urces			
Preferred Program Year			
Select one:	2020		
For TDM projects, select 2018 or 2019. For Roadway, Transit, or Trail/Pedestrian projects, select 2020 or 2021.			
Additional Program Years:	2019		
Select all years that are feasible if funding in an earlier year becomes available.			

Project Information: Roadway Projects

County, City, or Lead Agency	Anoka County	
Functional Class of Road	A Minor Reliever Arterial	
Road System	CSAH	
TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET		
Road/Route No.	116	
i.e., 53 for CSAH 53		
Name of Road	Bunker Lake Boulevard	
Example; 1st ST., MAIN AVE		
Zip Code where Majority of Work is Being Performed	55304	
(Approximate) Begin Construction Date	03/01/2020	
(Approximate) End Construction Date	11/02/2020	
TERMINI:(Termini listed must be within 0.3 miles of any work)		
From: (Intersection or Address)	CSAH 116 & Van Buren Street	
To: (Intersection or Address)	CSAH 116 & TH 65	
DO NOT INCLUDE LEGAL DESCRIPTION		
Or At		
Primary Types of Work	Grade, Paved Surface, Multiuse Trails, Storm Sewer, Traffic Signal, ADA Ramps, Sidewalk, Curb and Gutter, Raised Median, Landscaping	
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):

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	\$364,500.00
Removals (approx. 5% of total cost)	\$282,600.00
Roadway (grading, borrow, etc.)	\$316,600.00
Roadway (aggregates and paving)	\$1,076,000.00
Subgrade Correction (muck)	\$0.00
Storm Sewer	\$611,400.00
Ponds	\$332,200.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$310,000.00
Traffic Control	\$39,900.00
Striping	\$47,100.00
Signing	\$20,900.00
Lighting	\$0.00
Turf - Erosion & Landscaping	\$165,300.00
Bridge	\$0.00
Retaining Walls	\$30,200.00
Noise Wall (do not include in cost effectiveness measure)	\$191,000.00
Traffic Signals	\$318,300.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$0.00
Other Roadway Elements	\$14,000.00
Totals	\$4,120,000.00

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	\$80,000.00
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	\$80,000.00

Specific Transit and TDM Elements

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

Transit Operating Costs

Totals

Total Cost	\$4,200,000.00
Construction Cost Total	\$4,200,000.00
Transit Operating Cost Total	\$0.00

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, 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 objectives and strategies that relate to the project.

Goal B: Safety and Security: The regional transportation system is safe and secure for all users (page 60)

- Objectives: Reduce crashes and improve safety and security for all modes of passenger travel and freight transport.

Strategies: Regional transportation partners will incorporate safety and security considerations for all modes and users throughout the process of planning, funding, construction, and operation.

Goal C: Access to Destinations: People and businesses prosper by using a reliable, affordable, and efficient multimodal transportation system that connects them to destinations throughout the region and beyond (page 62).

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

- Objectives: Increase the availability of multimodal travel options, especially in congested highway corridors.

- Increase travel time reliability and predictability for travel on highway and transit systems.

- Ensure access to freight terminals such as river ports, airports, and intermodal rail yards.

Strategies: C7. Regional transportation partners will manage and optimize the performance of the principle arterial system as measured by person throughput.

Strategies: C8. Regional transportation partners will prioritize all regional highway capital investments based on a project?s expected contributions to achieving the outcomes, goals, and objectives identified in Thrive MSP 2040 and the Transportation Policy Plan.

Strategies: C9. 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. Goal D: Competitive Economy: The regional transportation system supports the economic competitiveness, vitality, and prosperity of the region and state (page 64).

- Objectives: Support the region?s economic competitiveness through the efficient movement of freight.

Goal F: Leveraging Transportation Investment to Guide Land Use: The leverages transportation investments to guide land use and development patterns that advance the regional vision of stewardship, prosperity, livability, equity, and sustainability (page 70).

- Objectives: Encourage local land use design that integrates highways, streets, transit, walking, and bicycling.

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:

2030 Ham Lake Comprehensive Plan (2008) Pages 6-19, 6-21, 8-3

4. The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of bicycle/pedestrian projects, 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: \$1,000,000 to \$7,000,000

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.

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

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

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

10. The owner/operator of the facility must operate and maintain the project for the useful life of the improvement.

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

11. 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

12. 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

13. 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 projects only:

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

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

Bridge Rehabilitation/Replacement projects only:

3.Projects requiring a grade-separated crossing of a Principal Arterial freeway must be limited to the federal share of those project costs identified as local (non-MnDOT) cost responsibility using 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 <u>are exclusively</u> 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.

Requirements - Roadways Including Multimodal Elements

Expander/Augmentor/Non-Freeway Principal Arterial

Select one:	
Area	0
Project Length	0
Average Distance	0
Upload Map	

Reliever: Relieves a Principle Arterial that is a Freeway Facility

Facility being relieved	US 10
Number of hours per day volume exceeds capacity (based on the	2.0
Congestion Report)	2.0

Reliever: Relives a Principle Arterial that is a Non-Freeway Facility

Facility being relieved	CSAH 14
Number of hours per day volume exceeds capacity (based on the	0
table below)	0

Non-Freeway Facility Volume/Capacity Table

Hour	NB/EB Volume	SB/WB Volume	Capacity	Volume exceeds capacity
12:00am - 1:00am			0	
1:00am - 2:00am			0	
2:00am - 3:00am			0	

3:00am - 4:00am	0
4:00am - 5:00am	0
5:00am - 6:00am	0
6:00am - 7:00am	0
7:00am - 8:00am	0
8:00am - 9:00am	0
9:00am - 10:00am	0
10:00am - 11:00am	0
11:00am - 12:00pm	0
12:00pm - 1:00pm	0
1:00pm - 2:00pm	0
2:00pm - 3:00pm	0
3:00pm - 4:00pm	0
4:00pm - 5:00pm	0
5:00pm - 6:00pm	0
6:00pm - 7:00pm	0
7:00pm - 8:00pm	0
8:00pm - 9:00pm	0
9:00pm - 10:00pm	0
10:00pm - 11:00pm	0
11:00pm - 12:00am	0

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

Existing Employment within 1 Mile:	1856
Existing Manufacturing/Distribution-Related Employment within 1 Mile:	390
Existing Students:	0
Upload Map	1467995873713_CSAH 116HL_ R E.pdf

Measure C: Current Heavy Commercial Traffic

Location:	On CSAH 116, west of TH 65
Current daily heavy commercial traffic volume:	340
Date heavy commercial count taken:	May, 2016

Measure D: Freight Elements

The project has taken into consideration heavy commercial vehicles. This includes turning lanes, paved shoulders, and appropriate turning-radius at intersections to accommodate trucks.

