Application

01968 - 2014 Roadway Reconstruction/Modernization

02296 - CSAH 11 Reconstruction from CSAH 1 to CSAH 3

Regional Solicitation - Roadways Including Multimodal Elements

Status:	Submitted
Submitted Date:	11/26/2014 12:13 PM

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

Organization Information

Name:	ANOKA COUNTY

Jurisdictional Agency (if different):

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 11 Reconstruction from CSAH 1 to CSAH 3

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)

Anoka County proposes the reconstruction and modernization of CSAH 11 (Foley Blvd) from CSAH 1 (East River Rd) to 750 feet north of CSAH 3 (Coon Rapids Blvd). The project area contains the Foley Blvd Park & Ride lot and a future Northstar Commuter Rail Line station. The project is a truly multimodal effort offering a variety of safety and access benefits to travelers of all modes. CSAH 11 is a four-lane minor arterial expander with a speed limit of 40 mph and an annual average daily traffic (AADT) of 7,000 vehicles. Figures 1-3 describe the project area and detail the proposed improvements.

The primary component of the project is an overpass of two BNSF tracks that carry over 70 trains per day at an approved speed of 75 mph. The existing at-grade crossing is a safety concern due to the high vehicle and rail traffic volumes, compounded by identified sight line limitations for northbound trains. The average daily train exposure is 490,000, which exceeds the minimum standard for constructing a grade-separation by 40 percent. This train exposure risk will more than triple by 2030 as traffic volumes increase. Plus, the frequent trains act as a barrier to mobility causing significant delays. The proposed overpass will include four lanes and non-motorized crossings on each side of CSAH 11, providing safe, uninterrupted travel for all types of travelers.

The grade-separated crossing also sets the stage for new commuter rail service at the Foley Blvd Park & Ride lot. The Northstar Corridor Draft Environmental Impact Statement (DEIS) and Environmental Assessment (EA) identify a stop at the Park & Ride for the Northstar Commuter Rail Line.

To support current and much higher forecasted

traffic volumes (AADT of 22,900 vehicles in 2030), the project will add turning lanes in key locations to aid in the efficient movement of vehicles, especially those accessing the Park & Ride lot or TH 610. And, a central median will reduce the vehicle/vehicle and pedestrian/vehicle crash risk.

The CSAH 11 project will also greatly improve mobility and accessibility for non-motorized travelers through the area. Presently, there is a sidewalk on the north side of CSAH 11 and a sidewalk on a portion of the south side. However, neither crosses the railroad tracks, and the southern sidewalk does not connect travelers to destinations along CSAH 1 to the west. The project includes the construction of a trail on the north side of the highway and a sidewalk on the south. Both will run the length of the project area and dramatically improve pedestrian access to transit, employment and social service destinations. Crosswalk enhancements at the intersections with CSAH 1 and CSAH 3 and a new intersection with crosswalks near the Park & Ride will also enhance pedestrian mobility.

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

Project Length (Miles)	0.77

Connection to Local Planning:

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 MnDOT 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.

Connection to Local Planning	Coon Rapids Comprehensive Plan, p 3-8, 3-12

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	$7,000,000.00

Match Amount *Minimum of 20% of project total*	$10,901,000.00
Project Total	$17,901,000.00
Match Percentage *Minimum of 20%* *Compute the match percentage by dividing the match amount by the project total*	60.9%
Source of Match Funds	Anoka County

Preferred Program Year

Select one:	2019

MnDOT State Aid Project Information: Roadway Projects

County, City, or Lead Agency	Anoka County
Functional Class of Road	A Minor Arterial Expander
Road System *TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET*	CSAH
Name of Road *Example; 1st ST., MAIN AVE*	CSAH 11 (Foley Blvd)
Zip Code where Majority of Work is Being Performed	55433
(Approximate) Begin Construction Date	03/01/2019
(Approximate) End Construction Date	11/30/2019

LOCATION

From: **(Intersection or Address)** *Do not include legal description;* *Include name of roadway if majority of facility runs adjacent to a single corridor.*	CSAH 1 (East River Rd)
To: **(Intersection or Address)**	CSAH 3 (Coon Rapids Blvd)
Type of Work *Examples: grading, aggregate base, bituminous base, bituminous surface, sidewalk, signals, lighting, guardrail, bicycle path, ped ramps, bridge, Park & Ride, etc.)*	BRIDGE, CURB AND GUTTER, SANITARY SEWER, PED RAMPS, MULTIUSE TRAIL, SIDEWALK. SIGNALS
Old Bridge/Culvert?	No
New Bridge/Culvert?	Yes
Structure is Over/Under **(Bridge or culvert name):**	BNSF Railway Tracks

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	$800,000.00
Removals (approx. 5% of total cost)	$800,000.00
Roadway (grading, borrow, etc.)	$635,000.00
Roadway (aggregates and paving)	$961,000.00
Subgrade Correction (muck)	$0.00
Storm Sewer	$350,000.00
Ponds	$150,000.00
Concrete Items (curb & gutter, sidewalks, median barriers)	$567,000.00
Traffic Control	$100,000.00
Striping	$40,000.00
Signing	$40,000.00
Lighting	$100,000.00
Turf - Erosion & Landscaping	$35,000.00
Bridge	$11,500,000.00
Retaining Walls	$300,000.00
Noise Wall	$0.00
Traffic Signals	$400,000.00
Wetland Mitigation	$0.00
Other Natural and Cultural Resource Protection	$0.00
RR Crossing	$0.00
Roadway Contingencies	$1,123,000.00
Other Roadway Elements	$0.00
Totals	**$17,901,000.00**

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
Transit and TDM Contingencies	$0.00
Other Transit and TDM Elements	$0.00
Totals	**$0.00**

Transit Operating Costs

OPERATING COSTS	Cost
Transit Operating Costs	$0.00
Totals	**$0.00**

Totals

Total Cost	$17,901,000.00
Construction Cost Total	$17,901,000.00
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 2030 Transportation Policy Plan (amended 2013), the 2030 Regional Parks Policy Plan (amended 2013), and the 2030 Water Resources Management Policy Plan (2005).

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

2.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

3.Applicants must not submit an application for the same project in more than one funding sub-category.

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

4.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. Expansion, reconstruction/modernization, and bridges must be between $1,000,000 and $7,000,000. Roadway system management must be between $250,000 and $7,000,000.

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

5.The project must comply with the Americans with Disabilities Act.

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

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

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

7.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

8.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

9.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

10.The project applicant must send written notification regarding the proposed projected to all affected communities and other levels and units of government prior to submitting the application.

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

Requirements - Roadways Including Multimodal Elements

Expansion and Reconstruction/Modernization Projects Only

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

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

2.Federal funds are available for roadway construction and reconstruction on new alignments or within existing right-of-way, including associated construction and excavation, bridges, or installation of traffic signals, signs, utilities, bikeway or walkway components and transit components.
The project must exclude costs for right-of-way, studies, preliminary engineering, design, or construction engineering. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding unless included as part of a larger project, which is otherwise eligible.

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

Bridge Projects Only

3.The bridge project 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

4.Bridges selected in previous Bridge Improvement and Replacement solicitations (1994 2011) are not eligible. A previously selected project is not eligible unless it has been withdrawn or sunset prior to the deadline for proposals in this solicitation.

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

5.Projects requiring a grade-separated crossing of a Principal Arterial of freeway design 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. Yes

6.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 sub-categories. Rail-only bridges are ineligible for funding.

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

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

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

8.Project limits for bridge projects are limited from abutment to abutment.

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

9.The project must exclude costs for studies, preliminary engineering, design, construction engineering, and right-of-way.

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

Bridge Replacement Projects Only

10.The bridge must have a sufficienty rating less than 50. Additionally, it must also be classified as structurally deficient or functionally obsolete.

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

Bridge Rehabilitiation Projects Only

11.The bridge must have a sufficienty rating less than 80. Additionally, it must also be classified as structurally deficient or functionally obsolete.

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

Other Attachments

File Name	Description	File Size
CSAH 11 Attachments - FINAL.pdf	Figure 1: Project Limits and Context Figures 2-3: Proposed Improvements	3.7 MB

Reliever: Freeway Facility or

Facility being relieved	
Number of hours per day volume exceeds capacity (based on the Congestion Report)	0

Reliever: Non-Freeway Facility or

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

Non-Freeway Facility Volume/Capacity Table

Hour	NB/EB Volume	SB/WB Volume	Capacity	Volume exceeds capacity
12:00am - 1:00am				
1:00am - 2:00am				
2:00am - 3:00am				
3:00am - 4:00am				
4:00am - 5:00am				
5:00am - 6:00am				
6:00am - 7:00am				
7:00am - 8:00am				
8:00am - 9:00am				
9:00am - 10:00am				
10:00am - 11:00am				
11:00am - 12:00pm				
12:00pm - 1:00pm				
1:00pm - 2:00pm				
2:00pm - 3:00pm				
3:00pm - 4:00pm				
4:00pm - 5:00pm				
5:00pm - 6:00pm				
6:00pm - 7:00pm				
7:00pm - 8:00pm				
8:00pm - 9:00pm				

9:00pm - 10:00pm

10:00pm - 11:00pm

11:00pm - 12:00am

Expander/Connector/Augmentor/Non-Freeway Principal Arterial

Select one:	Expander
Area	1.9
Project Length	0.77
Average Distance	2.4675
Upload Map	Definition.pdf

Measure B: Current Heavy Commercial Traffic

Location	CSAH 11, south of CSAH 3
Current daily heavy commercial traffic volume	1480.0

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

Select all that apply

Direct connection to or within a mile of a Job Concentration	Yes
Direct connection to or within a mile of a Manufacturing/Distribution Location	Yes
Direct connection to or within a mile of an Educational Institution	Yes
Project provides a direct connection to or within a mile of an existing local activity center identified in an adopted county or city plan	Yes
County or City Plan Reference (Limit 700 characters; approximately 100 words)	
Upload Map	Economy.pdf

Measure A: Current Daily Person Throughput

Location	CSAH 11, south of CSAH 3
Current AADT Volume	7000.0
Existing Transit Routes on the Project	850, 852, 865, 887, 888-Northstar Commuter Rail

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	5754.0
Current Daily Person Throughput	14854.0

Measure B: 2030 Forecast ADT

Use Metropolitan Council model to determine forecast (2030) ADT volume	
METC Staff - Forecast (2030) ADT volume	0
OR	
Approved county or city travel demand model to determine forecast (2030) ADT volume	Yes
Forecast (2030) ADT volume	22900.0

Measure A: Project Location and Impact to Disadvantaged Populations

Select one:

Project located in Racially Concentrated Area of Poverty	
Project located in Concentrated Area of Poverty	
Projects census tracts are above the regional average for population in poverty or population of color	Yes
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.	

