



Application

13860 - 2020 Roadway Expansion

14049 - US 212 Freight Mobility and Safety Project from CSAH 51 to CSAH 36

Regional Solicitation - Roadways Including Multimodal Elements

Status: Submitted
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Primary Contact

Name:*	Angie	Stenson		
	<small>Salutation</small>	<small>First Name</small>	<small>Middle Name</small>	<small>Last Name</small>
Title:	Sr. Transportation Planner			
Department:	Public Works Division			
Email:	astenson@co.carver.mn.us			
Address:	11360 Highway 212 Suite 1			
*	Cologne	Minnesota	55322	
	<small>City</small>	<small>State/Province</small>	<small>Postal Code/Zip</small>	
Phone:*	952-466-5273			
	<small>Phone</small>	<small>Ext.</small>		
Fax:	952-466-5223			
What Grant Programs are you most interested in?	Regional Solicitation - Roadways Including Multimodal Elements			

Organization Information

Name: CARVER COUNTY

Jurisdictional Agency (if different):

Organization Type:

County Government

Organization Website:

Address:

PUBLIC WORKS

11360 HWY 212 W #1

*

COLOGNE

Minnesota

55322-9133

City

State/Province

Postal Code/Zip

County:

Carver

Phone:*

Ext.

Fax:

PeopleSoft Vendor Number

0000026790A12

Project Information

Project Name

US 212 Freight Mobility and Safety Project from CSAH 51 to CSAH 36

Primary County where the Project is Located

Carver

Cities or Townships where the Project is Located:

Benton Township

Jurisdictional Agency (If Different than the Applicant):

MnDOT

The US 212 Expansion Project in Carver County between CSAH 51 and CSAH 36 will expand the existing Principal Arterial from a rural two-lane undivided highway to a four-lane expressway. The project will address high crash rates and unsafe pedestrian crossings through the implementation of additional lanes, Reduced Conflict Intersections (RCIs), medians, and wider shoulders. These improvements will eliminate freight inefficiencies, reduce rural highway fatalities, and strengthen rural access to economic opportunities in the Twin Cities Metropolitan Area. The project design provides a cost effective high-benefit solution to address safety and enhance access and mobility for the US 212 corridor.

US 212 is a vital corridor on the National Highway System (NHS), identified as a Critical Rural Freight Corridor, facilitating freight movements between rural Minnesota, South Dakota, Wyoming, and Montana. The corridor:

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

- Provides highway freight mobility and connectivity for over 22,000 square miles of southwest Minnesota and South Dakota that is not currently served by the Interstate System or freeways.

- Carries more trucks daily (1,900) than the total traffic volume (both cars and trucks) on 40 percent of Minnesota State highways.

- Truck volumes significantly exceed typical truck percentages on state highways.

- The corridor serves over 65 major freight generators providing access to ports, rail and other modes.

- Only high priority interregional corridor in the metro area that still has two-lane segments.

US 212 was originally constructed in 1929, with no expansion or reconstruction completed on the corridor since that time, resulting in freight cost and time inefficiencies.

The existing roadway between CSAH 51 and Cologne is currently at capacity and is identified as a future Congested Principal Arterial in the Metropolitan Council's 2040 Regional Travel Demand Model. In comparison, the adjacent four-lane US 212 segments are not congested today or by 2040, suggesting that modernizing the highway and adding capacity will improve mobility for the corridor. The proposed roadway segment will be converted into a four-lane, divided facility to eliminate the current two-lane conflict merge points at both ends of the corridor. The improvements proposed by this project will facilitate safer and more efficient movement of traffic through this congested segment of US 212, benefiting the regional, state, and national transportation system and improving rural and freight access to the regional trade market area.

(Limit 2,800 characters; approximately 400 words)

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

Project Length (Miles)

to the nearest one-tenth of a mile

US 212 from CSAH 51 to CSAH 36. Reconstruct and Expand 2 lane to 4 lane and access management

3.3

Project Funding

Are you applying for competitive funds from another source(s) to implement this project?

Yes

If yes, please identify the source(s)

USDOT Infrastructure for Rebuilding America (INFRA) grant program submitted on February 25, 2020

Federal Amount

\$10,000,000.00

Match Amount \$15,977,000.00

Minimum of 20% of project total

Project Total \$25,977,000.00

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

Match Percentage 61.5%

Minimum of 20%

Compute the match percentage by dividing the match amount by the project total

Source of Match Funds County and State Funds

A minimum of 20% of the total project cost must come from non-federal sources; additional match funds over the 20% minimum can come from other federal sources

Preferred Program Year

Select one: 2024

Select 2022 or 2023 for TDM projects only. For all other applications, select 2024 or 2025.

Additional Program Years: 2021, 2022, 2023

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

Project Information-Roadways

County, City, or Lead Agency Carver County

Functional Class of Road Principal Arterial

Road System TH

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

Road/Route No. 212

i.e., 53 for CSAH 53

Name of Road NA

Example; 1st ST., MAIN AVE

Zip Code where Majority of Work is Being Performed 55368

(Approximate) Begin Construction Date 07/01/2022

(Approximate) End Construction Date 11/30/2024

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

From:
(Intersection or Address) CSAH 51

To:
(Intersection or Address) CSAH 36

DO NOT INCLUDE LEGAL DESCRIPTION

Or At

Miles of Sidewalk (nearest 0.1 miles) 0

Miles of Trail (nearest 0.1 miles) 0

Miles of Trail on the Regional Bicycle Transportation Network (nearest 0.1 miles)

0

Primary Types of Work

Grading, Agg base, Agg surface, Bit base, Bit surface, Storm sewer, Intersection curb & gutter, Turf/landscaping, Lighting, Access management

Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER, STORM SEWER, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, BRIDGE, PARK AND RIDE, ETC.

BRIDGE/CULVERT PROJECTS (IF APPLICABLE)

Old Bridge/Culvert No.:

New Bridge/Culvert No.:

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

Requirements - All Projects

All Projects

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

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

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

Goal A, Strategy A1, pg. 2.2

Goal B, Strategies B1, B3, B6, pg. 2.5, 2.6, 2.8

Goal C, Strategies C1 & C10, pg. 2.10, 2.18

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

Goal D, Strategies D1 & D3, pg. 2.26, 2.27

Goal E, Strategy E3, pg. 2.31

Goal F, Strategies F5 & F7, pg. 2.37

Limit 2,800 characters, approximately 400 words

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

List the applicable documents and pages:

Carver County Transportation Tax Plan (2017)

Limit 2,800 characters, approximately 400 words

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

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

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

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

6. Applicants must not submit an application for the same project elements in more than one funding application category.

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

7. The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below.

Strategic Capacity (Roadway Expansion): \$1,000,000 to \$10,000,000

Roadway Reconstruction/Modernization: \$1,000,000 to \$7,000,000

Traffic Management Technologies (Roadway System Management): \$250,000 to \$3,500,000

Spot Mobility and Safety: \$1,000,000 to \$3,500,000

Bridges Rehabilitation/Replacement: \$1,000,000 to \$7,000,000

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

8. The project must comply with the Americans with Disabilities Act (ADA).

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

9. In order for a selected project to be included in the Transportation Improvement Program (TIP) and approved by USDOT, the public agency sponsor must either have a current Americans with Disabilities Act (ADA) self-evaluation or transition plan that covers the public right of way/transportation, as required under Title II of the ADA. The plan must be completed by the local agency before the Regional Solicitation application deadline. For the 2022 Regional Solicitation funding cycle, this requirement may include that the plan is updated within the past five years.

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

Date plan completed:

02/18/2014

Link to plan:

<https://www.co.carver.mn.us/home/showdocument?id=1164>

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

Date self-evaluation completed:

Link to plan:

Upload plan or self-evaluation if there is no link

Upload as PDF

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

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

11. *The owner/operator of the facility must operate and maintain the project year-round for the useful life of the improvement, per FHWA direction established 8/27/2008 and updated 6/27/2017.*

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

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

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

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

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

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

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

Roadways Including Multimodal Elements

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

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

Roadway Expansion and Reconstruction/Modernization and Spot Mobility projects only:

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

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

Bridge Rehabilitation/Replacement and Strategic Capacity projects only:

3. *Projects requiring a grade-separated crossing of a principal arterial freeway must be limited to the federal share of those project costs identified as local (non-MnDOT) cost responsibility using MnDOT's Cost Participation for Cooperative Construction Projects and Maintenance Responsibilities manual. In the case of a federally funded trunk highway project, the policy guidelines should be read as if the funded trunk highway route is under local jurisdiction.*

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

4. *The bridge must carry vehicular traffic. Bridges can carry traffic from multiple modes. However, bridges that are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are ineligible for funding.*

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

Bridge Rehabilitation/Replacement projects only:

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

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

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

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

Roadway Expansion, Reconstruction/Modernization, and Bridge Rehabilitation/Replacement projects only:

7. All roadway projects that involve the construction of a new/expanded interchange or new interchange ramps must have approval by the Metropolitan Council/MnDOT Interchange Planning Review Committee prior to application submittal. Please contact Michael Corbett at MnDOT (Michael.J.Corbett@state.mn.us or 651-234-7793) to determine whether your project needs to go through this process as described in Appendix F of the 2040 Transportation Policy Plan.

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

Requirements - Roadways Including Multimodal Elements

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	\$1,001,000.00
Removals (approx. 5% of total cost)	\$840,000.00
Roadway (grading, borrow, etc.)	\$2,944,000.00
Roadway (aggregates and paving)	\$7,725,000.00
Subgrade Correction (muck)	\$4,133,000.00
Storm Sewer	\$74,000.00
Ponds	\$1,795,000.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$74,000.00
Traffic Control	\$601,000.00
Striping	\$35,000.00
Signing	\$245,000.00
Lighting	\$75,000.00
Turf - Erosion & Landscaping	\$1,914,000.00
Bridge	\$0.00
Retaining Walls	\$0.00
Noise Wall (not calculated in cost effectiveness measure)	\$0.00
Traffic Signals	\$0.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$2,362,000.00

Other Roadway Elements	\$2,002,000.00
Totals	\$25,820,000.00

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	\$143,000.00
Sidewalk Construction	\$0.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$14,000.00
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	\$157,000.00

Specific Transit and TDM Elements

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

Transit Operating Costs

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

Totals

Total Cost	\$25,977,000.00
Construction Cost Total	\$25,977,000.00
Transit Operating Cost Total	\$0.00

Congestion within Project Area:

The measure will analyze the level of congestion within the project area. Council staff will provide travel speed data on the "Level of Congestion" map. The analysis will compare the peak hour travel speed within the project area to free-flow conditions.

Free-Flow Travel Speed:	60
Peak Hour Travel Speed:	52
Percentage Decrease in Travel Speed in Peak Hour compared to Free-Flow:	13.33%
Upload Level of Congestion map:	1589488578065_US212_Expansion_Congestion.pdf

Congestion on adjacent Parallel Routes:

Adjacent Parallel Corridor	TH 5/TH 25
Adjacent Parallel Corridor Start and End Points:	
Start Point:	US 212
End Point:	0.1 mile west of TH 284
Free-Flow Travel Speed:	38
<i>The Free-Flow Travel Speed is black number.</i>	
Peak Hour Travel Speed:	23
<i>The Peak Hour Travel Speed is red number.</i>	
Percentage Decrease in Travel Speed in Peak Hour Compared to Free-Flow:	39.47%
Upload Level of Congestion Map:	1589488578065_US212_Expansion_Congestion.pdf

Principal Arterial Intersection Conversion Study:

Proposed interchange or at-grade project that reduces delay at a High Priority Intersection:

(80 Points)

Proposed at-grade project that reduces delay at a Medium Priority Intersection:

(60 Points)

Proposed at-grade project that reduces delay at a Low Priority Intersection:

(50 Points)

Proposed interchange project that reduces delay at a Medium Priority Intersection:

(40 Points)

Proposed interchange project that reduces delay at a Low Priority Intersection:

(0 Points)

Not listed as a priority in the study: Yes

(0 Points)

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

Existing Employment within 1 Mile: 695

Existing Manufacturing/Distribution-Related Employment within 1 Mile: 368

Existing Post-Secondary Students within 1 Mile: 0

Upload Map 1589469916070_US212_Expansion_RegionalEconomy.pdf

Please upload attachment in PDF form.

Measure C: Current Heavy Commercial Traffic

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

Along Tier 1: Yes

Miles: 3.3

(to the nearest 0.1 miles)

Along Tier 2:

Miles: 0

(to the nearest 0.1 miles)

Along Tier 3:

Miles: 0

(to the nearest 0.1 miles)

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

None of the tiers:

Measure A: Current Daily Person Throughput

Location	US 212 west of CSAH 51
Current AADT Volume	12700
Existing Transit Routes on the Project	N/A
<i>For New Roadways only, list transit routes that will likely be diverted to the new proposed roadway (if applicable).</i>	
Upload Transit Connections Map	1589470046327_US212_Expansion_Transit.pdf
<i>Please upload attachment in PDF form.</i>	

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	0
Current Daily Person Throughput	16510.0

Measure B: 2040 Forecast ADT

Use Metropolitan Council model to determine forecast (2040) ADT volume	No
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	2040 Carver County Comprehensive Plan
Forecast (2040) ADT volume	22000

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

1. Sub-measure: Equity Population Engagement: A successful project is one that is the result of active engagement of low-income populations, people of color, persons with disabilities, youth and the elderly. Engagement should occur prior to and during a projects development, with the intent to provide direct benefits to, or solve, an expressed transportation issue, while also limiting and mitigating any negative impacts. Describe and map the location of any low-income populations, people of color, disabled populations, youth or the elderly within a ½ mile of the proposed project. Describe how these specific populations were engaged and provided outreach to, whether through community planning efforts, project needs identification, or during the project development process. Describe what engagement methods and tools were used and how the input is reflected in the projects purpose and need and design. Elements of quality engagement include: outreach and engagement to specific communities and populations that are likely to be directly impacted by the project; techniques to reach out to populations traditionally not involved in community engagement related to transportation projects; feedback from these populations identifying potential positive and negative elements of the proposed project through engagement, study recommendations, or plans that provide feedback from populations that may be impacted by the proposed project. If relevant, describe how NEPA or Title VI regulations will guide engagement activities.

Carver is a diverse County with approximately 4,100 Hispanic/Latino, 2,800 Asian, 1,800 Black/African American, and 200 American Indian residents. Within four miles of the project are four senior housing facilities, seven schools, five healthcare facilities, and eleven affordable housing sites with 155 units (providing services and housing for low-income, persons with disabilities, and youth/elderly populations (see attached map)). The Project improves a regionally significant corridor and provides direct economic, safety, and social benefits to these diverse populations.

These communities were engaged by surveys distributed to over 600 locations during project development. Locations were chosen to include senior/assisted living and low-income housing. Through direct mailing and targeted distribution online, surveys were targeted toward populations not typically involved in transportation projects (residents under age 18, disabled, and low-income). Online distribution was targeted by age (youth/elderly) and educational attainment.