The CSAH 116 is one of the few continuous east-

west corridors in Anoka County, serving large manufacturers, industrial uses, and commercial/retail services. This vital east-west freight corridor provides direct access to TH 47, TH 65 and I-35W (via Lexington Avenue). The proposed project will fill a gap in freight improvements/needs in the City Andover and Ham Lake, while leverage recent freight investments along the corridor.

Measure A: Current Daily Person Throughput

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

Location	East of Jefferson Street	
Current AADT Volume	11400	
Existing Transit Routes on the Project	2	
For New Roadways only, list transit routes that will be moved to the new roadway		
Upload Transit Map	1467744565857_CSAH 116HL_ T C.pdf	

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	0
Current Daily Person Throughput	14820.0

Measure B: 2040 Forecast ADT

Use Metropolitan Council model to determine forecast (2040) ADT Yes 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

Measure A: Project Location and Impact to Disadvantaged Populations

Select one:

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

Project located in Area of Concentrated Poverty:

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

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

Yes

The project is located in Census Tract 502.15, with 14.5 percent of the population elderly (over the age of 65) as recorded by the 2012 Census. The census tract greatly exceeds the Anoka County average of 9.88 percent and the seven County metro average of 10.85 percent.

There is currently no trail or sidewalk in the project area. The extension of the Central Anoka County Regional Trail will benefit the elderly by increasing walking and bicycling opportunities and will provide a connection to Bunker Hills Regional Park, which includes several recreational opportunities.

The addition of through lanes, turn lanes, and a center median will benefit the elderly through improved mobility to the Fairview and HealthPartners clinics and by allowing for safer vehicular turning movements along CSAH 116 in the project area.

Low-income populations without a vehicle will benefit from a regional connection to expanding job opportunities via the extension of the existing trail system. One of these businesses, DSTI (recognized by Inc. Magazine as one of the fastest growing manufacturing businesses in 2010), is a located just west of the project area.

Finally, the project is consistent with the goals and desired outcomes in Thrive 2040 to connect local residents in these neighborhoods (inclusive of all races, ethnicity, incomes, and abilities) with a safe and reliable transportation system to improve their overall quality of life.

The response should address the benefits, impacts, and mitigation for the populations affected by the project.

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

1467744622789_CSAH 116HL_S E C.pdf

Measure B: Affordable Housing

	City/Township	Segment Length in Miles (Population)	
Ham Lake		1.0	
		1	
Total Pr	oject Length		
Total Projec	t Length (Total Population)	1.0	

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

City/Township	Segment Length (Miles)	Total Length (Miles)	Score		Segment Length/Total Length	Housing Score Multiplied by Segment percent)
		0		0	0	C)

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles)	1.0
Total Housing Score	0

Measure A: Infrastructure Age

1999.01.01999.01999.0119991999	Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	Calculation 2
1 1999 1999	1999.0	1.0	1999.0	1999.0
		1	1999	1999

Average Construction Year

Weighted Year	1999.0
Total Sagmont Longth (Miloc)	
Total Segment Length (Miles)	
Total Segment Length	1.0

Total Peak Hour Delay Per Vehicle Without The Project	Total Peak Hour Delay Per Vehicle With The Project	Total Peak Hour Delay Per Vehicle Reduced by Project	Volume (Vehicles Per Hour)	Total Peak Hour Delay Reduced by the Project (Seconds)	EXPLANATIO N of methodology used to calculate railroad crossing delay, if applicable:	Synchro or HCM Reports
59.0	23.0	36.0	4601.0	165636.0		14677445114 03_CSAH 116 HL Synchro.pdf

Measure A: Vehicle Delay Reduction

Total Delay

Total Peak Hour Delay Reduced

165636.0

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

Total (CO, NOX, and VOC) Peak Hour Emissions Per Vehicle without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Per Vehicle with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced Per Vehicle by the Project (Kilograms):	Volume (Vehicles Per Hour):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	
10.39	6.95	3.44	4601.0	15827.44	
10	7		4601	15827	
Total					
Total Emissions Reduc	ced:		15827.44		
Upload Synchro Repo	rt		1467745142693_CS	AH 116 HL Synchro.pdf	

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

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

0

Total Parallel Roadways

Emissions Reduced on Parallel Roadways

Upload Synchro Report

New Roadway Portion:

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

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

Cruise speed in miles per hour without the project:	0
Vehicle miles traveled without the project:	0
Total delay in hours without the project:	0
Total stops in vehicles per hour without the project:	0
Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons (F1)	0

Fuel consumption in gallons (F2)	0
Fuel consumption in gallons (F3)	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0
EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)	

Measure A: Benefit of Crash Reduction

	CR 1=Installation of a median
Crash Modification Factor Used:	CR 2= increase number of lanes
(Limit 700 Characters; approximately 100 words)	
Rationale for Crash Modification Selected:	These improvements are part of the project. See the attachment for the HSIP Worksheets and additional information.
(Limit 1400 Characters; approximately 200 words)	
Project Benefit (\$) from B/C Ratio:	1.1928645E7
Worksheet Attachment	1468527270890_CSAH 116 HSIP Worksheets and additional information.pdf

Roadway projects that include railroad grade-separation elements:

Current AADT volume:	0
Average daily trains:	0
Crash Risk Exposure eliminated:	0

Measure A: Multimodal Elements and Existing Connections

	There are currently no accommodations for modes other than vehicles. The project will greatly improve the mobility and safety of all modes.
Response (Limit 2,800 characters; approximately 400 words)	The project will continue the planned extension of the Central Anoka County Regional Trail, a ten-foot wide trail along CSAH 116, from Jefferson St. to Highway 65 to accommodate bicyclists and pedestrians.
	The Central Anoka County Regional Trail is located along CSAH 116 east of Highway 65. West of the project limits the trail will be extended to Jefferson St. as part of a current project to be completed in 2017.