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

The proposed project will provide benefits to all travelers, especially those who cannot drive (low income, children, elderly, or disabled people).

The project will expand access to the Anoka County Community Action Program, Inc. (ACCAP), which runs programs for those in poverty, including some directed at youth and the elderly. The ACCAP serves over 30,000 people per year, of whom 75 percent are minorities (2012 ACCAP Annual Report).

By constructing an overpass of the railroad, people are able to safely cross the busy tracks on foot, by bicycle or in a wheelchair. The current pedestrian facilities dump travelers into the gravel surrounding the tracks, making crossing difficult for children or elderly and nearly impossible for those using wheelchairs or otherwise disabled. The tracks carry approximately 60 trains per day.

The projects improvements to pedestrian facilities will also make traveling to the nearby Arona Academy High School and Adams Elementary School markedly safer for children.

Grade separation will also allow the addition of a Northstar Commuter Rail Line station at CSAH 11, offering access to jobs, education and services throughout the Twin Cities region.

Short-term construction impacts will be mitigated through phasing to maintain access to the Park & Ride. The County will work with Metro Transit to keep riders informed of conditions during construction.

Upload Map	Socio-Economic.pdf

Measure B: Affordable Housing

City/Township	Segment Length (Miles)
Coon Rapids	0.77
	1

Total Project Length

Total Project Length	0.77

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
Coon Rapids	0.77	0.77	89.0	1.0	89.0
		1	**89**	**1**	**89**

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles)	0.77
Total Housing Score	89.0

Measure A: Year of Roadway Construction

Year of Original Roadway Construction or Most Recent Reconstruction	Roadway Segment Length (Miles)	Calculation	Calculation 2
1988.0	0.77	1530.76	1988.0
	1	**1531**	**1988**

Average Construction Year

Weighted Year	1988.0

Total Segment Length (Miles)

Total Segment Length	0.77

Measure B: Geometric, Structural, or Infrastructure Improvements

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

Reconstructing CSAH 11 will remedy many design deficiencies afflicting the project area. The project will accomplish the following:

Grade-separate the crossing of the BNSF tracks to eliminate a conflict point between travelers of different modes and address sight line issues for northbound trains. With an AADT of 7,000 and a daily train volume of 70, the average daily train exposure is 490,000, well above the warrant for grade separation.

Provide non-motorized crossings of the tracks on both sides of CSAH 11, where none currently exist.

Replace a five-foot sidewalk with an eight-foot trail along the north side of CSAH 11.

Complete a sidewalk on the south side of CSAH 11, where none currently exists.

Realign pedestrian crosswalks at CSAH 1 and CSAH 3 to minimize crossing distance for pedestrians as specified in the City of Coon Rapids Comprehensive Plan.

Signalize the entrance to the Foley St Park & Ride lot to better manage traffic and provide a non-motorized crossing of CSAH 11 near the lot.

Create room for a new Northstar Commuter Rail station at CSAH 11 as identified in the Northstar Corridor DEIS and EA without blocking the road.

Install ADA-compliant ramps at pedestrian crossings where none currently exist.

Improve outdated utilities by rebuilding the sanitary sewer system and water main.

Construct a detention pond to better manage stormwater runoff.

Measure A: Cost Effectiveness of Vehicle Delay Reduction

Total Project Cost from Cost Sheet	$17,901,000.00
Total Peak Hour Vehicle Delay Without The Project	16380.0
Total Peak Hour Vehicle Delay With The Project	0
Total Peak Hour Vehicle Delay Reduced by Project	16380.0
Cost Effectiveness	$1,092.86
Synchro or HCM Reports	CSAH 11 Reconstruction - HCM.pdf

Measure B: Cost Effectiveness of Emissions Reduction

Total Project Cost from Cost Sheet	$17,901,000.00
Total Peak Hour Kilograms Reduced by Project	0.41
Cost Effectiveness	$43,660,975.61
Synchro or HCM Reports	CSAH 11 Reconstruction - HCM.pdf

Measure A: Benefit/Cost of Crash Reduction

Project Benefit/Cost Ratio	0.15
Worksheet Attachment	CSAH 11 Completed Analysis.pdf

Measure A: Transit Connections

Existing Routes Directly Connected to the Project	850, 852, 865, 887, 888-Northstar Commuter Rail
Planned Transitways directly connected to the project (alignment and mode determined and identified in the 2030 TPP)	N/A
Upload Map	Transit.pdf

Response

Met Council Staff Data Entry Only

Route Ridership	1823072.0
Transitway Ridership	0

Measure B: Bicycle and Pedestrian Connections

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

As identified in the City of Coon Rapids 2030 Comprehensive Plan, there are existing pedestrian activity centers in and around the project area including the following:

A mixed-use area at the intersection of CSAH 11 and CSAH 3 with retail and office space.

Medium and high density housing north of the project.

The transit center at the Foley Blvd Park & Ride.

In addition, the proposed project is a key part of a planned Northstar station at CSAH 11 as identified in the Northstar Corridor DEIS and EA. In preparation for the station, the Metropolitan Council and the City of Coon Rapids crafted the Foley Boulevard Station Area Plan in 2014. The plan designates the entire project area as a high pedestrian-traffic area most suitable for dense mixed-use transit-oriented development, which will include housing, commercial and industrial uses. Elements of the CSAH 11 reconstruction will provide vital connections within the planned development and to surrounding activity centers.

The project will connect to an existing sidewalk network carrying bicyclists and pedestrians on routes perpendicular to CSAH 11 on CSAH 1 and CSAH 3, as well as extending along CSAH 11 to the northeast. There are also several miles of multiuse trails in the Coon Rapids Dam Regional Park to the west offering a pedestrian crossing of the Mississippi River, linking to the Rush Creek Regional Trail.

Measure C: Multimodal Facilities

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

The CSAH 11 reconstruction will dramatically improve the travel experience, safety and security for all modes of travel.

Transit Elements:

The grade-separated rail crossing is necessary to support a new commuter rail station as identified in the Northstar Corridor DEIS and EA.

Grade separation will reduce delays and enhance safety for existing Northstar service.

The project includes enhancements to the existing Foley Blvd Park & Ride lot to improve bus movement and increase pedestrian safety and travel experience within the facility.

Bicycle and Pedestrian Elements:

Reconstruction will add an eight-foot wide trail and a sidewalk along the north and south sides of CSAH 11, respectively. There is currently a narrow sidewalk on the north and an incomplete sidewalk on the south.

The projects trail crosses a Regional Bicycle Transportation Network Tier 1 corridor and is positioned to provide access to the Foley Blvd Park & Ride from a future regional trail.

Multimodal Integration:

Grade separation of CSAH 11 will dramatically reduce conflicts between modes, allowing rail, vehicle, bus, and non-motorized traffic to flow more safely.

A new signalized intersection with crosswalks near

the Park & Ride will improve interactions between travelers of different modes while providing greater pedestrian access to transit service.

A raised median will reduce crash risks.

Transit Projects Not Requiring Construction

If the applicant is completing a transit or TDM application, only Park-and-Ride and other construction projects require completion of the Risk Assessment below. Check the box below if the project does not require the Risk Assessment fields, and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.

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 (10 Percent of Points)

EIS

EA

PM Yes

Document Status:

Document approved (include copy of signed cover sheet)

100%

Document submitted to State Aid for review

75%

Document in progress; environmental impacts identified Yes

50%

Document not started

0%

Anticipated date or date of completion/approval

4)Review of Section 106 Historic Resources (15 Percent of Points)

No known potential for archaeological resources, no historic resources known to be eligible for/listed on the National Register of Historic Places 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%

Unknown impacts to historic/archaeological resources

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 (15 Percent of Points)

(4f is publicly owned parks, recreation areas, historic sites, wildlife or waterfowl refuges; 6f is outdoor recreation lands where Land and Water Conservation Funds were used for planning, acquisition, or development of the property)

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

100%

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%

Adverse effects (land conversion) to Section 4f/6f resources likely

30%

Unknown impacts to Section 4f/6f resources in the project area

0%

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

Right-of-way or easements not required

100%

Right-of-way or easements has/have been acquired Yes

100%

Right-of-way or easements required, offers made

75%

Right-of-way or easements required, appraisals made

50%

Right-of-way or easements required, parcels identified

25%

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

0%

Right-of-way or easements identification has not been completed

0%

Anticipated date or date of acquisition

7)Railroad Involvement (25 Percent of Points)

No railroad involvement on project

100%

Railroad Right-of-Way Agreement is executed (include signature page) 100%

Railroad Right-of-Way Agreement required; Agreement has been initiated Yes

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)Construction Documents/Plan (10 Percent of Points)