Response:

The survey received 432 total responses, of which seventy respondents identified as members of diverse populations (over the age of 65 or Hispanic/Latino, Asian, Black/African American or American Indian). Over 60 percent of respondents listed turning on/off US 212 and the number of crashes as their top two concerns along the corridor. The Project purpose specifically addresses these concerns, calling for dramatic safety improvements to improve Highway access and reduce the crash rate. To address these concerns, the Project will implement RCIs to improve safety while entering or exiting US 212 and reduce crashes and will convert US 212 to a four-lane divided highway to reduce collisions. Roughly 40 percent of respondents listed safety concerns

while driving in snow as a primary concern, which was directly translated to a project need. The Project will install snow fencing along US 212, to prevent snow drifts and improve winter driving for residents.

To keep all residents informed and provide opportunities for feedback, a project website was created. The site displays information on design development, construction schedules, open houses, and other opportunities for informational meetings and feedback. The County will host additional public meetings as they move along in the project development process.

(Limit 2,800 characters; approximately 400 words)

2. Sub-measure: *Equity Population Benefits and Impacts: A successful project is one that has been designed to provide direct benefits to low-income populations, people of color, persons with disabilities, youth and the elderly. All projects must mitigate potential negative benefits as required under federal law. Projects that are designed to provide benefits go beyond the mitigation requirement to proactively provide transportation benefits and solve transportation issues experienced by Equity populations.*

a. Describe the projects benefits to low-income populations, people of color, children, people with disabilities, and the elderly. Benefits could relate to pedestrian and bicycle safety improvements; public health benefits; direct access improvements for residents or improved access to destinations such as jobs, school, health care or other; travel time improvements; gap closures; new transportation services or modal options, leveraging of other beneficial projects and investments; and/or community connection and cohesion improvements. Note that this is not an exhaustive list.

The project benefits low-income populations by improving access, safety, and efficiency for residents travelling to the Twin Cities for employment, healthcare or education. 61 percent of Carver County residents travel outside the County for work, most commute to the Twin Cities along US 212. Expanded capacity along US 212 will result in increased travel time reliability, fewer crashes, and decreased congestion for the 12,000 workers who live within one mile of US 212.

The project benefits children by improving safety and travel time reliability for school buses that utilize the US 212 corridor. There are currently long delays for vehicles including school buses, waiting to turn left onto US 212 from both the north and south legs of all intersections. The proposed project will implement RCIs which means vehicles that were previously having to turn left onto US 212 will now make a right turn and then a u-turn. This will significantly reduce delay at the intersections as school buses will no longer have to wait for gaps in both directions of traffic on US 212. It is also safer to make a right turn which only conflicts with one direction of traffic than it would be to make a left turn that conflicts with two directions of traffic. Additionally, wider shoulders will improve safety for all vehicles, including school buses, traveling along US 212.

Response:

The project benefits people with disabilities by improving accessibility along the corridor. The project will incorporate ADA compliant pedestrian ramps at all intersections along US 212. These improvements will ensure safe and accessible pedestrian crossings for residents of all abilities. With the introduction of RCIs the number of conflict points between pedestrian and vehicular traffic will be decreased. Instead of pedestrians crossing the roadway with four directions of vehicular traffic, pedestrians will only interact with two directions of

vehicles.

The project will improve access for residents relying on public transit for employment, healthcare or education. Nearby transit and commuting facilities, such as the SmartLink (TransitLink) bus garage (adjacent to US 212) and a Park and Ride (East of Project), will benefit from improved safety, efficiency, and travel time reliability along the roadway. Roadway benefits will translate to travel time savings, improved safety, and increased reliability for residents who utilize these services. As elderly, youth, low-income and disabled populations are often frequent users of public transit, the project will provide direct benefits to these equity populations with a connection to the park and ride a few miles east of the project area.

(Limit 2,800 characters; approximately 400 words)

b. Describe any negative impacts to low-income populations, people of color, children, people with disabilities, and the elderly created by the project, along with measures that will be taken to mitigate them. Negative impacts that are not adequately mitigated can result in a reduction in points.

Below is a list of negative impacts. Note that this is not an exhaustive list.

Increased difficulty in street crossing caused by increased roadway width, increased traffic speed, wider turning radii, or other elements that negatively impact pedestrian access.

Increased noise.

Decreased pedestrian access through sidewalk removal / narrowing, placement of barriers along the walking path, increase in auto-oriented curb cuts, etc.

Project elements that are detrimental to location-based air quality by increasing stop/start activity at intersections, creating vehicle idling areas, directing an increased number of vehicles to a particular point, etc.

Increased speed and/or cut-through traffic.

Removed or diminished safe bicycle access.

Inclusion of some other barrier to access to jobs and other destinations.

Displacement of residents and businesses.

Mitigation of temporary construction/implementation impacts such as dust; noise; reduced access for travelers and to businesses; disruption of utilities; and eliminated street crossings.

Other

This project does not create any negative impacts for the low-income populations, people of color, children, people with disabilities, or the elderly in Carver County. The County is comprised of approximately eight percent people of color, 28 percent under age 18, 16 percent over the age of 60, and four percent below the poverty line. US 212 is a key connection for these communities and health, employment, and education opportunities, and the Project will provide a faster, safer, and more efficient connection.

Response:

Although the roadway is expanding from two to four lanes, pedestrian crossing will become safer due to ADA accessibility improvements, reduced conflict points with traffic, and the introduction of medians between eastbound and westbound traffic. Wider shoulders will also greatly improve the pedestrian and bicycle environment in this rural area as they provide a multimodal facility for all users. Populations with disabilities will be able to cross the roadway without obstacle, using accessible ramps and crossings. With the introduction of RCIs, pedestrians will only interact with two directions of traffic, greatly reducing conflict opportunities between pedestrian and vehicular traffic.

(Limit 2,800 characters; approximately 400 words)

Select one:

3. Sub-measure: Bonus Points *Those projects that score at least 80% of the maximum total points available through sub-measures 1 and 2 will be awarded bonus points based on the geographic location of the project. These points will be assigned as follows, based on the highest-scoring geography the project contacts:*

a. 25 points to projects within an Area of Concentrated Poverty with 50% or more people of color

b. 20 points to projects within an Area of Concentrated Poverty

c. 15 points to projects within census tracts with the percent of population in poverty or population of color above the regional average percent

d. 10 points for all other areas

Project is located in an Area of Concentrated Poverty where 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

(up to 40% of maximum score)

Upload the "Socio-Economic Conditions" map used for this measure. The second map created for sub measure A1 can be uploaded on the Other Attachments Form, or can be combined with the "Socio-Economic Conditions" map into a single PDF and uploaded here.

Upload Map

1589470788103_US212_Expansion_SocioEconmic.pdf

Measure B: Part 1: Housing Performance Score

City	Segment Length (For stand-alone projects, enter population from Regional Economy map) within each City/Township	Segment Length/Total Project Length	Score	Housing Score Multiplied by Segment percent
Benton Township	3.3	1.0	39.0	39.0

Total Project Length

Total Project Length 3.3

Project length entered on the Project Information - General form.

Housing Performance Score

Total Project Length (Miles) or Population 3.3

Total Housing Score 39.0

Affordable Housing Scoring

Part 2: Affordable Housing Access

Reference Access to Affordable Housing Guidance located under Regional Solicitation Resources for information on how to respond to this measure and create the map.

If text box is not showing, click Edit or "Add" in top right of page.

The project directly serves 155 affordable units. They rely on US 212 as the primary connection to healthcare, education, and employment and benefit from the project (see attached map).

- Lakeside Villa: Existing w/12 units (11 1BR, 1 2BR), rent based on 30% income & families up to 50% AMI eligible. Has project-based Sec. 8 & no vouchers

- Villa at Peace Village: Existing w/61 units (33 1BR, 28 2BR), 33 units project-based Sec. 8, & rest pay 30% income. Rate guaranteed by USDA Rural Development & project-based Sec. 8, & no vouchers

- Poplar Ridge: Existing w/24 units (2 1BR, 14 2BR, 8 3BR), 12 units project-based Sec. 8, & rest pay 30% income. Rate guaranteed by USDA Rural Development, LIHTC, & project-based Sec. 8

Response:

- Oak Grove: Existing w/50 units (4 Stu., 25 1BR, 5 2BR), all affordable 60% AMI. Rate for 2 units guaranteed by project-based Sec. 8, & Housing GO Bonds. Vouchers accepted, & manager has agency-wide Fair Housing Plan.

- 8 scattered units (3 3BR, 3 4BR, 2 5BR), affordable at 30% AMI. Rate guaranteed as public housing, uses CDA Fair Housing Plan

The project improves access by adding ADA compliant ramps, medians, wide shoulders & reduced injury with RCIs. Residents can expect the following benefits from the Project: efficient connection to the Twin Cities for employment, healthcare & education. Increased capacity,

medians, and RCIs will reduce crashes & congestion & improve travel time reliability (TTR).

These units are within 4 miles of the Project, consistent w/usage for rural Principal Arterials (PA) & the Functional Classification System Criteria for Principal Arterials in Rural areas listed in App. D of the TPP. This is the only roadway connecting Norwood Young America to Cologne & critical regional services. The closest east-west PA (TH 7) is 10 miles north & the closest east-west Minor Arterial (TH 5) is 4 miles north. The scorer is strongly encouraged to use a 4-mile buffer instead of the 1/2 mile for evaluation, which is not relevant in the rural context and not consistent with the TPP.

(Limit 2,100 characters; approximately 300 words)

Upload map:

1589482345013_US212_Expansion_SocioEconomic(Supp).pdf

Measure A: Infrastructure Age

Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	Calculation 2
1929.0	3.3	6365.7	1929.0
	3	6366	1929

Average Construction Year

Weighted Year	1929.0
---------------	--------

Total Segment Length (Miles)

Total Segment Length	3.3
----------------------	-----

Measure A: Congestion Reduction/Air Quality

Total Peak Hour Delay Per Vehicle Without The Project (Seconds/Vehicle)	Total Peak Hour Delay Per Vehicle With The Project (Seconds/Vehicle)	Total Peak Hour Delay Per Vehicle Reduced by Project (Seconds/Vehicle)	Volume without the Project (Vehicles per hour)	Volume with the Project (Vehicles Per Hour):	Total Peak Hour Delay Reduced by the Project:	Total Peak Hour Delay Reduced by the Project:	EXPLANATION of methodology used to calculate railroad crossing delay, if applicable.	Synchro or HCM Reports
5.0	4.0	1.0	1543	1689	1543.0	1689.0	NA	158956414 3002_US2 12_Expansion_synchro.pdf
1689								

Vehicle Delay Reduced

Total Peak Hour Delay Reduced	1543.0
Total Peak Hour Delay Reduced	1689.0

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

Total (CO, NOX, and VOC) Peak Hour Emissions without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
4.23	1.69	2.54
4	2	3

Total

Total Emissions Reduced:	2.54
Upload Synchro Report	1589564254124_US212_Expansion_synchro.pdf

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

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

Total (CO, NOX, and VOC)
Peak Hour Emissions
without the Project
(Kilograms):

0

Total (CO, NOX, and VOC)
Peak Hour Emissions with
the Project (Kilograms):

0

Total (CO, NOX, and VOC)
Peak Hour Emissions
Reduced by the Project
(Kilograms):

0

Total Parallel Roadway

Emissions Reduced on Parallel Roadways 0

Upload Synchro Report

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

New Roadway Portion:

Cruise speed in miles per hour with the project: 0

Vehicle miles traveled with the project: 0

Total delay in hours with the project: 0

Total stops in vehicles per hour with the project: 0

Fuel consumption in gallons: 0

Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or
Produced on New Roadway (Kilograms): 0

EXPLANATION of methodology and assumptions used:(Limit
1,400 characters; approximately 200 words)

Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the
Project (Kilograms): 0.0

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

Cruise speed in miles per hour without the project: 0

Vehicle miles traveled without the project: 0

Total delay in hours without the project: 0

Total stops in vehicles per hour without the project: 0

Cruise speed in miles per hour with the project: 0

Vehicle miles traveled with the project: 0

Total delay in hours with the project: 0

Total stops in vehicles per hour with the project: 0

Fuel consumption in gallons (F1) 0

Fuel consumption in gallons (F2) 0

Fuel consumption in gallons (F3) 0

Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms): 0

EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)

Measure A: Benefit of Crash Reduction

Crash Modification Factor Used:

The following crash modification factors were used: Install J-turn intersection, provide intersection lighting, resurface pavement, and expand roadway to 4 lanes and restrict side-street left-turns. Further information regarding the CMF is shown in the attached PDF.

(Limit 700 Characters; approximately 100 words)

Due to the roadway expansion, construction of the median area, eliminating a lane merge on a curve, and the restriction of left-turns, various crashes are expected to be 100 percent eliminated in the future due to the inability of the vehicles to interact after project completion.

Per MnDOT guidance if there are two or more correctable fatal crashes within a three-year period, then a cost benefit per crash of \$12.3 million can be used (page 13 of the HSIP criteria document (http://www.dot.state.mn.us/metro/trafficeng/files/Highway_Safety_Improvement_Program_-_Metro_Criteria_2020.pdf)). The proposed project includes adding a RCI at the intersection of CSAH 51 and US 212 and expanding the roadway, adding a median, adding snow fence, and ensuring adequate clear zone. The following provide further guidance on the correctability of the two fatalities at the intersection of CSAH 51 and US 212.

Rationale for Crash Modification Selected:

<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/811232>

<http://www.dot.state.mn.us/trafficeng/safety/docs/fatalrunoffroadstudy.pdf>

<https://conservancy.umn.edu/bitstream/handle/11299/155993/CTS13-23.pdf?sequence=1&isAllowed=y>

(Limit 1400 Characters; approximately 200 words)

Project Benefit (\$) from B/C Ratio:	\$136,232,835.00
Total Fatal (K) Crashes:	2
Total Serious Injury (A) Crashes:	0
Total Non-Motorized Fatal and Serious Injury Crashes:	0

Total Crashes:	30
Total Fatal (K) Crashes Reduced by Project:	2
Total Serious Injury (A) Crashes Reduced by Project:	0
Total Non-Motorized Fatal and Serious Injury Crashes Reduced by Project:	0
Total Crashes Reduced by Project:	17
Worksheet Attachment	1589483260336_US212_Expansion_BC.pdf

Please upload attachment in PDF form.

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

The project will improve safety for pedestrians along US 212. Pedestrian improvements include accessibility improvements, median construction, reduced conflict opportunities with vehicles and wide shoulders.

ADA compliant ramps and crossings will be implemented. This will ensure pedestrians of all abilities can cross US 212 safely without barriers.