Transit Projects Not Requiring Construction

If the applicant is completing a transit or TDM 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

1)Project Scope (5 Percent of Points)	
Meetings or contacts with stakeholders have occurred	Yes
100%	
Stakeholders have been identified	
40%	
Stakeholders have not been identified or contacted	
0%	
2)Layout or Preliminary Plan (5 Percent of Points)	
Layout or Preliminary Plan completed	Yes
100%	
Layout or Preliminary Plan started	
50%	

Layout or Preliminary Plan has not been started		
0%		
Anticipated date or date of completion		
3)Environmental Documentation (5 Percent of Points)		
EIS		
EA	Yes	
РМ		
Document Status:		
Document approved (include copy of signed cover sheet)	Yes 100%	
Document submitted to State Aid for review	75%	date submitted
Document in progress; environmental impacts identified; review request letters sent		
Document not started		
0%		
Anticipated date or date of completion/approval		
4)Review of Section 106 Historic Resources (10 Percent of I	Points)	
No known historic properties eligible for or listed in the National Register of Historic Places are located in the project area, and project is not located on an identified historic bridge	Yes	
100%		
Historic/archeological review under way; determination of no historic properties affected or no adverse effect anticipated		
80%		
Historic/archaeological review under way; determination of adverse effect anticipated		
40%		
Unsure if there are any historic/archaeological resources in the project area		
0%		
Anticipated date or date of completion of historic/archeological review:		
Project is located on an identified historic bridge		
5)Review of Section 4f/6f Resources (10 Percent of Points)		
4(f) Does the project impacts any public parks, public wildlife refuges, public golf courses, wild & scenic rivers or public private historic proper 6(f) Does the project impact any public parks, public wildlife refuges, public golf courses, wild & scenic rivers or historic property that was purchased or improved with federal funds?	ties?	

No Section 4f/6f resources located in the project area

Yes

Yes

100%

No impact to 4f property. The project is an independent bikeway/walkway project covered by the bikeway/walkway Negative Declaration statement; letter of support received

100%

Section 4f resources present within the project area, but no known adverse effects

80%

Project impacts to Section 4f/6f resources likely coordination/documentation has begun

50%

Project impacts to Section 4f/6f resources likely coordination/documentation has not begun

30%

Unsure if there are any impacts to Section 4f/6f resources in the project area

0%

6) Right-of-Way (15 Percent of Points)

Right-of-way, permanent or temporary easements not required

100%

Right-of-way, permanent or temporary easements has/have been acquired

100%

Right-of-way, permanent or temporary easements required, offers made

75%

Right-of-way, permanent or temporary easements required, appraisals made

50%

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

25%

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

0%

Right-of-way, permanent or temporary easements identification has not been completed

0%

Anticipated date or date of acquisition07/14/20177)Railroad Involvement (25 Percent of Points)Yes

100%

Railroad Right-of-Way Agreement is executed (include signature page)	100%
Railroad Right-of-Way Agreement required; Agreement has been initiated	
60%	
Railroad Right-of-Way Agreement required; negotiations have begun	
40%	
Railroad Right-of-Way Agreement required; negotiations not begun	
0%	
Anticipated date or date of executed Agreement	
8)Interchange Approval (15 Percent of Points)*	
*Please contact Karen Scheffing at MnDOT (Karen.Scheffing@state.mr to determine if your project needs to go through the Metropolitan Counc Interchange Request Committee.	
Project does not involve construction of a new/expanded interchange or new interchange ramps	Yes
100%	
Interchange project has been approved by the Metropolitan Council/MnDOT Highway Interchange Request Committee	
100%	
Interchange project has not been approved by the Metropolitan Council/MnDOT Highway Interchange Request Committee	
0%	
9)Construction Documents/Plan (10 Percent of Points)	
Construction plans completed/approved (include signed title sheet)	
100%	
Construction plans submitted to State Aid for review	
75%	
Construction plans in progress; at least 30% completion	Yes
50%	
Construction plans have not been started	
0%	
Anticipated date or date of completion	06/01/2017
10)Letting	
Anticipated Letting Date	03/25/2019

Total Project Cost (entered in Project Cost Form):	\$4,200,000.00
Enter Amount of the Noise Walls:	\$191,000.00
Total Project Cost subtract the amount of the noise walls:	\$4,009,000.00
Points Awarded in Previous Criteria	
Cost Effectiveness	\$0.00

Other Attachments

File Name	Description	File Size
2016_CSAH 116 Resolution from Ham Lake.pdf	Resolution/Letter of Support from Ham Lake	116 KB
Anoka County Resolution of Support for CSAH 116 Project.pdf	Anoka County Board Resolution of Support for Project	683 KB
CSAH 116 and TH 65_Synchro Summary Report.pdf	Synchro Summary Reports	44 KB
CSAH 116 HL Layout.pdf	Project Layout	426 KB
CSAH 116HL_EA Approval Letter.pdf	CSAH 116 EA Approval Letter	429 KB
CSAH116_ProjectArea.pdf	Project Area	3.9 MB
RAD05251135AnokaREX.pdf	RADI35AnokaRE	205 KB
REC05251I35AnokaIntREX.pdf	RECI35AnokaIntRE	303 KB
SEC05251Anokl35IntRex.pdf	SECI35AnokaIntRE	281 KB
Trn05251135AnokaREX.pdf	TrnI35AnokaRE	291 KB







Direction	All
Volume (vph)	4601
Total Delay / Veh (s/v)	59
CO Emissions (kg)	7.28
NOx Emissions (kg)	1.42
VOC Emissions (kg)	1.69

Direction	All
Volume (vph)	4601
Total Delay / Veh (s/v)	23
CO Emissions (kg)	4.87
NOx Emissions (kg)	0.95
VOC Emissions (kg)	1.13

Direction	All
Volume (vph)	4601
Total Delay / Veh (s/v)	59
CO Emissions (kg)	7.28
NOx Emissions (kg)	1.42
VOC Emissions (kg)	1.69

Direction	All
Volume (vph)	4601
Total Delay / Veh (s/v)	23
CO Emissions (kg)	4.87
NOx Emissions (kg)	0.95
VOC Emissions (kg)	1.13