Construction plans completed/approved (include signed title sheet) Yes

100%

Construction plans submitted to State Aid for review

75%

Construction plans in progress; at least 30% completion

50%

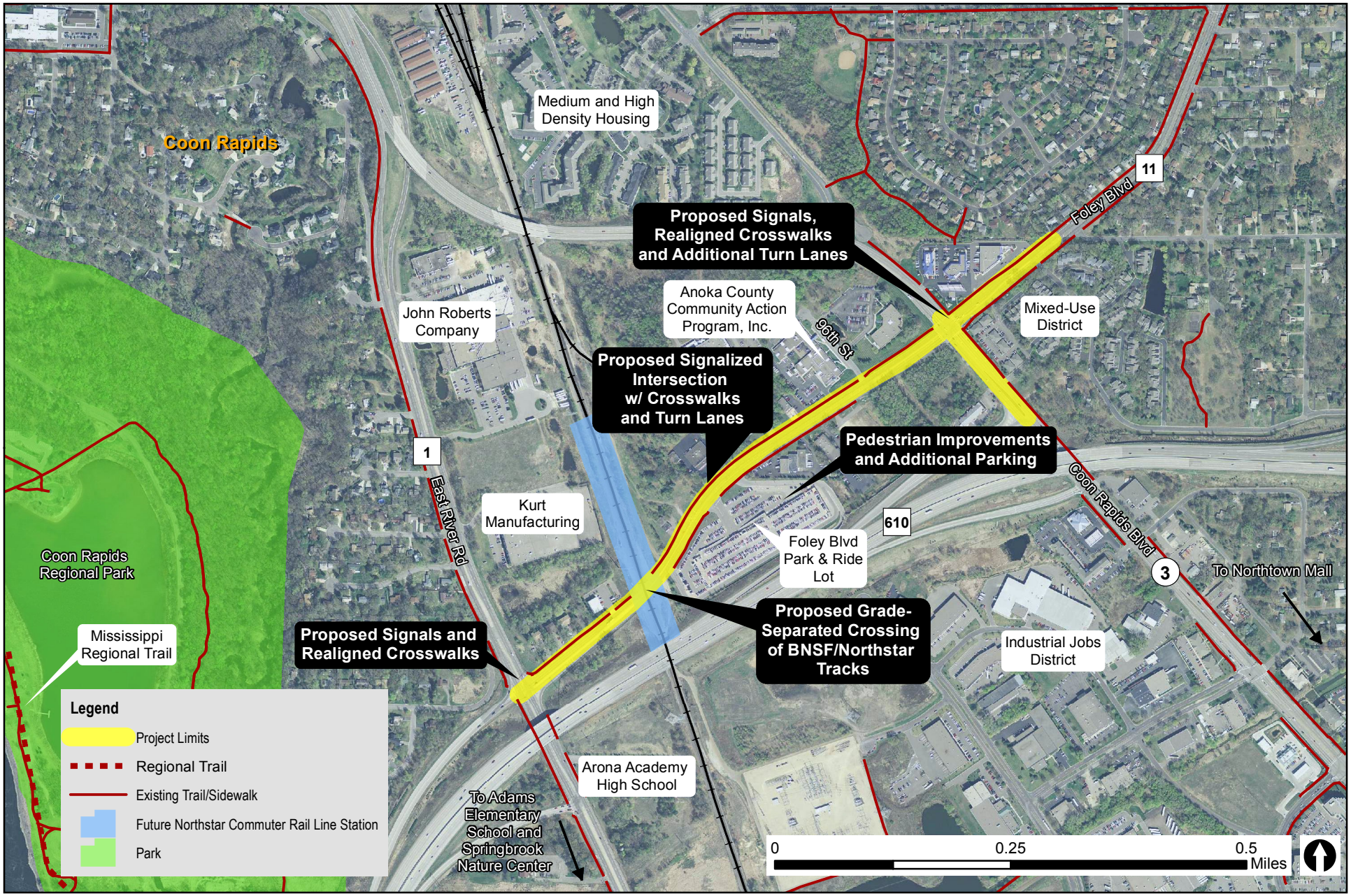
Construction plans have not been started