The project includes construction of medians which will provide a refuge area for pedestrians crossing the roadway, and act as a barrier between opposing traffic. Medians are included in the "Proven Safety Countermeasures" as a suggested method to limit pedestrian injury and fatality. Median barriers installed along rural four-lane freeways resulted in a 97 percent reduction in cross-median crashes according to the FHWA. The DOT identified medians as one of the "Best Practices for Pedestrian/Bicycle Safety" and found a reduction in crashes up to 46 percent.

Response:

The addition of RCIs will decrease the number of conflict opportunities between pedestrian and vehicular traffic while crossing US 212. An RCI allows free traffic flow in two directions instead of all four, meaning pedestrians crossing the roadway will interact with only two directions of vehicles. The remaining two directions of travel are moved away from the intersection, where pedestrian crossing is not permitted. RCIs are included in the "Proven Safety Countermeasures" as a suggested method to limit pedestrian injury and fatality. According to FHWA, implementation of RCIs (also known as R-CUTs) resulted in a 54 percent decrease in injury and fatal crashes.

In rural areas, wide shoulders are often used by residents for bicycling and walking transportation as the only connection from point A to B. The existing roadway has a narrow shoulder of 3-4 ft. in most areas. This project will provide a much improved 8 ft. paved shoulder, providing a safer and more comfortable multimodal facility for bicycle and pedestrian usage.

(Limit 2,800 characters; approximately 400 words)

Measure A: Multimodal Elements and Existing Connections

This project positively impacts the multimodal system by improving pedestrian safety, transit efficiency, and bikeway access. ADA compliant ramps will be constructed along US 212, greatly improving the pedestrian experience. Medians will also be constructed, which will reduce vehicle/pedestrian conflicts and provide refuge areas at intersections. RCIs allow free flow of traffic in only two directions, significantly reducing the number of travel lanes the pedestrian must cross.

In rural areas, wide shoulders are used by residents for bicycling and walking as the only connection from point A to B. US 212 is the primary and most direct connection between the Cities of Norwood Young America and Cologne. The existing roadway has narrow 3 ft. shoulders in most areas. This project will provide an 8 ft. paved shoulder as well as a second lane in each direction for passing width, providing a safer and more comfortable multimodal facility for bicycle and pedestrian use.

Response:

The project will improve transit access by providing more efficient connection to the Twin Cities for employment, healthcare and education. Doubling the number of lanes and introducing RCIs will result in fewer crashes, less congestion, and greater travel time reliability for transit vehicles and those traveling to the SouthWest Transit Park & Ride. Transit operators and users can expect cost savings from reduced congestion and idling, travel time savings by increased free flow speeds and travel time reliability, and decreased risk of property damage, injury or fatality while utilizing US 212 to reach jobs, healthcare, or schooling. The project also benefits SmartLink Transit. SmartLink vehicles are stored and operate at the Carver County PW facility (eastern end of project). SmartLink operates dial-a-ride transit service for the public and provides

Medical Assistance trips for qualified individuals. SmartLink serves rural residents along the corridor and provides transit connection anywhere in the seven-county metro area.

The RBTN and RBBS exclude this part of the Met Council planning area in analysis. However, this area may qualify as part of these studies if it were included.

(Limit 2,800 characters; approximately 400 words)

Transit Projects Not Requiring Construction

If the applicant is completing a transit application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.

Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.

Check Here if Your Transit Project Does Not Require Construction

Measure A: Risk Assessment - Construction Projects

1)Layout (25 Percent of Points)

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

Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties that the project goes through or agencies that maintain the roadway(s)). A PDF of the layout must be attached along with letters from each jurisdiction to receive points. Yes

100%

Attach Layout

1589483782675_US212_Expansion_Layout.pdf

Please upload attachment in PDF form.

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

50%

Attach Layout

Please upload attachment in PDF form.

Layout has not been started

0%

Anticipated date or date of completion

06/12/2019

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

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

Yes

100%

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

100%

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

80%

Historic/archeological property impacted; determination of adverse effect anticipated

40%

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

0%

Project is located on an identified historic bridge

3)Right-of-Way (25 Percent of Points)

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

100%

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

50%

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

Yes

25%

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

0%

Anticipated date or date of acquisition

03/01/2022

4)Railroad Involvement (15 Percent of Points)

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

Yes

100%

Signature Page

Please upload attachment in PDF form.

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

50%

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

0%

Anticipated date or date of executed Agreement

5) Public Involvement (20 percent of points)

Projects that have been through a public process with residents and other interested public entities are more likely than others to be successful. The project applicant must indicate that events and/or targeted outreach (e.g., surveys and other web-based input) were held to help identify the transportation problem, how the potential solution was selected instead of other options, and the public involvement completed to date on the project. List Dates of most recent meetings and outreach specific to this project:

Meeting with general public: 06/20/2019

Meeting with partner agencies: 06/12/2019

Targeted online/mail outreach: 05/08/2020

Number of respondents: 432

Meetings specific to this project with the general public and partner agencies have been used to help identify the project need. Yes

100%

Targeted outreach to this project with the general public and partner agencies have been used to help identify the project need.

75%

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

50%

At least one meeting specific to this project with key partner agencies has been used to help identify the project need.

50%

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

25%

No outreach has led to the selection of this project.

0%

The Project has been through a public process with residents and other interested public entities. The County held monthly meetings with partner agencies from 11/2018 through 7/2019 and held a public meeting in June of 2019. The community was further engaged through physical surveys distributed to over 600 locations and online surveys available during project development. Survey mailing locations were chosen to include a cross section of residents, specifically targeting diverse populations not typically involved in transportation projects (residents under age 18, disabled, and low-income).

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

The survey received 432 total responses over a period of one month. Most respondents (over 60 percent) identified turning on/off US 212 and the number of crashes as their primary concerns. In response, the Project Purpose specifically addresses these concerns, stating the primary purpose is to reduce the crash rate in the corridor. To meet this goal, the County proposed a series of safety improvements to the public. According to survey responses, residents feel an RCI is a favorable option as it will increase driver safety while entering/exiting US 212. Additionally, conversion from an undivided two-lane road to a divided four-lane highway is strongly supported. Residents listed the high traffic volume, frequent collisions, and common congestion as reasons for supporting the conversion. The third most common concern was safety during snow events. Responses included notes of frequent snow drifts, icy road conditions and visibility concerns within the project area. In response, the County will install snow fencing parallel to the corridor, which will prevent snow drifts and ice accumulation, and improve visibility during snow events.

To keep all residents informed and provide

opportunities for feedback, a project website was created. The site displays information on design development, construction schedules, open houses, and other opportunities for informational meetings and feedback. The County will host additional public meetings as they move along in the project development process.

Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form):	\$25,977,000.00
Enter Amount of the Noise Walls:	\$0.00
Total Project Cost subtract the amount of the noise walls:	\$25,977,000.00
Enter amount of any outside, competitive funding:	\$0.00
Attach documentation of award:	
Points Awarded in Previous Criteria	
Cost Effectiveness	\$0.00

Other Attachments

File Name	Description	File Size
US212_Expansion_1pager.pdf	One-page Project Summary	678 KB
US212_Expansion_ExistingConditionPhotos.pdf	Existing Condition Photos	2.3 MB
US212_Expansion_LOS_Bongards.pdf	Letter of Support - Bongards	371 KB
US212_Expansion_LOS_Carver.pdf	Letter of Support - Carver County	112 KB
US212_Expansion_LOS_MnDOT.pdf	Letter of Support - MnDOT	588 KB