HS works		-	Control Section	T.H. / Roadway		Location	u			Beginning Ref. Pt.		Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
			Descripti Proposed	ion of	From Jefferson			In All Crasha		11+00.337		12+00.361	Anoka Co.	01/01/2013	12/31/2015
Accide		gram Codes	1 Rear End		2 Sideswipe Same Direction		n Main Line	5 Right Angle			8, 9 Side	Head On/ swipe - osite Direction	Pedestrian	6, 90, 99 Other	Total
	Fatal	F													
Study	Personal Injury (PI)	A		_			1								
Period: Number of	ersonal	B		5			2	4		2					1
Crashes	Property I						2								1.
	Fatal Da	PD		8	1		6	1		1					1
% Change in Crashes	<u>(1</u>	F					-82%								
	PI	AB					-0270	-66%							
Use Desktop Reference for Crash		c		-71%			-82%	-66%		-65%				-39%	
Reduction Factors	Property Damage	PD		-71%	-66%		-82%	-66%		-65%					
	Fatal L	F		/1/0			0270								
		A					-0.82								-0.8
Change in Crashes	PI	B						-0.66					0.00		-0.6
= No. of	_	с		-3.55			-1.64	-2.64		-1.30				-0.39	-9.5
crashes X % change in crashes	Property Damage	PD		-5.68	-0.66		-4.92	-0.66		-0.65					-12.5
ear (Safety In	nprove	ment	Constructi	on)	2018										
Project Cost (exclud	le Rig	ght of Way)		\$ 4,008,400	Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes		Cost per Crash		Annual Benefit		B/C=	2.98
Right of Way	Cost	s (opt	ional)			F			s	1,140,000			Using present	worth values,	
Fraffic Growt	th Fa	ctor			0.5%	A	-0.82	-0.27	\$	570,000	\$	155,942	B=		928,645
Capital Recov	ery					B	-0.66	-0.22	\$	170,000	\$	37,434	C=	\$ 4,	008,400
1. Discount	Rate	-			2%	С	-9.52	-3.18	\$	83,000	\$	263,627	See "Calculat	ions" sheet for a	mortization.
2. Project S	ervic	e Lif	e (n)		30	PD Total	-12.57	-4.19	\$	7,600	\$	31,873	Office of Tre	ffic, Safety and	Technology

Dual CRF for CSAH 116

Improvements include installation of a median and addition of a through lane in each direction.

CR1=Installation of a median CR2=Increase number of lanes

CR=1-(1-CR1)*(1-CR2)

Rear end: $CR=1 - (1-.39)^*(1-.52) = .71$ Sideswipe: $CR=1 - (1-.39)^*(1-.44) = .66$ Left Turn: $CR=1 - (1-.39)^*(1-.71) = .82$ Right Angle: $CR=1 - (1-.39)^*(1-.45) = .66$ Ran Off Road: $CR=1 - (1-.39)^*(1-.44) = .65$ Other: CR=.39 (CR1 applies only)



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					Doily Troffic		Effectiveness	ess		
Countermeasure(s)	Crash Type	Crash Severity	Area Type	Road Type	Volume	Ref	Crash Reduction Factor	Std	Range	Study Type
					(veh/day)		/ Function	Error	Low High	
	AII	AII			<5,000/lane	15	20			
	AII	AII			>5,000/lane	15	31			
	AII	AII				15	0L			
	AII	All				15	20			
	AII	All				15	22			
	AII	All				15	25			
	AII	All				15	25			
	AII	All				15	25			
	All	Fatal				15	39			
	AII	Injury				15	23			
	AII	PDO				15	27			
	Head-on	All			<5,000/lane	15	38			
	Head-on	All			>5,000/lane	15	(44)			
	Head-on	AII				15	53			
	Head-on	AII				15	53			
Increase number of	Head-on	PDO				15	50			
lanes	Left-turn	AII				15	(11)			
	Left-turn	PDO				15	67			
	ROR	AII				15	(44)			
	ROR	AII				15	26			
	ROR	All				15	44			
	ROR	AII				15	44			
	ROR	PDO				15	50			
	Overturn	AII			<5,000/lane	15	42			
	Overturn	AII			>5,000/lane	15	(22)			
	Rear-end	AII			<5,000/lane	15	42			
	Rear-end	AII			>5,000/lane	15	52			
	Rear-end	AII				15	32			
	Rear-end	AII				15	32			
	Rear-end	AII				15	40			
	Rear-end	All				15	53			
	Rear-end	PDO				15	53			

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					D-11. T 60-		Effectiveness	SSS		
Countermeasure(s)	Crash Type	Crash Severity	Area Type	Road Type	Volume	Ref	Crash Reduction Factor	p	Range	Study Type
					(veh/day)		/ Function	Error Low	High	
	Right- angle	AII			<5,000/lane	15	35			
	Right- angle	AII			>5,000/lane	15	45			
	Right- angle	AII				15	15			
Increase number of lanes (cont'd)	Right- angle	PDO				15	46			
(manual and	Sideswipe	AII			<5,000/lane	15	38			
	Sideswipe	AII			>5,000/lane	15	(44)			
	Sideswipe	AII				15	30			
	Sideswipe	AII				15	30			
	Sideswipe	All				15	35			
	Sideswipe	PDO				15	64			
Increase vertical grade by 1%	All	AII	Rural	2-lane		23	-1.6P; P=percent grade (absolute value)	bsolute valu	()	
	AII	AII				15	26			
	AII	AII	AII	AII		-	10			
	All	AII				15	10			
	AII	AII				15	10			
Install acceleration/	AII	AII				15	10			
deceleration lanes	All	All				15	25			
	AII	All				15	75			
	Rear-end	AII				15	75			
	Sideswipe	AII				15	75			
	All	AII				15	67			
Install channelized lane	AII	PDO				15	62			
	Rear-end	AII				15	93			
Install climbing lane (where large difference between car and truck speed)	All	Fatal/ Injury	Rural	2-lane		38	33			

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15544 Central Avenue NE Ham Lake, Minnesota 55304 (763) 434-9555 Fax: (763) 434-9599

July 6, 2016

Douglas W. Fischer, P.E. **County Engineer** Anoka County Highway Department 1440 Bunker lake Blvd NW Andover, MN 5304

RE: REGIONAL FUNDING SOLICITATION - CSAH 116

Dear Doug,

The City of Ham Lake is writing this letter in regards to this year's federal funding solicitation. We understand that Anoka County would like to submit an application for the expansion and reconstruction of CSAH 116 in our community.

This letter is in support of the project and for Anoka County to pursue federal funding. The City of Ham Lake and Anoka County continue to coordinate their efforts in improving the area's transportation issues. We feel this project will help address safety and mobility issues occurring in the area.

If you have any further questions in regard to the project on the city's end, please feel free to contact us.

Cure A. Carkiek

City of Ham Lake Mayor

CITY OF HAM LAKE MINNESOTA

RESOLUTION NO. 16-32

SUPPORTING ANOKA COUNTY FEDERAL FUNDING APPLICATION FOR **CSAH 116**

WHEREAS, CSAH 116 is an "A" minor arterial reliever route that provides an important eastwest transportation connection in Anoka County, and,

WHEREAS, traffic volumes on CSAH 116 have been increasing over the past decade and are expected to continue to increase in the future as the cities in and around the roadway continue to grow, and,

WHEREAS, existing and future traffic volumes are such that safety is a concern at intersections and along some segments of the corridor, and,

WHEREAS, existing and future traffic volumes are such that congestion is and will continue to negatively impact the ability of the corridor to move traffic, and

WHEREAS, Anoka County has identified this corridor as needing safety and capacity improvements, and,

WHEREAS, Anoka County and the City of Ham Lake have worked together in the past to make capacity and safety improvements to other segments of CSAH 116 to serve long-term growth and development along the corridor, and,

WHEREAS, Anoka County would like to submit an application to the Transportation Advisory Board to the Metropolitan Council for 2019 - 2021 to receive federal transportation funds to make capacity and safety improvements on CSAH 116.