0%

Anticipated date or date of completion

9)Letting

Anticipated Letting Date 11/12/2018

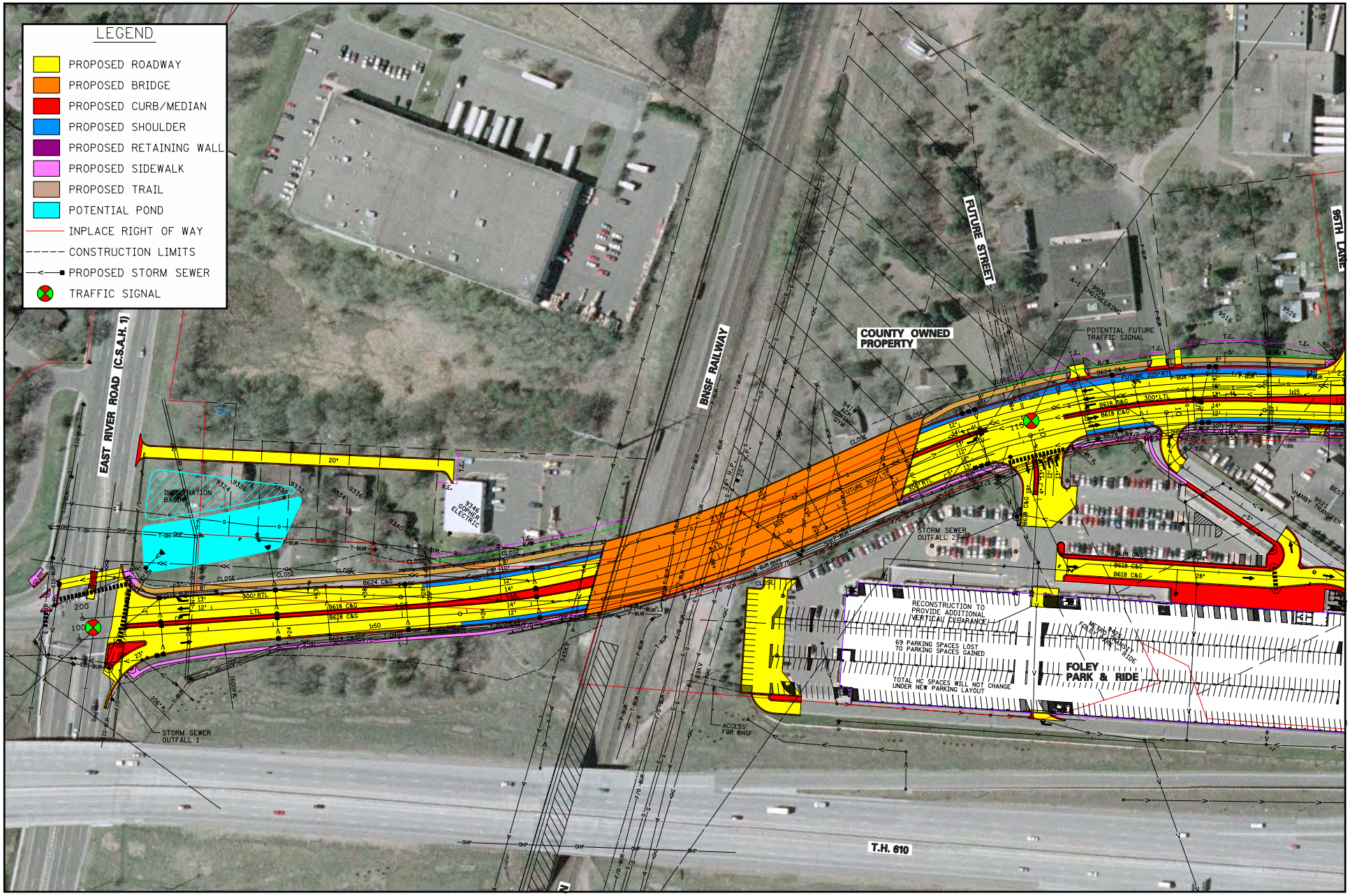


Project Limits

CSAH 11 Reconstruction/Modernization from CSAH 1 to CR 3

Anoka County

Figure 1

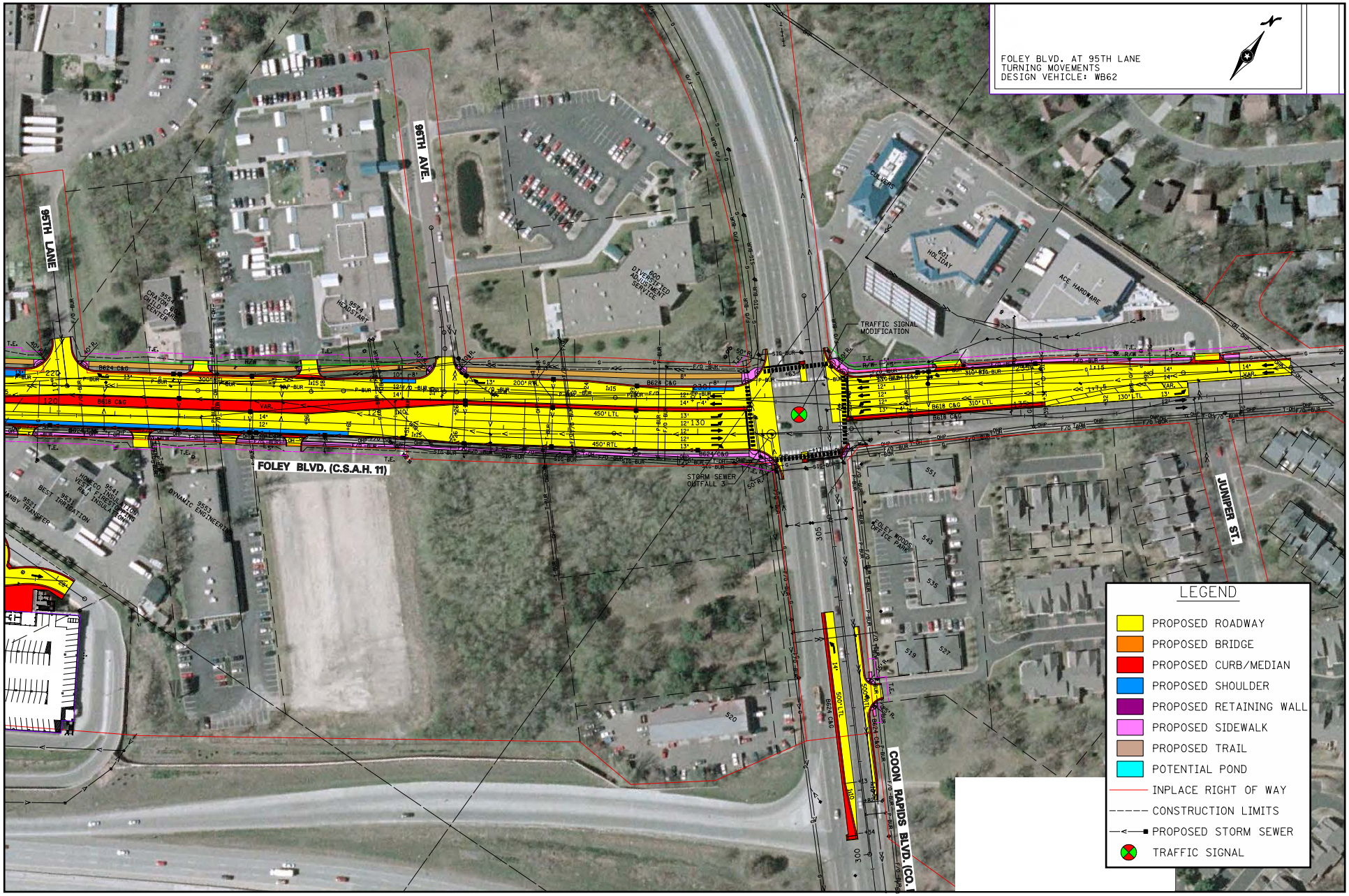


Communications/Projects/8662 Anoka County Regional Solicitation/8662_Figures_20141107.indd

Proposed Improvements – West

CSAH 11 Reconstruction/Modernization from CSAH 1 to CR 3
Anoka County

Figure 2



Communications/Projects/8662 Anoka County Regional Solicitation/8662_Figures_20141107.indd

Proposed Improvements – East

CSAH 11 Reconstruction/Modernization from CSAH 1 to CR 3
Anoka County

Figure 3

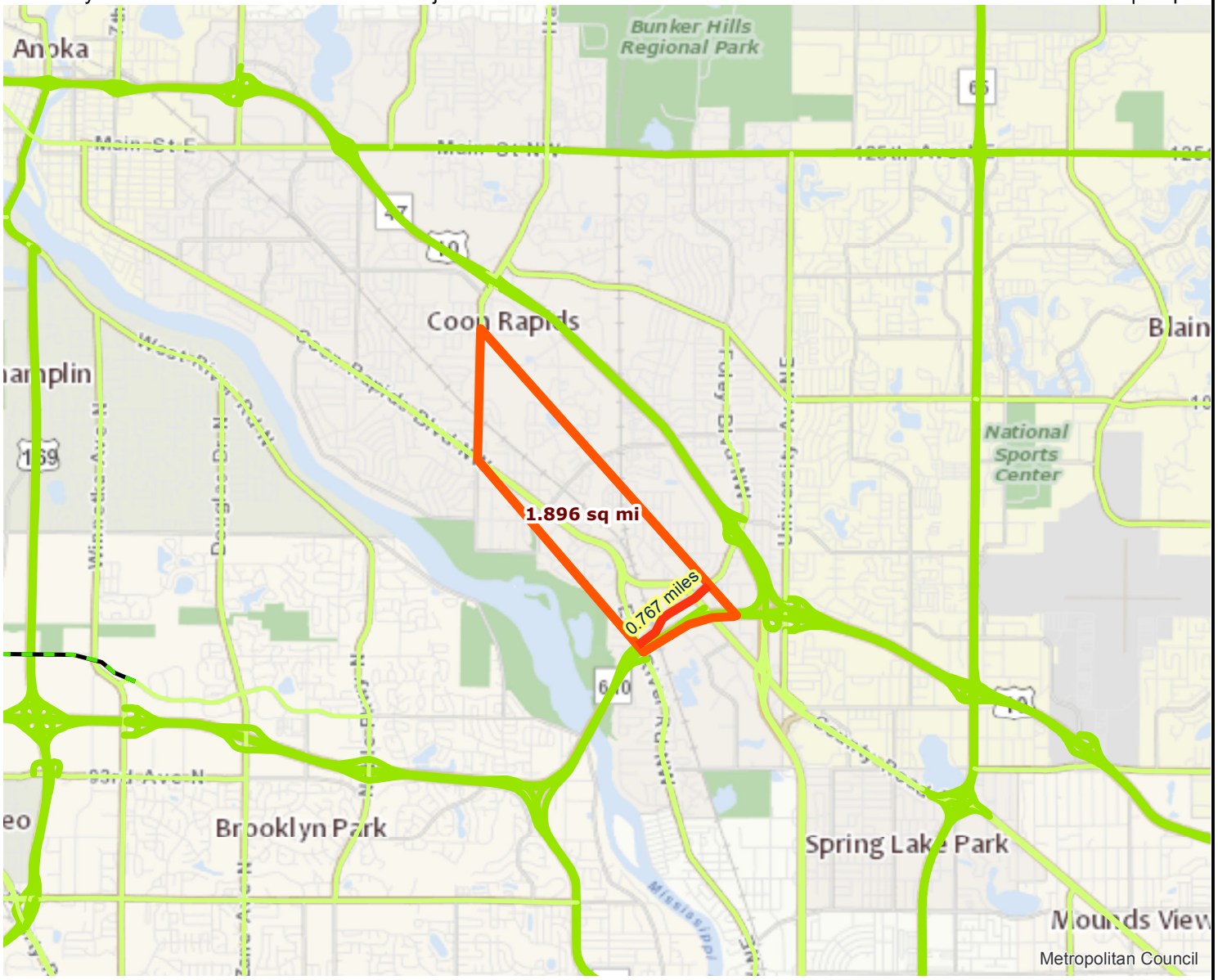
Roadway Area Definition

Roadway Reconstruction/Modernization Project: CSAH 11 Reconstruction/Modernization from CSAH 1 to CO. RD. | Map ID: 141

Results

Project Length: 0.767 miles

Project Area: 1.896 sq mi



Project
Project Area
Principal Arterials
A Minor Arterials
Principal Arterials Planned
A Minor Arterials Planned

0 0.75 1.5 3 4.5 6 Miles

Created: 11/6/2014
LandscapeRSA1

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

METROPOLITAN COUNCIL

Regional Economy

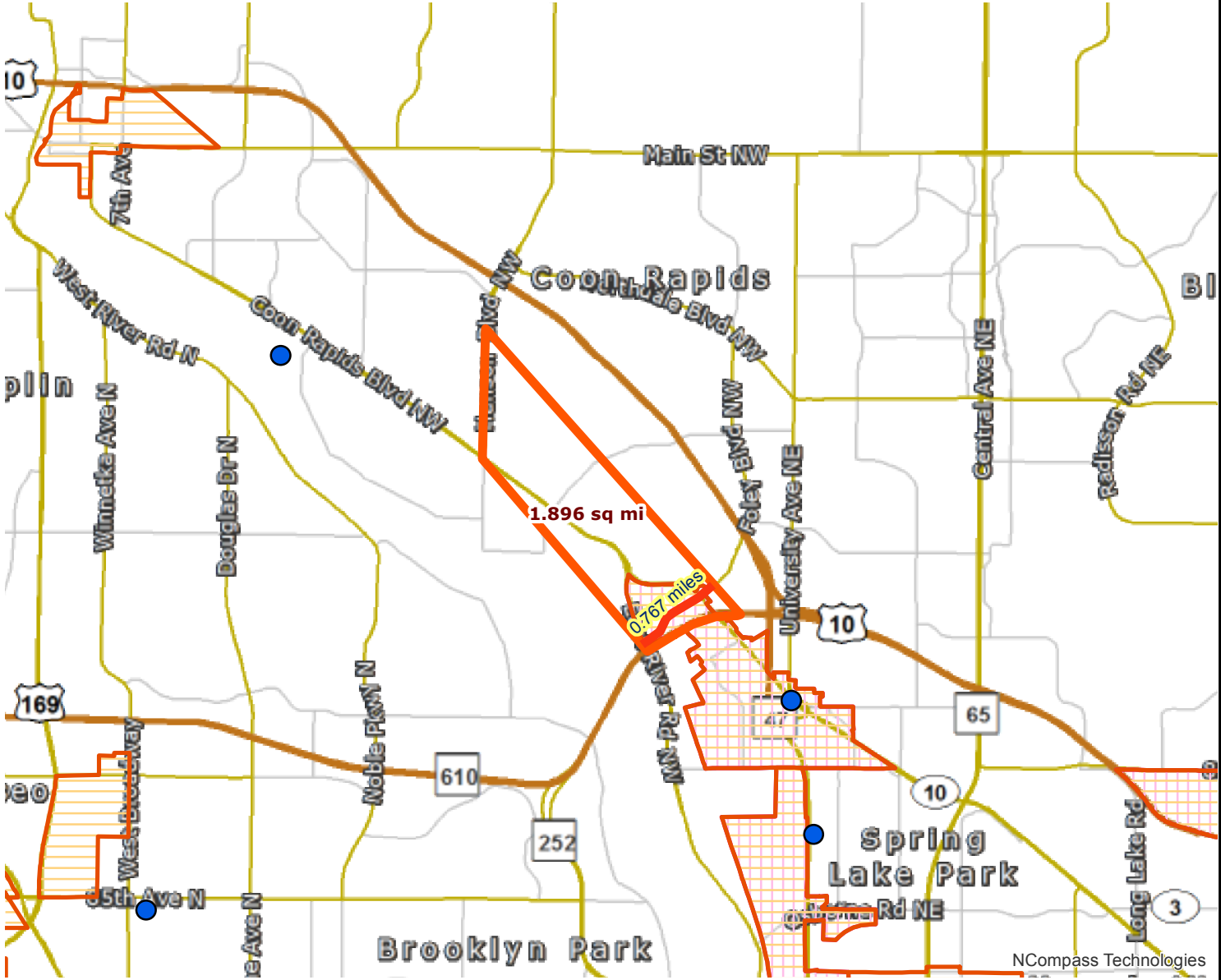
Roadway Reconstruction/Modernization Project: CSAH 11 Reconstruction/Modernization from CSAH 1 to CO. RD. | Map ID: 14152934

Results

Project **IN** area of Job Concentration.