County Road 153

58 60

212

58 61

61 64

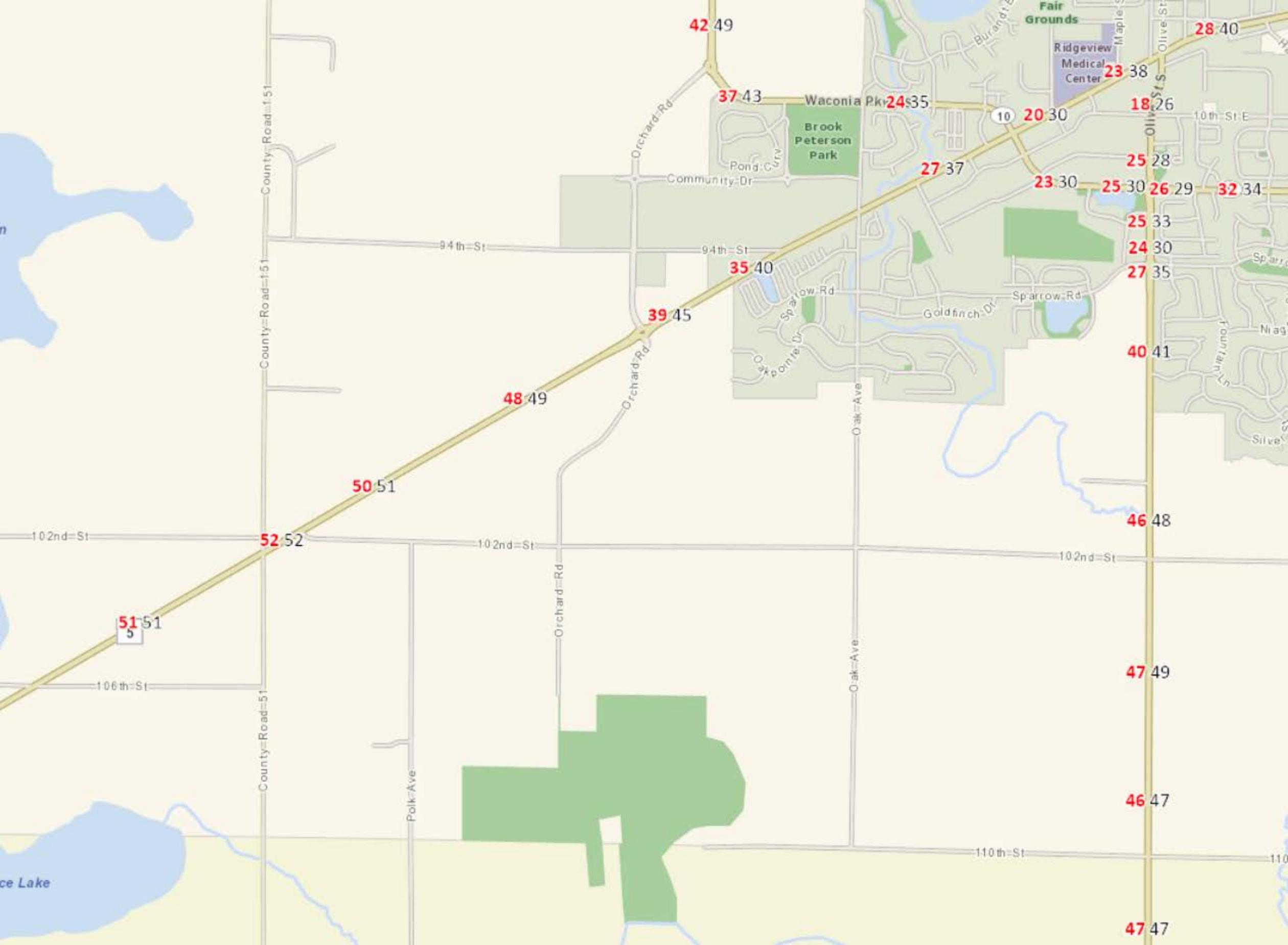
58 63

52 60

Winkler

Meuw
La

C



County Road 153

Winkler

Meuw
La

58 60

212

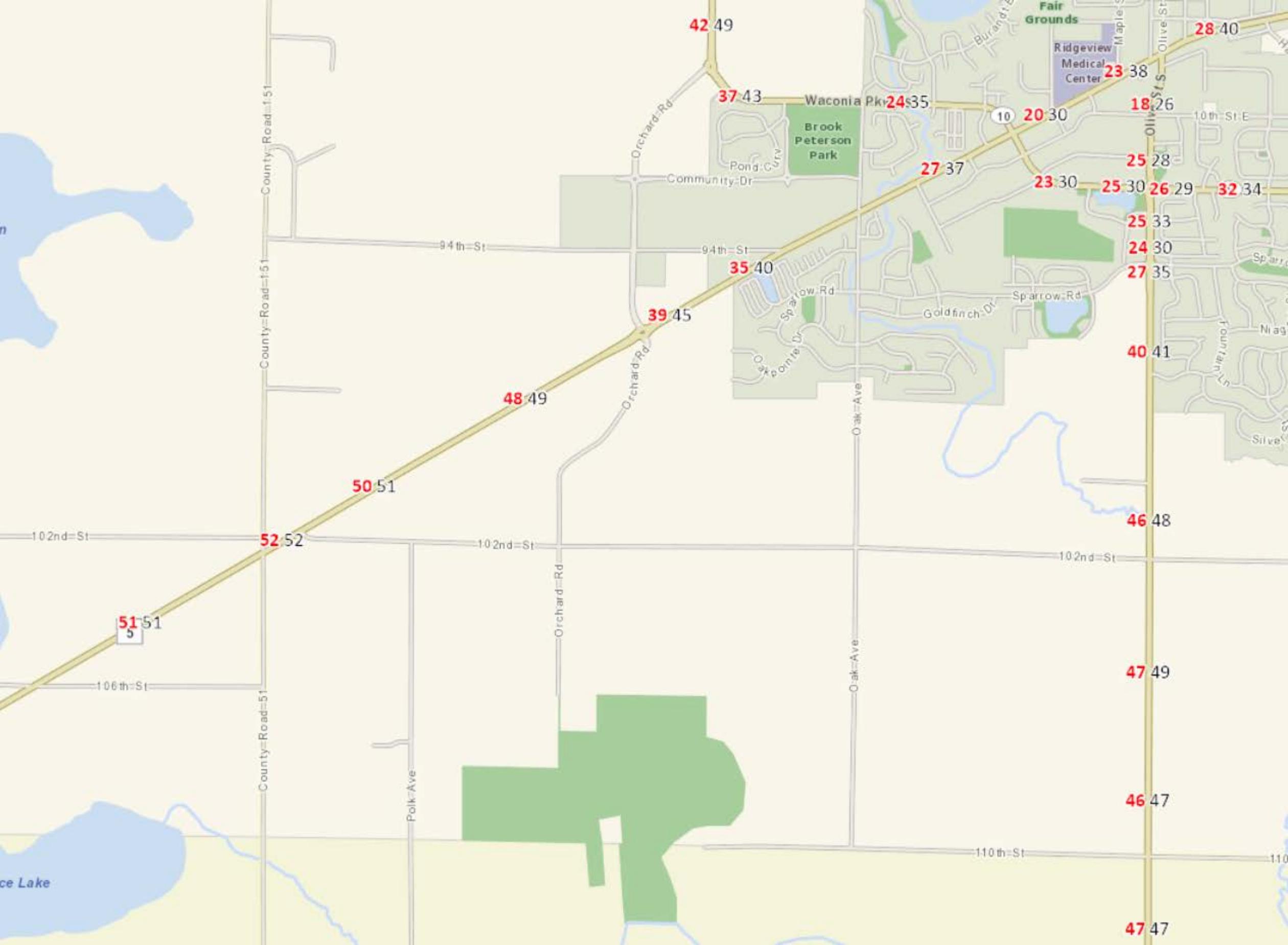
58 61

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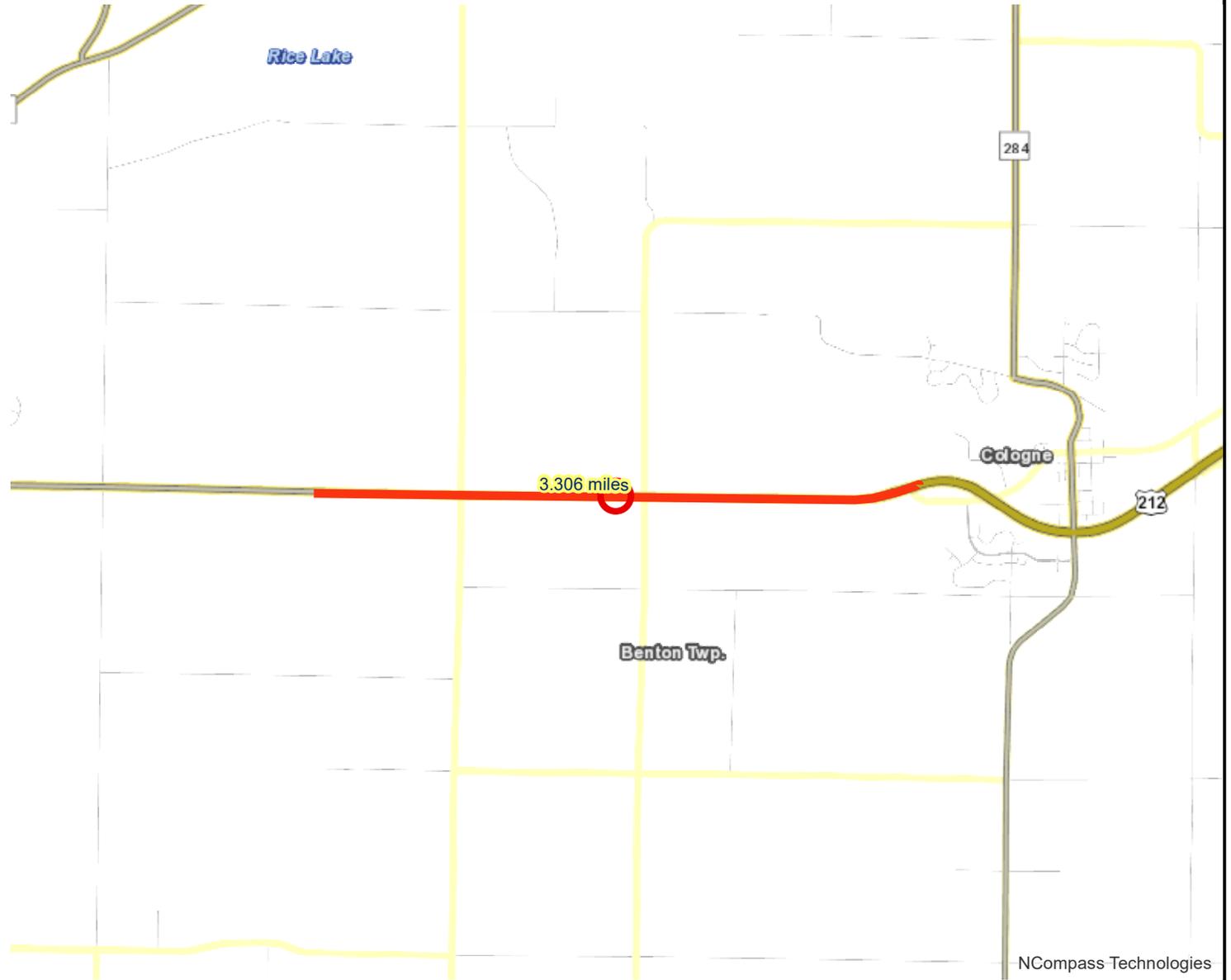
Regional Economy

Roadway Expansion Project: US 212 from CSAH 51 to CSAH 36 | Map ID: 1584469141480

Results

WITHIN ONE MI of project:
Postsecondary Students: 0

Totals by City:
Benton Twp.
Population: 1202
Employment: 695
Mfg and Dist Employment: 368



NCompass Technologies

-  Project Points
-  Project
-  Manufacturing/Distribution Centers
-  Job Concentration Centers



Created: 3/17/2020
LandscapeRSA5



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



Transit Connections

Roadway Expansion Project: US 212 from CSAH 51 to CSAH 36 | Map ID: 1584469141480

Results

Transit with a Direct Connection to project:
-- NONE --

**indicates Planned Alignments*

Transit Market areas: 5



 Project Points

 Project

 Project Area



Created: 3/17/2020
LandscapeRSA3



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



NCompass Technologies

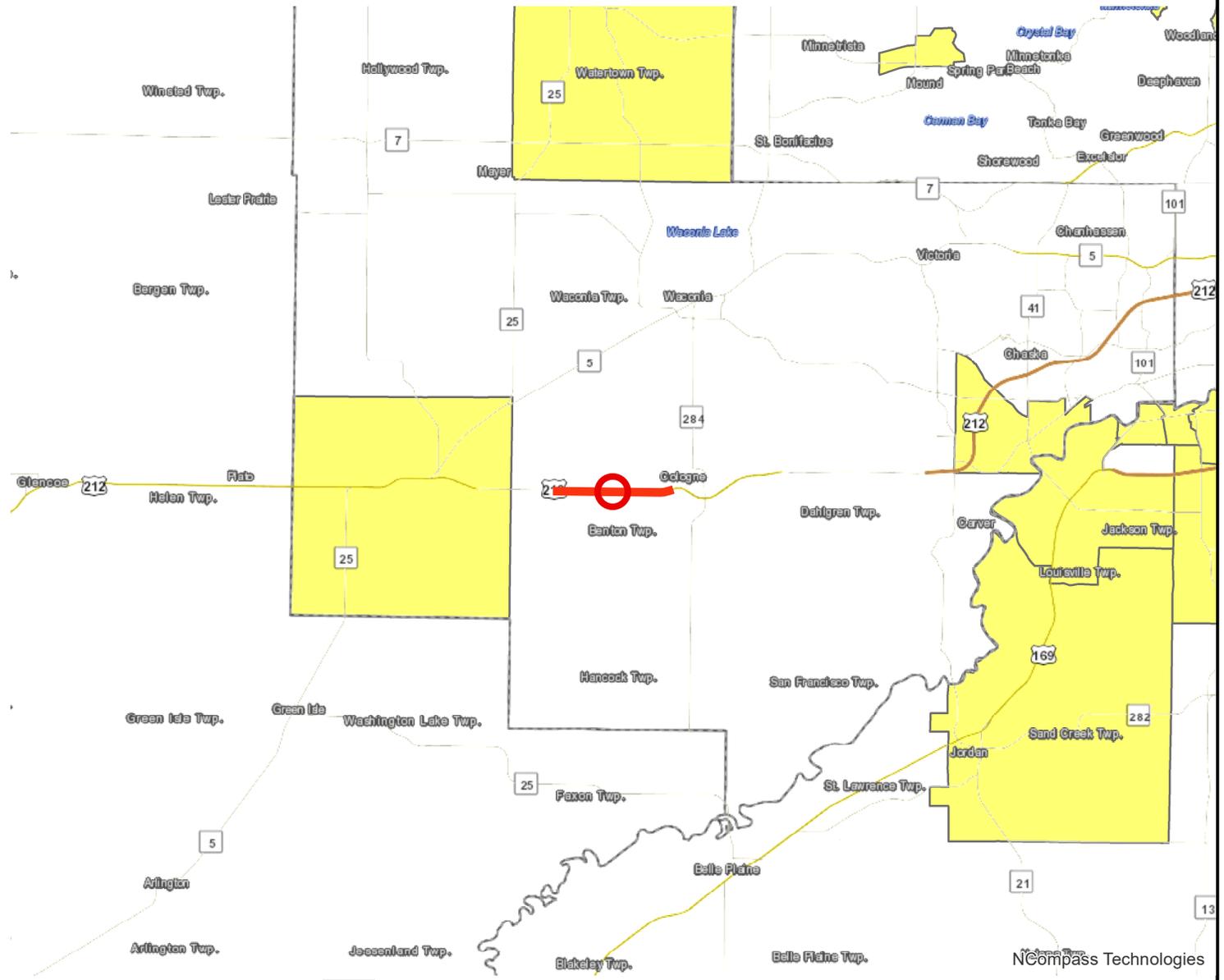
Socio-Economic Conditions

Roadway Expansion Project: US 212 from CSAH 51 to CSAH 36 | Map ID: 1584469141480

Results

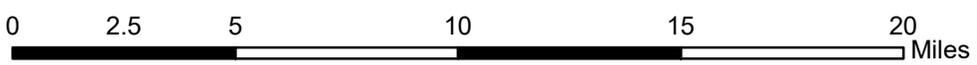
Project located in a census tract that is below the regional average for population in poverty or populations of color, or includes children, people with disabilities, or the elderly:
(0 to 12 Points)

Tracts within half-mile:
91202



-  Points
-  Lines
-  Area of Concentrated Poverty > 50% residents of color

-  Area of Concentrated Poverty
-  Above reg'l avg conc of race/poverty

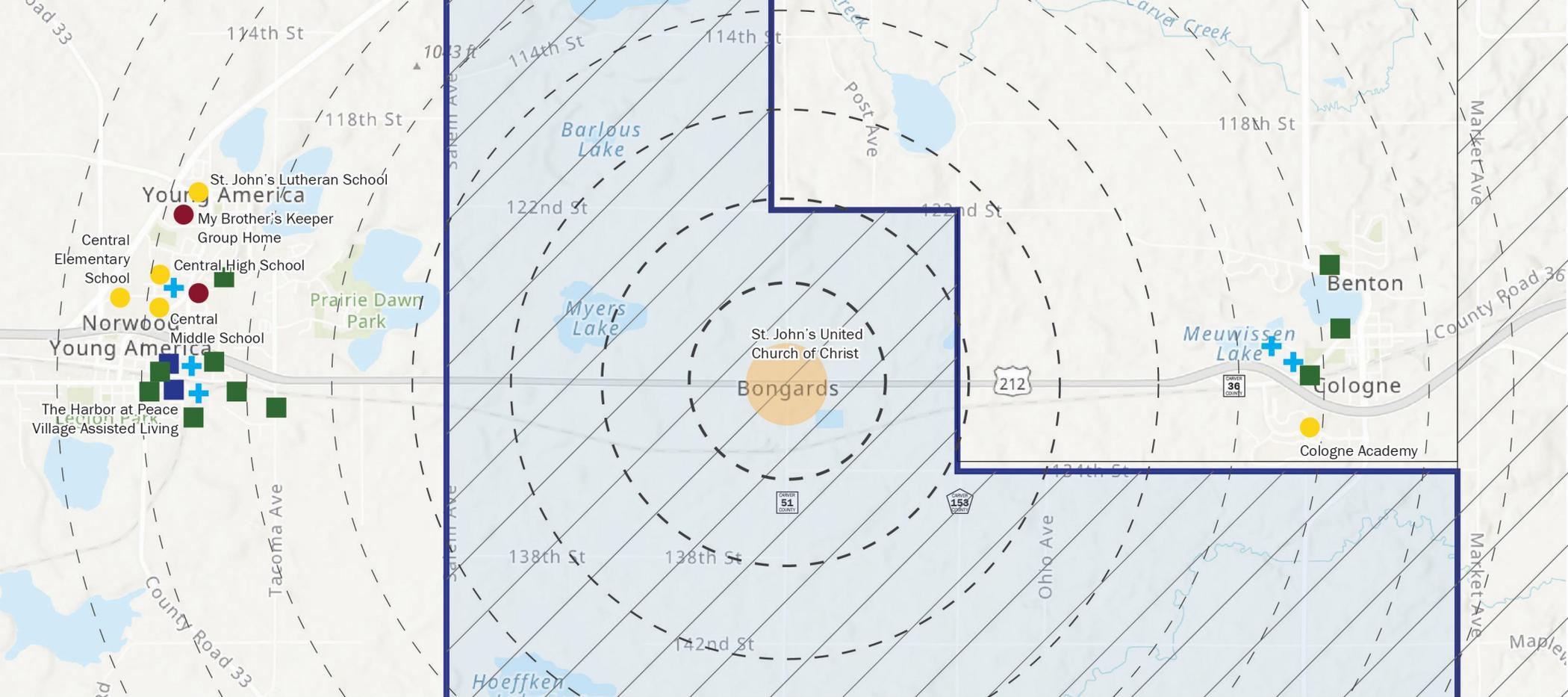


Created: 3/17/2020
LandscapeRSA2



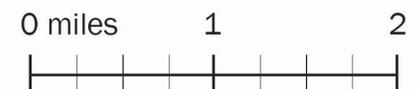
For complete disclaimer of accuracy, please visit <http://giswebsite.metc.state.mn.us/gis/site/notice.aspx>

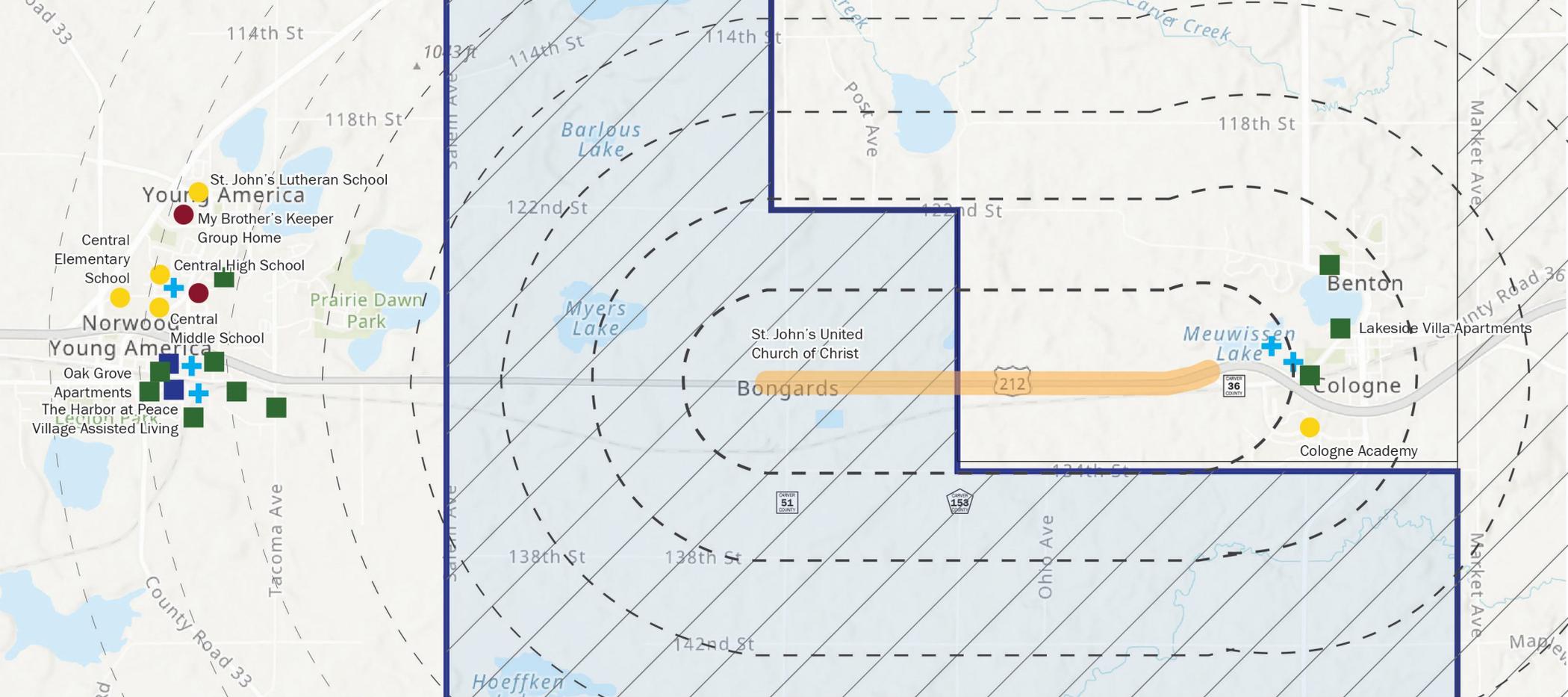




Carver County US 212 Spot Mobility
 Socio-Economic Map (Supplemental)