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF HAM LAKE, MINNESOTA:

That the City of Ham Lake supports Anoka County in preparing and submitting an application for CSAH 116 in the Roadway Expansion category.

Adopted by the Ham Lake City Council this 5th day of July, 2016

Michael G. Van Kirk, Mayor

Webster, City Clerk

BOARD OF COUNTY COMMISSIONERS

Anoka County, Minnesota

DATE: July 12, 2016 OFFERED BY COMMISSIONER: Schulte **RESOLUTION #2016-91**

RESOLUTION AUTHORIZING SUBMITTAL OF FEDERAL FUNDING APPLICATION FOR CSAH 116

WHEREAS, CSAH 116 (Bunker Lake Boulevard) is an "A" minor arterial reliever route that provides an important transportation connection in Anoka County; and,

WHEREAS, traffic volumes on CSAH 116 have been increasing over the past decade and are expected to continue to increase in the future as the area continues to grow; and,

WHEREAS, existing and future traffic volumes are such that congestion is and will continue to negatively impact the ability of the corridor to move traffic; and,

WHEREAS, existing and future traffic volumes are such that safety is a concern at intersections and along some segments of the corridor; and,

WHEREAS, Anoka County and the City of Ham Lake have worked together in the past to make capacity and safety improvements to other segments of CSAH 116 to serve long-term growth and development along the corridor; and,

WHEREAS, the Anoka County Board of Commissioners is aware of and understands the project being submitted, and commits to operate and maintain the facility for its design life and not change the use of any right-of-way acquired without prior approval from MnDOT and the Federal Highway Administration.

NOW, THEREFORE, BE IT RESOLVED that the Anoka County Highway Department is hereby authorized to submit an application to the Transportation Advisory Board of the Metropolitan Council for 2019-2021 to receive federal transportation funds to make capacity and safety improvements on CSAH 116 between Jefferson Street and TH 65 in Ham Lake.

STATE OF MINNESOTA) COUNTY OF ANOKA) ^{SS}

I, Jerry Soma, County Administrator, Anoka County, Minnesota, hereby certify that I have compared the foregoing copy of the resolution of the county board of said county with the original record thereof on file in the Administration Office, Anoka County, Minnesota, as stated in the minutes of the proceedings of said board at a meeting duly held on July 12, 2016, and that the same is a true and correct copy of said original record and of the whole thereof, and that said resolution was duly passed by said board at said meeting.

Witness my hand and seal this 12th day of

July 2016. JERRY SOMA COUNTY ADMINISTRATOR

	YES	NO
District #1 – Look	Х	
DISTRICT #2 – BRAASTAD	Х	
DISTRICT #3 – WEST	Х	
District #4 – Kordiak	Х	
District #5 – Gamache	X	
District #6 – Sivarajah	Х	a a
DISTRICT #7 – SCHULTE	Х	

CSAH 116 and TH 65 Existing_PM.syn Summary Report

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations	ኘ	1	1		Ă	†	1		ልካ	††	1	
Volume (vph)	230	219	277	1	86	222	105	9	274	2031	13	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	285		285		275		0		465		150	
Storage Lanes	1		1		1		1		2		1	
Taper Length (ft)	135				165				300			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.97	0.95	1.00	0.95
Frt			0.850				0.850				0.850	
Flt Protected	0.950				0.950				0.950			
Satd. Flow (prot)	1770	1863	1583	0	1770	1863	1583	0	3433	3539	1583	0
Flt Permitted	0.950				0.235				0.239			
Satd. Flow (perm)	1770	1863	1583	0	438	1863	1583	0	864	3539	1583	0
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)			200				132				101	
Link Speed (mph)		30				30				30		
Link Distance (ft)		915				814				838		
Travel Time (s)		20.8				18.5				19.0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	101%	101%	101%	101%	101%	101%	101%	101%	101%	101%	101%	101%
Adj. Flow (vph)	252	240	304	1	94	244	115	10	301	2230	14	3
Shared Lane Traffic (%)				-								-
Lane Group Flow (vph)	252	240	304	0	95	244	115	0	311	2230	14	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	R NA	Left	Left	Right	R NA
Median Width(ft)		32				32				84		
Link Offset(ft)		0				0				0		
Crosswalk Width(ft)		16				16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	9	15		9	9
Turn Type	Prot	NA	Perm	Prot	Perm	NA	Perm	Prot	Perm	NA	Perm	Prot
Protected Phases	7	4		3		8		5		2		1
Permitted Phases			4	-	8	-	8	-	2	_	2	
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0
Total Split (s)	22.0	35.0	35.0	8.0	21.0	21.0	21.0	8.0	89.0	89.0	89.0	8.0
Total Split (%)	15.7%	25.0%	25.0%	5.7%	15.0%	15.0%	15.0%	5.7%	63.6%	63.6%	63.6%	5.7%
Maximum Green (s)	18.0	31.0	31.0	4.0	17.0	17.0	17.0	4.0	85.0	85.0	85.0	4.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	010	0.0	0.0	0.0	010	0.0	0.0	0.0	010
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)	105	5.0	5.0	105	5.0	5.0	5.0	105	5.0	5.0	5.0	105
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0	0	0		0	0	0	
Act Effct Green (s)	18.0	31.0	31.0		17.0	17.0	17.0		85.0	85.0	85.0	
Actuated g/C Ratio	0.13	0.22	0.22		0.12	0.12	0.12		0.61	0.61	0.61	
v/c Ratio	1.11	0.22	0.60		1.79	1.08	0.12		0.59	1.04	0.01	
	1.1.1	0.00	0.00		1.77	1.00	0.07		0.07	1.07	0.01	

	_	-	
	- \	T	1
	•	•	
Lane Group	SBL	SBT	SBR
Lane Configurations	1	††	1
Volume (vph)	37	940	110
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	490	.,	300
Storage Lanes	470		1
Taper Length (ft)	165		1
Lane Util. Factor	1.00	0.95	1.00
Frt	1.00	0.93	0.850
	0.050		0.850
Flt Protected	0.950	2520	1500
Satd. Flow (prot)	1770	3539	1583
Flt Permitted	0.047		
Satd. Flow (perm)	88	3539	1583
Right Turn on Red			Yes
Satd. Flow (RTOR)			121
Link Speed (mph)		30	
Link Distance (ft)		962	
Travel Time (s)		21.9	
Peak Hour Factor	0.92	0.92	0.92
Growth Factor	101%	101%	101%
Adj. Flow (vph)	41	1032	121
Shared Lane Traffic (%)		1002	121
Lane Group Flow (vph)	44	1032	121
Enter Blocked Intersection	No	No	No
	Left	Left	Right
Lane Alignment	Leit	Len 84	Right
Median Width(ft)			
Link Offset(ft)		0	
Crosswalk Width(ft)		16	
Two way Left Turn Lane		4.55	
Headway Factor	1.00	1.00	1.00
Turning Speed (mph)	15		9
Turn Type	Perm	NA	Perm
Protected Phases		6	
Permitted Phases	6		6
Minimum Split (s)	20.0	20.0	20.0
Total Split (s)	89.0	89.0	89.0
Total Split (%)	63.6%	63.6%	63.6%
Maximum Green (s)	85.0	85.0	85.0
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Walk Time (s)	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0
Act Effct Green (s)	85.0	85.0	85.0
Actuated g/C Ratio	0.61	0.61	0.61
v/c Ratio	0.83	0.48	0.12

CSAH 116 and TH 65 Existing_PM.syn Summary Report

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Control Delay	146.8	55.3	21.9		455.4	138.9	9.7		22.7	57.7	0.0	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	146.8	55.3	21.9		455.4	138.9	9.7		22.7	57.7	0.0	
LOS	F	E	С		F	F	А		С	E	А	
Approach Delay		71.5				172.4				53.2		
Approach LOS		E				F				D		
Stops (vph)	191	195	92		54	186	11		177	1787	0	
Fuel Used(gal)	10	5	4		9	9	1		4	47	0	
CO Emissions (g/hr)	674	359	262		623	614	66		292	3314	6	
NOx Emissions (g/hr)	131	70	51		121	119	13		57	645	1	
VOC Emissions (g/hr)	156	83	61		144	142	15		68	768	1	
Dilemma Vehicles (#)	0	0	0		0	0	0		0	0	0	
Queue Length 50th (ft)	~261	197	82		~129	~247	0		85	~1149	0	
Queue Length 95th (ft)	#439	289	185		#248	#423	44		138	#1280	0	
Internal Link Dist (ft)		835				734				758		
Turn Bay Length (ft)	285		285		275				465		150	
Base Capacity (vph)	227	412	506		53	226	308		524	2148	1000	
Starvation Cap Reductn	0	0	0		0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0		0	0	0		0	0	0	
Storage Cap Reductn	0	0	0		0	0	0		0	0	0	
Reduced v/c Ratio	1.11	0.58	0.60		1.79	1.08	0.37		0.59	1.04	0.01	
Intersection Summary												
Area Type:	Other											
Cycle Length: 140												
Actuated Cycle Length: 14	40											
Offset: 0 (0%), Reference	d to phase 2:	NBTL and	d 6:SBTL	, Start of	Green							
Natural Cycle: 140												
Control Type: Pretimed												
Maximum v/c Ratio: 1.79												
Intersection Signal Delay:	58.6			Ir	ntersection	ו LOS: E						
Intersection Capacity Utili	zation 98.0%			IC	CU Level	of Service	F					
Analysis Period (min) 15												
 Volume exceeds capa 	icity, queue is	theoretic	ally infini	te.								
Queue shown is maxin	num after two	cycles.										
# 95th percentile volume	e exceeds car	pacity qu	eue mav	be longe	r							

95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

Splits and Phases: 3: TH 65 & CSAH 116

Ø3 ø ∎ ∮ø2 (R)					4
8 s 89 s			35 s		8 s
	F	l ø!	₩ Ø8	∕ ø7	
89 s	8 s		21 s	22 s	

	1	ţ	~
Lane Group	SBL	SBT	SBR
Control Delay	111.7	16.2	2.1
Queue Delay	0.0	0.0	0.0
Total Delay	111.7	16.2	2.1
LOS	F	В	А
Approach Delay		18.3	
Approach LOS		В	
Stops (vph)	28	504	7
Fuel Used(gal)	1	13	1
CO Emissions (g/hr)	95	911	64
NOx Emissions (g/hr)	19	177	13
VOC Emissions (g/hr)	22	211	15
Dilemma Vehicles (#)	0	0	0
Queue Length 50th (ft)	30	261	0
Queue Length 95th (ft)	#69	313	25
Internal Link Dist (ft)		882	
Turn Bay Length (ft)	490		300
Base Capacity (vph)	53	2148	1008
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.83	0.48	0.12
Interception Cummony			

Intersection Summary

CSAH 116 and TH 65 Improved_PM.syn Summary Report

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations	ሻሻ	<u></u>	1		ልካ	<u></u>	*		አካ	<u></u>	1	
Volume (vph)	230	219	277	1	86	222	105	9	274	2031	13	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		285		275		250		465		150	
Storage Lanes	2		1		2		1		2		1	
Taper Length (ft)	135				165				300			
Lane Util. Factor	0.97	0.95	1.00	0.95	0.97	0.95	1.00	0.95	0.97	0.95	1.00	0.95
Frt			0.850				0.850				0.850	
Flt Protected	0.950				0.950				0.950			
Satd. Flow (prot)	3433	3539	1583	0	3433	3539	1583	0	3433	3539	1583	0
Flt Permitted	0.950				0.603				0.236			
Satd. Flow (perm)	3433	3539	1583	0	2179	3539	1583	0	853	3539	1583	0
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)			216				89				89	
Link Speed (mph)		30				30				30		
Link Distance (ft)		915				814				838		
Travel Time (s)		20.8				18.5				19.0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	101%	101%	101%	101%	101%	101%	101%	101%	101%	101%	101%	101%
Adj. Flow (vph)	252	240	304	1	94	244	115	10	301	2230	14	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	252	240	304	0	95	244	115	0	311	2230	14	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	R NA	Left	Left	Right	R NA
Median Width(ft)		32	U			32	Ū			84	Ū	
Link Offset(ft)		0				0				0		
Crosswalk Width(ft)		16				16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	9	15		9	9
Number of Detectors	1	2	1	1	1	2	1	1	1	2	1	1
Detector Template	Left	Thru	Right	Left	Left	Thru	Right	Left	Left	Thru	Right	Left
Leading Detector (ft)	20	100	20	20	20	100	20	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	20	6	20	20	20	6	20	20
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94				94				94		
Detector 2 Size(ft)		6				6				6		
Detector 2 Type		CI+Ex				CI+Ex				CI+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0				0.0				0.0		
Turn Type	Prot	NA	Perm	Prot	Perm	NA	Perm	Prot	Perm	NA	Perm	Prot
Protected Phases	7	4		3		8		5		2		1
Permitted Phases			4		8		8		2		2	

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	-	+	-
Lane Group	SBL	SBT	SBR
Lane Configurations	ልካ	† †	<u> </u>
	37	TT 940	110
Volume (vph)			
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	490		300
Storage Lanes	2		1
Taper Length (ft)	165		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.061		
Satd. Flow (perm)	220	3539	1583
Right Turn on Red			Yes
Satd. Flow (RTOR)			121
Link Speed (mph)		30	
Link Distance (ft)		962	
Travel Time (s)		21.9	
Peak Hour Factor	0.92	0.92	0.92
Growth Factor	101%	101%	101%
	41	101%	101%
Adj. Flow (vph)	41	1032	121
Shared Lane Traffic (%)	4.4	1000	121
Lane Group Flow (vph)	44	1032	
Enter Blocked Intersection	No	No	No
Lane Alignment	Left	Left	Right
Median Width(ft)		84	
Link Offset(ft)		0	
Crosswalk Width(ft)		16	
Two way Left Turn Lane			
Headway Factor	1.00	1.00	1.00
Turning Speed (mph)	15		9
Number of Detectors	1	2	1
Detector Template	Left	Thru	Right
Leading Detector (ft)	20	100	20
Trailing Detector (ft)	0	0	0
Detector 1 Position(ft)	0	0	0
Detector 1 Size(ft)	20	6	20
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel	51. LA	51. LA	SILLA
Detector 1 Extend (s)	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0
、 <i>,</i>	0.0		0.0
Detector 1 Delay (s)	0.0	0.0	0.0
Detector 2 Position(ft)		94	
Detector 2 Size(ft)		6	
Detector 2 Type		CI+Ex	
Detector 2 Channel		_	
Detector 2 Extend (s)		0.0	_
Turn Type	Perm	NA	Perm
Protected Phases		6	
Permitted Phases	6		6

CSAH 116 and TH 65 Improved_PM.syn Summary Report

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Detector Phase	7	4	4	3	8	8	8	5	2	2	2	1
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0
Total Split (s)	12.0	24.0	24.0	8.0	20.0	20.0	20.0	8.0	70.0	70.0	70.0	8.0
Total Split (%)	10.9%	21.8%	21.8%	7.3%	18.2%	18.2%	18.2%	7.3%	63.6%	63.6%	63.6%	7.3%
Maximum Green (s)	8.0	20.0	20.0	4.0	16.0	16.0	16.0	4.0	66.0	66.0	66.0	4.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	Мах	Max	Max	None
Walk Time (s)		5.0	5.0		5.0	5.0	5.0		5.0	5.0	5.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0	0	0		0	0	0	
Act Effct Green (s)	8.0	24.3	24.3		12.3	12.3	12.3		66.1	66.1	66.1	
Actuated g/C Ratio	0.08	0.25	0.25		0.12	0.12	0.12		0.67	0.67	0.67	
v/c Ratio	0.90	0.27	0.55		0.35	0.55	0.42		0.54	0.94	0.01	
Control Delay	80.4	30.6	13.8		42.8	45.2	17.7		13.3	24.6	0.0	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	80.4	30.6	13.8		42.8	45.2	17.7		13.3	24.6	0.0	
LOS	F	С	В		D	D	В		В	С	А	
Approach Delay		39.9				37.7				23.1		
Approach LOS		D				D				С		
90th %ile Green (s)	8.0	28.0	28.0	0.0	16.0	16.0	16.0	0.0	66.0	66.0	66.0	0.0
90th %ile Term Code	Max	Hold	Hold	Skip	Max	Max	Max	Skip	MaxR	MaxR	MaxR	Skip
70th %ile Green (s)	8.0	26.4	26.4	0.0	14.4	14.4	14.4	0.0	66.0	66.0	66.0	0.0
70th %ile Term Code	Max	Hold	Hold	Skip	Gap	Gap	Gap	Skip	MaxR	MaxR	MaxR	Skip
50th %ile Green (s)	8.0	24.0	24.0	0.0	12.0	12.0	12.0	0.0	66.0	66.0	66.0	0.0
50th %ile Term Code	Max	Hold	Hold	Skip	Gap	Gap	Gap	Skip	MaxR	MaxR	MaxR	Skip
30th %ile Green (s)	8.0	22.7	22.7	0.0	10.7	10.7	10.7	0.0	66.0	66.0	66.0	0.0
30th %ile Term Code	Max	Hold	Hold	Skip	Gap	Gap	Gap	Skip	MaxR	MaxR	MaxR	Skip
10th %ile Green (s)	8.0	20.8	20.8	0.0	8.8	8.8	8.8	0.0	66.0	66.0	66.0	0.0
10th %ile Term Code	Max	Hold	Hold	Skip	Gap	Gap	Gap	Skip	MaxR	MaxR	MaxR	Skip
Stops (vph)	201	170	79		76	203	33		150	1580	0	
Fuel Used(gal)	7	4	3		2	5	1		3	32	0	
CO Emissions (g/hr)	459	272	225		121	322	87		243	2265	6	
NOx Emissions (g/hr)	89	53	44		24	63	17		47	441	1	
VOC Emissions (g/hr)	106	63	52		28	75	20		56	525	1	
Dilemma Vehicles (#)	0	0	0		0	0	0		0	0	0	
Queue Length 50th (ft)	81	64	44		28	76	15		45	574	0	
Queue Length 95th (ft)	#162	97	124		53	116	65		95	#915	0	
Internal Link Dist (ft)		835				734	20			758	Ŭ	
Turn Bay Length (ft)	500		285		275		250		465		150	
Base Capacity (vph)	279	875	553		354	575	332		572	2375	1092	
Starvation Cap Reductn	0	0/0	0		0	0	0		0	0	0	
	5	v				0	0		U	0	0	

Lane Group

Detector Phase

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Switch Dhase	Ū	Ū	U
Switch Phase		1.0	1.0
Minimum Initial (s)	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0
Total Split (s)	70.0	70.0	70.0
Total Split (%)	63.6%	63.6%	63.6%
Maximum Green (s)	66.0	66.0	66.0
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	Max	Max	Max
Walk Time (s)	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0
Act Effct Green (s)	66.1	66.1	66.1
Actuated g/C Ratio	0.67	0.67	0.67
v/c Ratio	0.30	0.43	0.11
Control Delay	14.0	8.5	1.5
Queue Delay	0.0	0.0	0.0
Total Delay	14.0	8.5	1.5
LOS	В	А	А
Approach Delay		8.0	
Approach LOS		А	
90th %ile Green (s)	66.0	66.0	66.0
90th %ile Term Code	MaxR	MaxR	MaxR
70th %ile Green (s)	66.0	66.0	66.0
70th %ile Term Code	MaxR	MaxR	MaxR
50th %ile Green (s)	66.0	66.0	66.0
50th %ile Term Code	MaxR	MaxR	MaxR
30th %ile Green (s)	66.0	66.0	66.0
30th %ile Term Code	MaxR	MaxR	MaxR
10th %ile Green (s)	66.0	66.0	66.0
10th %ile Term Code	MaxR	MaxR	MaxR
	19 IviaxR	410	1014 R
Stops (vph)			
Fuel Used(gal)	1	11 770	1
CO Emissions (g/hr)	36	770	63
NOx Emissions (g/hr)	7	150	12
VOC Emissions (g/hr)	8	179	15
Dilemma Vehicles (#)	0	0	0
Queue Length 50th (ft)	5	138	0
Queue Length 95th (ft)	19	202	19
Internal Link Dist (ft)		882	
Turn Bay Length (ft)	490		300
Base Capacity (vph)	147	2375	1102
Starvation Cap Reductn	0	0	0

CSAH 116 and TH 65 Improved_PM.syn Summary Report

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Spillback Cap Reductn	0	0	0		0	0	0		0	0	0	
Storage Cap Reductn	0	0	0		0	0	0		0	0	0	
Reduced v/c Ratio	0.90	0.27	0.55		0.27	0.42	0.35		0.54	0.94	0.01	
Intersection Summary												
Area Type:	Other											
Cycle Length: 110												
Actuated Cycle Length: 98.	4											
Natural Cycle: 110												
Control Type: Actuated-Une	coordinated											
Maximum v/c Ratio: 0.94												
Intersection Signal Delay: 2					tersection							
Intersection Capacity Utiliza	ation 86.6%			IC	CU Level c	of Service	E					
Analysis Period (min) 15												
90th %ile Actuated Cycle: 1												
70th %ile Actuated Cycle: 1												
50th %ile Actuated Cycle: 9												
30th %ile Actuated Cycle: 9												
10th %ile Actuated Cycle: 9												
# 95th percentile volume			eue may	be longer	r.							
Queue shown is maximi	um after two	cycles.										

Splits and Phases: 3: TH 65 & CSAH 116

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8 s	;		70 s							8 s		24 s			
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8 s	;		70 s							12 s			20 s		

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Lane Group	SBL	SBT	SBR
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.30	0.43	0.11
Intersection Summary			





Federal Highway Administration **Minnesota Division**

May 9, 2016

380 Jackson Street Cray Plaza, Suite 500 St. Paul, MN 55101-4802

> 651.291.6100 Fax 651.291.6000

www.fhwa.dot.gov/mndiv

Charles A. Zelle Commissioner of Transportation Department of Transportation MS 120, Transportation Building St. Paul, Minnesota 55155

Re: Finding of No Significant Impact & Section 4(f) Determination Minnesota State Project Number 002-716-015 Minnesota Federal Project STPM 0216(064) CSAH 116 Reconstruction Project From East of Crane Street To Trunk Highway 65 In the Cities of Andover and Ham Lake Anoka County, Minnesota

Dear Mr. Zelle:

Enclosed is a Finding of No Significant Impact (FONSI) as requested by Gary Reihl's April 2016, communication. The proposed project consists of expands approximately 3.2 miles of a two-lane roadway to a four-lane roadway with raised medians, shoulders, turn lanes, traffic control signals, and bicycle/pedestrian paths. This Finding concludes that the project will not significantly impact the human environment.

A Notice of Availability of the FONSI must be sent to Federal, State, and local government agencies that are likely to have an interest in the undertaking and to the State intergovernmental review contacts. It is encouraged that agencies, which commented on the Environmental Assessment (or requested to be informed) are advised on the project decision, the disposition of their comments and provided a copy of the FONSI.

If you have any questions, please contact me at (651) 291-6100 or phil.forst@dot.gov.

Sincerely,

Philip Forst Environmental Specialist

Enclosure

cc: 1 MnDOT, e-copy, <u>Brian.Gage@state.mn.us</u> 1 FHWA – Ezekwemba, e-copy w/enclosure, <u>Nnaemeka.ezekwemba@dot.gov</u> 1 MnDOT – Reihl, e-copy w/enclosure, <u>gary.reihl@state.mn.us</u>

PJF

UNITED STATES DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION MINNESOTA DIVISION FINDING OF NO SIGNIFICANT IMPACT & SECTION 4(f) DETERMINATION

Minnesota State Project Number 002-716-015 Minnesota Federal Project Number STPM 0216(064)

> CSAH 116 Reconstruction Project In the Cities of Andover and Ham Lake Anoka County, Minnesota

The proposed project consists primarily of reconstructing County State-Aid Highway (CSAH) 116 from East Crane Street to Trunk Highway (TH) 65. This reconstruction expands approximately 3.2 miles of a two-lane roadway to a four-lane roadway with raised medians, shoulders, turn lanes, traffic control signals, and bicycle/pedestrian paths.

The Federal Highway Administration (FHWA) has determined the proposed improvements, as described in the Environmental Assessment (EA) and the Findings of Fact and Conclusion (FOFC) will have no significant impacts to the human or natural environment. This Finding of No Significant Impact is based upon the EA which has been independently evaluated by FHWA and determined to adequately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures.

Furthermore, this executed FONSI constitutes FHWA's determination there is not a feasible and prudent alternative with the use of three Section 4(f) resources: Shadowbrook East Park, Shadowbrook West Park, and Bunker Hills Regional Park. The Section 4(f) evaluation based upon the *Programmatic Section* 4(f) Evaluation for Federally-Aided Highway Projects with Minor Use of Parks, Recreation Lands, and Wildlife and Waterfowl Refuges provides the basis for this determination.

The EA provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the EA for the subject project.

William Lohr, P.E. Field Operations Team Leader



Regional Solicitation CSAH 116 - Roadway Expansion



Anoka County

Respectful, Innovative, Fiscally Responsible