Project **IN** area of Manufacturing and Distribution.

Project **WITHIN ONE MI** of area of Education Institutions.



Project
Project Area
PostSecondary Education Centers
Manfacturing/Distribution Centers
Job Concentration Centers

0 0.75 1.5 3 4.5 6 Miles

Created: 11/6/2014
LandscapeRSA5

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

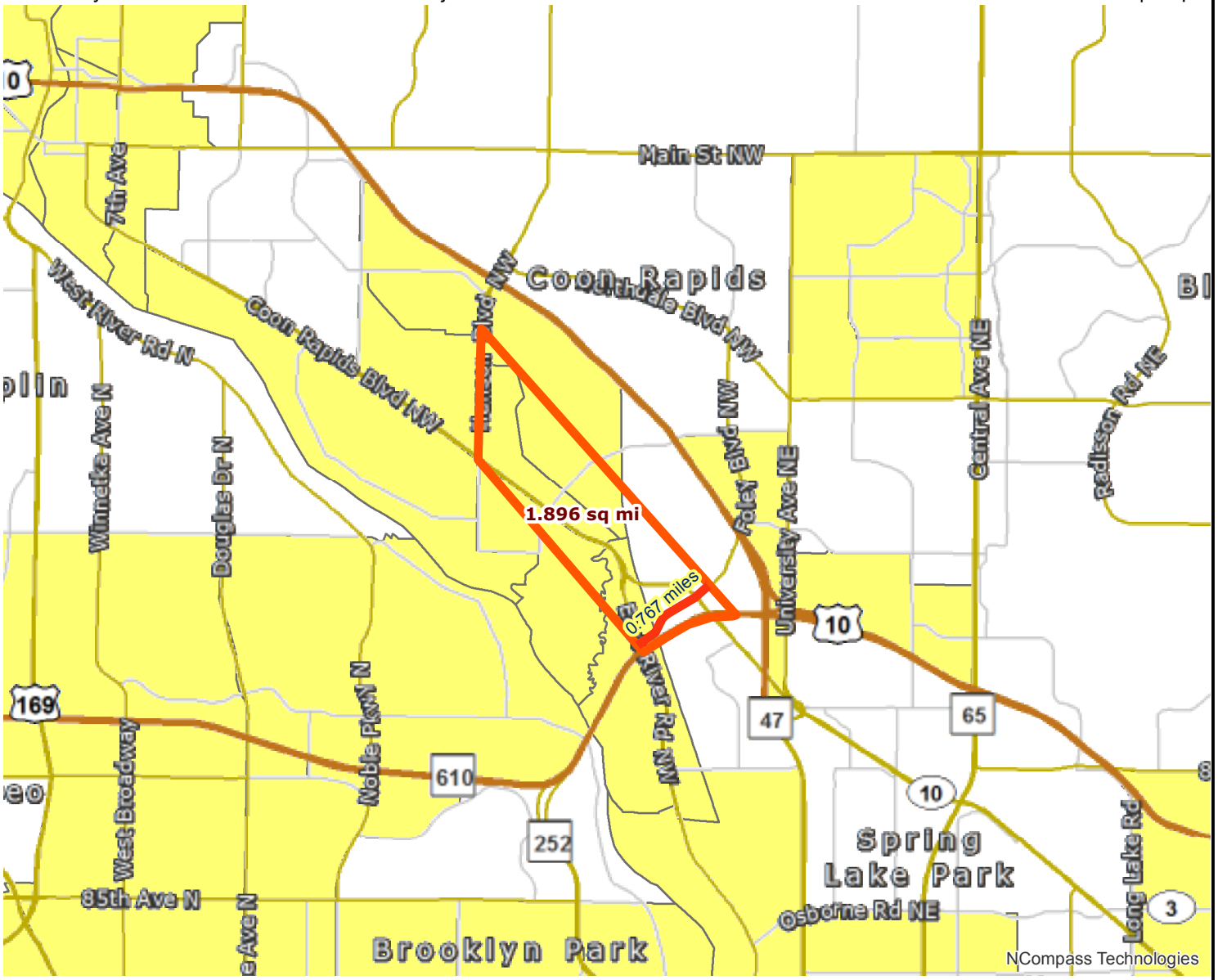
METROPOLITAN COUNCIL

Socio-Economic Conditions

Roadway Reconstruction/Modernization Project: CSAH 11 Reconstruction/Modernization from CSAH 1 to CO. RD. | Map ID: 14

Results

Project **IN** area of above average concentration of race or poverty.



Project
Project Area
Racially concentrated area of poverty
Concentrated area of poverty
Above reg'l avg conc of race/poverty

0 0.75 1.5 3 4.5 6 Miles

Created: 11/6/2014
LandscapeRSA2

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

METROPOLITAN COUNCIL

3: RR Crossing & CSAH 11

Direction	All
Volume (vph)	546
Total Delay / Veh (s/v)	30
CO Emissions (kg)	0.51
NOx Emissions (kg)	0.10
VOC Emissions (kg)	0.12

3: RR Crossing & CSAH 11

Direction	All
Volume (vph)	543
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.23
NOx Emissions (kg)	0.04
VOC Emissions (kg)	0.05

3: RR Crossing & CSAH 11

Direction	All
Volume (vph)	546
Total Delay / Veh (s/v)	30
CO Emissions (kg)	0.51
NOx Emissions (kg)	0.10
VOC Emissions (kg)	0.12

3: RR Crossing & CSAH 11

Direction	All
Volume (vph)	543
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.23
NOx Emissions (kg)	0.04
VOC Emissions (kg)	0.05

HSIP worksheet

Control Section	T.H. / Roadway	Location	Beginning Ref. Pt.	Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
	CSAH 11	Between East River Road to the RR crossing			Andover	1/1/2011	12/31/2013

Description of Proposed Work: Reconstruct roadway and improve pavement

Accident Diagram Codes			1 Rear End	2 Sideswipe Same Direction	3 Left Turn Main Line	5 Right Angle	4,7 Ran off Road	8, 9 Head On/ Sideswipe - Opposite Direction	Pedestrian	6, 90, 99 Other	Total
Study Period: Number of Crashes	Fatal	**F**									
	Personal Injury (PI)	**A**									
		B						1			**1**
		C								1	**1**
	Property Damage	**PD**	1				1				**2**
% Change in Crashes *Use Crash Modification Factors Clearinghouse	Fatal	**F**									
	PI	**A**									
		B						-41%			
		C								-41%	
	Property Damage	**PD**	-70%				-41%				
Change in Crashes = No. of crashes **x** % change in crashes	Fatal	**F**									
	PI	**A**									
		B						**-0.41**			**-0.41**
		C								**-0.41**	**-0.41**
	Property Damage	**PD**	**-0.70**				**-0.41**				**-1.11**

Year (Safety Improvement Construction): **2018**

Project Cost (exclude Right of Way): **$ 16,200,000**

Right of Way Costs (optional):

Traffic Growth Factor: **3%**

Capital Recovery

1. **Discount Rate:** **4.5%**
2. **Project Service Life (n):** **20**

Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit
F			**$ 1,100,000**	
A			**$ 550,000**	
B	**-0.41**	**-0.14**	**$ 160,000**	**$ 21,867**
C	**-0.41**	**-0.14**	**$ 81,000**	**$ 11,070**
PD	**-1.11**	**-0.37**	**$ 7,400**	**$ 2,738**
Total				**$ 35,675**

B/C= 0.04

Using present worth values,

B= $ 624,090

C= $ 16,200,000

See "Calculations" sheet for amortization.

Office of Traffic, Safety and Technology **September 2014**

HSIP worksheet

Control Section	T.H. / Roadway	Location	Beginning Ref. Pt.	Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
	CSAH 11	At Railroad Crossing			Andover	1/1/2011	12/31/2013

Description of Proposed Work: Construct grade-separation

			Accident Diagram Codes: 1 Rear End	2 Sideswipe Same Direction	3 Left Turn Main Line	5 Right Angle	4,7 Ran off Road	8, 9 Head On/ Sideswipe - Opposite Direction	Pedestrian	6, 90, 99 Other	Total
Study Period: Number of Crashes	Fatal	**F**									
	Personal Injury (PI)	**A**									
		B									
		C									
	Property Damage	**PD**	3								**3**
% Change in Crashes *Use Crash Modification Factors Clearinghouse	Fatal	**F**									
	PI	**A**									
		B									
		C									
	Property Damage	**PD**	-100%								
Change in Crashes = No. of crashes **x** % change in crashes	Fatal	**F**									
	PI	**A**									
		B									
		C									
	Property Damage	**PD**	**-3.00**								**-3.00**

Year (Safety Improvement Construction): **2018**

		Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit
Project Cost (exclude Right of Way)	**$ 16,200,000**					
Right of Way Costs (optional)		**F**			**$ 1,100,000**	
Traffic Growth Factor	**3%**	**A**			**$ 550,000**	
Capital Recovery		**B**			**$ 160,000**	
1. Discount Rate	**4.5%**	**C**			**$ 81,000**	
2. Project Service Life (n)	**30**	**PD**	**-3.00**	**-1.00**	**$ 7,400**	**$ 7,400**
		Total				**$ 7,400**

B/C= 0.01

Using present worth values,

B= $ 181,427

C= $ 16,200,000

See "Calculations" sheet for amortization.