- Project area
- Buffer (.5 mile increments)
- Linguistically Isolated
(Above 60th percentile)
- Less than HS Education
(Above 65th percentile)
- Over age 64
(Above 55th percentile)
- Schools
- Healthcare
- Senior Housing
- Affordable Housing
- Social Services





Carver County US 212 Roadway Expansion

Socio-Economic Map (Supplemental)

- Project area
- Buffer (.5 mile increments)
- Linguistically Isolated
(Above 60th percentile)
- Less than HS Education
(Above 65th percentile)
- Over age 64
(Above 55th percentile)
- Schools
- Healthcare
- Senior Housing
- Affordable Housing
- Social Services



10: County Highway 51 & US Highway 212

Direction	All
Future Volume (vph)	1543
Total Delay / Veh (s/v)	5
CO Emissions (kg)	2.96
NOx Emissions (kg)	0.58
VOC Emissions (kg)	0.69

15: County Highway 51 & US Highway 212

Direction	All
Future Volume (vph)	1083
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.61
NOx Emissions (kg)	0.12
VOC Emissions (kg)	0.14

20: County Highway 51 & US Highway 212

Direction	All
Future Volume (vph)	606
Total Delay / Veh (s/v)	3
CO Emissions (kg)	0.58
NOx Emissions (kg)	0.11
VOC Emissions (kg)	0.13

10: County Highway 51 & US Highway 212

Direction	All
Future Volume (vph)	1543
Total Delay / Veh (s/v)	5
CO Emissions (kg)	2.96
NOx Emissions (kg)	0.58
VOC Emissions (kg)	0.69

15: County Highway 51 & US Highway 212

Direction	All
Future Volume (vph)	1083
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.61
NOx Emissions (kg)	0.12
VOC Emissions (kg)	0.14

20: County Highway 51 & US Highway 212

Direction	All
Future Volume (vph)	606
Total Delay / Veh (s/v)	3
CO Emissions (kg)	0.58
NOx Emissions (kg)	0.11
VOC Emissions (kg)	0.13

US 212 Roadway Expansion Benefit-Cost

Total Benefit-Cost Calculation

\$136,232,835	Benefit (present value)	B/C Ratio = 5.24
\$25,977,000	Cost	

Benefit (Present Value) Summary

\$44,688,984	Hwy 212 Segment
\$88,660,476	Hwy 212 & Hwy 51
\$1,224,204	Hwy 212 & Hwy 153
\$609,154	Hwy 212 & Carver County Access
\$1,050,017	Hwy 212 Lane Merge

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project



A. Roadway Description

Route	US 212	District		County	Carver County
Begin RP		End RP		Miles	
Location	US 212 (Non-intersections)				

B. Project Description

Proposed Work	2-lane undivided to 4-lane divided		
Project Cost*	Included in Summary	Installation Year	2024
Project Service Life	20 years	Traffic Growth Factor	2.0%

* exclude Right of Way from Project Cost

C. Crash Modification Factor

0.52	Fatal (K) Crashes	Reference	
0.52	Serious Injury (A) Crashes		
0.55	Moderate Injury (B) Crashes	Crash Type	
0.55	Possible Injury (C) Crashes		
0.69	Property Damage Only Crashes		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

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

E. Crash Data

Begin Date	1/1/2016	End Date	12/31/2018	3 years
Data Source	MnDOT			

Crash Severity	< enter target crashes >	< optional 2nd CMF >
K crashes	1	0
A crashes	0	0
B crashes	2	0
C crashes	2	0
PDO crashes	14	0

F. Benefit-Cost Calculation

\$44,688,984	Benefit (present value)	B/C Ratio = N/A
Included in Summary	Cost	

Proposed project expected to reduce 3 crashes annually, 1 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	\$12,300,000
A crashes	\$680,000
B crashes	\$210,000
C crashes	\$110,000
PDO crashes	\$12,000

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

Real Discount Rate 1.2%
 Traffic Growth Rate 2.0%
 Project Service Life 20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.48	0.16	\$1,957,750
A crashes	0.00	0.00	\$0
B crashes	0.90	0.30	\$63,140
C crashes	0.90	0.30	\$33,073
PDO crashes	4.33	1.44	\$17,304

\$2,071,267

H. Amortized Benefit

Year	Crash Benefits	Present Value
2025	\$2,071,267	\$2,071,267
2026	\$2,112,693	\$2,087,641
2027	\$2,154,947	\$2,104,144
2028	\$2,198,045	\$2,120,778
2029	\$2,242,006	\$2,137,543
2030	\$2,286,847	\$2,154,440
2031	\$2,332,583	\$2,171,471
2032	\$2,379,235	\$2,188,637
2033	\$2,426,820	\$2,205,939
2034	\$2,475,356	\$2,223,377
2035	\$2,524,863	\$2,240,953
2036	\$2,575,361	\$2,258,668
2037	\$2,626,868	\$2,276,523
2038	\$2,679,405	\$2,294,519
2039	\$2,732,993	\$2,312,658
2040	\$2,787,653	\$2,330,940
2041	\$2,843,406	\$2,349,366
2042	\$2,900,274	\$2,367,938
2043	\$2,958,280	\$2,386,657
2044	\$3,017,445	\$2,405,524
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0

Total = \$44,688,984

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project



A. Roadway Description			
Route	US 212	District	
County	Carver County		
Begin RP		End RP	
Miles			
Location	US 212 and CSAH 51		

B. Project Description			
Proposed Work	Reduced Conflict Intersection (RCI)		
Project Cost*	Included in Summary	Installation Year	2024
Project Service Life	20 years	Traffic Growth Factor	2.0%

* exclude Right of Way from Project Cost

C. Crash Modification Factor			
0.15	Fatal (K) Crashes	Reference	Multiple CMF Calculation
0.23	Serious Injury (A) Crashes		
0.23	Moderate Injury (B) Crashes	Crash Type	All Types - Intersection Crashes
0.23	Possible Injury (C) Crashes		
0.34	Property Damage Only Crashes		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)			
0.00	Fatal (K) Crashes	Reference	Engineering Judgement
0.00	Serious Injury (A) Crashes		
0.00	Moderate Injury (B) Crashes	Crash Type	Left-turn from side-street approach
0.00	Possible Injury (C) Crashes		
0.00	Property Damage Only Crashes		www.CMFclearinghouse.org

E. Crash Data			
Begin Date	1/1/2016	End Date	12/31/2018
			3 years
Data Source	MnDOT		
Crash Severity	All Types - Intersection Crashes	Left-turn from side-street approach	
K crashes	0	1	
A crashes	0	0	
B crashes	0	0	
C crashes	0	0	
PDO crashes	2	1	

F. Benefit-Cost Calculation		B/C Ratio = N/A
\$88,660,476	Benefit (present value)	
Included in Summary	Cost	
Proposed project expected to reduce 2 crashes annually, 1 of which involving fatality or serious injury.		

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project



A. Roadway Description			
Route	US 212	District	
County	Carver County		
Begin RP		End RP	
Miles			
Location	US 212 & CSAH 153		

B. Project Description			
Proposed Work	Reduced Conflict Intersection (RCI)		
Project Cost*	Included in Summary	Installation Year	2024
Project Service Life	20 years	Traffic Growth Factor	2.0%

* exclude Right of Way from Project Cost

C. Crash Modification Factor			
0.15	Fatal (K) Crashes	Reference	Multiple CMF Calculation
0.23	Serious Injury (A) Crashes		
0.23	Moderate Injury (B) Crashes	Crash Type	All Types - Intersection Crashes
0.23	Possible Injury (C) Crashes		
0.34	Property Damage Only Crashes		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)			
0.00	Fatal (K) Crashes	Reference	Engineering Judgement
0.00	Serious Injury (A) Crashes		
0.00	Moderate Injury (B) Crashes	Crash Type	Left-turn or thru from side-street approach
0.00	Possible Injury (C) Crashes		
0.00	Property Damage Only Crashes		www.CMFclearinghouse.org

E. Crash Data			
Begin Date	1/1/2016	End Date	12/31/2018
			3 years
Data Source	MnDOT		
Crash Severity	All Types - Intersection Crashes	Left-turn or thru from side-street	
K crashes	0	0	
A crashes	0	0	
B crashes	1	0	
C crashes	0	0	
PDO crashes	1	0	

F. Benefit-Cost Calculation		B/C Ratio = N/A
\$1,224,204	Benefit (present value)	
Included in Summary	Cost	
Proposed project expected to reduce 1 crashes annually, 0 of which involving fatality or serious injury.		

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	\$1,360,000
A crashes	\$680,000
B crashes	\$210,000
C crashes	\$110,000
PDO crashes	\$12,000

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

Real Discount Rate 1.2%
 Traffic Growth Rate 2.0%
 Project Service Life 20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	\$0
A crashes	0.00	0.00	\$0
B crashes	0.77	0.26	\$53,900
C crashes	0.00	0.00	\$0
PDO crashes	0.71	0.24	\$2,840

\$56,740

H. Amortized Benefit

Year	Crash Benefits	Present Value
2025	\$56,740	\$56,740
2026	\$57,875	\$57,189
2027	\$59,032	\$57,641
2028	\$60,213	\$58,096
2029	\$61,417	\$58,556
2030	\$62,646	\$59,018
2031	\$63,898	\$59,485
2032	\$65,176	\$59,955
2033	\$66,480	\$60,429
2034	\$67,810	\$60,907
2035	\$69,166	\$61,388
2036	\$70,549	\$61,874
2037	\$71,960	\$62,363
2038	\$73,399	\$62,856
2039	\$74,867	\$63,353
2040	\$76,365	\$63,853
2041	\$77,892	\$64,358
2042	\$79,450	\$64,867
2043	\$81,039	\$65,380
2044	\$82,659	\$65,897
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0

Total = \$1,224,204

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project



A. Roadway Description			
Route	US 212	District	
County	Carver County		
Begin RP		End RP	
Miles			
Location	US 212 & Carver County Public Works Access		

B. Project Description			
Proposed Work	Reduced Conflict Intersection (RCI)		
Project Cost*	Included in Summary	Installation Year	2024
Project Service Life	20 years	Traffic Growth Factor	2.0%

* exclude Right of Way from Project Cost

C. Crash Modification Factor			
0.15	Fatal (K) Crashes	Reference	Multiple CMF Calculation
0.23	Serious Injury (A) Crashes		
0.23	Moderate Injury (B) Crashes	Crash Type	All Types - Intersection Crashes
0.23	Possible Injury (C) Crashes		
0.34	Property Damage Only Crashes		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)			
0.00	Fatal (K) Crashes	Reference	Engineering Judgement
0.00	Serious Injury (A) Crashes		
0.00	Moderate Injury (B) Crashes	Crash Type	Left-turn or thru from side-street approach
0.00	Possible Injury (C) Crashes		
0.00	Property Damage Only Crashes		www.CMFclearinghouse.org

E. Crash Data			
Begin Date	1/1/2016	End Date	12/31/2018
			3 years
Data Source	MnDOT		
Crash Severity	All Types - Intersection Crashes	Left-turn or thru from side-street	
K crashes	0	0	
A crashes	0	0	
B crashes	0	0	
C crashes	1	0	
PDO crashes	0	0	

F. Benefit-Cost Calculation		B/C Ratio = N/A
\$609,154	Benefit (present value)	
Included in Summary	Cost	
Proposed project expected to reduce 1 crashes annually, 0 of which involving fatality or serious injury.		

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	\$1,360,000
A crashes	\$680,000
B crashes	\$210,000
C crashes	\$110,000
PDO crashes	\$12,000

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

Real Discount Rate 1.2%
 Traffic Growth Rate 2.0%
 Project Service Life 20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	\$0
A crashes	0.00	0.00	\$0
B crashes	0.00	0.00	\$0
C crashes	0.77	0.26	\$28,233
PDO crashes	0.00	0.00	\$0

\$28,233

H. Amortized Benefit

Year	Crash Benefits	Present Value
2025	\$28,233	\$28,233
2026	\$28,798	\$28,457
2027	\$29,374	\$28,681
2028	\$29,961	\$28,908
2029	\$30,561	\$29,137
2030	\$31,172	\$29,367
2031	\$31,795	\$29,599
2032	\$32,431	\$29,833
2033	\$33,080	\$30,069
2034	\$33,741	\$30,307
2035	\$34,416	\$30,546
2036	\$35,105	\$30,788
2037	\$35,807	\$31,031
2038	\$36,523	\$31,276
2039	\$37,253	\$31,524
2040	\$37,998	\$31,773
2041	\$38,758	\$32,024
2042	\$39,533	\$32,277
2043	\$40,324	\$32,532
2044	\$41,131	\$32,790
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0

Total = \$609,154

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project



A. Roadway Description			
Route	US 212	District	
County	Carver County		
Begin RP		End RP	
Miles			
Location	US 212 (4-lane to 2-lane merge)		

B. Project Description			
Proposed Work	Extended 4-lane		
Project Cost*	Included in Summary	Installation Year	2024
Project Service Life	20 years	Traffic Growth Factor	2.0%

* exclude Right of Way from Project Cost

C. Crash Modification Factor			
0.00	Fatal (K) Crashes	Reference	Engineering Judgement
0.00	Serious Injury (A) Crashes		
0.00	Moderate Injury (B) Crashes	Crash Type	Merging Crashes eliminated
0.00	Possible Injury (C) Crashes		
0.00	Property Damage Only Crashes		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)			
	Fatal (K) Crashes	Reference	
	Serious Injury (A) Crashes		
	Moderate Injury (B) Crashes	Crash Type	
	Possible Injury (C) Crashes		
	Property Damage Only Crashes		www.CMFclearinghouse.org

E. Crash Data			
Begin Date	1/1/2016	End Date	12/31/2018
			3 years
Data Source	MnDOT		
Crash Severity	Merging Crashes eliminated	< optional 2nd CMF >	
K crashes	0	0	
A crashes	0	0	
B crashes	0	0	
C crashes	1	0	
PDO crashes	3	0	

F. Benefit-Cost Calculation		
\$1,050,017	Benefit (present value)	B/C Ratio = N/A
Included in Summary	Cost	
Proposed project expected to reduce 2 crashes annually, 0 of which involving fatality or serious injury.		