Office of Traffic, Safety and Technology **September 2014**

HSIP worksheet

Control Section	T.H. / Roadway	Location	Beginning Ref. Pt.	Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
	CSAH 11	Between Railroad Crossing and Coon Rapids Boulevard			Andover	1/1/2011	12/31/2013

Description of Proposed Work: Install median

Accident Diagram Codes			1 Rear End	2 Sideswipe Same Direction	3 Left Turn Main Line	5 Right Angle	4,7 Ran off Road	8, 9 Head On/ Sideswipe - Opposite Direction	Pedestrian	6, 90, 99 Other	Total
Study Period: Number of Crashes	Fatal	F									
	Personal Injury (PI)	A									
		B									
		C	1								1
	Property Damage	PD			1						1
% Change in Crashes *Use Crash Modification Factors Clearinghouse	Fatal	F									
	PI	A									
		B									
		C	-100%								
	Property Damage	PD			-100%						
Change in Crashes = No. of crashes **x** % change in crashes	Fatal	F									
	PI	A									
		B									
		C	**-1.00**								**-1.00**
	Property Damage	PD			**-1.00**						**-1.00**

Year (Safety Improvement Construction): **2018**

Project Cost (exclude Right of Way)	**$ 16,200,000**
Right of Way Costs (optional)	
Traffic Growth Factor	**3%**
Capital Recovery	
1. Discount Rate	**4.5%**
2. Project Service Life (n)	**20**

Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit
F			$ 1,100,000	
A			$ 550,000	
B			$ 160,000	
C	-1.00	-0.33	$ 81,000	$ 27,000
PD	-1.00	-0.33	$ 7,400	$ 2,467
Total				$ 29,467

B/C= 0.03

Using present worth values,

B= $ 515,487

C= $ 16,200,000

See "Calculations" sheet for amortization.

Office of Traffic, Safety and Technology **September 2014**

HSIP worksheet

Control Section	T.H. / Roadway	Location	Beginning Ref. Pt.	Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
	CSAH 11	At Coon Rapids Boulevard			Andover	1/1/2011	12/31/2013

Description of Proposed Work: Install dual left-turn lanes. Reconstruct roadway and improve pavement.

		Accident Diagram Codes	1 Rear End	2 Sideswipe Same Direction	3 Left Turn Main Line	5 Right Angle	4,7 Ran off Road	8, 9 Head On/ Sideswipe - Opposite Direction	Pedestrian	6, 90, 99 Other	Total
Study Period: Number of Crashes	Fatal	**F**									
	Personal Injury (PI)	**A**									
		B									
		C	1								**1**
	Property Damage	**PD**			1						**1**
% Change in Crashes *Use Crash Modification Factors Clearinghouse	Fatal	**F**									
	PI	**A**									
		B									
		C	-100%								
	Property Damage	**PD**			-100%						
Change in Crashes = No. of crashes **x** % change in crashes	Fatal	**F**									
	PI	**A**									
		B									
		C	**-1.00**								**-1.00**
	Property Damage	**PD**			**-1.00**						**-1.00**

Year (Safety Improvement Construction): **2018**

		Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit
Project Cost (exclude Right of Way)	**$ 7,500,000**					
Right of Way Costs (optional)		**F**			**$ 1,100,000**	
Traffic Growth Factor	**3%**	**A**			**$ 550,000**	
Capital Recovery		**B**			**$ 160,000**	
1. Discount Rate	**4.5%**	**C**	**-1.00**	**-0.33**	**$ 81,000**	**$ 27,000**
2. Project Service Life (n)	**20**	**PD**	**-1.00**	**-0.33**	**$ 7,400**	**$ 2,467**
		Total				**$ 29,467**

B/C= 0.07

Using present worth values,

B= $ 515,487

C= $ 7,500,000

See "Calculations" sheet for amortization.

Office of Traffic, Safety and Technology **September 2014**

CSAH 11 - created on 11-03-2014 by imsd1jac

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

SYS	NUM	REF_POINT	GIS_ROUTE	GIS_TM	RD_DIR	ELEM	RELY	INV	R_U
04	02000011	000+00.000	0402000011	0.000	E		3	3	U
04	02000011	000+00.000	0402000011	0.000	W		3	3	U
04	02000011	000+00.000	0402000011	0.000	Z		3	3	U
04	02000011	000+00.000	0402000011	0.000	Z		3	3	U
04	02000011	000+00.000	0402000011	0.000	Z		3	3	U
04	02000011	000+00.000	0402000011	0.000	S		1	3	U
04	02000011	000+00.007	0402000011	0.007	Z		1	3	U
04	02000011	000+00.111	0402000011	0.111	N		C	3	U
04	02000011	000+00.174	0402000011	0.174	N		1	3	U
04	02000011	000+00.174	0402000011	0.174	W		1	3	U
04	02000011	000+00.174	0402000011	0.174	W		1	3	U
04	02000011	000+00.180	0402000011	0.180	Z		1	3	U
04	02000011	000+00.224	0402000011	0.224	Z		1	3	U
04	02000011	000+00.428	0402000011	0.428	S		1	3	U
04	02000011	000+00.599	0402000011	0.599	N		1	3	U
04	02000011	000+00.601	0402000011	0.601	S		1	3	U
04	02000011	000+00.601	0402000011	0.601	S		1	3	U
04	02000011	000+00.601	0402000011	0.601	S		1	3	U
04	02000011	000+00.601	0402000011	0.601	Z		1	3	U
04	02000011	000+00.601	0402000011	0.601	N		1	3	U
04	02000011	000+00.601	0402000011	0.601	S		1	3	U
04	02000011	000+00.601	0402000011	0.601	S		1	3	U
04	02000011	000+00.601	0402000011	0.601	Z		1	3	U
04	02000011	000+00.601	0402000011	0.601	Z		1	3	U
04	02000011	000+00.601	0402000011	0.601	N		1	3	U
04	02000011	000+00.601	0402000011	0.601	Z		1	3	U
04	02000011	000+00.601	0402000011	0.601	Z		1	3	U
04	02000011	000+00.601	0402000011	0.601	S		1	3	U
04	02000011	000+00.601	0402000011	0.601	Z		1	3	U
04	02000011	000+00.601	0402000011	0.601	Z		1	3	U
04	02000011	000+00.601	0402000011	0.601	S		1	3	U

04	02000011	000+00.601	0402000011	0.601	S	1	3	U
04	02000011	000+00.611	0402000011	0.611	N	1	3	U
04	02000011	000+00.611	0402000011	0.611	Z	1	3	U
05	08200116	000+00.740	0508200116	0.740	W	1	3	U
05	08200116	000+00.756	0508200116	0.756	W	1	3	U
05	08200116	000+00.760	0508200116	0.760	Z	3	0	U
05	08200116	000+00.760	0508200116	0.760	E	1	3	U
05	08200116	000+00.760	0508200116	0.760	N	1	3	U

ATP

~~VEHICLE 1 EB NORTHDALE BLVD NW, IN THE LEFT LANE, NEAR THE 2100 BLOCK, STOPPED IN TRAFFIC. VEHICLE~~
~~D1 SAID THAT HE WAS TURNING LEFT ONTO E/B ON NORTHDALE BLVD WHEN A CAR TURNING RIGHT ONTO E/B NORTH~~
UNIT 1 N/B FOLEY BLVD NW WHEN DRIVER 1 LOST CONTROL CAUSING THE VEHICLE TO TRAVEL OFF THE ROADWAY S
~~D1 WAS TRAVELING N/B ON NORTHDALE BLVD NW ENTERING A CURVE IN THE ROAD. D1 LOST CONTROL OF THE VEHI~~
~~DRIVER 1 WAS MAKING A LEFT TURN FROM THE NB LOT OF CUB FOODS (PARTRIDGE ST) ONTO WB NORTHDALE BLVD~~
SEE SUPPLEMENT.
D-1 SB FOLEY TURNING LEFT INTO PARK & RIDE. D-2 NB FOLEY GOING STRAIGHT. D-1 DID NOT SEE D-2. D-1
D-1 CROSSING CROSSWALK AGAINST DO NOT WALK LIGHT.
DRIVER 1 HAD STOPPED QUICKLY FOR THE RR ARMS AND WAS THEN STRUCK BY UNIT 2. DRIVER 2 STATED THAT D
V #S 1
~~I WAS DISPATCHED TO A PD ACCIDENT ON WESTBOUND NORTHDALE BLVD NW, EAST OF THE RAILROAD TRACKS. HUM~~
BOTH VEHICLES WERE STOPPED FOR A TRAIN AT LOCATION. ONCE THE TRAIN HAD PASSED VEHICLE #1 STARTED TO
ALL THREE VEHICLES WERE NORTH BOUND ON FOLEY BLVD. #1 AND #2 WERE STOPPED DUE TO #1 MAKING A LEFT T
#1 WAS SB FOLEY BLVD NW IN THE LEFT LN PASSING BY CRAYON BOX CHILDCARE WHEN HE WAS STRUCK IN THE RI
~~UNIT # 1 WAS NB HANSON BLVD JUST SOUTH OF COON RAPIDS BLVD NW. UNIT # 2 WAS DIRECTLY BEHIND UNIT #~~
#1 SB FOLEY BLVD AT COON RAPIDS BLVD, MAKING A LEFT TURN TO EB COON RAPIDS BLVD. #2 NB FOLEY BLVD
~~#1 AND #2 SB HANSON BLVD MAKING A RIGHT TURN TO WB COON RAPIDS BLVD. #2 WAS STOPPED, WAITING FOR T~~
VEH 1 WAS STOPPED WAITING FOR TRAFFIC TO CLEAR WHEN HIT BY VEH 2. DRIVER 2 SAID SHE WAS LOOKING TO
UNITS=VEHICLES V1 WAS ON S/B FOLEY BLVD MAKING A LEFT HAND TURN ONTO E/B COON RAPIDS BLVD WITH A GR
VEHICLE #1 WAS NB ON FOLEY BLVD,LEFT LN, ENTERING THE INTERSECTION. VEHICLE #2 WAS SB ON FOLEY BLVD
DRIVER 1 WAS IN THE LEFT TURN LANE OF SB FOLEY BLVD AT THE INTERSECTION OF COON RAPIDS BLVD NW. WH
~~VEHICLE 2 IS A SCHOOL DISTRICT 11 DRIVERS EDUCATION VEHICLE. VEHICLES WERE SOUTHBOUND HANSON BLVD'~~
VEH #1 N/B ON FOLEY BLVD IN THE LEFT TURN LN. VEH #2 S/B FOLEY BLVD IN THE LEFT LN. DRIVER #1 STA
~~DRIVER IN UNIT #1 WAS GOING TO TURN EB ONTO COON RAPIDS BLVD NW FROM NB HANSON BLVD NW. DRIVER IN U~~
~~UNIT # 1 WAS STOPPED IN THE LANE TO GO NB HANSON BLVD NW. UNIT # 2 WAS STOPPED IN THE LEFT TURN LA~~
DRIVER #2 STATED SHE WAS TRAVELING NB ON FOLEY BLVD NW IN THE LEFT LANE. DRIVER #2 STATED SHE PROC
~~VEH 1 AND VEH 2 WERE N/B HANSON BLVD, TURNING TO E/B COON RAPIDS BLVD NW. VEH 2 STOPPED AT A YIELD~~
~~UNIT #1 WAS BEHIND UNIT #2 SOUTH BOUND HANSON BLVD IN THE RIGHT TURN LANE TO WEST BOUND COON RAPIDS~~
DRIVER 1 WAS NB FOLEY BLVD AND DROVE THRU THE INTERSECTION AT COON RAPIDS BLVD WHEN VEHICLE 2 TURNE
~~VEH 1 AND VEH 2 WERE TRAVELING S/B HANSON BLVD NW, AND TURNING TO GO W/B ON COON RAPIDS BLVD NW. V~~
DRIVER NUMBER ONE SAID SHE WAS SB FOLEY BLVD ON A GREEN LIGHT AND STARTED TO MAKE A LEFT TURN ONTO

UNIT 1 HAD SLOWED FOR TRAFFIC AND WAS TRYING TO MERGE WHEN SHE WAS HIT FROM BEHIND BY UNIT 2. UNIT CAUSING THE VEHICLES TO COLLIDE. DRIVER 2 ADMITTED SOLE FAULT TO THE ACCIDENT.

DRIVER#1 STATED SHE WAS IN THE LEFT TURN LN SB FOLEY BLVD AT COON RAPIDS BLVD WHEN VEHICLE #2 CAME D1 SAID THAT HE WAS TRAVELING W/B ON COON RAPIDS BLVD AND WAS STOPPING FOR THE RED LIGHT WITH SEVER VEHICLES 2 AND 3 WERE IN THE RIGHT HAND TURN LANE TO GO N ON FOLEY BLVD FROM COON RAPIDS BLVD. THE

DRIVER 1 STATED HE ENTERED THE INTERSECTION, WITH THE GREEN LIGHT. DRIVER 1 STATED AS HE WAS APPRO #1 SAID SHE JUST MADE A RIGHT TURN ON RED FROM W/B COON RAPIDS BLVD TO N/B FOLEY BLVD WHEN SHE HIT

	CO	CITY	DOW
	~~2~~	~~0820~~	~~4-Wed~~
	~~2~~	~~0820~~	~~6-Fri~~
	2	0820	2-Mon
	~~2~~	~~0820~~	~~2-Mon~~
	~~2~~	~~0820~~	~~1-Sun~~
	2	0820	5-Thu
	2	0820	5-Thu
	2	0820	3-Tue
	2	0820	5-Thu
2 AND 3 ARE W/B NORTHDALE BLVD AT THE RAILROAD TRACKS. V #'S 2 AND 3 ARE STOPPED IN TRAFFIC'		02	82-Mon0
	~~2~~	~~0820~~	~~5-Thu~~
	2	0820	4-Wed
	2	0820	6-Fri
	2	0820	3-Tue
	~~2~~	~~0820~~	~~7-Sat~~
	2	0820	5-Thu
	~~2~~	~~0820~~	~~2-Mon~~
	2	0820	4-Wed
	2	0820	7-Sat
	2	0820	7-Sat
	2	0820	2-Mon
	~~2~~	~~0820~~	~~6-Fri~~
	2	0820	3-Tue
	~~2~~	~~0820~~	~~1-Sun~~
	~~2~~	~~0820~~	~~1-Sun~~
	2	0820	6-Fri
	~~2~~	~~0820~~	~~7-Sat~~
	~~2~~	~~0820~~	~~4-Wed~~
	2	0820	7-Sat
	~~2~~	~~0820~~	~~3-Tue~~
	2	0820	5-Thu

2	0820	6-Fri
2	0820	4-Wed
2	0820	2-Mon
2	0820	6-Fri
2	0820	6-Fri
2	0820	2-Mon
2	0820	7-Sat
2	0820	2-Mon

MONTH	DAY	YEAR	TIME	SEV	NUM_KILLED	NUM_VEH	JUNC	SL	TYPE	DIAG
11	16	2011	0802	N	0	3	1	35	1	1
2	17	2012	1550	N	0	4	4	35	1	8
2	20	2012	2252	N	0	1	1	40	30	7
2	20	2012	2146	C	0	1	2	45	22	90
2	26	2012	2008	C	0	2	4	35	1	5
4	19	2012	1600	N	0	2	10	45	1	1
3	28	2013	0657	B	0	2	2	40	1	8
7	17	2012	1330	C	0	1	4	35	6	98
8	25	2011	1800	N	0	2	1	40	1	1
7	5	12	2012	1718	N	0	3	1	40	1
11	22	2012	2140	N	0	2	1	35	1	1
7	31	2013	1247	N	0	2	1	40	1	1
10	7	2011	1304	C	0	3	1	40	1	1
2	12	2013	1620	N	0	2	2	40	1	3
2	5	2011	1653	N	0	2	4	30	1	2
1	13	2011	2007	C	0	2	4	50	1	5
3	28	2011	1440	N	0	2	4	45	1	1
3	30	2011	1215	C	0	2	7	40	1	1
6	25	2011	1014	C	0	2	4	50	1	5
6	25	2011	1653	N	0	2	4	45	1	5
8	1	2011	0810	C	0	2	4	50	1	1
8	12	2011	1350	N	0	2	4	40	1	1
8	16	2011	1355	N	0	2	4	50	1	90
9	18	2011	1718	N	0	2	4	45	1	1
10	2	2011	1759	A	0	2	4	45	1	3
10	7	2011	1415	C	0	2	4	40	1	90
11	5	2011	1221	C	0	2	4	40	1	1
12	14	2011	1600	N	0	2	4	45	1	1
2	25	2012	1855	N	0	2	4	45	1	5
10	23	2012	0843	C	0	2	4	40	1	1
3	14	2013	0713	N	0	3	4	35	1	5

9	20	2013	0830	C	0	2	4	40	1	1
12	12	2012	1902	N	0	2	4	40	1	9
4	15	2013	1057	N	0	2	7	40	1	2
9	28	2012	1938	N	0	2	1	50	1	1
5	17	2013	1331	B	0	3	4	45	1	1
10	31	2011	1030	N	0	2	0	0	1	0
6	15	2013	1848	C	0	2	4	50	1	5
8	5	2013	1521	N	0	2	1	40	1	2

- Countermeasure: Improve pavement friction (increase skid resistance)

CMF	CRF(%)	Quality	Crash Type	Crash Severity	Area Type	Reference	Comments
0.799	20.1	★★★★☆	All	All	All	Lyon and Persaud, 2008	

-

0.667	33.3	★★★★☆	All	All	All	Lyon and Persaud, 2008	

-

0.819	18.1	★★★★☆	All	All	All	Lyon and Persaud, 2008	

-

0.797	20.3	★★★★☆	All	All	All	Lyon and Persaud, 2008	

-

1.271	-27.1	★★★★☆	All	All	All	Lyon and Persaud, 2008	

-

0.426	57.4	★★★★☆	Wet road	All	All	Lyon and Persaud, 2008	

-

0.372	62.8	★★★★☆	Wet road	All	All	Lyon and Persaud,	

0.575	42.5	★★★★☆	Rear end,Wet road	All		Lyon and Persaud, 2008
0.59	41	★★★☆☆	All	All	All	Lyon and Persaud, 2008
0.589	41.1	★★★☆☆	All	All	All	Lyon and Persaud, 2008
0.361	63.9	★★★☆☆	Wet road	All	All	Lyon and Persaud, 2008
0.304	69.6	★★★☆☆	Rear end	All	All	Lyon and Persaud, 2008
0.943	5.7	★★★☆☆	Rear end	All	All	Lyon and Persaud, 2008
0.504	49.6	★★★☆☆	Rear end	All	All	Lyon and Persaud, 2008