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	\$1,360,000
A crashes	\$680,000
B crashes	\$210,000
C crashes	\$110,000
PDO crashes	\$12,000

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

Real Discount Rate 1.2%
 Traffic Growth Rate 2.0%
 Project Service Life 20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	\$0
A crashes	0.00	0.00	\$0
B crashes	0.00	0.00	\$0
C crashes	1.00	0.33	\$36,667
PDO crashes	3.00	1.00	\$12,000

\$48,667

H. Amortized Benefit

Year	Crash Benefits	Present Value
2025	\$48,667	\$48,667
2026	\$49,640	\$49,051
2027	\$50,633	\$49,439
2028	\$51,645	\$49,830
2029	\$52,678	\$50,224
2030	\$53,732	\$50,621
2031	\$54,807	\$51,021
2032	\$55,903	\$51,424
2033	\$57,021	\$51,831
2034	\$58,161	\$52,241
2035	\$59,324	\$52,654
2036	\$60,511	\$53,070
2037	\$61,721	\$53,489
2038	\$62,956	\$53,912
2039	\$64,215	\$54,338
2040	\$65,499	\$54,768
2041	\$66,809	\$55,201
2042	\$68,145	\$55,637
2043	\$69,508	\$56,077
2044	\$70,898	\$56,520
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0

Total = \$1,050,017

Multiple CMF Calculation - RCI Intersection Crashes

Crash Modification Factor - Installation of RCI Intersection

0.65	Fatal (K) Crashes	Reference	http://www.cmfclearinghouse.org/detail.cfm?facid=5555
0.46	Serious Injury (A) Crashes		
0.46	Moderate Injury (B) Crashes	Crash Type	All
0.46	Possible Injury (C) Crashes		
0.65	Property Damage Only Crashes		

Crash Modification Factor - Installation of Intersection Illumination

0.23	Fatal (K) Crashes	Reference	http://www.cmfclearinghouse.org/detail.cfm?facid=437
0.50	Serious Injury (A) Crashes		
0.50	Moderate Injury (B) Crashes	Crash Type	All
0.50	Possible Injury (C) Crashes		
0.52	Property Damage Only Crashes		

Multiple CMF Calculation

$CMF (K) = CMF 1 * CMF 2 = 0.65 * 0.23 = 0.1495$	0.15	Fatal (K) Crashes
$CMF (A) = CMF 1 * CMF 2 = 0.46 * 0.50 = 0.23$	0.23	Serious Injury (A) Crashes
$CMF (B) = CMF 1 * CMF 2 = 0.46 * 0.50 = 0.23$	0.23	Moderate Injury (B) Crashes
$CMF (C) = CMF 1 * CMF 2 = 0.46 * 0.50 = 0.23$	0.23	Possible Injury (C) Crashes
$CMF (PDO) = CMF 1 * CMF 2 = 0.65 * 0.52 = 0.338$	0.34	Property Damage Only Crashes

Multiple CMF Calculation - Segments

Crash Modification Factor - Convert 2-lane to 4-lane Roadway

0.55	Fatal (K) Crashes	Reference	http://www.cmfclearinghouse.org/detail.cfm?facid=7571
0.55	Serious Injury (A) Crashes		
0.55	Moderate Injury (B) Crashes	Crash Type	All
0.55	Possible Injury (C) Crashes		
0.69	Property Damage Only Crashes		

Crash Modification Factor - Resurface Pavement

0.95	Fatal (K) Crashes	Reference	http://www.cmfclearinghouse.org/detail.cfm?facid=2976
0.95	Serious Injury (A) Crashes		
	Moderate Injury (B) Crashes	Crash Type	All
	Possible Injury (C) Crashes		
	Property Damage Only Crashes		

Multiple CMF Calculation

$$\text{CMF (K)} = \text{CMF 1} * \text{CMF 2} = 0.55 * 0.95 = 0.5225$$

$$\text{CMF (A)} = \text{CMF 1} * \text{CMF 2} = 0.55 * 0.95 = 0.5225$$

0.52	Fatal (K) Crashes
0.52	Serious Injury (A) Crashes
0.55	Moderate Injury (B) Crashes
0.55	Possible Injury (C) Crashes
0.69	Property Damage Only Crashes

Countermeasure: Install J-Turn intersection

Compare	CMF	CRF(%)	Quality	Crash Type	Crash Severity	Area Type	Reference	Comments
<input type="checkbox"/>	0.652	34.8	★★★★☆	All	All	Rural	EDARA ET AL., 2013	
<input type="checkbox"/>	0.463	53.7	★★★★☆	All	Serious injury, Minor injury	Rural	EDARA ET AL., 2013	
<input type="checkbox"/>	0	100	★★★☆☆	All	Fatal	Rural	HOCHSTEIN ET AL., 2009	
<input type="checkbox"/>	0	100	★★★☆☆	All	Serious injury, Minor injury	Rural	HOCHSTEIN ET AL., 2009	
<input type="checkbox"/>	0	100	★★★☆☆	Angle	All	Rural	HOCHSTEIN ET AL., 2009	
<input type="checkbox"/>	0	100	★★★☆☆	Angle	All	Rural	HOCHSTEIN ET AL., 2009	
<input type="checkbox"/>	0	100	★★★☆☆	Angle	All	Rural	HOCHSTEIN ET AL., 2009	
<input type="checkbox"/>	0	100	★★★☆☆	Frontal and opposing direction sideswipe, Head on	All	Rural	HOCHSTEIN ET AL., 2009	
<input type="checkbox"/>	0.39	60.57	★★★☆☆	All	All	Not specified	HOCHSTEIN ET AL., 2009	
<input type="checkbox"/>	0.63	36.63	★★★☆☆	All	Property damage only (PDO)	Not specified	HOCHSTEIN ET AL., 2009	
<input type="checkbox"/>	0	100	★★★☆☆	Angle	All	Not specified	HOCHSTEIN ET AL., 2009	
<input type="checkbox"/>	0	100	★★★☆☆	Angle	All	Not specified	HOCHSTEIN ET AL., 2009	

Countermeasure: Provide intersection illumination

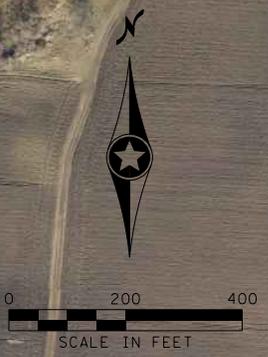
Compare	CMF	CRF(%)	Quality	Crash Type	Crash Severity	Area Type	Reference	Comments
<input type="checkbox"/>	0.62 [B]	38	★★★★☆	Nighttime	Serious Injury, Minor Injury	Not Specified	ELVIK, R. AND VAA, T., 2004	Countermeasure name changed to match ... [READ MORE]
<input type="checkbox"/>	0.58 [I]	42	★★★★☆	Nighttime, Vehicle/pedestrian	Serious Injury, Minor Injury	Not Specified	ELVIK, R. AND VAA, T., 2004	Countermeasure name changed to match ... [READ MORE]
<input type="checkbox"/>	0.41	59	★★★★☆	Vehicle/pedestrian	Serious injury, Minor injury	Not specified	ELVIK, R. AND VAA, T., 2004	Countermeasure name has been slightly ... [READ MORE]
<input type="checkbox"/>	0.69	31	★★★★☆	All	Property damage only (PDO)	Not specified	ELVIK, R. AND VAA, T., 2004	Countermeasure name has been slightly ... [READ MORE]
<input type="checkbox"/>	0.23	77	★★★★☆	All	Fatal	Not specified	ELVIK, R. AND VAA, T., 2004	Countermeasure name has been slightly ... [READ MORE]
<input type="checkbox"/>	0.5	50	★★★★☆	All	Serious injury, Minor injury	Not specified	ELVIK, R. AND VAA, T., 2004	Countermeasure name has been slightly ... [READ MORE]
<input type="checkbox"/>	0.52	49	★★★★☆	All	Property damage only (PDO)	Not specified	ELVIK, R. AND VAA, T., 2004	Countermeasure name has been slightly ... [READ MORE]
<input type="checkbox"/>	0.19	82	★★★★☆	Vehicle/pedestrian	Fatal	Not specified	ELVIK, R. AND VAA, T., 2004	Countermeasure name has been slightly ... [READ MORE]
<input type="checkbox"/>	0.67	32.6	★★★★☆	Angle	All	Rural	YE ET AL., 2008	Countermeasure name has been slightly ... [READ MORE]
<input type="checkbox"/>	0.56	43.8	★★★★☆	Vehicle/pedestrian	All	Rural	YE ET AL., 2008	Countermeasure name has been slightly ... [READ MORE]

Countermeasure: Convert 2 lane roadway to 4 lane divided roadway

Compare	CMF	CRF(%)	Quality	Crash Type	Crash Severity	Area Type	Reference	Comments
<input type="checkbox"/>	0.341	65.88	★★★★☆	All	All	Urban	AHMED ET AL., 2015	
<input type="checkbox"/>	0.712	28.79	★★★★☆	All	All	Rural	AHMED ET AL., 2015	
<input type="checkbox"/>	0.691	30.88	★★★★☆	All	Property damage only (PDO)	Rural	AHMED ET AL., 2015	
<input type="checkbox"/>	0.549	45.13	★★★★☆	All	Fatal,Serious injury,Minor injury	Rural	AHMED ET AL., 2015	
<input type="checkbox"/>	0.351	64.89	★★★★☆	All	Property damage only (PDO)	Urban	AHMED ET AL., 2015	
<input type="checkbox"/>	0.367	63.27	★★★★☆	All	Fatal,Serious injury,Minor injury	Urban	AHMED ET AL., 2015	
<input type="checkbox"/>	0.236	76.4	★★★★☆	All	All	Urban	AHMED ET AL., 2015	Applies to roadways with AADT ... [READ MORE]
<input type="checkbox"/>	0.466	53.36	★★★★☆	All	All	Urban	AHMED ET AL., 2015	Applies to roadways with AADT ... [READ MORE]
<input type="checkbox"/>	0.714	28.59	★★★★☆	All	All	Rural	AHMED ET AL., 2015	Applies to roadways with AADT ... [READ MORE]
<input type="checkbox"/>	0.79	21.04	★★★★☆	All	All	Rural	AHMED ET AL., 2015	Applies to roadways with AADT ... [READ MORE]

Countermeasure: Resurface pavement

Compare	CMF	CRF(%)	Quality	Crash Type	Crash Severity	Area Type	Reference	Comments
<input type="checkbox"/>	1.01	-1	★★★★☆	All	All		ABDEL-ATY ET AL., 2009	
<input type="checkbox"/>	0.95	5	★★★★☆	All	Fatal,Serious injury		ABDEL-ATY ET AL., 2009	
<input type="checkbox"/>	0.99	1	★★★★☆	Rear end	All		ABDEL-ATY ET AL., 2009	
<input type="checkbox"/>	0.858	14.2	★★★★☆	All		Urban	PARK ET AL., 2017	
<input type="checkbox"/>	0.929	7.1	★★★★☆	All		Urban	PARK ET AL., 2017	
<input type="checkbox"/>	0.894	10.6	★★★★☆	All		Urban	PARK ET AL., 2017	
<input type="checkbox"/>	0.901	9.9	★★★★☆	All		Urban	PARK ET AL., 2017	Heavy vehicle volume rate >... [READ MORE]
<input type="checkbox"/>	0.766	23.4	★★★★☆	All		Urban	PARK ET AL., 2017	First year after treatment implementation... [READ MORE]
<input type="checkbox"/>	0.853	14.7	★★★★☆	All		Urban	PARK ET AL., 2017	Second year after treatment implementation... [READ MORE]
<input type="checkbox"/>	1.153	-15.3	★★★★☆	All		Urban	PARK ET AL., 2017	Fourth year after treatment implementation... [READ MORE]
<input type="checkbox"/>	0.688	31.2	★★★★☆	All		Urban	PARK ET AL., 2017	First year after treatment implementation... [READ MORE]



LEGEND	
	PAVED ROADWAY
	AGGREGATE ROADWAY & SHOULDERS
	BRIDGES & RETAINING WALLS
	RAISED MEDIANS & CURBS
	PAVED SHOULDERS
	BITUMINOUS TRAILS & BIKEWAYS
	CONCRETE TRAILS & SIDEWALKS
	RAILROAD REALIGNMENT
	FUTURE CONSTRUCTION "BY OTHERS"
	PROPOSED PONDING LOCATION
	PROPOSED TRAFFIC SIGNAL
	EXISTING TRAFFIC SIGNAL
	PRELIMINARY CONSTRUCTION LIMITS (TOE OF SLOPE)
	WETLANDS
	EXISTING RIGHT OF WAY
	PROPOSED RIGHT OF WAY
	PROPOSED NOISE WALL
	PROPOSED RETAINING WALL
	ROAD CLOSED
	ENTRANCE CLOSED

MARK S & JUNE M ROLF TRUSTS

WARRE



SOLAR FARM

BERNICE MARIE KOHLS

DUWAYNE H & SHIRLEY M SCHMITZ



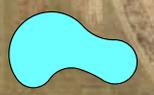


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SCALE IN FEET

LEONARD HOEN JR

STEVEN D & SANDRA
SIEGLE

CONFLICT INTERSECTION



CO-OP CREAMERY

BONGARDS CO-OP CREAMERY

STEVEN D & SANDRA
SIEGLE

BONGARDS



SPRECKER PROPERTY
SECTION 106 PROPERTY

RYLAND N.
WICKENHAUSER

RYLAND N.
WICKENHAUSER

RYLAND N.
WICKENHAUSER

CR 153

CR 153

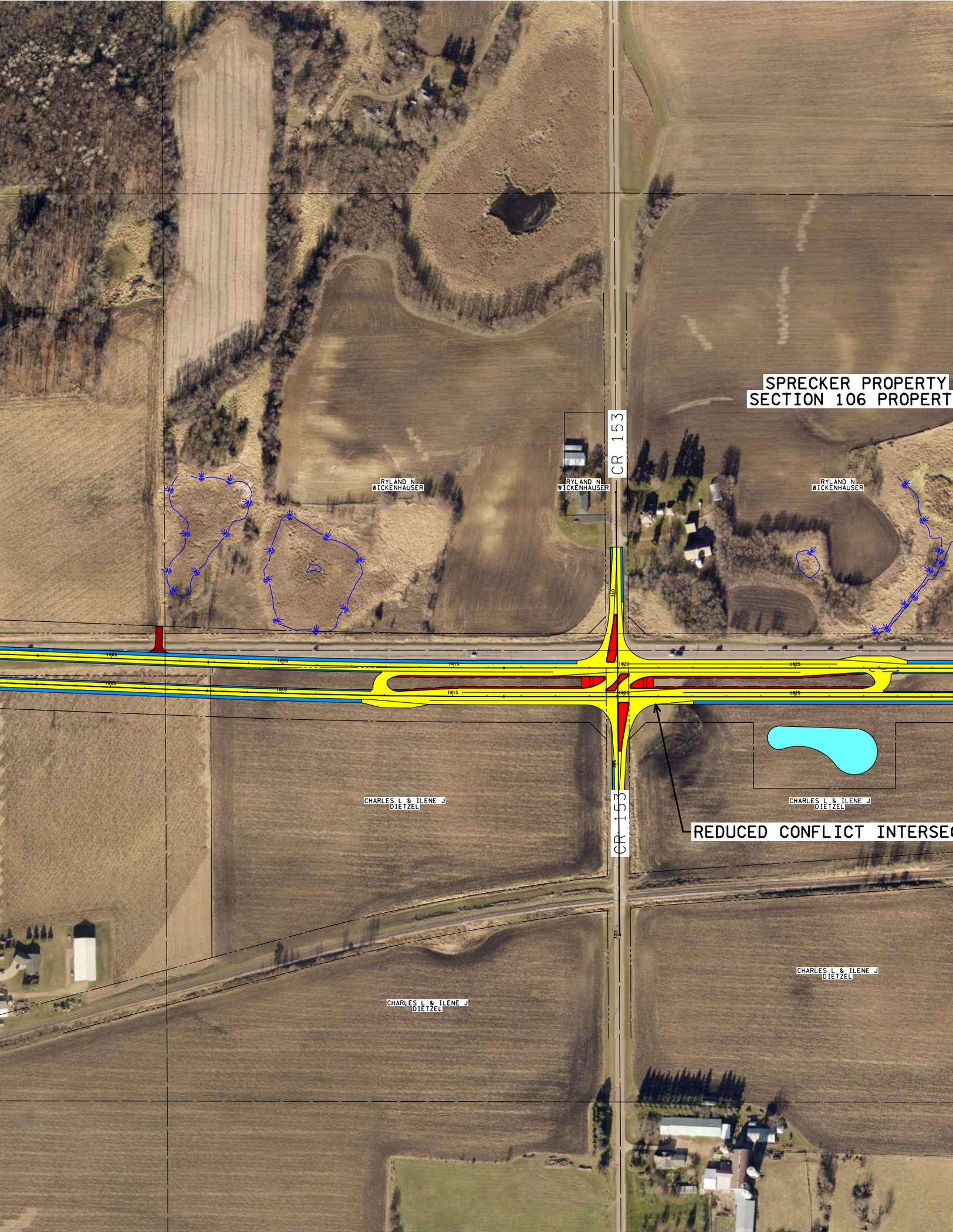
CHARLES L & ILENE J
DIETZEL

CHARLES L & ILENE J
DIETZEL

REDUCED CONFLICT INTERSECT

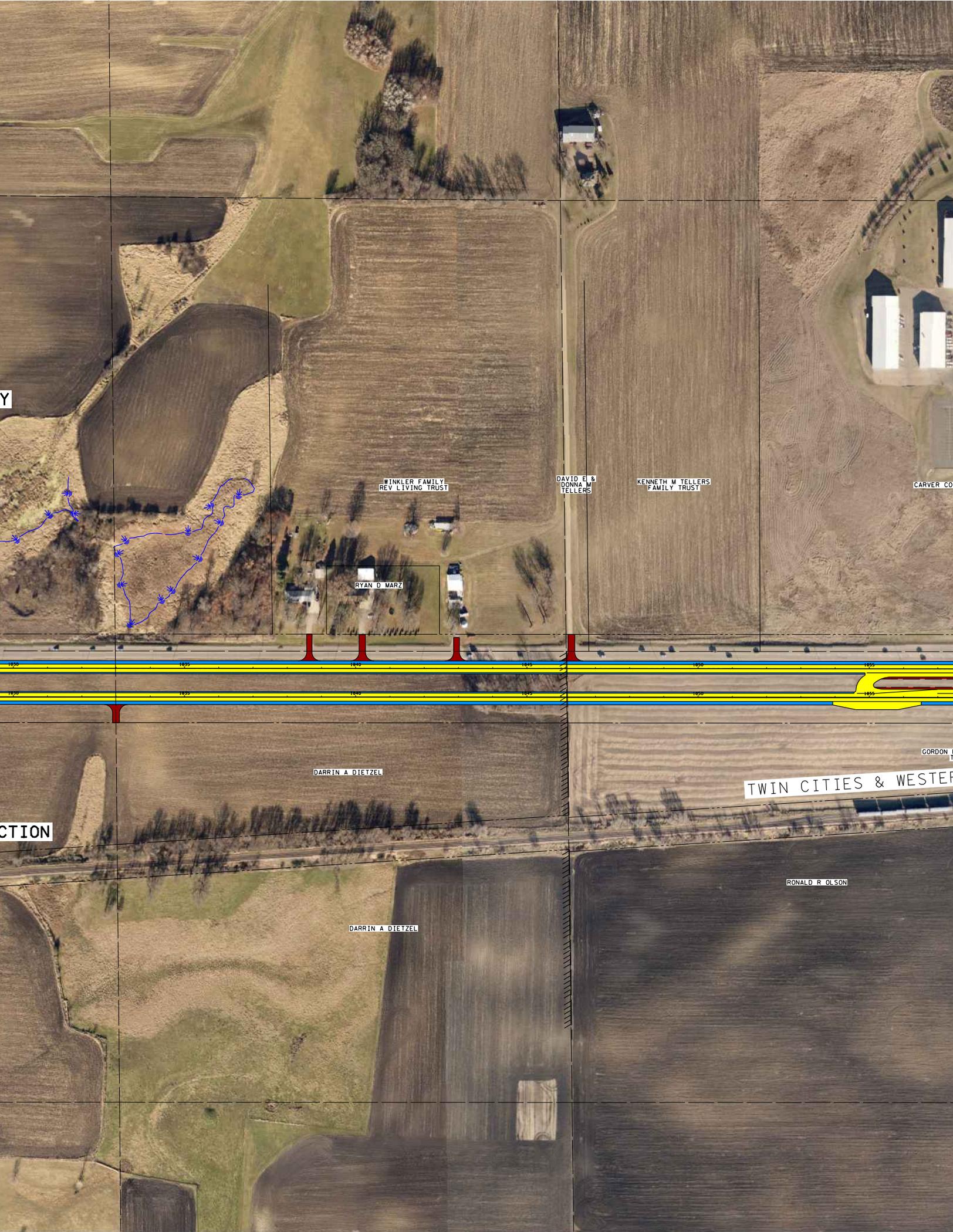
CHARLES L & ILENE J
DIETZEL

CHARLES L & ILENE J
DIETZEL



Y

CTION



WINKLER FAMILY
REV LIVING TRUST

DAVID E &
DONNA M
TELLERS

KENNETH M TELLERS
FAMILY TRUST

CARVER CO

RYAN D MARZ

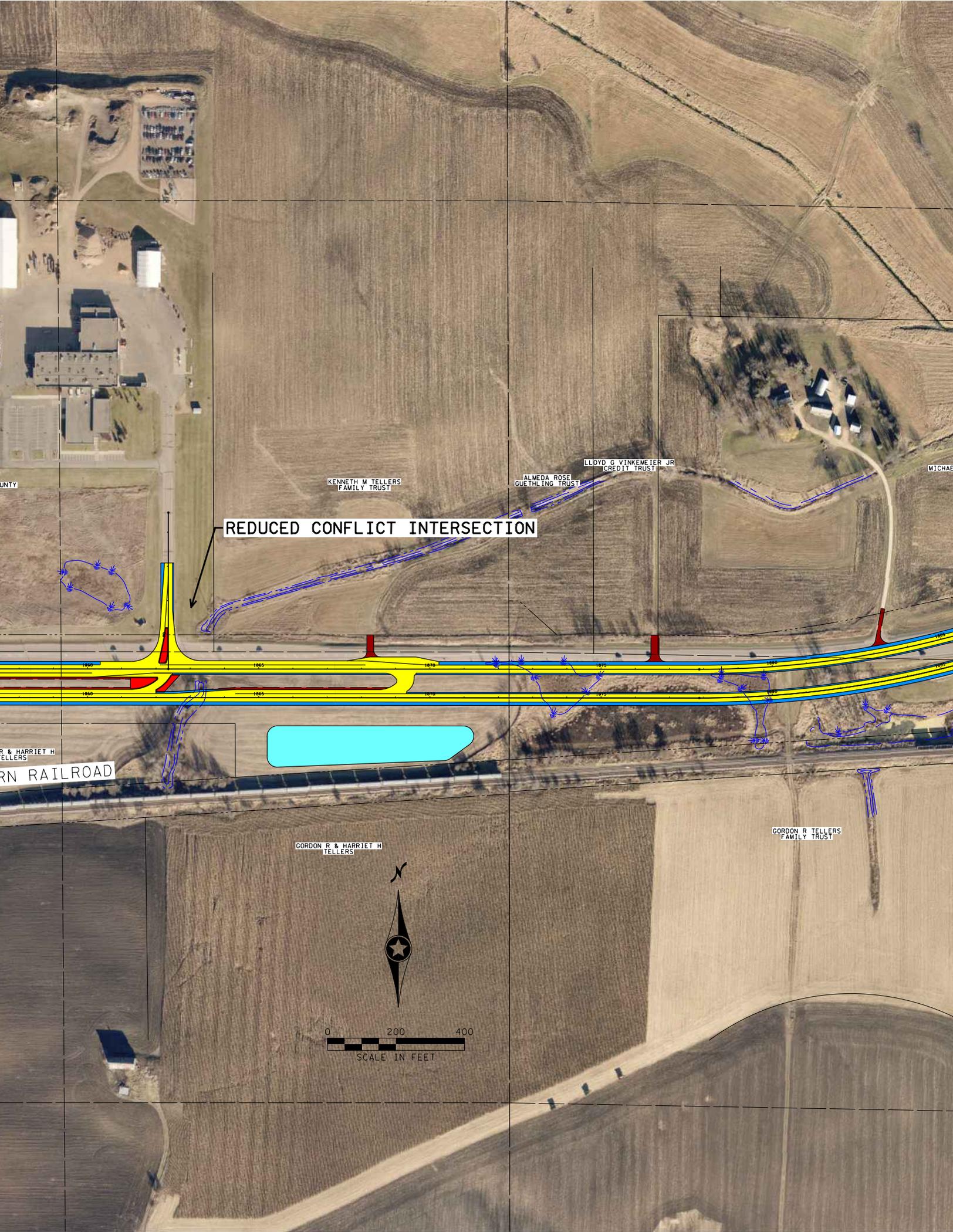
DARRIN A DIETZEL

TWIN CITIES & WESTER

RONALD R OLSON

DARRIN A DIETZEL

GORDON



UNTY

KENNETH M TELLERS
FAMILY TRUST

ALMEDA ROSE
GÜETH ING TRUST

LLOYD G VINKEMEIER JR
CREDIT TRUST

MICHAEL

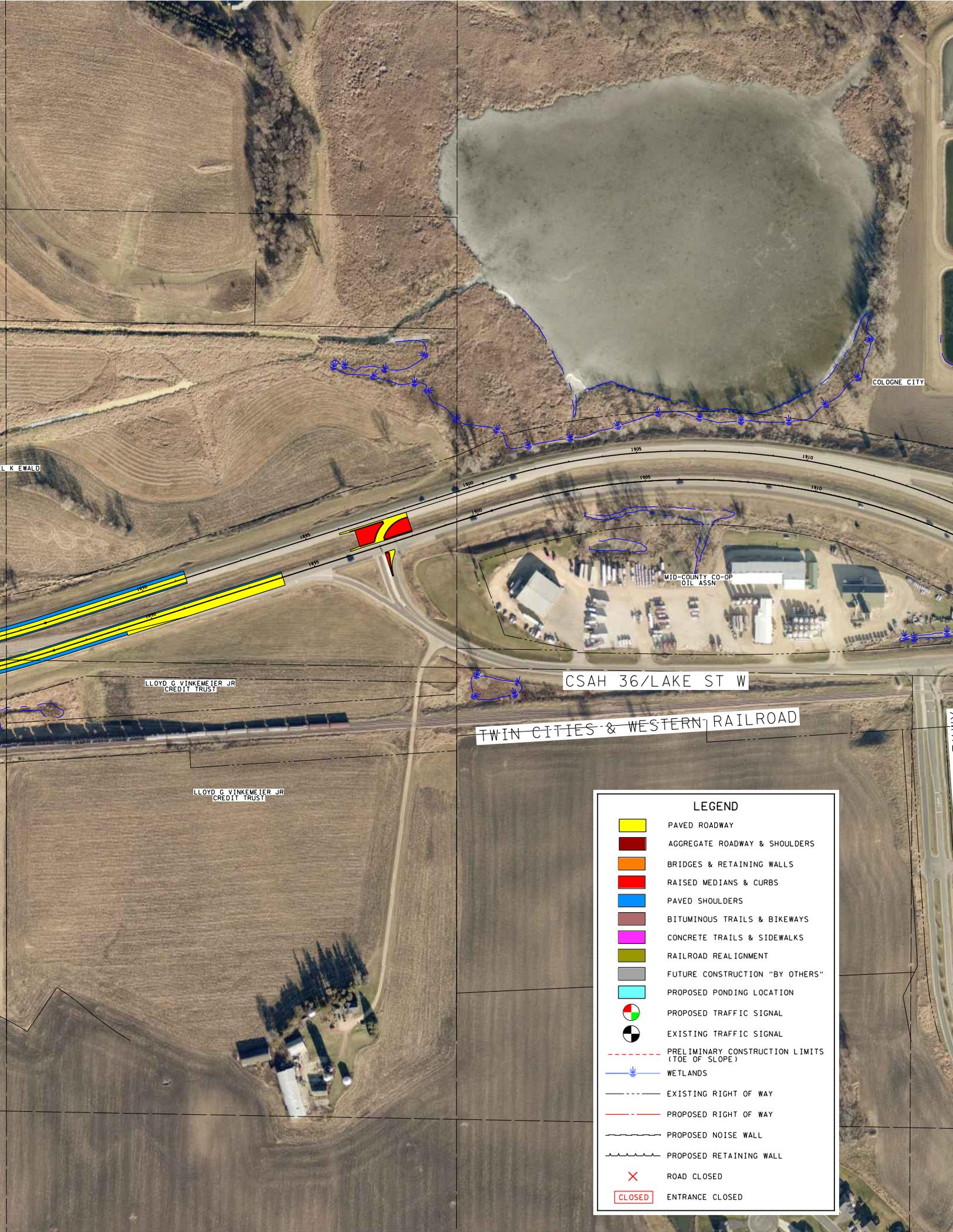
REDUCED CONFLICT INTERSECTION

R & HARRIET H
TELLERS
RN RAILROAD

GORDON R & HARRIET H
TELLERS

GORDON R TELLERS
FAMILY TRUST





COLOGNE CITY

L K EWALD

LLOYD G VINKEMEIER JR
CREDIT TRUST

LLOYD G VINKEMEIER JR
CREDIT TRUST

CSAH 36/LAKE ST W

MID-COUNTY CO-OP
OIL ASSN

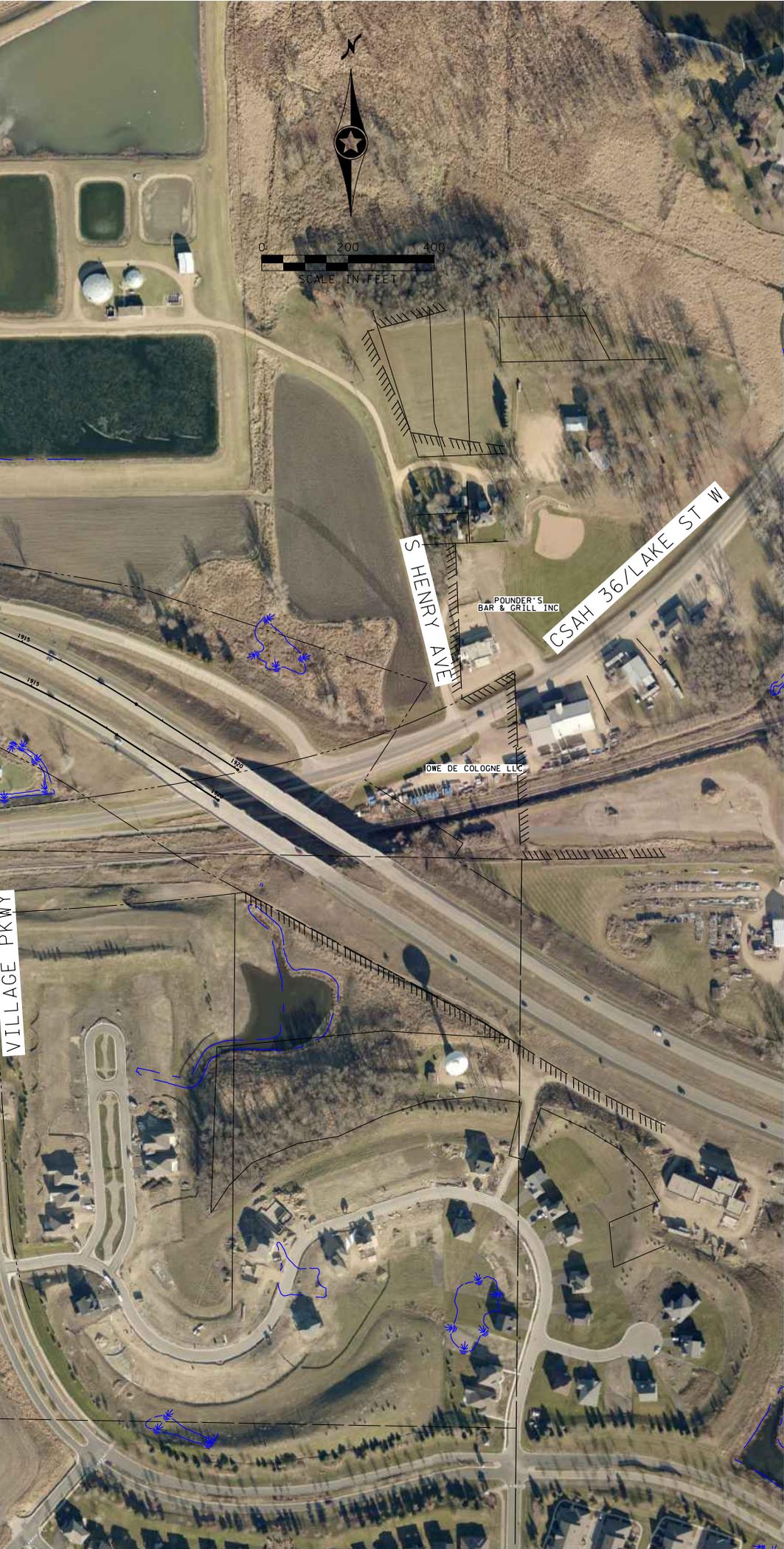
TWIN CITIES & WESTERN RAILROAD

LEGEND

-  PAVED ROADWAY
-  AGGREGATE ROADWAY & SHOULDERS
-  BRIDGES & RETAINING WALLS
-  RAISED MEDIANS & CURBS
-  PAVED SHOULDERS
-  BITUMINOUS TRAILS & BIKEWAYS
-  CONCRETE TRAILS & SIDEWALKS
-  RAILROAD REALIGNMENT
-  FUTURE CONSTRUCTION "BY OTHERS"
-  PROPOSED PONDING LOCATION
-  PROPOSED TRAFFIC SIGNAL
-  EXISTING TRAFFIC SIGNAL
-  PRELIMINARY CONSTRUCTION LIMITS (TOE OF SLOPE)
-  WETLANDS
-  EXISTING RIGHT OF WAY
-  PROPOSED RIGHT OF WAY
-  PROPOSED NOISE WALL
-  PROPOSED RETAINING WALL
-  ROAD CLOSED
-  ENTRANCE CLOSED



0 200 400
SCALE IN FEET



S HENRY AVE

CSAH 36/LAKE ST W

POUNDER'S
BAR & GRILL INC

OWE DE COLOGNE LLC

VILLAGE PKWY

1918

1975

1200

1975



US 212 Freight Mobility and Safety Project from CSAH 51 to CSAH 36

Project Name: US 212 Freight Mobility and Safety Project from CSAH 51 to CSAH 36

Applicant: Carver County

Route: US 212

Location: US 212 between CSAH 51 and CSAH 36 in Carver County

Requested Award: \$10,000,000

Total Cost: \$25,977,000

Primary Contact:

Lyndon Robjent, PE
County Engineer, Carver County
11360 Hwy 212 West, Suite 1 Cologne, MN 55322
952-466-5206
lrobjent@co.carver.mn.us



Project Location



Description

The US 212 Freight Mobility and Safety Project from CSAH 51 to CSAH 36 in Carver County will expand the existing Principal Arterial from a rural two-lane undivided highway to a four-lane expressway. The project will address high crash rates and unsafe pedestrian crossings through the implementation of additional lanes, Reduced Conflict Intersections (RCIs), medians, and wider shoulders. These improvements will eliminate freight inefficiencies, reduce rural highway fatalities, and strengthen rural access to economic opportunities in the Twin Cities Metropolitan Area. The project design provides a cost effective high-benefit solution to address safety and enhance access and mobility for the US 212 corridor. This funding request is the final funding piece needed.

Increases safety for all modes

- Implement Reduced Conflict Intersections and access management
- Wider shoulders for multimodal use
- Median installation



Snow drifts along US 212

Modernization

- Upgrade original roadway constructed in 1929

Project Benefits

Improves mobility

- Expands rural, undivided 2-lane highway to divided 4-lane expressway
- Reduce congestion for personal and commercial vehicles
- Eliminate freight bottleneck
- Expand access for rural residents to access employment, healthcare, and education



Commercial traffic along US 212

Regional Significance

US Highway 212 is a regional and national highway system that runs from Wyoming to Minnesota, officially designated in 1926. The Project area contains aging pavement that has not been expanded or reconstructed in 90 years since its original paving in 1929. US 212 is part of the National Highway System (NHS) and National Highway Freight Network (NHFN), providing a major freight connection for 22,000 square miles of rural Minnesota and South Dakota, whose largest source of employment is manufacturing. US Highway 212 is identified by the Minnesota Department of Transportation (MnDOT) in the Minnesota State Freight Investment Plan as a Critical Rural Freight Corridor and was also identified in the Metropolitan Council's Regional Truck Highway Corridor Study as a Tier 1 Freight Corridor. Western Minnesota does not have Interstate (or Interstate-like) access to the Twin Cities. Instead, this large area relies on US 212 to provide interstate commerce connectivity from these rural areas to the multi-state economic hub of the Twin Cities.



US 212 Freight Mobility and Safety Project from CSAH 51 to CSAH 36 – Strategic Capacity





April 15, 2020

Lyndon Robjent, P.E.
Public Works Director, County Engineer
Carver County Public Works
11360 Highway 212, Suite 1, Cologne, MN 55322



Dear Mr. Robjent,

Bongards' Creameries is pleased to support Carver County's applications for the US 212 Corridor to the Metropolitan Council's 2020 Regional Solicitation for federal transportation funding. We support both applications being brought forward:

1. US 212 Freight Mobility Expansion Project from CSAH 51 to CSAH 36 in the Strategic Capacity/Roadway Expansion category; and
2. US 212/CSAH 51 Intersection Safety Improvement in the Roadway Spot Mobility and Safety category

For over 111 years, Bongards' Creameries has represented a significant business and community presence in the unincorporated town of Bongards, MN – just south of Highway 212 on County Road 51. To this day, this location is the primary place of work for many of our employees, the destination or departure point for substantial volumes of manufactured products and inbound raw materials, and a favorite stop for many of our frequent retail customers and visiting guests.

Highway 212 represents the primary artery for nearly 100% of this traffic, including:

- 50,000 trips to and from work per year, made by our over 225 employees at that location
- 20,000 shipments to or from the production plant, carrying raw materials or finished goods
- 60,000 retail guests per year, representing approximately 40,000 trips

As demonstrated by the magnitude of these numbers, Highway 212 is vital to Bongards. Making the necessary improvements to the highway is critical to our organization – ensuring the safety of our customers, suppliers, and employees, while also ensuring continuous, efficient operation of our business.

The proposed projects above are endorsed by Bongards' Creameries, and we are supportive of the County's applications to the Metropolitan Council's 2020 Regional Solicitation funding program.

I would welcome the opportunity to discuss this matter further.

Sincerely,

A handwritten signature in blue ink, appearing to read "Daryl Larson", with a long, sweeping underline.

Daryl Larson
President and CEO
Bongards' Creameries



**Carver County
Public Works**

11360 Highway 212, Suite 1
Cologne, MN 55322

May 14, 2020

Elaine Koutsoukos
TAB Coordinator
METROPOLITAN COUNCIL
390 Robert St. N
St. Paul, MN 55101

SUBJECT: Risk Assessment Layout Approval Letter for US 212 2020 Regional Solicitation Applications:

Dear Ms. Koutsoukos:

This letter is to confirm the County's agreement with and approval to date of the attached layout for the US 212 2020 Regional Solicitation Applications:

- US 212 Freight Mobility and Safety Project from CSAH 51 to CSAH 36
- US 212 & CSAH 51 Intersection Safety Project

The County led and partnered on the development of the layout and is aware of the details specified in the application attachment. The project has undergone substantial study, design, and coordination with MnDOT. As the roadway owner, MnDOT also provided the required letter of support for the project, which shows their commitment and partnership.

The County is committed to working with MnDOT to complete the final layout approval engineering process for the US 212 Project in the coming months.

Sincerely,

Lyndon Robjent, P.E.
Public Works Director/County Engineer

CARVER COUNTY



**MnDOT Metro District
1500 West County Road B-2
Roseville, MN 55113**

May 12, 2020

Lyndon Robjent, PE
Public Works Director, County Engineer
Carver County Public Works
11360 Highway 212, Suite 1
Cologne, MN 55322

**Re: MnDOT Letter for Carver County
Metropolitan Council/Transportation Advisory Board 2020 Regional Solicitation Funding
Request for Carver County proposed projects on the TH system**

Dear Lyndon Robjent,

This letter documents MnDOT Metro District's recognition for Carver County to pursue funding for the Metropolitan Council/Transportation Advisory Board's (TAB) 2020 Regional Solicitation for the following projects:

- TH 212 Expansion from CSAH 51 to CSAH 36 W. Project to expand the existing rural two-lane undivided highway to a four-lane divided expressway and implement Reduced Conflict Intersections and wider shoulders.
- TH 212/CSAH 51 Intersection Spot Mobility. An improvement to add a Reduced Conflict Intersection at this location with a 4-lane divided facility on TH 212 through the intersection area.
- TH 5 Expansion from CSAH 13 to Minnewashta Pkwy. Project expands TH 5 to a 4-lane divided facility between CSAH 13 (Rolling Acres Rd.) and Minnewashta Pkwy, including intersection improvements at CSAH 13 and at Minnewashta Pkwy.
- CSAH 10 Expansion from Bavaria Rd. to Park Ridge Dr. , which Includes the TH 41 Intersection. Expansion of CSAH 10/Engler Blvd. to a 4-lane divided highway between Bavaria Rd. and Park Ridge Dr. including improvements at these intersections. The TH 41/CSAH 10 intersection (traffic signal) will be expanded as part of this project.

As proposed, these projects impact MnDOT right-of-way on TH5, TH 41, and TH 212. As the agency with jurisdiction over these highways, MnDOT will allow Carver County to seek improvements proposed. If funded, details of any future maintenance agreement with Carver County will need to be determined during project development to define how the improvements will be maintained for the projects' useful life.

There is no funding from MnDOT currently planned or programmed for these projects. Due to expected loss of future state and federal transportation revenues as a result of the COVID-19 pandemic, there is

likely to be significant disruptions to the current MnDOT construction program that will surface in the next year. MnDOT does not anticipate partnering on local projects beyond current agreements.

In addition, at this time the Metro District does not anticipate any significant discretionary funding in state fiscal years 2024 or 2025 that could fund project construction, nor do we have the resources to assist with MnDOT services such as the design or construction engineering of the projects. If projects receives funding, continue to work with MnDOT Area staff to coordinate project development and to periodically review needs and opportunities for cooperation.

MnDOT Metro District looks forward to continued cooperation with Carver County as these projects move forward and as we work together to improve safety and travel options within the Metro Area.

If you have questions or require additional information at this time, please reach out to Mark Lindeberg, South Area Manager, at mark.lindeberg@state.mn.us or 651-234-7729.

Sincerely,

Michael Barnes, PE
Metro District Engineer

CC: Mark Lindeberg, Metro District South Area Manager
Molly McCartney, Metro Program Director
Dan Erickson, Metro State Aid Engineer