0.221	77.9	★★★☆☆	Rear end,Wet road	All	All	Lyon and Persaud, 2008
0.787	21.3	★★★☆☆	Angle	All	All	Lyon and Persaud, 2008
0.828	17.2	★★★☆☆	Angle	All	All	Lyon and Persaud, 2008
0.898	10.2	★★★☆☆	Angle	All	All	Lyon and Persaud, 2008
0.799	20.1	★★★☆☆	Angle,Wet road	All	All	Lyon and Persaud, 2008
0.47	53	★★★☆☆	Angle,Wet road	All	All	Lyon and Persaud, 2008
0.828	17.2	★★★☆☆	Angle,Wet road	All	All	Lyon and Persaud, 2008

Countermeasure(s)	Crash Type	Crash Severity	Area Type	Config	Control	Major Daily Traffic Volume (veh/day)	Minor Daily Traffic Volume (veh/day)	Ref	Obs	Effectiveness: Crash Reduction Factor / Function	Effectiveness: Std Error	Effectiveness: Range Low	Effectiveness: Range High	Study Type
Install left-turn lane (cont'd)	Left-turn	All	Rural	4-Leg (2 app)	Stop	1,100-32,400	25-11,800	21	23	60				EB Before-After
	Left-turn	All			No signal			15		55				
	Left-turn	All			No signal			15		55				Simple Before-After
	Left-turn	All			No signal			28		68		50	86	
	Left-turn	All			Signal	>5,000/lane(Total)		15		24				Simple Before-After
	Left-turn	All	Urban	4-Leg (1 app)	Signal	4,600-55,100	100-26,000	21	35	13				Yorked Comparison Before-After
	Left-turn	All	Urban	4-Leg (1 app)	Stop	1,520-40,600	80-8,000	21	7	26				EB Before-After
	Left-turn	All	Urban	4-Leg (2 app)	Signal	4,600-55,100	100-26,000	21	35	24				Yorked Comparison Before-After
	Left-turn	All	Urban	4-Leg (2 app)	Stop	1,520-40,600	80-8,000	21	7	45				EB Before-After
	Night	All			Signal	>5,000/lane(Total)		15		28				Simple Before-After
	Overturn	All			Signal	>5,000/lane(Total)		15		28				Simple Before-After
Install left-turn lane (double)	Head-on	Fatal/Injury						15		75				Simple Before-After
	Left-turn	Fatal/Injury						15		47				Simple Before-After
	Left-turn	PDO						15		71				Simple Before-After
	ROR	Fatal/Injury						15		8				Simple Before-After
	ROR	PDO						15		13				Simple Before-After
	Rear-end	Fatal/Injury						15		29				Simple Before-After
	Rear-end	PDO						15		32				Simple Before-After

Countermeasure(s)	Crash Type	Crash Severity	Area Type	Config	Control	Major Daily Traffic Volume (veh/day)	Minor Daily Traffic Volume (veh/day)	Ref	Obs	Effectiveness: Crash Reduction Factor / Function	Effectiveness: Std Error	Effectiveness: Range Low	Effectiveness: Range High	Study Type
Install left-turn lane (double) (cont'd)	Right-angle	Fatal/Injury						15		20				Simple Before-After
	Right-angle	PDO						15		8				Simple Before-After
	Sideswipe	Fatal/Injury						15		50				Simple Before-After
Install left-turn lane (painted separation)	All	All				<5,000/lane(Total)		15		50				Simple Before-After
	All	Fatal/Injury	Rural	3-Leg		5,000-15,000		13		22	14			Meta-analysis
	All	Fatal/Injury	Rural	4-Leg		5,000-15,000		13		-28	27			Meta-analysis
	All	PDO	Rural	3-Leg		5,000-15,000		13		20	19			Meta-analysis
	All	PDO	Rural	4-Leg		5,000-15,000		13		26	12			Meta-analysis
	Left-turn	All				<5,000/lane(Total)		15		57				Simple Before-After
	Left-turn	All				>5,000/lane(Total)		15		35				Simple Before-After
	Overturn	All				<5,000/lane(Total)		15		54				Simple Before-After
	Overturn	All				>5,000/lane(Total)		15		39				Simple Before-After
	Rear-end	All				<5,000/lane(Total)		15		54				Simple Before-After
	Rear-end	All				>5,000/lane(Total)		15		39				Simple Before-After
	Right-angle	All				<5,000/lane(Total)		15		62				Simple Before-After
	Right-angle	All				>5,000/lane(Total)		15		49				Simple Before-After
Install left-turn lane (physical channelization)	All	All	All		No signal			1		35				
	All	All	All		Signal			1		25				
	All	All	Rural	3-Leg	No signal			28		44				

CRF for CSAH 11 at RR Crossing

The project includes grade separation of the RR crossing. Therefore all RR crossing related crashes would be eliminated (100%)

CRF for CSAH 11 between the RR Crossing and Coon Rapids Boulevard

The project includes a median along this segment. The two reported crashes included vehicles making a left-turn from CSAH 11. Therefore these crashes would be eliminated (100%)

Dual CRF for CSAH 11 at Coon Rapids Boulevard

Improvements include dual northbound and southbound left-turn lanes on CSAH 11 and reconstruction of the roadway with pavement improvements.

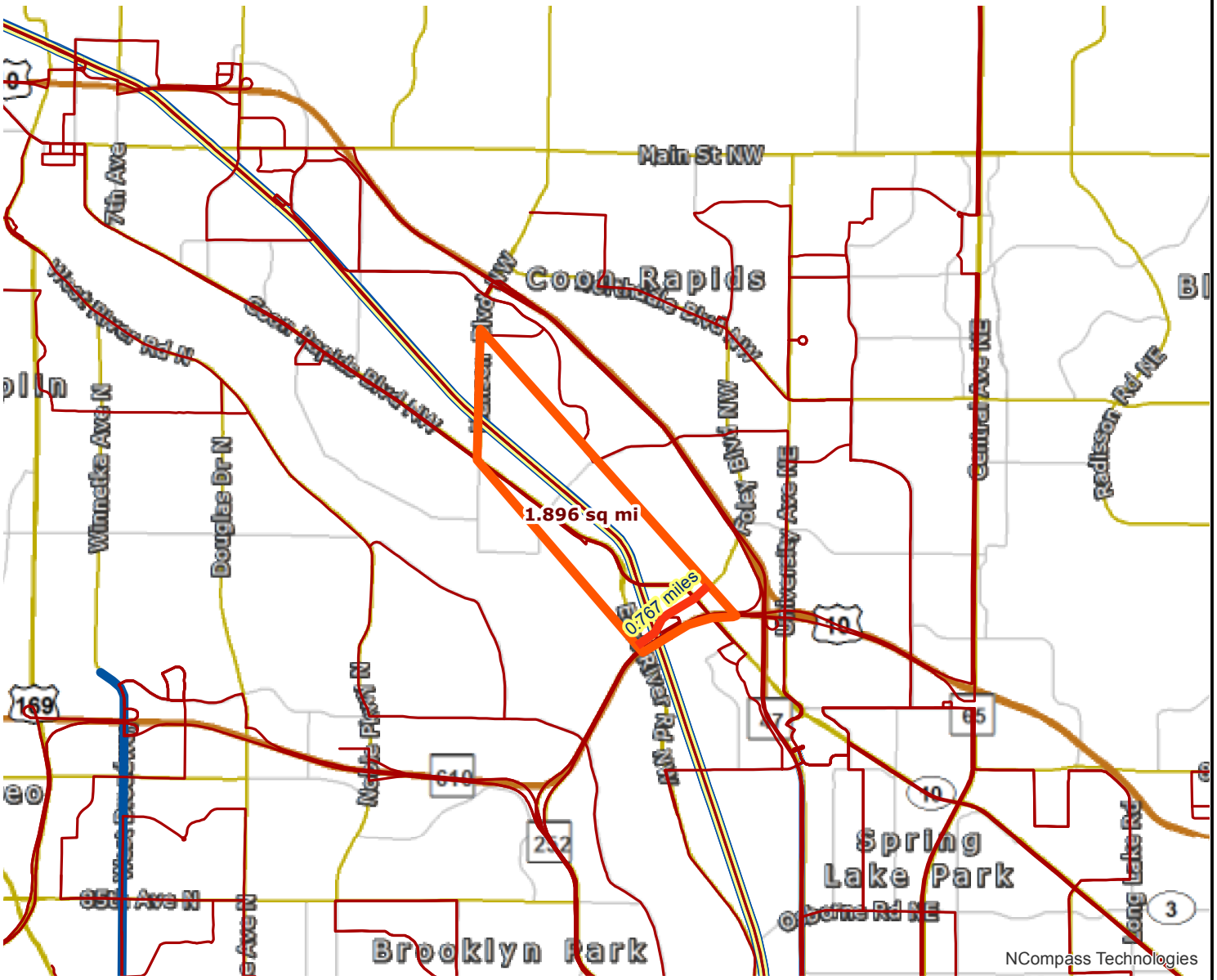
CR1=Install dual left-turn lanes
CR2=Pavement improvement

CR=1 – (1-CR1)*(1-CR2)

Rear-End Property Damage Crash: CR=1 – (1-.32)*(1-.70) = .80
Rear-End Injury Crash: CR=1 – (1+.29)*(1-.70) = .79
Right-Angle Property Damage Crash: CR=1 – (1-.08)*(1-.21) = .27
Right-Angle Injury Crash: CR=1 – (1-.20)*(1-.21) = .37

Transit Connections

Roadway Reconstruction/Modernization Project: CSAH 11 Reconstruction/Modernization from CSAH 1 to CO. RD. | Map ID: 1415293464



Results

Transit with a Direct Connection to project:
850 852 865 887 888

**indicates Planned Alignments*

Project
Project Area
Transit Routes

Transitway
Northstar Line
Light Rail, Blue Line Extension

Planned Alignments
Arterial BRT

0 0.75 1.5 3 4.5 6 Miles

Created: 11/6/2014
LandscapeRSA3

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http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL