



Application

17070 - 2022 Roadway System Management

17491 - Maryland Avenue Traffic Signal Modernization

Regional Solicitation - Roadways Including Multimodal Elements

Status: Submitted

Submitted Date: 04/14/2022 12:11 PM

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## Primary Contact

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Pronouns First Name Middle Name Last Name

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

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## Organization Information

**Name:** ST PAUL, CITY OF

Jurisdictional Agency (if different):

Organization Type:

City

Organization Website:

Address:

DEPT OF PUBLIC WORKS-CITY HALL ANNEX  
25 W 4TH ST #1500

\*

ST PAUL

Minnesota

55101

City

State/Province

Postal Code/Zip

County:

Ramsey

Phone:\*

651-266-9700

Ext.

Fax:

PeopleSoft Vendor Number

0000003222A22

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## Project Information

Project Name

Maryland Avenue Traffic Signal Enhancements

Primary County where the Project is Located

Ramsey

Cities or Townships where the Project is Located:

Saint Paul

Jurisdictional Agency (If Different than the Applicant):

Ramsey County

The Maryland Avenue Traffic Signal Modernization project would reconstruct traffic signals, install fiber-optic interconnect, and install traffic cameras along Maryland Avenue in the City of Saint Paul.

Maryland Avenue (CSAH 31) is classified as an A Minor Arterial in the project area. The proposed elements of the project and some of the benefits of each include:

- Reconstruction of four traffic signals along Maryland Avenue at Forest Street, Earl Street, Johnson Parkway and Hazelwood Street. With an average age of 47 years, taken from the last major revision, these signals are well beyond their service life, and require significant staff time and materials to maintain operation. Additionally, the replacement of the signals will allow for the implementation of improved safety treatments and increased efficiency. The new signals will provide overhead indications for all approaches, audible pedestrian push buttons, countdown timers, and twelve-inch indications.

- Replacement of aging fiber-optic interconnect along Maryland Avenue between Dale Street (CSAH 53) and White Bear Avenue (CSAH 65), and upgrade of traffic signal controllers where needed. The fiber-optic cable along this corridor was installed in 1996 and has surpassed its useful life. Replacement of this interconnect will allow the City to continue to remotely monitor and modify the operation of these signals, providing more rapid response to outages and improved ability to adjust settings. Replacement of the legacy 170 traffic signal controllers will allow for the use of signal performance measures, responsive traffic signal control, and many other benefits.

- Installation of traffic cameras at multiple locations in the area. The ability to remotely observe traffic conditions, combined with the other improvements,

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

will allow for real-time monitoring and adjustment of traffic operations and management of events and incidents. The cameras will be integrated with the City's existing system, allowing for access by Saint Paul Police and Public Works.

*(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.](#)**

MARYLAND AVE (CSAH 31) FROM CSAH 53 TO CSAH 65 IN ST PAUL - TRAFFIC SIGNAL REPLACEMENT AND REVISIONS, FIBER OPTIC INTERCONNECT, CCTV CAMERAS

*Include both the CSAH/MSAS/TH references and their corresponding street names in the TIP Description (see Resources link on Regional Solicitation webpage for examples).*

**Project Length (Miles)** 4.9

*to the nearest one-tenth of a mile*

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## Project Funding

**Are you applying for competitive funds from another source(s) to implement this project?** No

**If yes, please identify the source(s)**

**Federal Amount** \$2,322,400.00

**Match Amount** \$580,600.00

*Minimum of 20% of project total*

**Project Total** \$2,903,000.00

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

**Match Percentage** 20.0%

*Minimum of 20%*

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

**Source of Match Funds** MSA/CSAH

*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:** 2027

*Select 2024 or 2025 for TDM and Unique projects only. For all other applications, select 2026 or 2027.*

## Additional Program Years:

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

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## Project Information: Roadway Projects

**County, City, or Lead Agency**

City of Saint Paul



<b>Functional Class of Road</b>	A-Minor Arterial/Augmentor
<b>Road System</b>	CSAH
<i>TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET</i>	
<b>Road/Route No.</b>	31
<i>i.e., 53 for CSAH 53</i>	
<b>Name of Road</b>	Maryland Avenue
<i>Example; 1st ST., MAIN AVE</i>	
<b>Zip Code where Majority of Work is Being Performed</b>	55106
<b>(Approximate) Begin Construction Date</b>	04/13/2027
<b>(Approximate) End Construction Date</b>	12/31/2027
<b>TERMINI:(Termini listed must be within 0.3 miles of any work)</b>	
<b>From:</b> <b>(Intersection or Address)</b>	Dale Street (CSAH 53)
<b>To:</b> <b>(Intersection or Address)</b>	White Bear Avenue (CSAH 65)
<i>DO NOT INCLUDE LEGAL DESCRIPTION</i>	
<b>Or At</b>	
<b>Miles of Sidewalk (nearest 0.1 miles)</b>	10.0
<b>Miles of Trail (nearest 0.1 miles)</b>	0
<b>Miles of Trail on the Regional Bicycle Transportation Network (nearest 0.1 miles)</b>	0
<b>Primary Types of Work</b>	SIGNALS, INTERCONNECT, CCTV CAMERAS
<i>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.</i>	
<b>BRIDGE/CULVERT PROJECTS (IF APPLICABLE)</b>	
<b>Old Bridge/Culvert No.:</b>	
<b>New Bridge/Culvert No.:</b>	
<b>Structure is Over/Under</b> <b>(Bridge or culvert name):</b>	

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## 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.

- A. Operate the regional transportation system to efficiently and cost-effectively connect people and freight to destinations. Pg. 2.6

- B. Reduce the transportation system's vulnerability to natural and manmade incidents and threats. Pg. 2.7

- B2. Regional transportation partners should work with local, state, and federal public safety officials, including emergency responders, to protect and strengthen the role of the regional transportation system in providing security and effective emergency response to serious incidents and threats. Pg. 2.7

- B3. Regional transportation partners should monitor and routinely analyze safety and security data by mode and severity to identify priorities and progress. Pg. 2.7

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

- C. Increase travel time reliability and predictability for travel on highway and transit systems. Pg. 2.8

- C2. Local units of government should provide a system of interconnected arterial roads, streets, bicycle facilities, and pedestrian facilities to meet local travel needs using Complete Streets principles. Pg. 2.8

- C9. The Council will support investments in A-minor arterials that build, manage, or improve the system's ability to supplement the capacity of the principal arterial system and support access to the region's job, activity, and industrial and manufacturing concentrations. Pg. 2.9

- D. Improve multimodal access to regional job concentrations identified in Thrive MSP 2040. Pg. 2.11

- D4. The Council, MnDOT, and local governments will invest in a transportation system that provides travel conditions that compete well with peer metropolitan areas. Pg. 2.11

- E. Reduce transportation related air emissions. Pg. 2.12

- E. Reduce impacts of transportation construction, operations, and use on the natural, cultural, and developed environments. Pg 2.12

- E. Increase the availability and attractiveness of transit, bicycling, and walking to encourage healthy communities and active car-free lifestyles. Pg 2.12

- F2. Local governments should plan for increased density and a diversification of uses in job concentrations, nodes along corridors, and local centers to maximize the effectiveness of the transportation system. Pg. 2.14

*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.*

This project is supported by the following policies in the City of Saint Paul's 2040 Comprehensive Plan:

Policy T-1. Prioritize safety and racial and social equity benefits in project selection, followed by support of quality full-time, living wage jobs - both through business support and connection of residents to job centers. Priorities will also be informed by specific modal plans, such as the Bicycle Plan or the forthcoming Pedestrian Plan (See Sidebar and Maps T-1, T-3, T-5, and T-6).

Policy T-5. Adopt and implement a "Vision Zero" program with the long-term goal of achieving zero traffic fatalities and severe injuries. Components of the program should include street design improvements and behavioral safety improvements, such as reducing driver impairment, inattentiveness and speed through education and enforcement.

List the applicable documents and pages: Unique projects are exempt from this qualifying requirement because of their innovative nature.

Policy T-7. Implement intersection safety improvements such as traffic signal confirmation lights, pedestrian countdown timers, and leading pedestrian signal intervals. Reduce pedestrian roadway exposure via median refuge islands, curb extensions, narrowed travel lanes and other elements designed to lower motor vehicle speeds.

Policy T-22. Shift mode share towards walking, biking, public transit, carpooling, ridesharing and carsharing in order to reduce the need for car ownership.

Policy T-42. Ensure that new technologies, such as automated vehicles, further the City's transportation and land use priorities.

Policy T-43. Ensure that right-of-way design and management accounts for changing vehicle technologies and forms of use, such as automated vehicles, car-sharing, curbside pickup and delivery, ride-hailing and ridesharing.

Additionally, the City of Saint Paul Roadway Safety Plan, completed in 2016, recommends the installation of pedestrian countdown timers.

*Limit 2,800 characters, approximately 400 words*

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

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

*5. Applicant is a public agency (e.g., county, city, tribal government, transit provider, etc.) or non-profit organization (TDM and Unique Projects applicants only). Applicants that are not State Aid cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.*

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

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

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

*7. The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below in Table 1. For unique projects, the minimum award is \$500,000 and the maximum award is the total amount available each funding cycle (approximately \$4,000,000 for the 2022 funding cycle).*

**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):** \$500,000 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. Yes**

**(TDM and Unique Project Applicants Only) The applicant is not a public agency subject to the self-evaluation requirements in Title II of the ADA.**

**Date plan completed:**

04/27/2010

**Link to plan:**

[https://www.stpaul.gov/sites/default/files/Media/Root/ADA Transiton Plan for Public Works\\_2016.pdf](https://www.stpaul.gov/sites/default/files/Media/Root/ADA%20Transiton%20Plan%20for%20Public%20Works_2016.pdf)

**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**

1649945509973\_ADA Transiton Plan PW revised 100714.pdf

*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. Unique projects are exempt from this qualifying requirement.*

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

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

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

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

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

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

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

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## 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.**

**Roadway Strategic Capacity and Reconstruction/Modernization and Spot Mobility projects only:**

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

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

**Bridge Rehabilitation/Replacement and Strategic Capacity projects only:**

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

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

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

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

**Bridge Rehabilitation/Replacement projects only:**

5. The length of the bridge clear span must 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.**

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## Requirements - Roadways Including Multimodal Elements

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### Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	\$145,150.00
Removals (approx. 5% of total cost)	\$145,150.00
Roadway (grading, borrow, etc.)	\$0.00
Roadway (aggregates and paving)	\$0.00
Subgrade Correction (muck)	\$0.00
Storm Sewer	\$0.00
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$58,060.00
Traffic Control	\$29,030.00
Striping	\$0.00
Signing	\$0.00

Lighting	\$0.00
Turf - Erosion & Landscaping	\$14,515.00
Bridge	\$0.00
Retaining Walls	\$0.00
Noise Wall (not calculated in cost effectiveness measure)	\$0.00
Traffic Signals	\$2,278,855.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$0.00
Other Roadway Elements	\$0.00
<b>Totals</b>	<b>\$2,670,760.00</b>

### Specific Bicycle and Pedestrian Elements

<b>CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>	<b>Cost</b>
Path/Trail Construction	\$0.00
Sidewalk Construction	\$0.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$232,240.00
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
<b>Totals</b>	<b>\$232,240.00</b>

### Specific Transit and TDM Elements

<b>CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>	<b>Cost</b>
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
<b>Totals</b>	<b>\$0.00</b>

### 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	\$2,903,000.00
Construction Cost Total	\$2,903,000.00
Transit Operating Cost Total	\$0.00

### Measure A: Functional Classification of Project

The majority of the project funds will be invested on the principal arterial system:

*(50 points)*

The majority of the project funds will be invested on the A-minor arterial system: Yes

*(25 points)*

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

*(0 points)*

### Measure 1B: Regional Truck Corridor Tiers

*RESPONSE (Select one for your project, based on the updated 2021 Regional Truck Corridors):*

The majority of the project funds will be invested on either a Tier 1, Tier 2, or Tier 3 corridor:

*(50 Points)*

**Miles (to the nearest 0.1 miles):** 0

*If box above is checked, fill in length.*

**A majority of the project funds will NOT be invested on a Tier 1, Tier 2, or Tier 3 corridor, but at least 10 percent of the funds will be invested on these corridors:** Yes

*(25 Points)*

**Miles (to the nearest 0.1 miles):** 1.5

*If box above is checked, fill in length.*

**No project funds will be invested on a Tier 1, Tier 2, or Tier 3 corridor:**

*(0 Points)*

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## **Measure C: Integration within existing traffic management systems**

All the elements of the proposed project will integrate into the City's existing traffic management structure and improve upon the usefulness and capability of those existing systems.

The replacement of the existing traffic signals on Maryland at Forest Street, Earl Street, Johnson Parkway and Hazelwood Street will include upgrading the technology at these intersections to improve compatibility with the City's traffic signal network, enabling the use of many key functions of the City's existing Advanced Traffic Management System (ATMS). New advanced traffic controllers will enable the ability to collect high resolution data about signal performance, and new video detection systems will improve the quality of data provided. The new signals would be built to the standard developed by the City, as it currently operates and maintains approximately 390 traffic signals.

**Response:**

The replacement of existing legacy traffic signal controllers with advanced traffic controllers will enable the City to expand its use of key functions of its ATMS along Maryland. The upgrade to advanced traffic controllers will allow the City to:

- monitor signal performance through signal performance measures and other measures of effectiveness tools available through its existing ATMS, increasing its ability to monitor traffic operations, respond to changes in travel patterns, and evaluate timing adjustments to maximize the efficiency of its system.

- record and review actual signal changes on an as needed basis to allow for comprehensive data analysis of signal operations and to evaluate the

operation of Transit Signal Priority.

- monitor detector function to identify malfunctions that may result in additional delays, such as stuck detectors, frozen pedestrian push buttons, etc.

- utilize traffic responsive algorithms as appropriate to further optimize operations along Maryland by utilizing high frequency detector data to change timing plans in real time, reducing delays for users of all modes.

The CCTV cameras to be installed as part of this work would be integrated into the City's existing system in partnership with the Saint Paul Police Department, allowing them to serve a dual role in assisting with traffic operations and public safety.

The replacement of aging fiber-optic interconnect along the corridor will enable the City to maintain and improve the bandwidth and reliability of communication with the eighteen traffic signals along Maryland with the City's ATMS and provide reliable video feeds for the CCTV cameras to be installed with this work. Currently, 80% of the approximately 390 traffic signals operated and maintained by the City are connected to its fiber-optic network, and 93% are connected to the City's ATMS in total.

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

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## **Measure D: Coordination with other agencies**

As a City of the First Class, the City of Saint Paul operates and maintains traffic signals owned by the Minnesota Department of Transportation and, through agreement, does the same for those owned by Ramsey County. This work will allow the City to continue provide traffic signal coordination along corridors owned by the State, County, and City using a single system, and will improve safety on facilities owned by multiple jurisdictions.

Maryland Avenue is a County State Aid Highway, and intersects with City, County, and State owned roadways along the length of the corridor.

The City of Saint Paul Department of Public Works is also working with the Saint Paul Police Department to share resources to improve the scope and reliability of video cameras in the City of Saint Paul. The cameras installed as part of this project would be a part of that effort.

**Response:**

This project would allow the City maintain communication between several traffic signals and its advanced traffic management system, providing greater monitoring and control capabilities, improving response times to signal malfunctions, providing better data, and improving the City's ability to control traffic operations.

The installation of modern traffic signal controllers prepares the City for future requests for transit signal priority from Metro Transit and other transit agencies in the metro area, including accommodations for the proposed H Line Bus Rapid Transit line along Maryland Avenue, the G Line along Rice Street, the Purple Line, and for other high-priority routes along and across

Maryland Avenue.

Ramsey County has recently completed a study to evaluate the possibility of a road diet on all four-lane undivided roadways within its borders, including segments of Maryland Avenue within the project area. The proposed project is compatible with any modifications that may be recommended as part of that study, allowing for further safety improvements and delay reductions.

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

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### Measure A: Current Daily Person Throughput

Location	Maryland Avenue between Arcade (TH61) & Mendota
Current AADT Volume	18600.0
Existing transit routes at the location noted above	54, 64
<i>Select all transit routes that apply.</i>	
Upload "Transit Connections" map	1648497904134_20220309-Transit Map.pdf
<i>Please upload attachment in PDF form.</i>	

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### Response - Daily Person Throughput

Average Annual Daily Transit Ridership	0
Current Daily Person Throughput	24180.0

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### Measure B: 2040 Forecast ADT

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

If checked, METC Staff will provide Forecast (2040) ADT volume

OR

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

Forecast (2040) ADT volume

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### Measure A: Engagement

*i. Describe any Black, Indigenous, and People of Color populations, low-income populations, disabled populations, youth, or older adults within a ½ mile of the proposed project. Describe how these populations relate to regional context. Location of affordable housing will be addressed in Measure C.*

*ii. Describe how Black, Indigenous, and People of Color populations, low-income populations, persons with disabilities, youth, older adults, and residents in affordable housing were engaged, whether through community planning efforts, project needs identification, or during the project development process.*

*iii. Describe the progression of engagement activities in this project. A full response should answer these questions:*

The proposed project along Maryland is within an Area of Concentrated Poverty where 50% or more of the residents are People of Color. The area has a diverse population, with concentrations of all races and ethnicities for whom data is available greater than the average of the seven county Metro Area. The area also includes high concentrations of foreign-born residents, residents with disabilities, and youth.

Based on data from the Wilder Foundation, within 1/2 mile of the proposed project:

- 61.5% of the population identified as persons of color, compared to 23.9% in the Metro

- 17.6% of the population identified as Black or African American, compared to 9.6% in the Metro

- 0.8% of the population identified as American Indian/Alaskan Native, compared to 0.5% in the Metro

- The area has a high percentage of residents identified as Asian or Pacific Islander (34.7%), Hispanic or Latino (13.2%) and foreign-born (29.2%), compared to the Metro (7.5%, 6.4%, and 12.1%, respectively)

- 37% of the population reported an annual household income of less than \$35,000, compared to 19.9% in the Metro

- 23.7% of the population was identified as having income below poverty, compared to 9.0% in the Metro

- 15.5% of the population was identified as having a disability, compared to 9.8% in the Metro

**Response:**



- 26.2% of the population 14 years old or younger, and 31.4% is 17 or younger, compared to 19.6% and 22.9% in the Metro, respectively

This project would build on work performed by Ramsey County to develop and evaluate 4-3 lane conversion projects along portions of Maryland Avenue in 2018 and 2019, covering the segment between I-35E and Johnson Parkway. Over the two years, Ramsey County hosted six public meetings/open houses in the neighborhood, held a pop-up event at a local grocery store, and led a walking tour for residents of the area. The County also solicited survey responses in 2018 through a variety of methods, including the County's website, signs and flyers, and received over 800 responses. Special attention was given to directing outreach to the public at the local Library, Rec Center, and grocery store.

This project also incorporates improvements identified in the Saint Paul 2040 Comprehensive plan. In developing the plan, City Staff focused on reaching diverse communities. During the first phase of engagement, staff spoke with more than 2,200 people at 67 events, generating over 3,700 comments. Outreach was done at local community events, through mailed questionnaires, and online surveys. During an engagement push from May-September 2016, more than 800 people of color were engaged. This represented approximately 50% of the total participants engaged during this period. For comparison people of color compose 40% of the citywide population (in 2010).

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

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## **Measure B: Equity Population Benefits and Impacts**

*Describe the projects benefits to Black, Indigenous, and People of Color populations, low-income populations, children, people with disabilities, youth, and older adults. Benefits could relate to:*

*This is not an exhaustive list. A full response will support the benefits claimed, identify benefits specific to Equity populations residing or engaged in activities near the project area, identify benefits addressing a transportation issue affecting Equity populations specifically identified through engagement, and substantiate benefits with data.*

*Acknowledge and describe any negative project impacts to Black, Indigenous, and People of Color populations, low-income populations, children, people with disabilities, youth, and older adults. Describe measures to mitigate these impacts. Unidentified or unmitigated negative impacts may result in a reduction in points.*

*Below is a list of potential negative impacts. This is not an exhaustive list.*

This project will benefit to Black, Indigenous, and People of Color populations, low-income populations, children, people with disabilities, youth, and older adults in several ways. As the project area contains a high concentration of residents that identify as part of many of the noted groups, the benefits to pedestrian, bicycle and motor vehicle safety, transit operations, congestion mitigation and air quality improvements will be more directly beneficial to those populations.

- Maintaining traffic signal coordination and improving the City's ability to respond to signal malfunctions will reduce travel times for all users looking to access the multitude of groceries, markets, schools, places of worship, childcare facilities, and other key community resources, including the Arlington Hills Community Center.

**Response:**

- This project will support future transit improvements on the corridor, providing benefit for populations with limited access to personal motor vehicles. Upgrading existing traffic signal controllers and modernizing traffic signals will allow for easier accommodation of future BRT routes and bicycle facilities. Transit is an essential public service for households without automobiles. Several important existing or planned transit routes travel along or across the Maryland Ave. corridor, including the Purple Line, G Line, H Line, Route 3, Route 54, Route 62 , Route 64 and Route 68. Many of these routes provide critical transit connections to the concentrated job center that is Downtown Saint Paul. Downtown Saint Paul also contains many government agencies, providing access to critical public services, as well as many of the major hospitals in the region.

- The safety enhancements along the corridor

described in Section 6 will provide great benefit to residents of the area, improving the safety of users of all modes to the multitude of important destinations in the area, and reducing the frequency of crashes in neighborhoods with heavy Equity populations.

- Improving the design of pedestrian ramps and accessible push buttons at the intersections along Maryland at Earl, Forest, Johnson and Hazelwood will benefit users with limited mobility or other mobility or visual impairments.

- Provisions for video detection will improve the experience for bicyclists looking to travel through the signalized intersections, as they will more reliably be provided the right of way at the signal.

Negative impacts of the project are expected to be limited to those resulting from the construction activities, including temporary lane and sidewalk closures, delays due to traffic signal reconstruction, and noise and dust. Project construction will incorporate all appropriate mitigation measures to minimize disruption, sensitive to the needs of the local area.

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

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## **Measure C: Affordable Housing Access**

*Describe any affordable housing developments existing, under construction, or planned within ½ mile of the proposed project. The applicant should note the number of existing subsidized units, which will be provided on the Socio-Economic Conditions map. Applicants can also describe other types of affordable housing (e.g., naturally-occurring affordable housing, manufactured housing) and under construction or planned affordable housing that is within a half mile of the project. If applicable, the applicant can provide self-generated PDF maps to support these additions. Applicants are encouraged to provide a self-generated PDF map describing how a project connects affordable housing residents to destinations (e.g., childcare, grocery stores, schools, places of worship).*

*Describe the projects benefits to current and future affordable housing residents within ½ mile of the project. Benefits must relate to affordable housing residents. Examples may include:*

*This is not an exhaustive list. Since residents of affordable housing are more likely not to own a private vehicle, higher points will be provided to roadway projects that include other multimodal access improvements. A full response will support the benefits claimed, identify benefits specific to residents of affordable housing, identify benefits addressing a transportation issue affecting residents of affordable housing specifically identified through engagement, and substantiate benefits with data.*

Approximately 4,000 units of affordable housing exist within ½ mile of the project area. The City's Public Housing Agency provides a clean, safe, and affordable living environment for eligible lower and very low-income individuals and families. These families pay 30 percent of their adjusted monthly income for rent and utilities.

Attached to this application are details on each property, as well as a depiction of the locations of the affordable housing within the project area, and many of the grocers/markets and schools. This area contains a dense mixture of parks, places of worship, grocery stores, schools, and other critical institutions that benefit residents of affordable housing.

This project will benefit residents of affordable housing in several ways, some of which are noted below:

**Response:**

- Maintaining traffic signal coordination and improving the City's ability to respond to signal malfunctions will reduce travel times for all users looking to access the multitude of groceries, markets, schools, places of worship, childcare facilities, and other key community resources, including the Arlington Hills Community Center.

- Upgrading existing traffic signal controllers and modernizing traffic signals will allow for easier accommodation of future BRT routes and bicycle facilities. Transit is an essential public service for households without automobiles. Several important existing or planned transit routes travel along or across the Maryland Ave. corridor, including the Purple Line, G Line, H Line, Route 3, Route 54, Route 62 , Route 64 and Route 68. Many of these routes provide critical transit connections to the

concentrated job center that is Downtown Saint Paul. Downtown Saint Paul also contains many government agencies, providing access to critical public services commonly used by residents of affordable housing, as well as many of the major hospitals in the region.

- The safety enhancements along the corridor described in Section 6 will provide great benefit to the residents of affordable housing in the area, improving the safety of users of all modes to the multitude of important destinations in the area.

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

---

## Measure D: BONUS POINTS

Project is located in an Area of Concentrated Poverty:	Yes
Projects census tracts are above the regional average for population in poverty or population of color (Regional Environmental Justice Area):	
Project located in a census tract that is below the regional average for population in poverty or populations of color (Regional Environmental Justice Area):	
Upload the Socio-Economic Conditions map used for this measure.	1649443689758_20220309-Socio-Economic Map.pdf

---

## Measure A: Upgrades to obsolete equipment

This project has been developed largely with the intention of replacing equipment that has reached the end of its useful life and does not meet current standards and best practices for safety and efficiency.

This project would include the reconstruction of four traffic signals, with an average of approximately 47 years since the last major revision or reconstruction. According to Transportation Research Synthesis 2004, prepared for the Minnesota Department of Transportation Office of Research & Innovation, MnDOT expects an expected service life of 30 years for traffic signals. Each signal proposed for reconstructed is well beyond its expected service life. In addition, the reconstructed signals would be upgraded to modern City standards and national best practices, including full use of 12" signal indications, countdown timers, more reliable APS push buttons, video detection equipment, and modern advanced traffic signal controllers.

**RESPONSE:**

- The signal at Maryland and Earl was constructed in 1976. This signal will be 51 years old in the proposed project year.

- The signal at Maryland and Forest was constructed in 1976. This signal will be 51 years old in the proposed project year.

- The signal at Maryland and Johnson was constructed in 1976. This signal will be 51 years old in the proposed project year.

- The signal at Maryland & Hazelwood was



underwent major revision in 1990, but elements of the original signal construction from 1972 were kept in place. Most elements of the signal will be 37 years old in the proposed project year

The proposed project would also replace fiber-optic interconnect cable installed in 1996, which will have been in place for 31 years in the proposed project year. The City has experienced reliability issues with the existing interconnect, as is expected with fiber of this age.

Finally, this project would replace legacy 170 traffic signal controllers at the intersections along Maryland Ave. at with modern, advanced traffic controllers, providing reporting and operational capabilities that greatly enhance the City's ability to monitor and respond to congestion issues. This will also reduce instances of signals entering flash or experiencing other unexplained problems.

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

---

## Measure A: Congested Roadway

### RESPONSE:

**Corridor:** Maryland Avenue (CSAH 31)

### Corridor Start and End Points:

**Start Point:** Dale Street

**End Point:** White Bear Avenue

**Free-Flow Travel Speed:** 33

*Free-Flow Travel Speed is black number.*

**Peak Hour Travel Speed:** 23.0

*Peak Hour Travel Speed is red number.*

**Percentage Decrease in Travel Speed in Peak Hour Compared to Free-Flow (online calculation):** 30.3%

Upload the "Level of Congestion" map used for this measure.

1647351794973\_20220309-Congestion.pdf

---

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

The replacement of aging traffic signals will provide the City with the opportunity to review the in place traffic operations during the project design phase and identify any improvements that can be made to signal phasing or design to improve efficiency, reduce congestion and improve air quality.

The aging fiber-optic cable along the corridor puts at risk the City's ability to maintain communication between traffic signals along the route. In the event of failure, the loss of synchronicity between the coordinated signals along Maryland would result in substantial increases in delays and stops, dramatically increasing motor vehicle emissions along the corridor. Additionally, replacement of aging fiber-optic interconnect will allow the City to continue to:

**Response:**

- Monitor the signals using the City's Advanced Traffic Management System, automatically sending alerts when signals are in flash, are using battery backup power, or have faulted detection.

- Use the City's Advanced Traffic Management System to alter traffic operations remotely, providing the ability to quickly respond to changes in traffic pattern and prepare for events.

- Provide coordination between traffic signals, directly reducing stops, delay, and emissions.

In combination with the City's Advanced Traffic Management System, and our communication equipment, the replacement of legacy 170 traffic signal controllers with advanced traffic controllers will allow the City to reduce congestion and emissions using the following methods:

- Monitoring traffic signal performance through detector data, Measures of Effectiveness, and Signal Performance Measures where appropriate. These functions will allow the City to identify problem areas in real time, adjust for detector malfunctions, react to changes in travel patterns, make adjustments, and monitor the effectiveness of those adjustments.

- Reducing maintenance and reliability issues resulting from legacy traffic signal controller malfunctions.

- Preparing for future implementations of Transit Signal Priority, improving the mode shift transit, reducing the number of personal motor vehicles on the roadway.

- Evaluating and implementing traffic responsive or adaptive algorithms where appropriate, improving efficiency by modifying traffic operations in real time to match observed travel patterns.

The addition of traffic cameras will provide the City with the opportunity to monitor the traffic signal network in real time and adjust as needed when issues arise.

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

---

## **Measure A: Benefit of Crash Reduction**

Two CRFs were applied where appropriate at the four signalized intersections proposed for traffic signal reconstruction with this project.

Maryland at Forest, Earl, Johnson & Hazelwood:

**Crash Modification Factor Used:**

-Improve signal visibility (3941)

Maryland at Hazelwood

-Install pedestrian countdown timers (5272)

*(Limit 700 Characters; approximately 100 words)*

\*Improve signal visibility (3941)\*

Each of the four signalized intersections proposed for reconstruction currently has deficiencies in visibility of indications that would be corrected with this work. Generally, some approaches do not have overhead indications, some indications are 8" in diameter, and some approaches do not have the preferred number of indications. Additionally pedestrian indications are of varying age, condition, and size.

**Rationale for Crash Modification Selected:**

The proposed project would install overhead mast arms on all approaches, all indications will be 12" LEDs, and additional indications will be added as appropriate.

\*Install pedestrian countdown timers (5272)\*

The proposed project would install pedestrian countdown timers for all crossings at Maryland & Hazelwood with the traffic signal reconstruction.

*(Limit 1400 Characters; approximately 200 words)*

<b>Project Benefit (\$) from B/C Ratio</b>	\$13,611,434.00
<b>Total Fatal (K) Crashes:</b>	0
<b>Total Serious Injury (A) Crashes:</b>	2
<b>Total Non-Motorized Fatal and Serious Injury Crashes:</b>	2
<b>Total Crashes:</b>	61
<b>Total Fatal (K) Crashes Reduced by Project:</b>	0
<b>Total Serious Injury (A) Crashes Reduced by Project:</b>	2
<b>Total Non-Motorized Fatal and Serious Injury Crashes Reduced by Project:</b>	2
<b>Total Crashes Reduced by Project:</b>	61
<b>Worksheet Attachment</b>	1649453996661_20220408-Draft Maryland TSM Crash BC.pdf

*Upload Crash Modification Factors and B/C Worksheet in PDF form.*

---

## **Measure 6B: Safety issues in project area**

Maryland Avenue between Dale Street and White Bear Avenue was ranked in the Ramsey County Roadway Safety Plan, prepared in 2013, as a top priority corridor for safety improvement. The Maryland corridor was identified as a candidate for projects to address both right-angle crashes and pedestrian/bicycle crashes, with treatments to include confirmation lights and countdown timers, and as a high-risk corridor for severe rear end, sideswipe, and head-on crashes. The intersections at Forest, Earl and Johnson along Maryland were identified as locations to reduce both right angle crashes and pedestrian/bicycle crashes.

This project will implement multiple strategies identified in the Ramsey County Roadway Safety Plan to reduce right angle, pedestrian, bicycle, and all other crash types:

**Response:**

- The project will deploy 12" indications and overhead indications, as identified to reduce frequency and severity of intersection conflicts through traffic control and operational improvements (Objective 17.2 A).

- The project improves the visibility of signals at the intersection, as identified to improve driver awareness of intersections and signal control (Objective 17.2 B)

- The project will work with law enforcement to determine if enforcement lights are appropriate for this corridor, as identified to improve driver compliance with traffic control devices (Objective 17.2 C).

- The project will upgrade pedestrian indications, install countdown timers, and evaluate the implementation of advanced walk intervals, as identified to reduce pedestrian exposure to vehicular traffic (Objective 9.1 A).

Several of the strategies outlined above are also identified in the City of Saint Paul Roadway Safety Plan as a part of the toolbox of potential infrastructure-based safety strategies:

- The project will install pedestrian countdown timers at the four locations identified for signal reconstruction.

- The project will improve the City's ability to deploy leading pedestrian interval by installing advanced traffic signal controllers. The City will evaluate each location to determine if implementing leading pedestrian interval is appropriate if not in place.

- The project will work with law enforcement to determine if providing Red Light Running confirmation lights is appropriate for this corridor.

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

---

## **Measure A: Multimodal Elements and Existing Connections**



This project is expected to have significant benefits to transit and non-motorized travel crossing and traveling along the Maryland Avenue corridor.

- Transit users, pedestrians, and bicyclists will benefit from the safety improvements implemented with the project, including the installation of pedestrian countdown timers, 12" indications, and overhead indications at the four traffic signals proposed for reconstruction.

- The proposed signal replacements will include the installation of pedestrian countdown timers, improving pedestrian safety on the corridor. Modernization of the traffic signal will allow for expanded use of Leading Pedestrian Interval, a proven safety countermeasure as defined by the Federal Highway Administration.

**Response:**

- The project will provide opportunities to improve detection for bicyclists traveling across Maryland Avenue along the bike lanes on Forest Street, planned bike lanes on Earl Street, and the Bruce Vento Regional Trail, which travels along Johnson Parkway in the project area.

- The proposed H Line Arterial Bus Rapid Transit route is currently planned to travel along Maryland Avenue through the entire project area. The improvements proposed with this project will greatly benefit the future H Line, by simplifying transit signal priority implementation through the installation of advanced traffic signal controllers, and the replacement of aging communication equipment.

- Similarly, Metro Transit has identified Route 3,

which travels along Maryland through signalized intersections at Dale Street, Sylvan Street, and Rice Street, for inclusion in its Better Bus Routes project. The improvements to efficiency and readiness for transit signal priority can be of great benefit to that route.

- All of the local bus routes along the corridor will benefit from the improved reliability of signal operations along the corridor due to the replacement of aging fiber optic interconnect and controllers, as well as the congestion mitigation strategies described in this application.

- This project will also benefit future high frequency bus routes planned to cross Maryland Avenue, including the G Line and Purple Line, as well as the many local bus routes connecting with Maryland along the corridor.

*(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. 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. The focus of this section is on the opportunity for public input as opposed to the quality of input. NOTE: A written response is required and failure to respond will result in zero points.*

**Multiple types of targeted outreach efforts (such as meetings or online/mail outreach) specific to this project with the general public and partner agencies have been used to help identify the project need.**

100%

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

50%

**At least online/mail outreach effort specific to this project with the general public has been used to help identify the project need.**

50%

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

25%

**No outreach has led to the selection of this project.**

0%

*Describe the type(s) of outreach selected for this project (i.e., online or in-person meetings, surveys, demonstration projects), the method(s) used to announce outreach opportunities, and how many people participated. Include any public website links to outreach opportunities.*

As noted earlier, this project builds on previous work performed by Ramsey County to develop and evaluate 4-3 lane conversion projects along portions of Maryland Avenue in 2018 and 2019, covering the segment between I-35E and Johnson Parkway. Over the two years, Ramsey County hosted six public meetings/open houses in the neighborhood, held a pop-up event at a local grocery store, and led a walking tour for residents of the area. The County also solicited survey responses in 2018 through a variety of methods, including the County's website, signs and flyers, and received over 800 responses. Special attention was given to directing outreach to the public in locations frequented by various demographics, including the local Library, Rec Center, and grocer.

**Response:**

This project also incorporates improvements identified in the Saint Paul 2040 Comprehensive plan. In developing the plan, City Staff focused on reaching diverse communities. During the first phase of engagement, staff spoke with more than 2,200 people at 67 events, generating over 3,700 comments. Outreach was done at local community events, through mailed questionnaires, and online surveys. During an engagement push from May-September 2016, more than 800 people of color were engaged. This represented approximately 50% of the total participants engaged during this period. For comparison people of color compose 40% of the citywide population (in 2010).

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

**2. Layout (25 Percent of Points)**

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

**Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties/MnDOT. If a MnDOT trunk highway is impacted, approval by MnDOT must have occurred to receive full points. A PDF of the layout must be attached along with letters from each jurisdiction to receive points.**

100%

**A layout does not apply (signal replacement/signal timing, stand-alone streetscaping, minor intersection improvements). Applicants that are not certain whether a layout is required should contact Colleen Brown at MnDOT Metro State Aid [colleen.brown@state.mn.us](mailto:colleen.brown@state.mn.us).**

Yes

100%

**For projects where MnDOT trunk highways are impacted and a MnDOT Staff Approved layout is required. Layout approved by the applicant and all impacted local jurisdictions (i.e., cities/counties), and layout review and approval by MnDOT is pending. A PDF of the layout must be attached along with letters from each jurisdiction to receive points.**

75%

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

50%

**Layout has been started but is not complete. A PDF of the layout must be attached to receive points.**

25%

**Layout has not been started**

0%

**Attach Layout**

*Please upload attachment in PDF form.*

**Additional Attachments**

*Please upload attachment in PDF form.*

### **3.Review of Section 106 Historic Resources (15 Percent of Points)**

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

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**

#### 4.Right-of-Way (25 Percent of Points)

Right-of-way, permanent or temporary easements, and MnDOT agreement/limited-use permit either not required or all have been acquired Yes

100%

Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - plat, legal descriptions, or official map complete

50%

Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - parcels identified

25%

Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - parcels not all identified

0%

#### 5.Railroad Involvement (15 Percent of Points)

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

---

### Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form):	\$2,903,000.00
Enter Amount of the Noise Walls:	\$0.00
Total Project Cost subtract the amount of the noise walls:	\$2,903,000.00
Enter amount of any outside, competitive funding:	\$0.00
Attach documentation of award:	
Points Awarded in Previous Criteria	
Cost Effectiveness	\$0.00

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### Other Attachments

<b>File Name</b>	<b>Description</b>	<b>File Size</b>
A - Maryland TSM - One Page Project Summary.pdf	One Page Project Summary	119 KB
B - Maryland TSM - Photos of Existing Conditions.pdf	Photos of Existing Conditions	1.3 MB
C - Maryland TSM - Project Overview Map.pdf	Project Overview Map	594 KB
D - Maryland TSM - Made Maps.pdf	Make-a-Map Outputs	7.2 MB
E - Maryland TSM - Letters of Support & Council Resolution.pdf	Letters of support from Ramsey County and MnDOT, and City Council resolution.	450 KB
F - Maryland TSM - Demographics of the Project Area.pdf	Demographic information for the project area and for the seven county Metro Area.	3.0 MB
G - Maryland TSM - Affordable Housing Overview.pdf	Map of affordable housing within a half mile of the project, along with property listing.	313 KB
H - Maryland TSM - Crash Diagrams and Service Life Basis.pdf	Crash diagrams and selected pages from signal service life documentation.	941 KB



City of Saint Paul  
Department of Public Works  
Americans with Disabilities Act  
Transition Plan  
Revised October 7, 2014





City of Saint Paul  
Department of Public Works  
American’s with Disabilities Act (ADA) Transition Plan  
Revised October 7, 2014

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## **Introduction**

The American's with Disabilities Act (ADA) of 1990 was signed into law on July 26, 1990. The ADA elevated the civil rights protection of people with disabilities to the same level as those protections in place based on race, color, sex, religion and national origin provided through the Civil Rights Act of 1964.

The ADA required public entities with more than 50 employees to develop a transition plan by July 26, 1992. The Public Works Department did not meet this plan deadline, but is fulfilling this important obligation now (Summer 2009). The Transition Plan must identify all structural modifications that are necessary for buildings and facilities to ensure that programs, services and activities are accessible to people with different abilities. This Transition Plan will identify the steps that we must take to complete the modifications and the estimated date the modifications will be complete.

Public Works has jurisdiction over streets and walkways in the City, and therefore must include in this Transition Plan our schedule for accessibility standards related to infrastructure. This plan addresses pedestrian curb ramps, appropriate access to right-of-way, accessible pedestrian traffic signals and vertical connections throughout the City.

## **Self Evaluation**

During the summer of 2009 all divisions of the Department of Public Works performed a self assessment of their facilities in accordance with most recent guidance on ADA compliance.

The Public Works Department used a workbook created by the Minnesota State Council on Disability. Copies of our self assessments are available upon written request.

## **Cost Information**

It is important to note that all costs listed in this document are in estimated 2014 dollars unless the project listed is already complete. That cost information will remain printed as of the completion date. As revisions are made to this transition plan, every effort will be made to update cost information as well.

## Facilities

City Hall Annex  
25 West 4<sup>th</sup> Street  
Saint Paul, Minnesota 55102

The City Hall Annex provides downtown office space for several departments of City government. The Public Works Department has offices on the 7<sup>th</sup> through 10<sup>th</sup> and 15<sup>th</sup> floors of the building.

The City Hall Annex is technically owned by the Real Estate Group of the Office of Financial Services, but since we use five floors of this building for our administrative offices, we are including it in this transition plan.

<u>Necessary Structural Changes</u>	<u>Applicable ADAAG Standard</u>	<u>Action to be taken</u>	<u>Projected Completion</u>	<u>Projected Cost</u>
Handrail Skyway Stairs to City Hall	4.8.5	Handrail changes	12/31/2020	\$5,000
Rooms 701 & 704 signs on hinge side	4.30.6	Move room signs	6/30/2015	\$50
7 <sup>th</sup> Floor Counter*	7.2.2	No 36" section	12/31/2010	\$2,500
8 <sup>th</sup> Floor Office (Pagel's Office)	4.30.6	No room # or sign	6/30/2015	\$50
8 <sup>th</sup> Floor Counter	7.2.2	No 36" section	12/31/2015	\$2,500
9 <sup>th</sup> Floor Conference room*	4.30.6	No room # or sign	6/30/2010	\$50
East Stairway	4.8.5	Handrail changes	12/31/2020	\$10,000
West Stairway	4.8.5	Handrail changes	12/31/2020	\$10,000
Renovate 9 <sup>th</sup> Floor Restrooms	4.13-4.19	Complete renovation	12/31/2015	\$150,000
10 <sup>th</sup> Floor Counter	7.2.2	No 36" section	12/31/2015	\$2,500

\* Completed as of December 31, 2010

Street Maintenance Office Building and Shop  
873 North Dale Street  
Saint Paul, Minnesota 55103

The Street Maintenance building provides office space for the division as well as a staging and shop area for operations.

<u>Necessary Structural Changes</u>	<u>Applicable ADAAG Standard</u>	<u>Action to be taken</u>	<u>Projected Completion</u>	<u>Projected Cost</u>
Parking Lot	4.6.3	Van Accessible Space Needed	6/31/2015	\$500
Parking Lot	4.6.6	Disability Transfer zone needed	6/31/2015	\$300
Front Counter*	7.2.2	No 36" section	12/31/2010	\$2,500
Building Alarms	4.28.3	Visual lacking	12/31/2016	\$10,000
ADA compliant Renovation **			12/31/2020	\$40,000
• Men's Room Stalls**	4.22.1	Need 1-5'		
• Men's Room**	4.22.3	Several clearance & misc issues		
• Shower Stalls (W & M)	4.21.3	No seat	12/31/2020	\$2,000
• Shower Stalls (W & M)	4.21.4	No grab bars	12/31/2020	\$2,000
• Break Room	4.2.4	Clearances		
Drinking Fountain	4.15.3-5	Clearances	12/31/2015	\$1,500

\* Completed March 2012

\*\* Completed April 2013

Additionally automatic door access was added at the main entrance with the March 2012 project.

Public Works Equipment  
891 North Dale Street  
Saint Paul, Minnesota 55103

Public Works Equipment operates a main maintenance building and a service station/car wash building. The main maintenance building provides office space for the division as well as a maintenance bays for heavy equipment maintenance and welding.

<u>Necessary Structural Changes</u>	<u>Applicable ADAAG Standard</u>	<u>Action to be taken</u>	<u>Projected Completion</u>	<u>Projected Cost</u>
Parking Lot*	4.6.3	Van Accessible Space Needed	5/31/2010	\$500
Parking Lot*	4.6.6	Disability Transfer zone needed	5/31/2010	\$300
Room signs**	4.30.6	Not 60" latch side	6/30/2010	\$50
Door hardware**	4.13.9	Lever door handles +/- 10	12/31/2011	\$1,000
Stairways***	4.8.5	Handrail Changes	12/31/2017	\$15,000
2 <sup>nd</sup> floor toilet stalls***	4.22.1	Unisex accessible	12/31/2017	\$25,000

\* Completed October 14, 2011

\*\* Completed December 31, 2011

\*\*\* Capital Maintenance budget request under development for 2016/2017 cycle.

Additionally automatic door access was added at the north front Dale Street entrance and the hallway leading to the 2<sup>nd</sup> floor meeting room (accessible by existing elevator).

Traffic Operations Office Building and Shop  
 899 North Dale Street  
 Saint Paul, Minnesota 55103

The Traffic Operations building provides office space for the division as well as a staging and shop area for operations.

<u>Necessary Structural Changes</u>	<u>Applicable ADAAG Standard</u>	<u>Action to be taken</u>	<u>Projected Completion</u>	<u>Projected Cost</u>
Parking Lot*	4.6.3	Van Accessible Space Needed	05/31/2010	\$500
Drinking Fountain*	4.15.2	Spout not 36"	12/31/2010	\$1,500
Drinking Fountain*	4.15.3	Water Flow	see above	see above
Drinking Fountain*	4.15.5	Knee space	see above	see above

\*All actions listed above were completed by January 24, 2011. In addition, automated entrance door improvements were completed in 2011.

Sewer Utility Maintenance Office Building and Shop  
 419 Burgess Street  
 Saint Paul, Minnesota 55103

The Sewer Utility Maintenance building provides office space for the division as well as a staging and shop area for operations.

<u>Necessary Structural Changes</u>	<u>Applicable ADAAG Standard</u>	<u>Action to be taken</u>	<u>Projected Completion</u>	<u>Projected Cost</u>
Parking Lot*	4.6.3	One Add'l Handi-capped space needed	5/31/2010	\$500
Parking Lot*	4.6.6	Disability Transfer Zone Needed	5/31/2010	\$300
Room signs*	4.30.6	Not at 60"	5/31/2010	\$100
Front Counter*	7.2.2	No 36" section	12/31/2010	\$2,500

\*All actions listed above were completed by December 20, 2011.

## Public Infrastructure

### Pedestrian Curb Ramps

Saint Paul Public Works takes equal access for all very seriously, regardless of the physical abilities of the person visiting our facilities or traveling within or through the City by way of our transportation systems.

Saint Paul Public Works has been very proactive implementing accessibility features. We began installing corner quadrant pedestrian ramps in the early 1970s, and are continuing that spirit today by updating our pedestrian infrastructure as necessary when we reconstruct our streets and sidewalks or perform major maintenance through mill and overlay projects.

At this time (2009) we have five known corner quadrants out of approximately 30,000 that do not have pedestrian ramps. Most of our ramps are exposed aggregate ramps lacking the current truncated dome technology.

It is our practice and policy to inspect the pedestrian ramps involved in each mill and overlay project. If the curb ramp is not damaged and meets the specifications in place at the time of original construction, the ramp will remain. Curb ramps that are in poor condition or non-compliant with specifications at the time of installation will be replaced.

Some of our pedestrian ramps are on Minnesota Department of Transportation State Aid routes or Trunk Highways. Other ramps are found on Ramsey County roadways. Saint Paul Public Works will coordinate with those agencies as appropriate as part of their reconstruction and transition plans.

<u>Necessary Structural Changes</u>	<u>Applicable PROWDG Standard</u>	<u>Action to be taken</u>	<u>Projected Completion</u>	<u>Projected Cost</u>
One arterial Pedestrian Ramp*	3.4	Ramp and Truncated Dome	12/31/2013	\$1,000
Four residential Pedestrian Ramps*	3.4	Ramps and Truncated Domes	12/31/2013	\$4,000
Arterial Pedestrian Ramps	3.4	Need Truncated Domes	12/31/2030	\$10,000,000
Residential Pedestrian Ramps	3.4	Need Truncated Domes	12/31/2050	\$25,000,000

\* Completed by December 31, 2013, but we do still continue to find the occasional missed corner pedestrian ramp in the City. These are corrected within the year found if the construction season permits. If too late in the season they are reconstructed in the following year.



Records of the Public Works Sidewalk Division indicate that there have been at least 3,527 pedestrian ramp corners reconstructed between 2010 and 2013. These ramps were completed by MnDOT, Ramsey County, City Residential Street Vitality Program projects, Citywide Sidewalk Projects, Utility Companies, and private permit holders. When work like this is performed, pedestrian ramp corners are updated to current ADA standards.

The Federal Department of Justice/Department of Transportation Joint Technical Assistance (DOJ/DTJTA) memo dated July 8, 2013 (see next page), discusses ADA requirements to “provide curb ramps when streets, roads or highways are altered through resurfacing.” Public Works’ practice, when performing a mill and overlay on a street, is to inspect the pedestrian ramps, and to replace only those that are in poor condition or non-compliant with specifications at the time of installation. Ramps also will be constructed in any place where they do not exist. This policy appears in the Public Works ADA Transition Plan of 2010 (shown on previous page) and it continues to be our practice. Public Works requested the opinion of legal counsel in the summer of 2014 regarding whether a mill and overlay could now trigger an upgrade requirement for every existing pedestrian ramp, and whether it would require a change to this policy.

It is the opinion of the city’s legal counsel that even if resurfacing via mill and overlay is considered an alteration, the current transition plan remains valid. The Department of Justice (DOJ) memo states that such alteration “triggers the requirement to add curb ramps” and later repeats, “the combination of several maintenance treatments occurring at or near the same time may qualify as an alteration and would trigger the obligation to provide curb ramps.” Nothing in the memo indicates that resurfacing would trigger a requirement to upgrade functional pedestrian ramps that already exist.



U.S. Department of Justice  
Civil Rights Division  
Disability Rights Section



U.S. Department of Transportation  
Federal Highway Administration

## Department of Justice/Department of Transportation Joint Technical Assistance<sup>1</sup> on the Title II of the Americans with Disabilities Act Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing

Title II of the Americans with Disabilities Act (ADA) requires that state and local governments ensure that persons with disabilities have access to the pedestrian routes in the public right of way. An important part of this requirement is the obligation whenever streets, roadways, or highways are *altered* to provide curb ramps where street level pedestrian walkways cross curbs.<sup>2</sup> This requirement is intended to ensure the accessibility and usability of the pedestrian walkway for persons with disabilities.

An alteration is a change that affects or could affect the usability of all or part of a building or facility.<sup>3</sup> Alterations of streets, roads, or highways include activities such as reconstruction, rehabilitation, *resurfacing*, widening, and projects of similar scale and effect.<sup>4</sup> Maintenance activities on streets, roads, or highways, such as filling potholes, are not alterations.

Without curb ramps, sidewalk travel in urban areas can be dangerous, difficult, or even impossible for people who use wheelchairs, scooters, and other mobility devices. Curb ramps allow people with mobility disabilities to gain access to the sidewalks and to pass through center islands in streets. Otherwise, these individuals are forced to travel in streets and roadways and are put in danger or are prevented from reaching their destination; some people with disabilities may simply choose not to take this risk and will not venture out of their homes or communities.

Because resurfacing of streets constitutes an alteration under the ADA, it triggers the obligation to provide curb ramps where pedestrian walkways intersect the resurfaced streets. See *Kinney v. Yerusalim*, 9 F 3d 1067 (3rd Cir. 1993). This obligation has been discussed in a variety of technical assistance materials published by the Department of Justice beginning in 1994.<sup>5</sup> Over the past few years, state and local governments have sought further guidance on the scope of the alterations requirement with respect to the provision of curb ramps when streets, roads or highways are being resurfaced. These questions have arisen largely due to the development of a variety of road surface treatments other than traditional road resurfacing, which generally involved the addition of a new layer of asphalt. Public entities have asked the Department of Transportation and the Department of Justice to clarify whether particular road surface treatments fall within the ADA definition of alterations, or whether they should be considered maintenance that would not trigger the obligation to provide curb ramps. This Joint Technical Assistance addresses some of those questions.

### **Where must curb ramps be provided?**

Generally, curb ramps are needed wherever a sidewalk or other pedestrian walkway crosses a curb. Curb ramps must be located to ensure a person with a mobility disability can travel from a sidewalk on one side of the street, over or through any curbs or traffic islands, to the sidewalk on the other side of the street. However, the ADA does not require installation of ramps or curb ramps in the absence of a pedestrian walkway with a prepared surface for pedestrian use. Nor are curb ramps required in the absence of a curb, elevation, or other barrier between the street and the walkway.

### **When is resurfacing considered to be an alteration?**

Resurfacing is an alteration that triggers the requirement to add curb ramps if it involves work on a street or roadway spanning from one intersection to another, and includes overlays of additional material to the road surface, with or without milling. Examples include, but are not limited to the following treatments or their equivalents: addition of a new layer of asphalt, reconstruction, concrete pavement rehabilitation and reconstruction, open-graded surface course, micro-surfacing and thin lift overlays, cape seals, and in-place asphalt recycling.

**What kinds of treatments constitute maintenance rather than an alteration?**

Treatments that serve solely to seal and protect the road surface, improve friction, and control splash and spray are considered to be maintenance because they do not significantly affect the public's access to or usability of the road. Some examples of the types of treatments that would normally be considered maintenance are: painting or striping lanes, crack filling and sealing, surface sealing, chip seals, slurry seals, fog seals, scrub sealing, joint crack seals, joint repairs, dowel bar retrofit, spot high-friction treatments, diamond grinding, and pavement patching. In some cases, the combination of several maintenance treatments occurring at or near the same time may qualify as an alteration and would trigger the obligation to provide curb ramps.

**What if a locality is not resurfacing an entire block, but is resurfacing a crosswalk by itself?**

Crosswalks constitute distinct elements of the right-of-way intended to facilitate pedestrian traffic. Regardless of whether there is curb-to-curb resurfacing of the street or roadway in general, resurfacing of a crosswalk also requires the provision of curb ramps at that crosswalk.

July 8, 2013

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<sup>1</sup> The Department of Justice is the federal agency with responsibility for issuing regulations implementing the requirements of title II of the ADA and for coordinating federal agency compliance activities with respect to those requirements. Title II applies to the programs and activities of state and local governmental entities. The Department of Justice and the Department of Transportation share responsibility for enforcing the requirements of title II of the ADA with respect to the public right of way, including streets, roads, and highways.

<sup>2</sup> See 28 CFR 35.151(i)(1) (Newly constructed or altered streets, roads, and highways must contain curb ramps or other sloped areas at any intersection having curbs or other barriers to entry from a street level pedestrian walkway) and 35.151(i)(2) (Newly constructed or altered street level pedestrian walkways must contain curb ramps or other sloped areas at intersections to streets, roads, or highways).

<sup>3</sup> 28 CFR 35.151(b)(1).

<sup>4</sup> 2010 ADA Accessibility Standards, section 106.5.

<sup>5</sup> See 1994 Title II Technical Assistance Manual Supplement, Title II TA Guidance: The ADA and City Governments: Common Problems; and ADA Best Practices Tool Kit for State and Local Governments: Chapter 6, Curb Ramps and Pedestrian Crossings under Title II of the ADA, available at [ada.gov](http://ada.gov).

## Equal Access to Public Rights-of-Way

Saint Paul Public Works is tasked with ensuring safe and accessible travel for all citizens and visitors, regardless of differences in mode, method or ability. As such it is particularly important that we adequately review, advise and permit uses that may partially obstruct the public way. Sidewalk cafes, advertising and other obstructions must be placed and managed in a way that enables all system users free access to the right-of-way.

Property owners or right-of-way users are required to maintain an accessible pedestrian path past their property of four (4) feet (or 48 inches). Property owners or right-of-way users that do not provide this minimum path are inappropriately restricting accessible routes and therefore will risk revocation of City approval for their specific use of the public right-of-way.

After snow events, it is the responsibility of property owners that have adjoining sidewalk right-of-way to clear those sidewalks within 24 hours and to provide a four (4) foot (or 48 inch) minimum accessible path throughout and at corner quadrants. It is important for property owners to remember that they may need to provide additional snow removal at corner quadrants after City snow plows clear streets. It is also important for safe public transportation use that the Metropolitan Council and bus stop/bus shelter franchisees clear snow from bus stops and shelters.

It is the responsibility of contractors and utilities working in the public right-of-way to maintain accessible pathways in construction projects and permitted projects. Please refer to the “Construction Guidance” section of the Minnesota Department of Transportation page at <http://www.dot.state.mn.us/ada/> and <http://www.workzonesafety.org/training/record/9856>

## Accessible Pedestrian Traffic Signals

The City of St. Paul Public Works Traffic and Lighting Division operates and maintains 385 Traffic Signals within City of St. Paul. Each signalized intersection typically has 4 pedestrian crossings. These signals are located on roadways under jurisdiction of Minnesota Department of Transportation (MnDOT), Ramsey County and the City of St. Paul. Of all the approach legs at the signals, approximately 12% are MnDOT Trunk Highways, 28% are Ramsey County State Aid Highways (CSAH), 44% are City of St. Paul Municipal State Aid (MSA) Routes and the remaining 16% are City of St. Paul local streets. The Trunk Highways and County State Aid Streets are typically higher volume arterial streets and the St. Paul MSA and local streets are lower volume collector type streets. Under maintenance agreements with MnDOT and Ramsey County, the City of St. Paul operates and maintains the traffic signals for the governmental unit which has jurisdiction of the roadway.

An Accessible Pedestrian Signal (APS) is a device that communicates information about pedestrian signal timing in a non-visual format such as audible tones, speech messages, and/or vibrating surfaces.

The Traffic and Lighting Division is in the process of formalizing a written policy for the installation of APS based on MN MUTCD, NCHRP 117A Accessible Pedestrian Signals: A Guide to Best Practices, along with the Draft PROWAG.

The general guidance for installation states:

### **New Construction, Alterations/Reconstruction and Retrofits**

- All new traffic signals and traffic signal replacement projects at intersections that include pedestrian facilities will be evaluated for APS along with curb ramps in compliance with the MnMUTCD and as advised by draft NCHRP Best Practice and/or Draft PROWAG for location conditions.
- All projects that are reconstructing curb ramps at signalized intersections shall give consideration to upgrading the traffic signals with APS under the project, and at a minimum, the traffic signals shall be upgraded to “APS ready” and meet the requirements given in the MnMUTCD and as advised by NCHRP Best Practice and/or Draft PROWAG for location conditions. If a future project, with traffic signal work as part of the scope, is programmed, then the APS signal upgrades will not be required and will be constructed with the future programmed project.

In some cases APS should not be installed because of the adverse effect it could have on pedestrian safety as a result of the overall traffic circulation pattern of an area, or unusual geometric conditions where an APS would not provide the safety benefits necessary for the blind or visually impaired individuals to cross a street.



It should also be noted that some traffic signals cannot be retrofitted with APS without major costly modifications. Retrofitting of traffic signals shall be subject to approval by the City traffic Engineer. For these circumstances:

- The construction project process shall include documentation on the evaluation of location conditions for APS, in particular, when the results do not include full installation of APS under MnMUTCD, and as advised under NCHRP Best Practice and/or Draft PROWAG. This documentation serves to ensure
  - consistent application of standards,
  - the most complete understanding of the circumstances that limited full application of APS, and
  - provides the intended construction sequence for a phased implementation of APS

Any individual requests will be evaluated in the same manner to be incorporated in either the annual programs or projects.

Since the City of Saint Paul original submitted our transition plan we have increased the number of signalized intersections where all or some of the pedestrians crossing include APS from 16 signalized intersections to 135 signalized intersection with APS out of 385 Traffic Signals.

<u>Necessary Structural Changes</u>	<u>Applicable PROWDG Standard</u>	<u>Action to be taken</u>	<u>Projected Completion</u>	<u>Projected Cost</u>
Signalized Intersections	3.5	Install as Appropriate	TBD	\$50,000 Per intersection

City of Saint Paul  
 Department of Public Works  
 Vertical Connections (Stairways)

Stairways in Saint Paul provide valuable connections between assets at differing heights. Whether they are placed on bluffs, between bridges or in parks, they are an important connection to our geography and our history.

Our intention is to maintain the integrity of historic structures whenever possible, opting to rehabilitate stairway structures if at all possible. If the existing asset in place has deteriorated to such a degree that rehabilitation is not a possibility, then the ADA becomes applicable during reconstruction planning.

For those stairway structures that are not replaced but rehabilitated, Saint Paul Public Works will do a thorough investigation of the alternate accessible route, ensure the route's reasonableness and review all related ADA appropriate measures.

<u>Necessary Structural Changes</u>	<u>Applicable PROWDG Standard</u>	<u>Action to be taken</u>	<u>Projected Completion</u>	<u>Projected Cost</u>
Pedestrian Stairway		If rehabbing review & ensure reasonable alt route	As needed	\$1,000 Per location
Pedestrian Stairway		If reconstructing engage Mayor's Comm* to create process	As needed	Unknown

\* Mayor's Advisory Committee for People with Disabilities



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# CITY OF SAINT PAUL

## GRIEVANCE PROCEDURE UNDER THE AMERICANS WITH DISABILITIES ACT

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This Grievance Procedure is established to meet the requirements of Title II of the Americans with Disabilities Act of 1990 (“ADA”). It may be used by anyone who wishes to file a complaint alleging discrimination on the basis of disability in the provision of services, activities, programs, or activities by the City of Saint Paul (“The City”). The City’s Personnel Policy governs employment-related complaints of disability discrimination. A grievant also has the option to file directly with the Department of Justice or other appropriate federal agency within 180 days from the date of the incident.

An individual in need of access to services, programs, or activities should complete and submit a “Request for Access” form to:

Alyssa Wetzel-Moore, ADA Coordinator  
Fax: (651) 266-8962  
Mail: 240 City Hall  
15 West Kellogg Blvd.  
Saint Paul, MN 55102

Alternatively, an individual may make an oral request by contacting the ADA Coordinator at (651) 266-8965. The Coordinator will put this request in writing to be signed by the requestor.

In the event that this request for access to services, programs, or activities cannot be resolved, an individual may file a grievance orally or in writing. A written grievance should be filed on the ADA Grievance Form. If it is not filed on the Grievance Form, it should be in writing and contain all of the following information:

- The name, address, and telephone number of the person filing the grievance.
- The name, address, and telephone number of the person alleging the ADA violation, if other than the person filing the grievance.
- A description of the alleged violation and the remedy sought.
- Information on whether a complaint has been filed with the Department of Justice or other federal or state civil rights agency or court.
- If a complaint has been filed, the name of the agency or court where the complaint was filed, the date the complaint was filed, and the name, address and telephone number of a contact person with the agency with which the complaint was filed.



An oral grievance can be filed by contacting the Coordinator at the address listed above or at (651) 266-8965. The ADA Coordinator, using the ADA Grievance Form, will put the oral grievance in writing to be signed by grievant. Alternative means of filing complaints will be made available for persons with disabilities upon request.

The complaint should be submitted by the grievant and/or her/his designee as soon as possible but no later than 60 calendar days after the alleged violation to the address listed above. The grievance will be either responded to or acknowledged within 20 working days of receipt.

Within 60 calendar days of the receipt, the Coordinator will conduct the investigation necessary to determine the validity of the alleged violation. If appropriate, the Coordinator will arrange to meet with the grievant to discuss the matter and attempt to reach an informal resolution to the grievance. Any informal resolution of the grievance will be documented in the City's ADA Grievance File.

If an informal resolution of the grievance is not reached, the Coordinator shall issue a written determination of the validity of the complaint and a description of the resolution no later than 90 days from the date of the City's receipt of the grievance. A copy will be forwarded to the grievant.

The grievant may request reconsideration if he/she is dissatisfied with the written determinations. The request for reconsideration shall be in writing and filed with the City Legislative Hearing Office, 15 West Kellogg Blvd., Room 310, Saint Paul, MN 55102 within 30 days after the Coordinator's determination has been mailed to the grievant. The Legislative Hearing Officer shall review the request for reconsideration and make a final determination within 90 days from the filing of the request. If the grievant is dissatisfied with City's handling of the grievance at any point, the grievant may file a complaint directly with the U.S. Department of Justice or other appropriate state or federal agency. Use of the City's grievance procedure is not a prerequisite to the pursuit of other remedies.

Because of the varying circumstances in any specific grievance, the City's resolution of a grievance does not create precedent that binds the City or upon which other complaining parties may rely.

Any written complaints received by Coordinator or her designee, appeals to the Legislative Hearing Officer, and responses from these two offices will be retained by Saint Paul for at least three years.

Please note: The City of Saint Paul employment policy and accommodation form is available at <http://www.stpaul.gov/index.aspx?NID=3007>  
<http://www.stpaul.gov/DocumentCenter/Home/View/13516>



# City of Saint Paul Americans with Disabilities Act Grievance Form

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### Complainant:

Name \_\_\_\_\_  
Address \_\_\_\_\_ Apt. No. \_\_\_\_\_  
City \_\_\_\_\_, State \_\_\_\_\_ ZIP Code \_\_\_\_\_  
Telephone No. \_\_\_\_\_ Other Phone \_\_\_\_\_  
E-mail \_\_\_\_\_

### Aggrieved Individual (if other than Complainant):

Name \_\_\_\_\_  
Address \_\_\_\_\_ Apt. No. \_\_\_\_\_  
City \_\_\_\_\_, State \_\_\_\_\_ ZIP Code \_\_\_\_\_  
Telephone No. \_\_\_\_\_ Other Phone \_\_\_\_\_  
E-mail \_\_\_\_\_

### Nature of the Complaint:

City Department Involved: \_\_\_\_\_ Date(s) of Occurrence: \_\_\_\_\_

Description of Violation: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Requested Action of City to Correct Alleged Violation: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*~ Please see next page for additional questions ~*

**Has the complaint been filed with another bureau of the Department of Justice or any other Federal, State, or local civil rights agency or court?**

Yes \_\_\_\_\_ No \_\_\_\_\_ If yes: Date Filed: \_\_\_\_\_ Agency or Court: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone No. \_\_\_\_\_

Address: \_\_\_\_\_ Apt. \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

**Do you intend to file with another agency or court?**

Yes \_\_\_\_\_ No \_\_\_\_\_ If yes: Agency or Court: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone No. \_\_\_\_\_

Address: \_\_\_\_\_ Apt. \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

**Additional Comments:**

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Return to: Alyssa Wetzel-Moore, ADA Coordinator  
Department of Human Rights and Equal Economic Opportunity (HREEO)  
240 City Hall  
15 West Kellogg Blvd.  
St. Paul, MN 55102  
Telephone: (651) 266-8965 Fax: (651) 266-8962  
E-mail: ADACoordinator@ci.stpaul.mn.us**



CITY OF SAINT PAUL

*Christopher B. Coleman, Mayor*

240 City Hall  
15 West Kellogg Boulevard  
Saint Paul, MN 55102-1681

Telephone: (651) 266-8966  
Facsimile: (651) 266-8962  
TDD: (651) 266-8977

February 24, 2010

Bruce Beese, Director of Public Works  
1500 City Hall Annex  
25 West Fourth Street  
Saint Paul, MN 55102

Re: MACPD Feedback to Public Works' Transition Plan

Dear Mr. Beese,

The Mayor's Advisory Committee for People with Disabilities (MACPD) would like to thank you for sharing your transition plan with us. We appreciate the hard work and thoroughness invested by the Department of Public Works to develop it. Over the past month, the MACPD has reviewed and discussed the Transition Plan. Based on what we have read, we have no revisions to suggest at this time.

Again, the MACPD appreciates you and department staff taking the time to meet with us and seeking our input. Please contact us through Alyssa Wetzel-Moore at 651-266-8965 or [Alyssa.Wetzel-Moore@ci.stpaul.mn.us](mailto:Alyssa.Wetzel-Moore@ci.stpaul.mn.us) if you have questions or would like to discuss this further.

Sincerely,

Handwritten signature of Scott Coleman in cursive, with the initials "scw" written below it.

Scott Coleman, Chair

Handwritten signature of James Thayer in cursive, with the initials "jtw" written below it.


James Thayer, Vice Chair



CITY OF SAINT PAUL  
INTERDEPARTMENTAL MEMORANDUM

DATE: April 7, 2010

TO: Whom it May Concern

FROM: Robert L. Humphrey, Business Review Council Staff 

RE: Saint Paul Business Review Council support for City of Saint Paul, Department of Public Works Americans with Disabilities Act Transition Plan as amended.

Please note that at this morning's Full Business Review Council there was a unanimously passed motion approving the Department of Public Works' Americans with Disabilities Act Transition plan dated January 6, 2010, with the amendment titled "Equal Access to the Public Right of Way, Page 10 of 18" striking the original page 10 of 18 language.

On behalf of Chair Mike Skillrud, and the entire Business Review Council, we thank Bruce Beese and Paul St. Martin for their patience and willingness to cover this matter in detail before our Council.

Feel free to contact me if you have any questions.

**RESOLUTION  
 CITY OF SAINT PAUL, MINNESOTA**

8

Presented by Kathy Lent

1 Whereas, the American's with Disabilities Act (ADA) of 1990 elevated the civil rights protection of  
 2 people with disabilities to the same level as those protections in place based on race, color,  
 3 religion and national origin provided through the Civil Rights Act of 1964; and  
 4  
 5 Whereas, the ADA was signed into law on July 26, 1990 [28 CFR 35.150]; and  
 6  
 7 Whereas, the ADA required public entities with more than 50 employees to develop a transition  
 8 plan by July 26, 1992; and  
 9  
 10 Whereas, this transition plan must identify all structural modifications that are necessary for  
 11 buildings and facilities to ensure that programs, services and activities are accessible to people  
 12 with different abilities; and  
 13  
 14 Whereas, this transition plan must identify the steps to complete the modifications, the estimated  
 15 date of completion and the cost associated with each modification; and  
 16  
 17 Whereas, the Saint Paul Public Works Department did not meet the July, 1992 deadline, but has  
 18 prepared the attached transition plan for review and implementation; and  
 19  
 20 Whereas, the Mayor's Advisory Committee for People with Disabilities has reviewed the  
 21 transition plan and has accepted it in its entirety; and  
 22  
 23 Whereas, the Business Review Council has reviewed the transition plan and will be making their  
 24 comments by April, 21, 2010; and  
 25  
 26 Therefore, be it resolved, that the City Council of Saint Paul adopts the Public Works ADA  
 27 Transition Plan and directs Public Works to follow the steps elaborated toward the goal of making  
 28 Public Works' buildings and infrastructure accessible to all people.

	Yeas	Nays	Absent
Bostrom	✓		
Carter	✓		
Harris	✓		
Helgen	✓		
Lantry	✓		
Stark	✓		
Thune	✓		
	7	0	0

Requested by Department of Public Works:

By: [Signature]  
 Public Works Director

Approved by the Office of Financial Services:

By: [Signature]

Approved by City Attorney:

By: [Signature]

Approved by Mayor for Submission to Council:

By: [Signature]

Adopted by Council: Date 4/21/2010

Adoption Certified by Council Secretary

By: [Signature]

Approved by Mayor: Date 4/27/2010

By: [Signature]

# Transit Connections





## Results

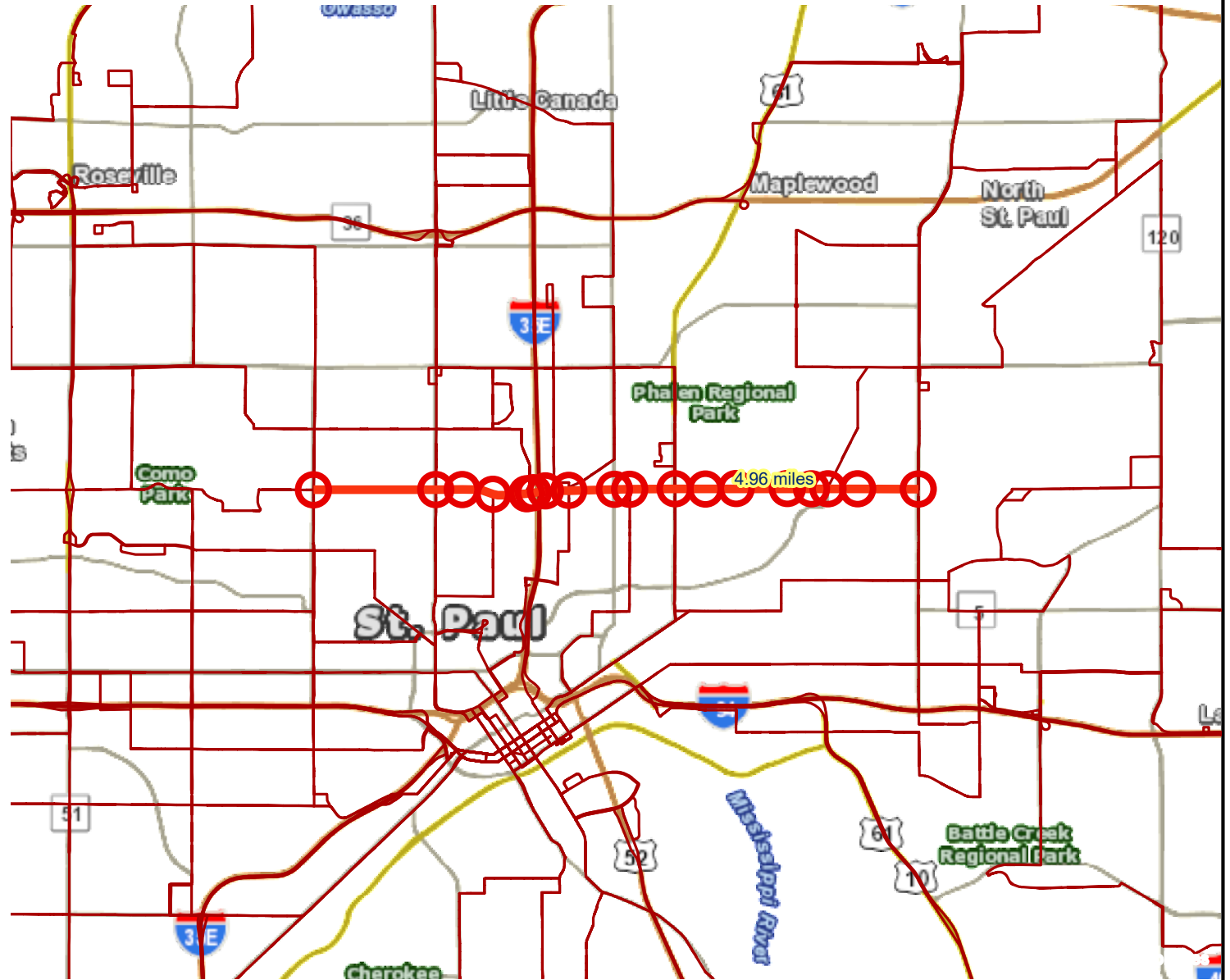
Transit with a Direct Connection to project:  
275 3 54 61 62 64 65 68 71 74 80

- \*H Line
- \*G Line
- \*Purple Line

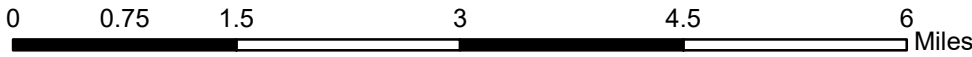
\*indicates Planned Alignments

Transit Market areas: 1, 2

-  Project Points
-  Transit Routes
-  Project
-  Project Area



4.96 miles



Created: 3/9/2022  
LandscapeRSA3



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



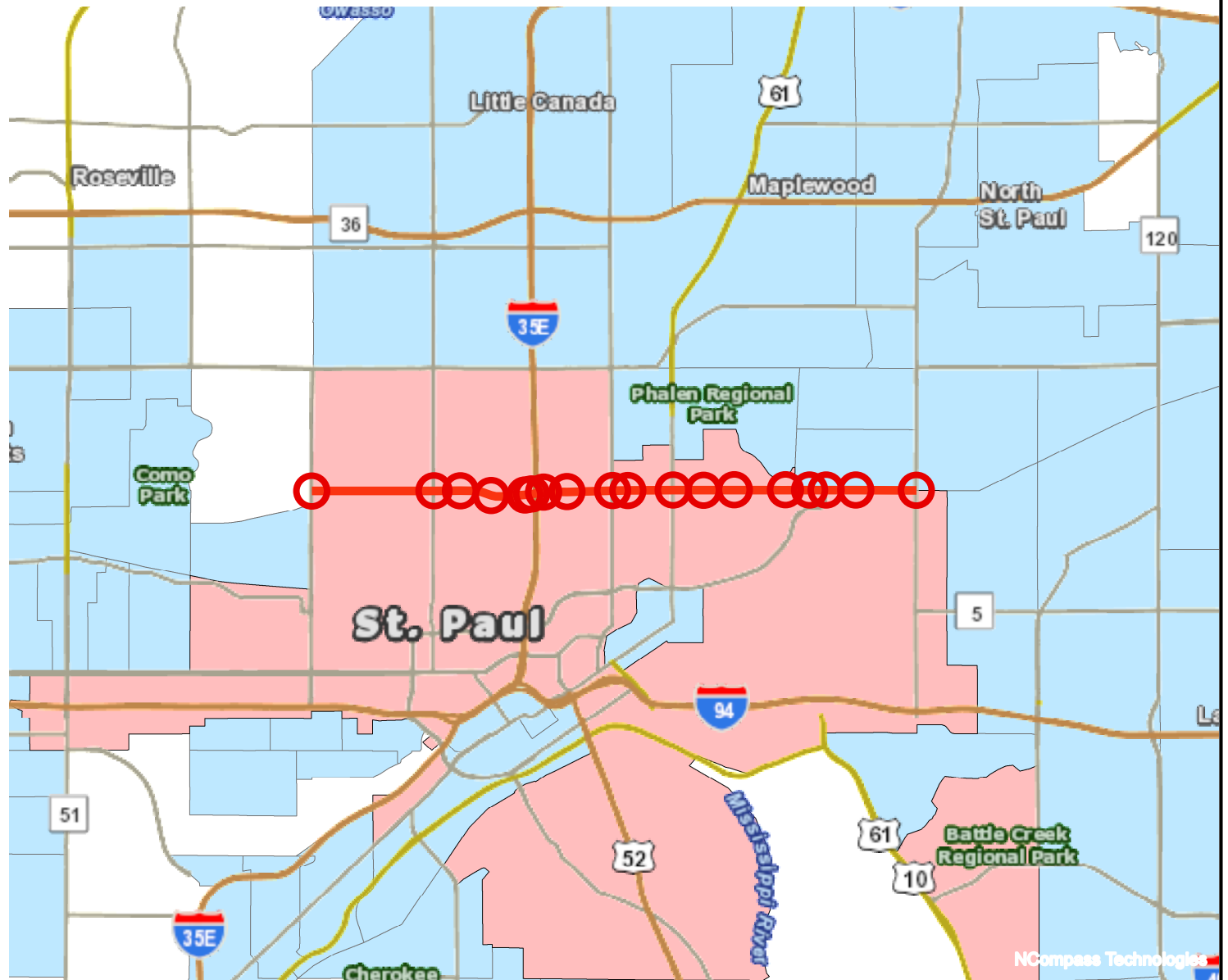






# Socio-Economic Conditions

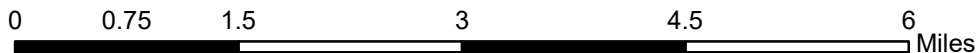
## Results

Total of publicly subsidized rental housing units in census tracts within 1/2 mile: 3705

Project located IN an Area of Concentrated Poverty.



-  Points
-  Area of Concentrated Poverty
-  Lines
-  Regional Environmental Justice Area



Created: 3/9/2022  
LandscapeRSA2



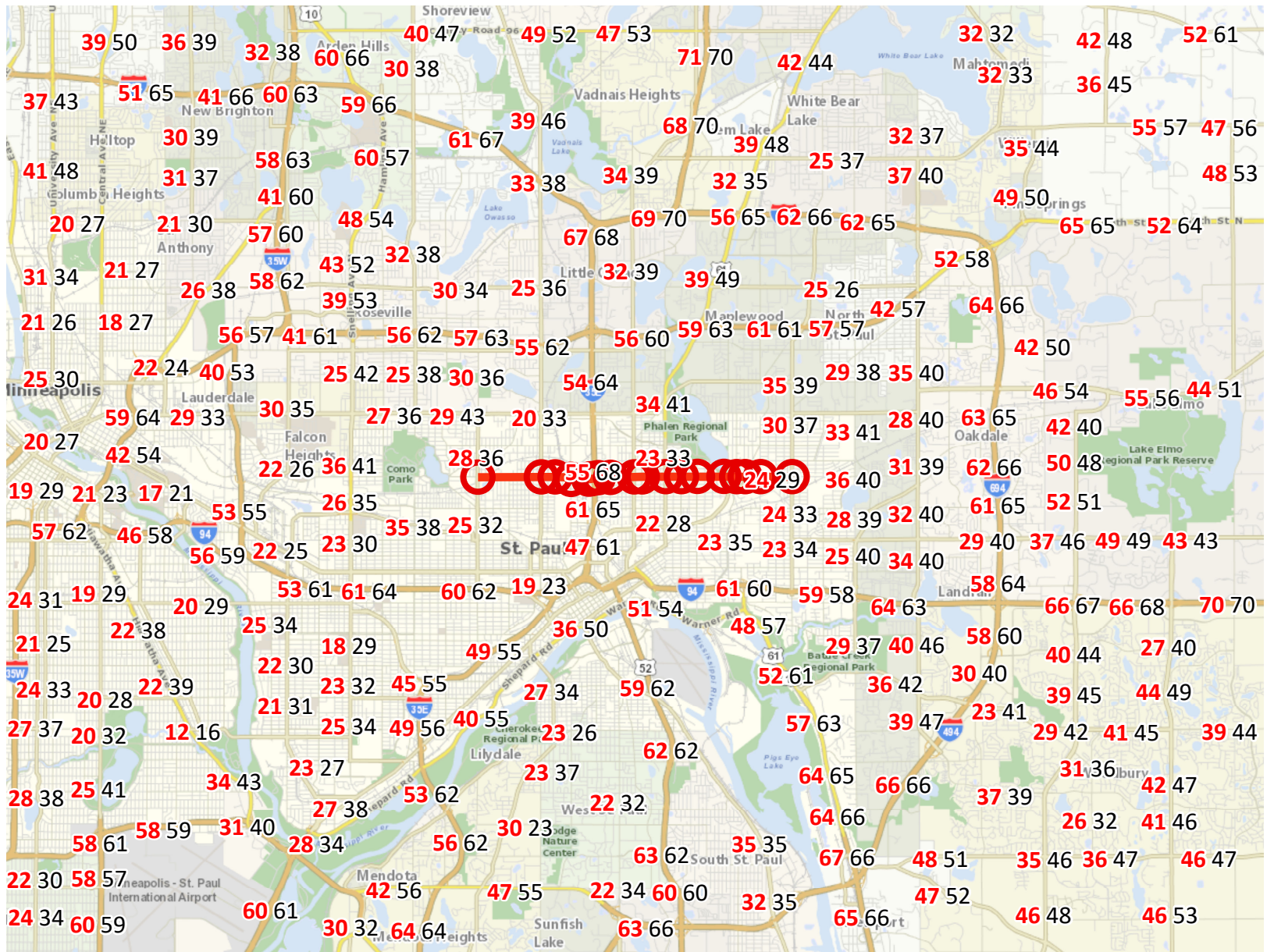
For complete disclaimer of accuracy, please visit <http://giswebsite.metc.state.mn.us/gis/site/notice.aspx>





# Level of Congestion

Traffic Management Technologies Project: Maryland Avenue Traffic Signal Modernization | Map ID: 1646836266975



○ Project Points

— Project



Created: 3/9/2022  
LandscapeRSA1



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**Traffic Safety Benefit-Cost Calculation**

Highway Safety Improvement Program (HSIP) Reactive Project

**A. Roadway Description**

Route	CSAH 31	District	Metro	County	Ramsey
Begin RP		End RP		Miles	Intersection Project
Location	Maryland @ Forest, Earl, Johnson & Hazelwood				

**B. Project Description**

Proposed Work	Traffic Signal Reconstruction		
Project Cost*	\$3,000,000	Installation Year	2027
Project Service Life	30 years	Traffic Growth Factor	0.0%

\* exclude Right of Way from Project Cost

**C. Crash Modification Factor**

0.71	Fatal (K) Crashes	Reference	3941
0.71	Serious Injury (A) Crashes		
0.71	Moderate Injury (B) Crashes	Crash Type	ALL
0.71	Possible Injury (C) Crashes		
0.79	Property Damage Only Crashes		<a href="http://www.CMFclearinghouse.org">www.CMFclearinghouse.org</a>

**D. Crash Modification Factor (optional second CMF)**

0.91	Fatal (K) Crashes	Reference	10119
0.91	Serious Injury (A) Crashes		
0.91	Moderate Injury (B) Crashes	Crash Type	VEHICLE/PEDESTRIAN
0.91	Possible Injury (C) Crashes		
0.91	Property Damage Only Crashes		<a href="http://www.CMFclearinghouse.org">www.CMFclearinghouse.org</a>

**E. Crash Data**

Begin Date	1/1/2019	End Date	12/31/2021	3 years
Data Source	MNCMAT			
	<b>Crash Severity</b>	<b>ALL</b>	<b>VEHICLE/PEDESTRIAN</b>	
	K crashes	0		
	A crashes	2	1	
	B crashes	6	2	
	C crashes	13		
	PDO crashes	40		

**F. Benefit-Cost Calculation**

\$13,611,434	Benefit (present value)	<b>B/C Ratio = 4.54</b>
\$3,000,000	Cost	

Proposed project expected to reduce 5 crashes annually, 1 of which involving fatality or serious injury.

### F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	\$1,500,000
A crashes	\$750,000
B crashes	\$230,000
C crashes	\$120,000
PDO crashes	\$13,000

Link: [mndot.gov/planning/program/appendix\\_a.html](http://mndot.gov/planning/program/appendix_a.html)

Real Discount Rate: 0.7% Revised  
 Traffic Growth Rate: 0.0% Default  
 Project Service Life: 30 years Revised

### G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	\$0
A crashes	0.67	0.22	\$167,000
B crashes	1.92	0.64	\$146,893
C crashes	3.77	1.26	\$150,800
PDO crashes	8.40	2.80	\$36,400

**\$501,093**

### H. Amortized Benefit

Year	Crash Benefits	Present Value
2027	\$501,093	\$501,093
2028	\$501,093	\$497,610
2029	\$501,093	\$494,151
2030	\$501,093	\$490,716
2031	\$501,093	\$487,305
2032	\$501,093	\$483,917
2033	\$501,093	\$480,554
2034	\$501,093	\$477,213
2035	\$501,093	\$473,896
2036	\$501,093	\$470,602
2037	\$501,093	\$467,330
2038	\$501,093	\$464,082
2039	\$501,093	\$460,856
2040	\$501,093	\$457,652
2041	\$501,093	\$454,471
2042	\$501,093	\$451,312
2043	\$501,093	\$448,174
2044	\$501,093	\$445,059
2045	\$501,093	\$441,965
2046	\$501,093	\$438,893
2047	\$501,093	\$435,842
2048	\$501,093	\$432,812
2049	\$501,093	\$429,804
2050	\$501,093	\$426,816
2051	\$501,093	\$423,849
2052	\$501,093	\$420,903
2053	\$501,093	\$417,977
2054	\$501,093	\$415,072
2055	\$501,093	\$412,186
2056	\$501,093	\$409,321
0	\$0	\$0

**Total = \$13,611,434**

*NOTE:  
This calculation relies on the real discount rate, which accounts for inflation. No further discounting is necessary.*

# MARYLAND AVENUE TRAFFIC SIGNAL MODERNIZATION

## PROJECT ELEMENTS AND BENEFITS

The Maryland Avenue Traffic Signal Modernization project would reconstruct traffic signals, install fiber-optic interconnect, and install traffic cameras along Maryland Avenue in the City of Saint Paul. Maryland Avenue (CSAH 31) is classified as an A Minor Arterial in the project area. The proposed elements of the project and some of the benefits of each include:

- Reconstruction of four traffic signals along Maryland Avenue at Earl Street, Forest Street, Johnson Parkway and Hazelwood Street.
  - With an average age of 47 years, taken from the last major revision, these signals are consistent maintenance issues, and require significant staff time and materials to maintain operation.
  - Replacement of the signals will allow for the implementation of improved safety treatments and increased efficiency. The new signals will provide overhead indications for all approaches, audible pedestrian push buttons, countdown timers, and twelve-inch indications.
- Replacement of aging fiber-optic interconnect along Maryland Avenue between Dale Street (CSAH 53) and White Bear Avenue (CSAH 65), and upgrade of traffic signal controllers where needed. The fiber-optic cable along this corridor was installed in 1996 and has surpassed its useful life.
  - Replacement of interconnect will allow the City to continue to remotely monitor and modify the operation of these signals, providing more rapid response to outages and improved ability to adjust settings.
  - Replacement of fiber-optic interconnect will allow for the continued coordination of closely spaced signals along this corridor, reducing stops and delay while improving safety.
  - Replacement of the legacy 170 traffic signal controllers will allow for the use of signal performance measures, responsive traffic signal control, and many other benefits.
- Installation of traffic cameras at multiple locations in the area.
  - The ability to remotely observe traffic conditions, combined with the other improvements, will allow for real-time monitoring and adjustment of traffic operations and management of events and incidents.
  - Cameras will be integrated with the City’s existing system, allowing for access by Saint Paul Police and Public Works.

## APPLICATION DETAILS

### APPLICANT

Mike Klobucar	651.266.6208
City of Saint Paul	mike.klobucar@ci.stpaul.mn.us
Department of Public Works	

### PROJECT COST

Total project cost: \$2,903,000	Federal request amount: \$2,322,400
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# MARYLAND AVENUE TRAFFIC SIGNAL MODERNIZATION

BEFORE CONDITION OF SELECTED IMPROVEMENTS





# Maryland Avenue Traffic Signal Modernization Project Overview

Date: 4/14/2022

## Legend

### Fiber-Optic Interconnect

■ Proposed

### Traffic Signal Reconstruction

● In Place

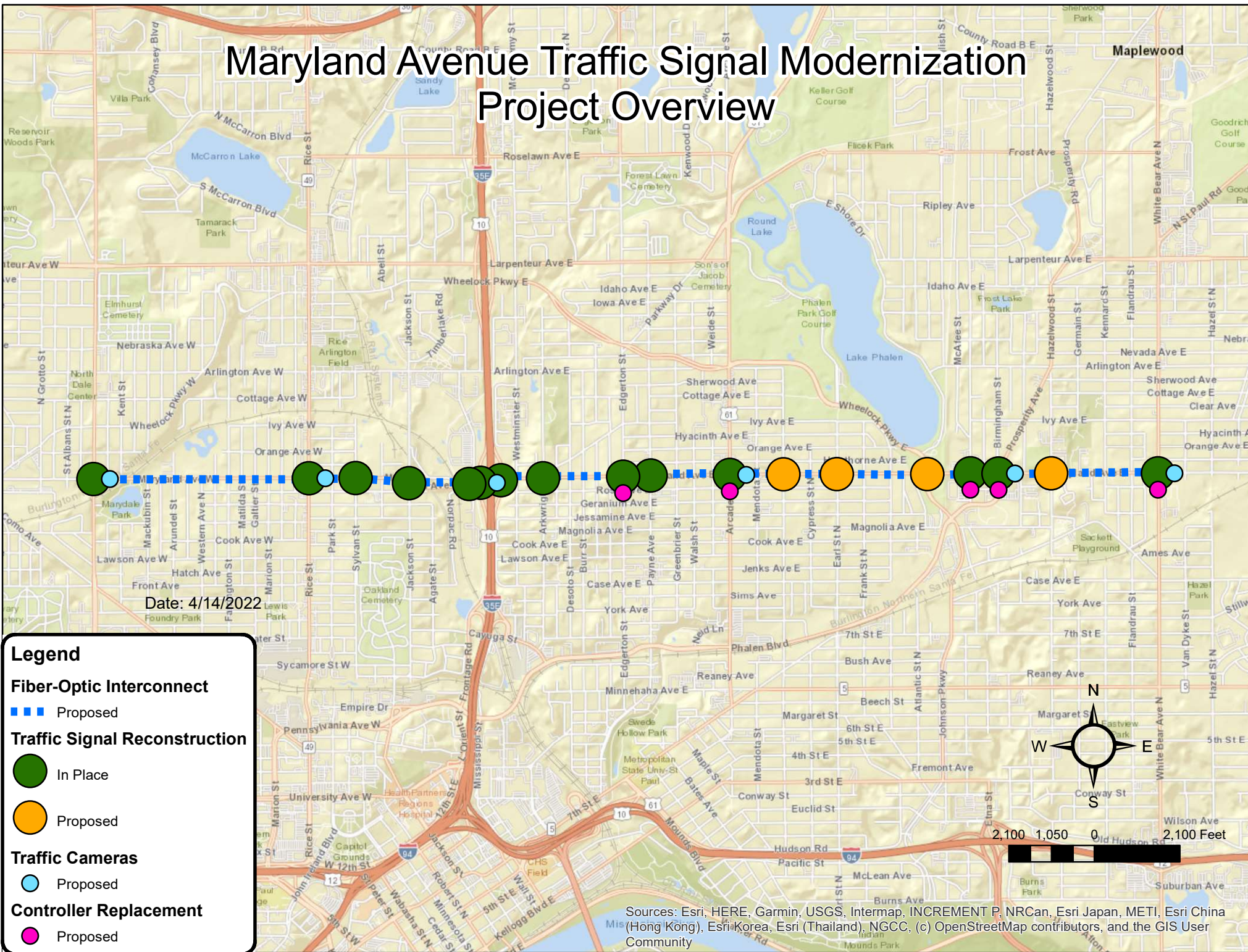
● Proposed

### Traffic Cameras

● Proposed

### Controller Replacement

● Proposed

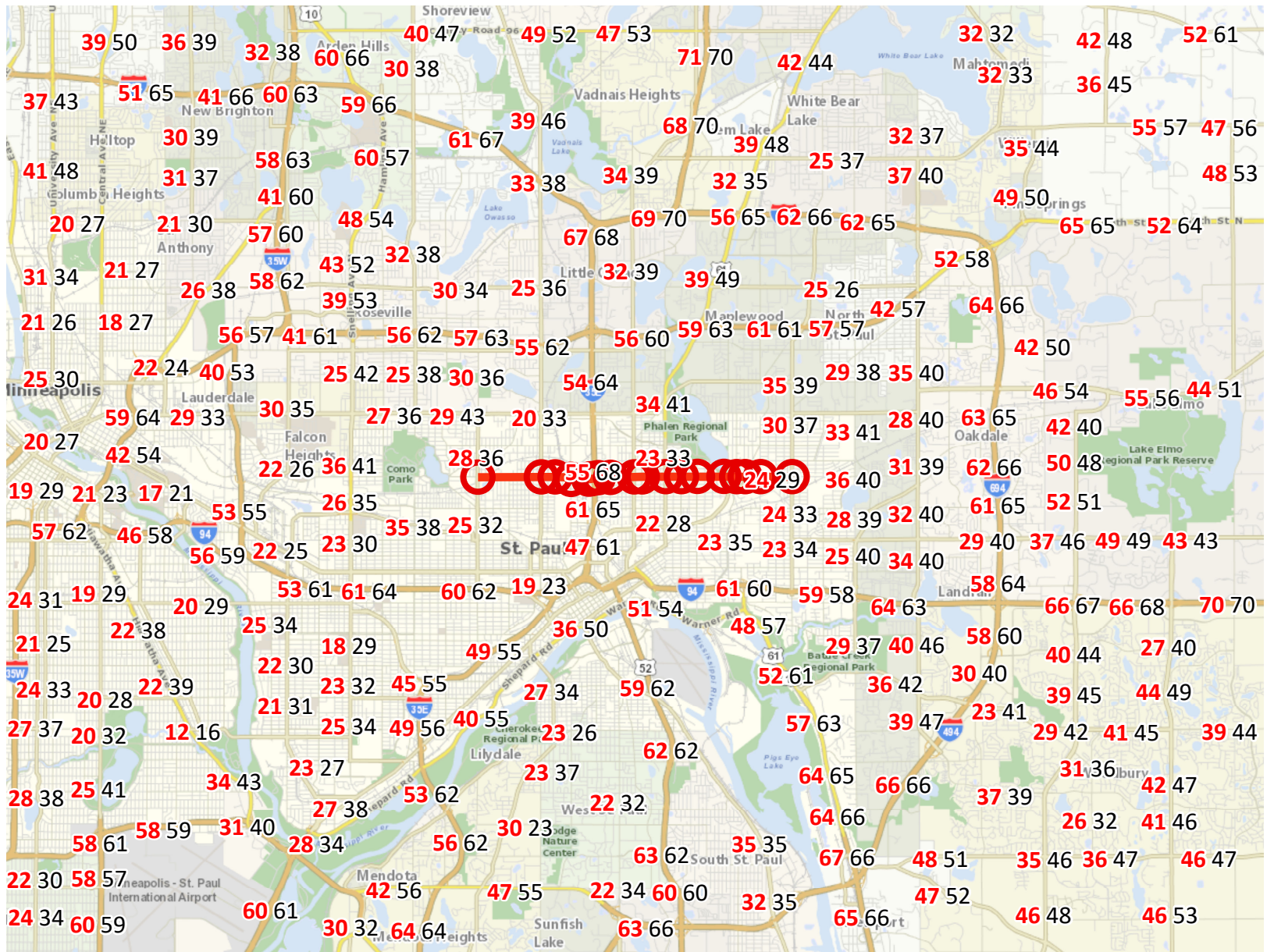


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



# Level of Congestion

Traffic Management Technologies Project: Maryland Avenue Traffic Signal Modernization | Map ID: 1646836266975



○ Project Points

— Project



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LandscapeRSA1



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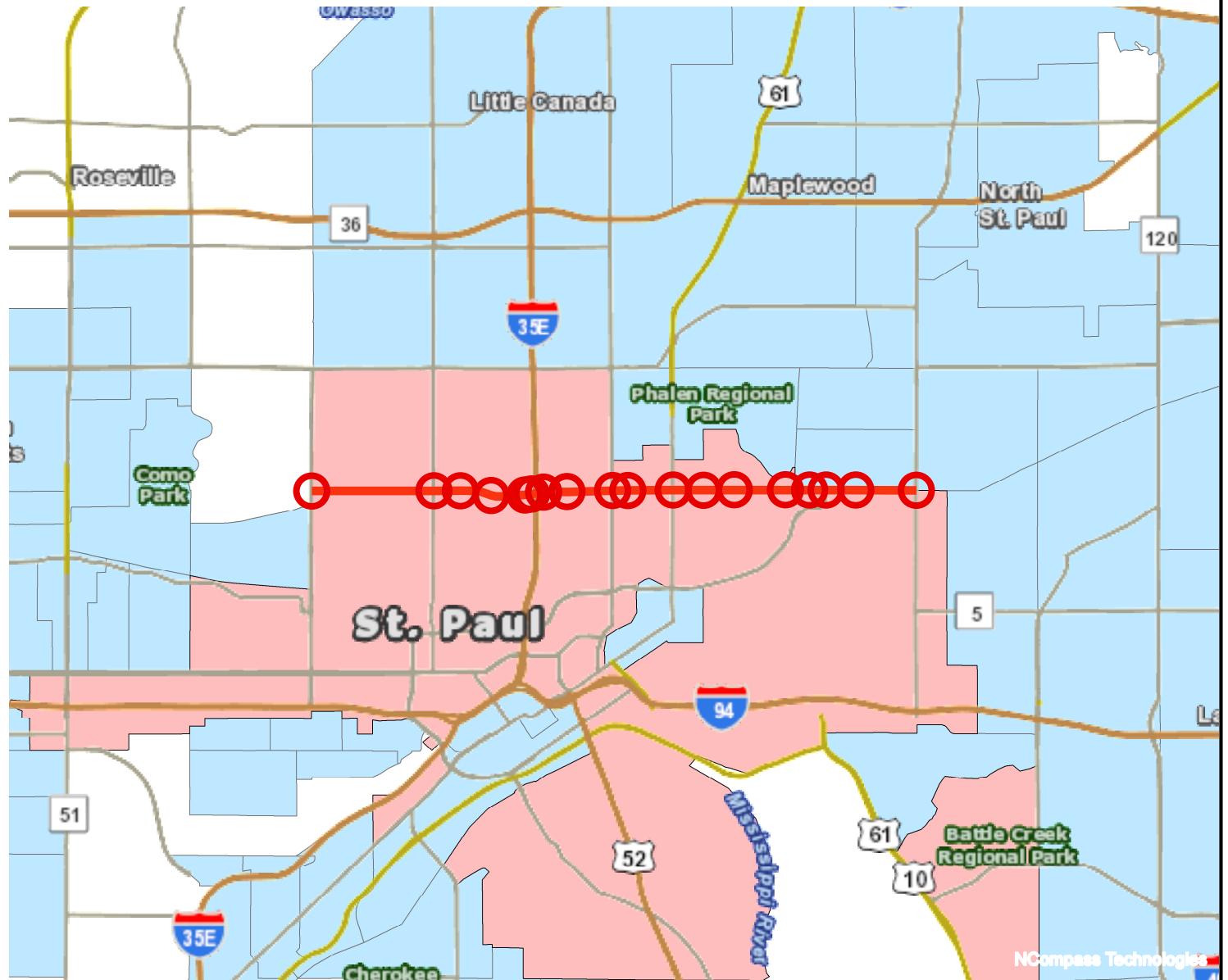






# Socio-Economic Conditions

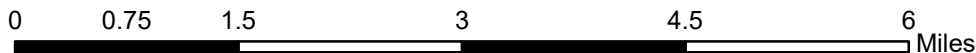
## Results

Total of publicly subsidized rental housing units in census tracts within 1/2 mile: 3705

Project located IN an Area of Concentrated Poverty.



-  Points
-  Area of Concentrated Poverty
-  Lines
-  Regional Environmental Justice Area





# Transit Connections

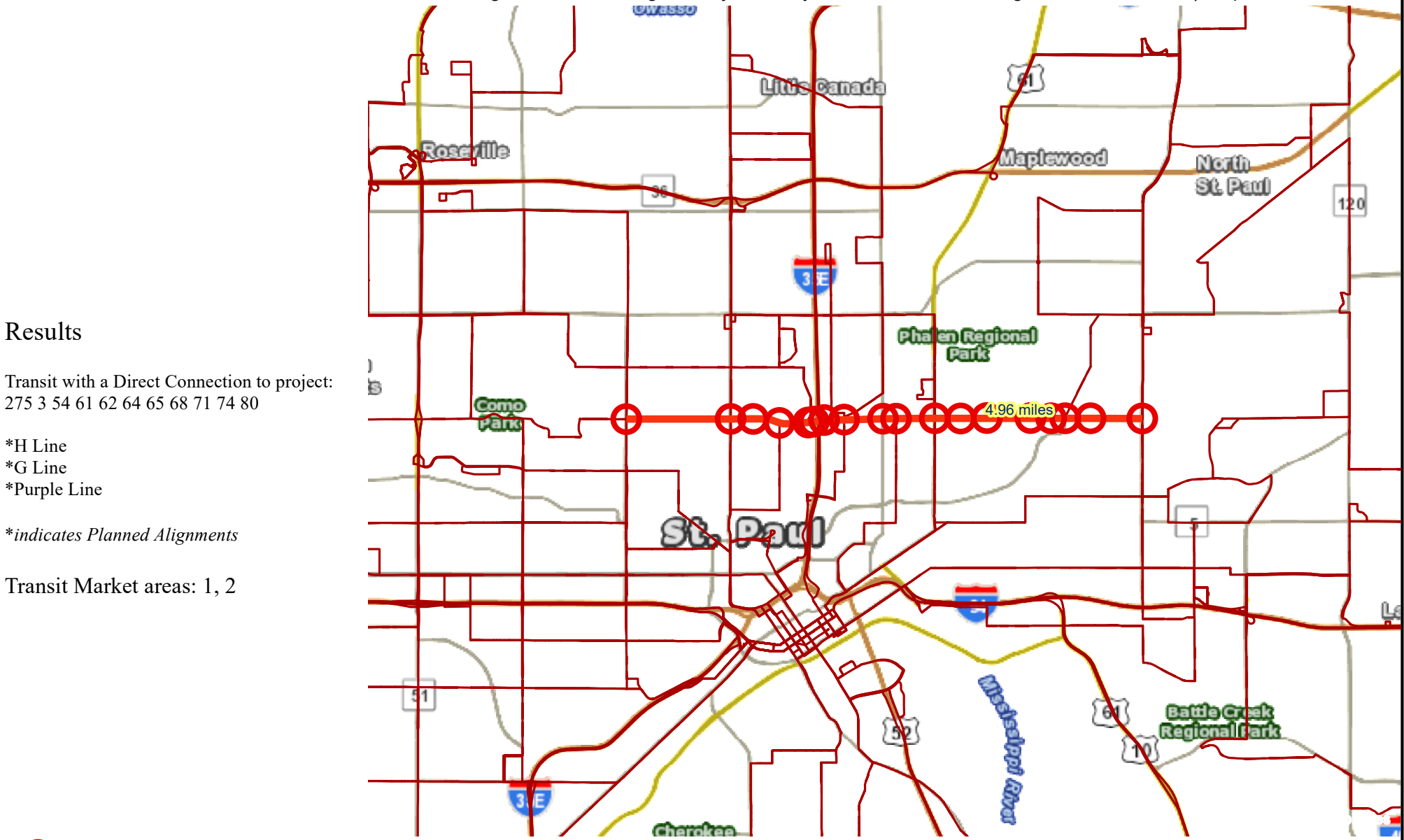
## Results



Transit with a Direct Connection to project:  
275 3 54 61 62 64 65 68 71 74 80


- \*H Line
- \*G Line
- \*Purple Line


\*indicates Planned Alignments

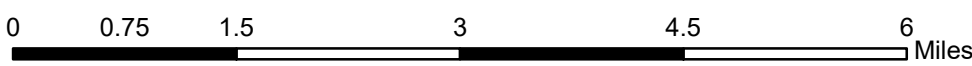
Transit Market areas: 1, 2



 Project Points     Transit Routes

 Project

 Project Area



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LandscapeRSA3



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April 1, 2022

Mr. Paul Kurtz, P.E.  
Saint Paul City Engineer  
25 W. 4<sup>th</sup> Street  
1500 City Hall Annex  
Saint Paul, MN 55102

RE: 2022 Met Council Regional Solicitation Grant Application Letter of Support:  
Maryland Ave – Traffic Management Technologies Application

Dear Mr. Kurtz:

Ramsey County supports St. Paul's federal funding application for the 2022 Metropolitan Council Regional Solicitation to improve safety, mobility and reduce traffic congestion along the Maryland Avenue corridor through an application in the Traffic Management Technologies program. If the application is successful, we will participate in the local share of the project in accordance with our cost participation policy.

The proposed replacement of aging signal interconnect, select signal replacements, and installation of ITS infrastructure will help respond to the diverse needs of the corridor. We expect that these improvements will provide benefits not only to motor vehicles using the corridor but also help our non-motorized users, consistent with our All Abilities Transportation Network Policy.

We appreciate Saint Paul's efforts to coordinate projects on our shared road systems. Please let us know if there are any questions or if we can help your efforts in any way.

Sincerely,



Ted Schoenecker, P.E.  
Public Works Director/County Engineer



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

April 12, 2022

Mike Klobuchar  
Department of Public Works  
City of Saint Paul

**Re: MnDOT Letter for City of Saint Paul's Metropolitan Council/Transportation Advisory Board 2022 Regional Solicitation Funding Request for traffic signal modernization along Maryland Avenue**

Mike Klobuchar,

This letter documents MnDOT Metro District's recognition for City of Saint Paul to pursue funding for the Metropolitan Council/Transportation Advisory Board's (TAB) 2022 Regional Solicitation for a traffic signal modernization project along Maryland Avenue.

As proposed, this project impacts MnDOT right-of-way on I-35E and US 61 (Arcade Avenue) in Saint Paul. As the agency with jurisdiction over I-35E and US 61, MnDOT will allow the City to seek improvements proposed in the application. Details of any future maintenance agreement will need to be determined during project development to define how the improvements will be maintained for the project's useful life if the project receives funding.

There is no funding from MnDOT currently planned or programmed for this improvement. If your project receives funding, continue to work with MnDOT Area staff to coordinate needs and opportunities for cooperation.

MnDOT Metro District looks forward to continued cooperation with Saint Paul as this project moves 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 North Area Manager Melissa Barnes at [melissa.barnes@state.mn.us](mailto:melissa.barnes@state.mn.us).

Sincerely,

Michael Barnes, PE  
Metro District Engineer

CC: Melissa Barnes, Metro District Area Manager; Dan Erickson, Metro State Aid Engineer; Molly McCartney, Metro Program Director



# City of Saint Paul

City Hall and Court  
House  
15 West Kellogg  
Boulevard  
Phone: 651-266-8560

## Signature Copy

Resolution: RES 22-334

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**File Number: RES 22-334**

Authorizing the Departments of Public Works and Parks and Recreation to submit project applications for federal funding into the 2022 Metropolitan Council Regional Solicitation Program and to authorize the commitment of a twenty percent local funding match plus engineering for any project that is awarded federal funding.

WHEREAS, the Departments of Public Works and Parks and Recreation are proposing to submit twelve project applications for federal funding into the 2022 Metropolitan Council Regional Solicitation Program for funding in years 2026 and 2027; and

WHEREAS, there is a required twenty percent local funding match to any project awarded to an agency under the Regional Solicitation Program; and

WHEREAS, the City commits to ensuring that all sidewalks and bikeways included in these project applications will be fully open for use and cleared of snow throughout the winter, either by City staff or by adjacent property owners per existing City ordinances; and

WHEREAS, the projects to be submitted by the City under the Metropolitan Council Regional Solicitation are as follows:

- Wabasha Street Reconstruct - 7th to 11th (Roadways)
- Minnehaha Avenue Reconstruct - Payne to 7th (Roadways)
- Fairview Avenue Reconstruct - Edgumbe to Ford (Roadways)
- Cretin Avenue Reconstruct - I94 to Marshall (Roadways)
- Maryland Avenue Traffic Signal Modernization - Dale to White Bear (Traffic Management)
- Capital City Bikeway - Kellogg from W. 7th to John Ireland (Multiuse Trails)
- Capital City Bikeway - St. Peter/12th from 10th to John Ireland (Multiuse Trails)
- Point Douglas Regional Trail Phase 1 Construction (Multiuse Trails)
- Payne Avenue - Phalen Blvd to Maryland (Pedestrian Facilities)
- Arlington Avenue Sidewalk Infill - I35E to Edgerton (Pedestrian Facilities)
- Chelsea Heights Safe Routes to School (Safe Routes to School)
- Evie Carshare Expansion (Unique Projects 2024/2025 funding)

WHEREAS, these projects fall within appropriate funding categories and meet the conditions and requirements specified for eligibility of federal funding; now, therefore be it

RESOLVED, that the Council of the City of Saint Paul authorizes submission of the project applications for possible award of federal transportation funds through the Metropolitan Council Regional Solicitation Program; and be it finally

RESOLVED, that the Council of the City of Saint Paul authorizes the commitment of local funds on

a twenty percent match basis plus engineering for any project awarded federal funding under the Regional Solicitation Program.

Resolution RES 22-334 Passed Mayor's Office passed Signed 4/8/2024/6/2022 Signed | DAY THAT a meeting of the on , this Resolution was Signed.

**Yea:** 4 Councilmember Noecker, Councilmember Prince, Councilmember Jalali, and Councilmember Yang

**Nay:** 0

**Absent:** 3 Councilmember Brendmoen, Councilmember Thao, and Councilmember Tolbert

**Vote Attested by**   
**Council Secretary** Shari Moore

**Date** 4/6/2022

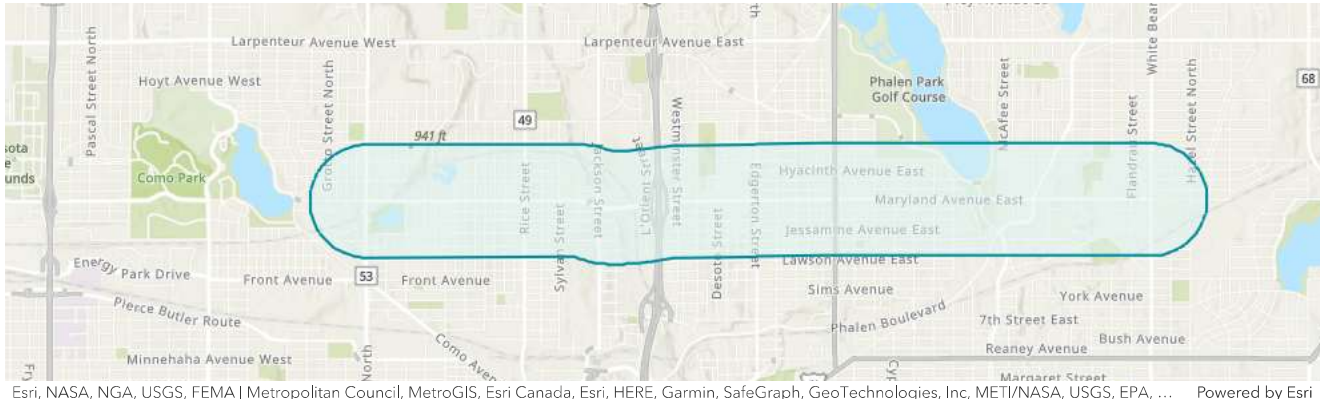
**Approved by the Mayor**   
Melvin Carter III

**Date** 4/8/2022

# Custom Geographic Profile

At-a-glance facts about residents, households, and workforce. Data are largely derived from the U.S. Census Bureau. When a data point is missing or considered unreliable, it will not display or be labeled suppressed. [See information about geographic profile sources.](#)

**Selected geography:** Custom selection area



Esri, NASA, NGA, USGS, FEMA | Metropolitan Council, MetroGIS, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, ... Powered by Esri

[Bookmark or share this profile](#) [Collapse rows](#) [Show margins](#)

## Age

### Age (2015-2019)

	Custom Profile	
Total population	34,363	100.0%
Under 5 years	3,015	8.8%
5-9 years	3,013	8.8%
10-14 years	2,942	8.6%
15-17 years	1,800	5.2%
18-24 years	3,653	10.6%
25-34 years	6,328	18.4%
35-44 years	4,505	13.1%
45-54 years	3,500	10.2%
55-64 years	3,190	9.3%
65-74 years	1,535	4.5%
75-84 years	577	1.7%
85 years and older	306	0.9%

## Sex

### Sex (2015-2019)

	Custom Profile	
Male	17,055	49.6%
Female	17,309	50.4%

## Race & Ethnicity

**Race & Ethnicity (2015-2019)****Custom Profile**

White	10,201	29.7%
Of Color	21,119	61.5%
Black or African American alone	6,044	17.6%
American Indian and Alaskan Native alone	265	0.8%
Asian or Pacific Islander alone	11,734	34.1%
Other alone	suppressed	
Two or more races alone	1,547	4.5%
Hispanic or Latino (of any race)	4,527	13.2%

**Language****Language spoken (2015-2019)****Custom Profile**

Population (5 years and older)	31,348	100.0%
English only	16,739	53.4%
Language other than English	14,609	46.6%
Speaks English less than "very well"	8,453	27.0%

**Disability****Disability status (2015-2019)****Custom Profile**

Total population for whom disability status is determined	34,320	100.0%
Population with a disability	5,334	15.5%

**Nativity****Nativity (2015-2019)****Custom Profile**

Foreign-born residents	10,042	29.2%
------------------------	--------	-------

**Residency****Residence one year ago (2015-2019)****Custom Profile**

Population (1 year and over in US)	33,722	100.0%
Same residence	27,222	80.7%
Different residence in the U.S.	6,266	18.6%
Different residence outside the U.S.	suppressed	

## Income & Poverty

### Household income (2019 dollars) (2015-2019)

	Custom Profile	
Total households	10,655	100.0%
Less than \$35,000	3,940	37.0%
\$35,000-\$49,999	1,753	16.5%
\$50,000-\$74,999	1,922	18.0%
\$75,000-\$99,999	1,348	12.6%
\$100,000 or more	1,692	15.9%
Median household income (2019 dollars)	\$ 49,297	100.0%

---

### Poverty (2015-2019)

	Custom Profile	
All people for whom poverty status is determined	34,103	100.0%
With income below poverty	8,078	23.7%
With income 100-149 of poverty	5,211	15.3%
With income 150-199 of poverty	4,278	12.5%
With income 200 of poverty or higher	16,536	48.5%
17 years and younger (percent of people under age 18)	3,619	34.3%
18-24 (percent of people age 18-24)	950	26.0%
25-34 (percent of people age 25-34)	1,219	19.3%
35-44 (percent of people age 35-44)	807	17.9%
45-54 (percent of people age 45-54)	654	18.7%
55-64 (percent of people age 55-64)	559	17.5%
18-64 (percent of people 18-64)	4,188	19.8%
65 years and older (percent of people age 65+)	271	11.3%

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## Health Coverage

### Health coverage (2015-2019)

	Custom Profile	
Total population age 65 and under for whom health insurance coverage status is determined	31,926	93.0%
Population 65 and under without health insurance coverage	2,835	8.9%

---

## Housing

### Total housing units (2015-2019)

	Custom Profile	
Total housing units	11,485	100.0%

---



**Owned and Rental Housing (2015-2019)****Custom Profile**

Vacant housing units (seasonal units included)	829	7.2%
Occupied housing units	10,655	92.8%
Average household size	3.2	100.0%
Owner-occupied	5,339	46.5%
Average household size	3.3	100.0%
Renter-occupied	5,316	46.3%
Average household size	3.1	100.0%

**Year built (2015-2019)****Custom Profile**

2000 or later	595	5.2%
1970-1999	2,591	22.6%
1940-1969	4,245	37.0%
1939 or earlier	4,053	35.3%

**Households (2015-2019)****Custom Profile**

Total households	10,655	100.0%
------------------	--------	--------

**Households by type (2015-2019)****Custom Profile**

Family households	6,934	65.1%
With children under 18 years	4,642	43.6%
Married-couple family households	3,879	36.4%
With children under 18 years	2,450	23.0%
Single-person family households	3,055	28.7%
With children under 18 years	2,192	20.6%
Nonfamily households	3,721	34.9%
Householder living alone	2,945	27.6%
65 years and over	736	6.9%
Households with one or more children under 18 years	4,686	44.0%
Households with one or more people 65 years and over	1,939	18.2%

**Year householder moved into unit (2015-2019)****Custom Profile**

Moved in 2010 or later	6,552	61.5%
Moved in 2000-2009	1,976	18.5%
Moved in 1990-1999	964	9.0%
Moved in 1989 or earlier	1,164	10.9%

**Cost-burdened households (2015-2019)****Custom Profile**

All households for which cost burden is calculated	10,419	100.0%
Cost-burdened households	4,181	40.1%

Owner households for which cost burden is calculated	5,312	100.0%
Cost-burdened owner households	1,215	22.9%
Renter households for which cost burden is calculated	5,106	100.0%
Cost-burdened renter households	2,966	58.1%

<b>Rent paid (2015-2019)</b>	<b>Custom Profile</b>	
Households paying rent	5,237	100.0%
Median rent paid (2019 dollars)	\$ 837	100.0%

## Transportation

<b>Vehicles per household (2015-2019)</b>	<b>Custom Profile</b>	
No vehicles	1,526	14.3%
1 vehicle available	3,821	35.9%
2 vehicles available	3,495	32.8%
3 or more vehicles available	1,813	17.0%

<b>Transportation to work (2015-2019)</b>	<b>Custom Profile</b>	
Workers (16 years and older)	15,535	100.0%
Car, truck, or van (including passengers)	13,274	85.4%
Public transportation	1,288	8.3%
Walked, biked, worked at home, or other	973	6.3%

<b>Travel time to work (2015-2019)</b>	<b>Custom Profile</b>	
Total workers age 16+ (not home based)	15,072	100.0%
Less than 10 minutes	976	6.5%
10-19 minutes	4,511	29.9%
20-29 minutes	3,929	26.1%
30 minutes or longer	5,656	37.5%

## Workforce

<b>Educational attainment (2015-2019)</b>	<b>Custom Profile</b>	
Population (25 years and older)	19,940	100.0%
Less than high school	4,635	23.2%
High school diploma or GED	5,689	28.5%
Some college or associate's degree	6,023	30.2%
Bachelor's Degree	2,547	12.8%

Graduate or professional degree	1,046	5.2%
High school graduate or higher	15,305	76.8%
Bachelor's degree or higher	3,593	18.0%
<b>Working Adults (2015-2019)</b>		<b>Custom Profile</b>
Total civilian non-institutionalized population, age 18-64	21,161	100.0%
Working age adults who are employed	15,317	72.4%
Civilian labor force	16,316	100.0%
Unemployed	999	6.1%
<b>Total employed workers (LEHD) (2018)</b>		<b>Custom Profile</b>
Total employed workers	12,135	100.0%
<b>Worker age (2018)</b>		<b>Custom Profile</b>
Age 29 or younger	4,147	34.2%
Age 30 to 54	6,233	51.4%
Age 55 or older	1,755	14.5%
<b>Workers by earnings (2018)</b>		<b>Custom Profile</b>
\$15,000 per year or less	2,523	20.8%
\$15,001 to \$39,999 per year	5,412	44.6%
\$40,000 or more per year	4,201	34.6%
<b>Workers by industry of employment (2018)</b>		<b>Custom Profile</b>
Accommodation and food services	1,112	9.2%
Administration & support, waste management, and remediation	suppressed	
Agriculture, forestry, fishing and hunting	981	8.1%
Arts, entertainment, and recreation	181	1.5%
Construction	361	3.0%
Educational services	328	2.7%
Finance and insurance	591	4.9%
Health care and social assistance	2,657	21.9%
Information	207	1.7%
Management of companies and enterprises	470	3.9%
Manufacturing	1,780	14.7%
Mining, quarrying, and oil and gas extraction	suppressed	
Other services (excluding public administration)	498	4.1%
Professional, scientific, and technical services	661	5.4%
Public administration	suppressed	

Real estate and rental and leasing	164	1.4%
Retail trade	1,216	10.0%
Transportation and warehousing	382	3.2%
Utilities	19	0.2%
Wholesale trade	474	3.9%

#### Workers by race (2018)

#### Custom Profile

White alone	5,905	48.7%
Black or African American alone	1,957	16.1%
American Indian or Alaska Native alone	104	0.9%
Asian alone	3,765	31.0%
Native Hawaiian or Other Pacific Islander alone	15	0.1%
Two or more race groups	390	3.2%
Hispanic or Latino (of any race)	1,106	9.1%

#### Workers by educational attainment (2018)

#### Custom Profile

Less than high school	1,229	10.1%
High school or equivalent, no college	2,033	16.8%
Some college or associate degree	2,483	20.5%
Bachelor's degree or advanced degree	2,243	18.5%

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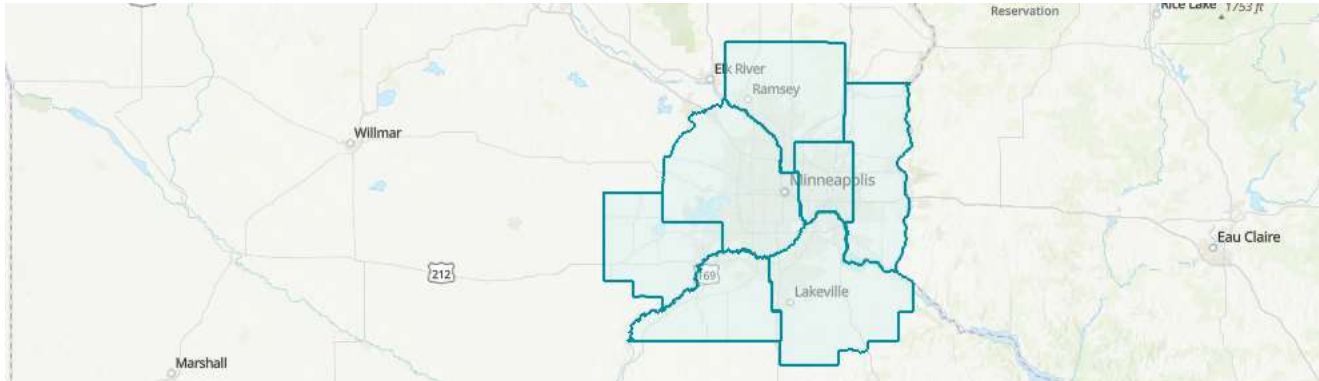
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# Custom Geographic Profile

At-a-glance facts about residents, households, and workforce. Data are largely derived from the U.S. Census Bureau. When a data point is missing or considered unreliable, it will not display or be labeled suppressed. [See information about geographic profile sources.](#)

**Combined Geographies (Counties):** Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington



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## Age

<b>Age (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Total population	3,065,147	100.0%
Under 5 years	200,100	6.5%
5-9 years	201,168	6.6%
10-14 years	200,458	6.5%
15-17 years	118,603	3.9%
18-24 years	261,981	8.5%
25-34 years	462,318	15.1%
35-44 years	406,324	13.3%
45-54 years	402,231	13.1%
55-64 years	396,303	12.9%
65-74 years	246,111	8.0%
75-84 years	116,286	3.8%
85 years and older	53,264	1.7%

## Sex

<b>Sex (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Male	1,514,230	49.4%
Female	1,550,917	50.6%

## Race & Ethnicity

### Race & Ethnicity (2015-2019)

#### Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington

White	2,229,560	72.7%
Of Color	733,270	23.9%
Black or African American alone	293,632	9.6%
American Indian and Alaskan Native alone	14,572	0.5%
Asian or Pacific Islander alone	228,781	7.5%
Other alone	6,291	0.2%
Two or more races alone	95,903	3.1%
Hispanic or Latino (of any race)	195,477	6.4%

---

## Language

### Language spoken (2015-2019)

#### Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington

Population (5 years and older)	2,865,047	100.0%
English only	2,395,630	83.6%
Language other than English	469,417	16.4%
Speaks English less than "very well"	187,601	6.5%

---

## Disability

### Disability status (2015-2019)

#### Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington

Total population for whom disability status is determined	3,043,117	100.0%
Population with a disability	299,412	9.8%

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## Nativity

### Nativity (2015-2019)

#### Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington

Foreign-born residents	370,577	12.1%
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## Residency

<b>Residence one year ago (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Population (1 year and over in US)	3,027,313	100.0%
Same residence	2,579,543	85.2%
Different residence in the U.S.	428,650	14.2%
Different residence outside the U.S.	19,120	0.6%

## Income & Poverty

<b>Household income (2019 dollars) (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Total households	1,187,423	100.0%
Less than \$35,000	236,367	19.9%
\$35,000-\$49,999	125,641	10.6%
\$50,000-\$74,999	192,699	16.2%
\$75,000-\$99,999	165,259	13.9%
\$100,000 or more	467,457	39.4%
Median household income (2019 dollars)	\$ 86,036	

<b>Poverty (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
All people for whom poverty status is determined	3,016,849	100.0%
With income below poverty	270,588	9.0%
With income 100-149 of poverty	182,762	6.1%
With income 150-199 of poverty	188,646	6.3%
With income 200 of poverty or higher	2,374,853	78.7%
17 years and younger (percent of people under age 18)	83,233	11.7%
18-24 (percent of people age 18-24)	42,274	17.4%
25-34 (percent of people age 25-34)	39,680	8.6%
35-44 (percent of people age 35-44)	27,067	6.7%
45-54 (percent of people age 45-54)	24,601	6.1%
55-64 (percent of people age 55-64)	26,883	6.8%
18-64 (percent of people 18-64)	160,505	8.4%
65 years and older (percent of people age 65+)	26,850	6.6%

## Health Coverage

<b>Health coverage (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Total population age 65 and under for whom health insurance coverage status is determined	2,638,849	86.7%
Population 65 and under without health insurance coverage	131,149	5.0%

## Housing

<b>Total housing units (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Total housing units	1,240,497	100.0%

<b>Owned and Rental Housing (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Vacant housing units (seasonal units included)	53,074	4.3%
Occupied housing units	1,187,423	95.7%
Average household size	2.6	
Owner-occupied	811,023	65.4%
Average household size	2.8	
Renter-occupied	376,400	30.3%
Average household size	2.3	

<b>Year built (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
2000 or later	217,239	17.5%
1970-1999	536,359	43.2%
1940-1969	308,233	24.8%
1939 or earlier	178,666	14.4%

<b>Households (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Total households	1,187,423	100.0%

<b>Households by type (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Family households	750,577	63.2%



With children under 18 years	368,946	31.1%
Married-couple family households	586,102	49.4%
With children under 18 years	261,909	22.1%
Single-person family households	164,475	13.9%
With children under 18 years	107,037	9.0%
Nonfamily households	436,846	36.8%
Householder living alone	343,322	28.9%
65 years and over	122,524	10.3%
Households with one or more children under 18 years	372,458	31.4%
Households with one or more people 65 years and over	293,900	24.8%

<b>Year householder moved into unit (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Moved in 2010 or later	604,016	50.9%
Moved in 2000-2009	268,448	22.6%
Moved in 1990-1999	164,630	13.9%
Moved in 1989 or earlier	150,329	12.7%

<b>Cost-burdened households (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
All households for which cost burden is calculated	1,171,212	100.0%
Cost-burdened households	317,287	27.1%
Owner households for which cost burden is calculated	807,676	100.0%
Cost-burdened owner households	149,179	18.5%
Renter households for which cost burden is calculated	363,536	100.0%
Cost-burdened renter households	168,108	46.2%

<b>Rent paid (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Households paying rent	368,108	100.0%
Median rent paid (2019 dollars)	\$ 1,146	

## Transportation

<b>Vehicles per household (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
No vehicles	89,010	7.5%
1 vehicle available	377,037	31.8%

2 vehicles available	489,216	41.2%
3 or more vehicles available	232,160	19.6%

<b>Transportation to work (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Workers (16 years and older)	1,651,866	100.0%
Car, truck, or van (including passengers)	1,397,921	84.6%
Public transportation	86,388	5.2%
Walked, biked, worked at home, or other	167,557	10.1%

<b>Travel time to work (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Total workers age 16+ (not home based)	1,554,346	100.0%
Less than 10 minutes	150,440	9.7%
10-19 minutes	438,249	28.2%
20-29 minutes	411,928	26.5%
30 minutes or longer	553,729	35.6%

## Workforce

<b>Educational attainment (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Population (25 years and older)	2,082,837	100.0%
Less than high school	135,669	6.5%
High school diploma or GED	411,200	19.7%
Some college or associate's degree	610,855	29.3%
Bachelor's Degree	597,884	28.7%
Graduate or professional degree	327,229	15.7%
High school graduate or higher	1,947,168	93.5%
Bachelor's degree or higher	925,113	44.4%

<b>Working Adults (2015-2019)</b>	<b>Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington</b>	
Total civilian non-institutionalized population, age 18-64	1,919,258	100.0%
Working age adults who are employed	1,570,898	81.8%
Civilian labor force	1,628,987	100.0%
Unemployed	58,089	3.6%

**Total employed workers (LEHD) (2018)****Ramsey, Anoka, Carver,  
Dakota, Hennepin, Scott,  
Washington**

Total employed workers	1,306,428	100.0%
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**Worker age (2018)****Ramsey, Anoka, Carver,  
Dakota, Hennepin, Scott,  
Washington**

Age 29 or younger	323,976	24.8%
Age 30 to 54	697,879	53.4%
Age 55 or older	284,573	21.8%

**Workers by earnings (2018)****Ramsey, Anoka, Carver,  
Dakota, Hennepin, Scott,  
Washington**

\$15,000 per year or less	217,119	16.6%
\$15,001 to \$39,999 per year	342,724	26.2%
\$40,000 or more per year	746,585	57.1%

**Workers by industry of employment (2018)****Ramsey, Anoka, Carver,  
Dakota, Hennepin, Scott,  
Washington**

Accommodation and food services	102,190	7.8%
Administration & support, waste management, and remediation	651	0.0%
Agriculture, forestry, fishing and hunting	76,523	5.9%
Arts, entertainment, and recreation	23,401	1.8%
Construction	54,094	4.1%
Educational services	34,639	2.7%
Finance and insurance	96,613	7.4%
Health care and social assistance	214,632	16.4%
Information	31,370	2.4%
Management of companies and enterprises	78,559	6.0%
Manufacturing	150,527	11.5%
Mining, quarrying, and oil and gas extraction	651	0.0%
Other services (excluding public administration)	46,056	3.5%
Professional, scientific, and technical services	122,399	9.4%
Public administration	suppressed	
Real estate and rental and leasing	21,997	1.7%
Retail trade	127,049	9.7%
Transportation and warehousing	41,813	3.2%
Utilities	5,475	0.4%

Wholesale trade	75,366	5.8%
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**Workers by race (2018)**

**Ramsey, Anoka, Carver,  
Dakota, Hennepin, Scott,  
Washington**

White alone	1,054,199	80.7%
Black or African American alone	116,112	8.9%
American Indian or Alaska Native alone	7,291	0.6%
Asian alone	102,694	7.9%
Native Hawaiian or Other Pacific Islander alone	1,075	0.1%
Two or more race groups	25,057	1.9%
Hispanic or Latino (of any race)	65,135	5.0%

**Workers by educational attainment (2018)**

**Ramsey, Anoka, Carver,  
Dakota, Hennepin, Scott,  
Washington**

Less than high school	85,218	6.5%
High school or equivalent, no college	236,373	18.1%
Some college or associate degree	321,964	24.6%
Bachelor's degree or advanced degree	338,897	25.9%

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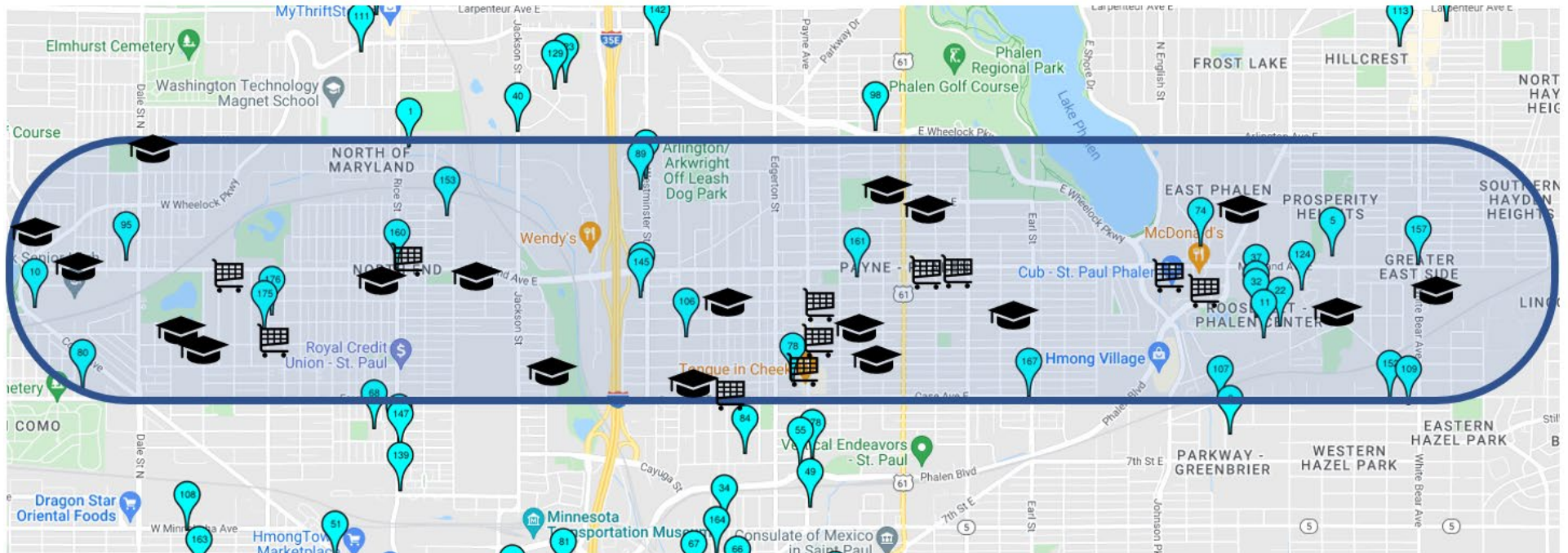
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# Maryland Avenue Traffic Signal Modernization – Access to Affordable Housing



## Legend

Grocery/Market	
School	
Affordable Housing	

# Maryland Avenue Traffic Signal Modernization – Access to Affordable Housing

Name	Address	Address Count	Primary Funder***	Property ID	Total Units	30% AMI	50% AMI	60% AMI	80% AMI	Total Afford. Units*	1st Close	Last Funding	Earliest Release**
1087 Western Avenue N	1087 Western Ave N	1	StPPED	48642-4	3			2		2	1/1/2018	1/1/2018	1/1/2028
1108 Western Avenue N	1108 Western Ave N	1	StPPED	48657-1	9			5		5	1/1/2018	1/1/2018	1/1/2028
118 Cook Avenue W	Address(es) intentionally withheld	1	StPPED	48642-2	2			1		1	1/1/2018	1/1/2018	1/1/2028
Arbor Pointe	635 Maryland Ave W	1	MHFA	Arbor Pointe	47			46		46	1/1/2003	7/1/2004	1/1/2033
Arlington Garden Apts	110 Arlington Ave W	1	HUD	800211269	50		49			49	7/25/2020	7/25/2020	7/24/2043
Como By The Lake	901 E Como Blvd	1	MHFA	D3468	99		57	33		90	5/1/2016	6/30/2020	4/30/2036
Front Hi-rise	727 Front Ave	1	HUDPH	MN001000002	151	151				151	7/1/1969	7/1/1969	
North End	North End	1	StPPED-4d	North End	454			283		283	1/1/2019	1/1/2020	1/1/2029
PHA of the City of St Paul - Scattered Site	Address(es) intentionally withheld	343	HUDPH	MN001000009	360	360				360	12/31/1968	12/31/1968	
Saint Paul Preservation Project	Multiple Addresses	13	MHFA	Saint Paul Preservation Project	172			168		168	1/1/2019	1/1/2019	1/1/2049
50 Rose Avenue E	Address(es) intentionally withheld	1	StPPED	48642-1	2			1		1	1/1/2018	1/1/2018	1/1/2028
Bb Housing Llc	Address(es) intentionally withheld	6	StPPED	Bb Housing Llc	10		10			10			
Capitol City Townhomes	Address(es) intentionally withheld	38	MHFA	D3886	69		69			69	1/1/2005	4/28/2006	1/1/2035
Crestview Apts	Multiple Addresses	3	MHFA	D2538	44		44			44	12/8/1998	10/7/2004	12/1/2033
Crestview Community Expansion	1145 Westminster St	1	HUDLIHTC	Crestview Community Exp	44			44		44		1/1/2005	1/1/2034
Garden Court Apts	420 Magnolia Ave E	1	StPPED	Garden Court Apartments	18			16		16	7/1/1989	7/1/1989	7/1/2019
Hycinth Apartments	55 W Hyacinth Ave	1	GMHF	Hycinth Apartments	52				39	39	5/14/2019	5/14/2019	5/14/2029
Jackson Street Village (fka Family Project)	Multiple Addresses	6	MHFA	D2939	25			25		25	1/1/2001	11/18/2015	1/1/2031
Mcdonough Homes	Multiple Addresses	119	HUDPH	Mcdonough Homes	580	580				580	12/31/1964	12/31/1964	

# Maryland Avenue Traffic Signal Modernization – Access to Affordable Housing

Name	Address	Address Count	Primary Funder***	Property ID	Total Units	30% AMI	50% AMI	60% AMI	80% AMI	Total Afford. Units*	1st Close	Last Funding	Earliest Release**
Rolling Hills Apts	Multiple Addresses	7	MHFA	D6685	108		107			107	1/1/2013	7/1/2013	1/1/2020
Torre Vista Westminster	Multiple Addresses	35	HUD	800011345	289			289		289	1/1/2006	2/1/2016	7/31/2034
959 Earl Street	959 Earl St	1	StPPED	48586-1	3			2		2	1/1/2017	1/1/2017	1/1/2027
East Side Commons	Multiple Addresses	16	MHFA	D6257	51		51			51	11/8/2011	1/1/2012	12/31/2026
Edgerton Hirise	1000 Edgerton St	1	HUDPH	MN001000003	221	221				221	1/31/1974	1/31/1974	
Payne-Phalen	Payne-Phalen	1	StPPED-4d	Payne-Phalen	204		81	73		154	1/1/2019	1/1/2020	1/1/2029
Ames Green	Multiple Addresses	6	MHFA	D3812	55	6	6	33		45	1/1/2005	11/29/2005	1/1/2035
Barclay Terrace	Multiple Addresses	7	MHFA	D3671	77			56		56	1/1/2004	11/23/2004	1/1/2020
Elders Lodge	1500 Magnolia Ave E	1	MHFA	D1541	43	42				42	10/30/2014	4/23/2020	1/1/2020
Etna Woods	1216 Clarence St	1	HUD	800010902	20	20				20	7/1/1988	7/1/2016	6/30/2021
Greater East Side	Greater East Side	1	StPPED-4d	Greater East Side	121		28	59		87	1/1/2019	1/1/2020	1/1/2029
Hazelwood Terrace	Multiple Addresses	9	MHFA	D3900	99	10	10	61		81	1/1/2005	10/5/2006	1/1/2036
Maryland Park Apts	Multiple Addresses	2	MHFA	D3475	172			172		172	1/1/2014	6/26/2014	5/31/2034
Roosevelt Homes	Multiple Addresses	62	HUDPH	Roosevelt Homes	320	320				320	1/14/2014	1/1/2020	12/31/2039
Rose Hill	Multiple Addresses	7	MHFA	D2249	77	8	8	40		56	1/1/2002	11/18/2003	1/1/2020

# Intersection: CSAH 31 (Maryland AVE) and M 1218 (Hazelwood St)

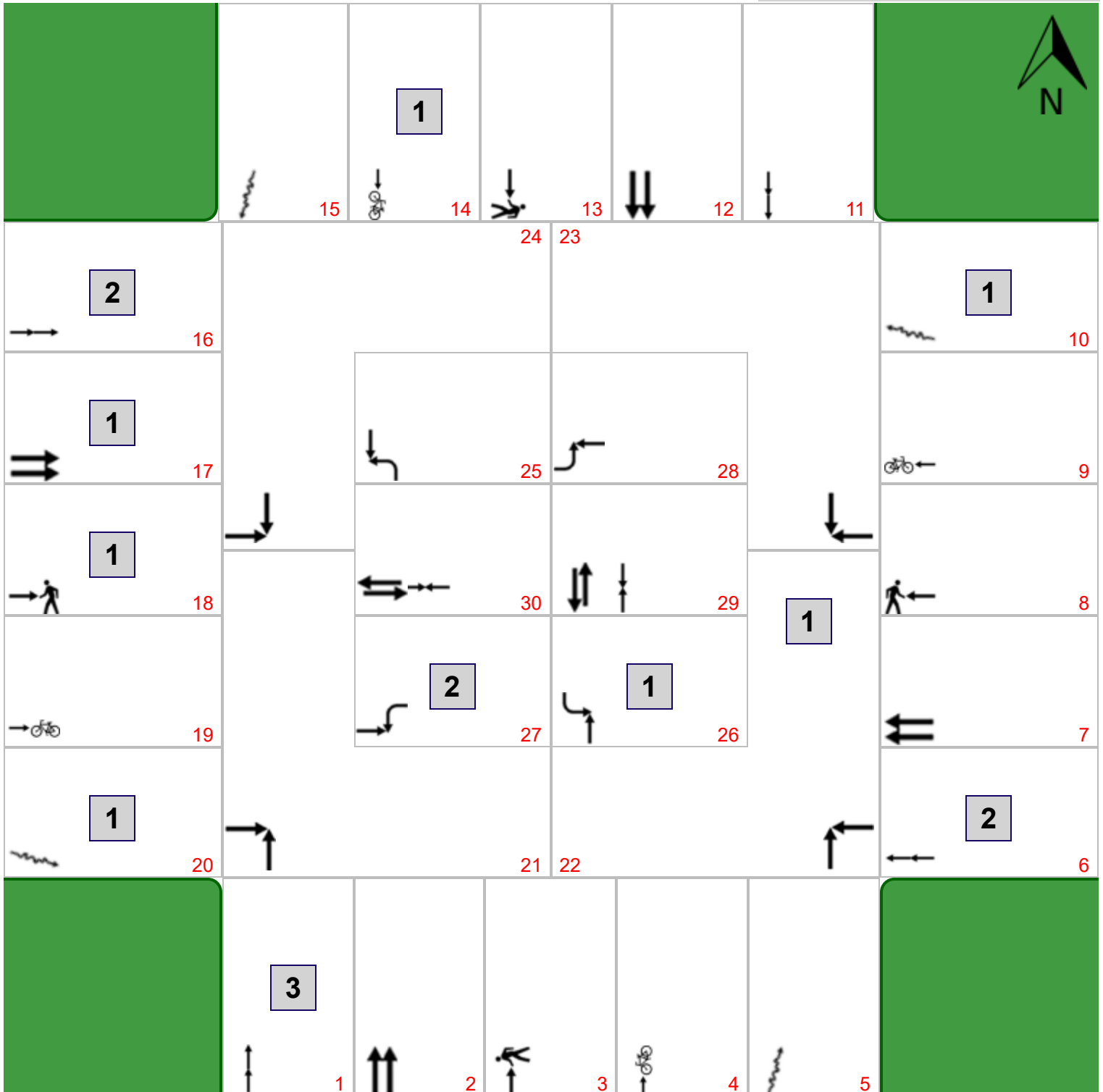
**K** Fatal (K)

**A** Incapacitating Injury (A)

**T** Total






**Route System** CSAH  
**Route Number** 0400006595070031-I  
**Measure** 6.453  
**County** Ramsey  
**City** Saint Paul






	K	A	B	C	N	U	Total
Rear End	0	0	1	1	5	0	7
SSS	0	0	0	0	1	0	1
SSO	0	0	0	0	1	0	1
Head On	0	0	0	0	0	0	0
Left Turn	0	0	0	1	2	0	3
Ped	0	1	2	0	0	0	3
Bike	0	0	0	1	0	0	1
Angle	0	0	0	0	1	0	1
SVROR	0	0	0	0	2	0	2
Other	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>12</b>	<b>0</b>	<b>19</b>





# Summary of Crash Incidents

-  Fatal (K)
-  Possible Injury (C)
-  Incapacitating Injury (A)
-  Property Damage - No Apparent Injury (N)
-  Non-Incapacitating Injury (B)

Box	Basic	Sev	Date	Time	Incident Id	RdSurf	Light	Weather
	Ped		10/14/20	2200	00846446	Dry	Dark (Str Lights On)	Clear
	Ped		11/22/19	1932	00764586	Dry	Dark (Str Lights On)	Clear
	SSO		07/17/20	2131	00820291	Dry	Dark (Str Lights On)	Clear
1	↑		05/24/19	2210	00722174	Dry	Dark (Str Lights On)	Clear
1	↑		08/22/20	1813	00836728	Dry	Daylight	Clear
1	↑		11/08/21	0915	00972063	Dry	Daylight	Clear
6	←		10/01/20	0845	00843860	Dry	Daylight	Cloudy
6	←		10/10/19	2330	00753703	Wet	Dark (Str Lights On)	Cloudy
10	~		06/26/19	1342	00729810	Dry	Daylight	Clear
14	⊙		08/16/20	1850	00835637	Dry	Daylight	Clear
16	→		01/18/20	1356	00780733	Slush	Daylight	Cloudy
16	→		10/03/20	0055	00844201	Dry	Dark (Str Lights On)	Clear
17	⇒		09/16/21	2023	00941041	Dry	Dark (Str Lights On)	Clear
18	→		01/05/19	1214	00674089	Wet	Daylight	Clear
20	~		03/15/21	2020	00895934	Snow	Dark (Str Lights On)	Snow
22	↖		12/02/19	1625	00767509	Wet	Sunset	Clear
26	↘		11/28/19	2145	00766141	Wet	Dark (Str Lights On)	Clear
27	↘		06/01/21	1523	00909138	Dry	Daylight	Clear
27	↘		09/27/21	1630	00943266	Dry	Daylight	Clear

Selection Filter:

WORK AREA: County('659507') - FILTER: Year('2019','2020','2021')

# Intersection: CSAH 31 (Maryland AVE) and MSAS 128 (Earl St)

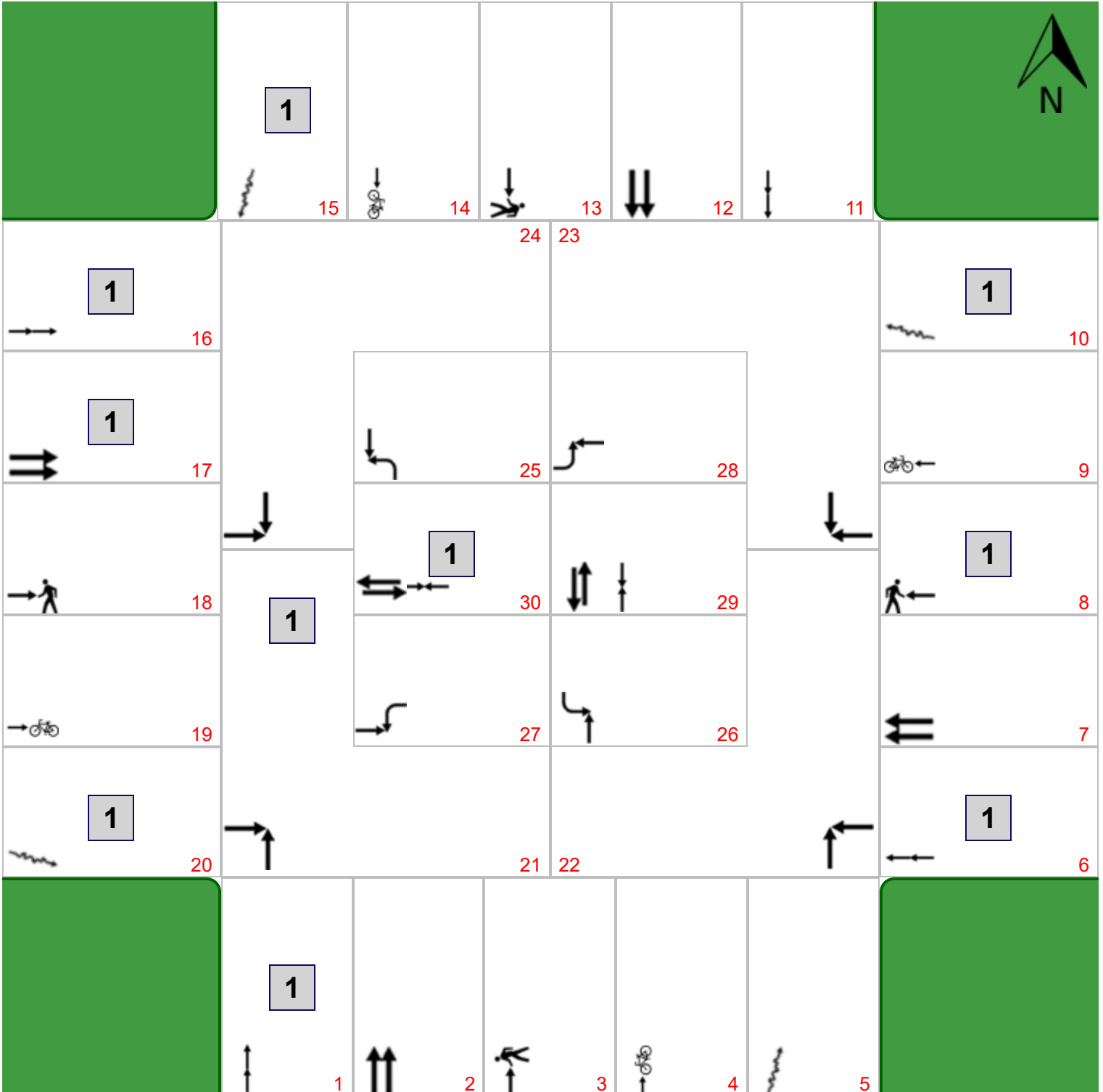
**K** Fatal (K)

**A** Incapacitating Injury (A)






**T** Total






















**Route System** CSAH  
**Route Number** 0400006595070031-I  
**Measure** 5.411  
**County** Ramsey  
**City** Saint Paul

	K	A	B	C	N	U	Total
Rear End	0	0	0	0	3	0	3
SSS	0	0	0	0	1	0	1
SSO	0	0	0	0	0	0	0
Head On	0	0	0	0	1	0	1
Left Turn	0	0	0	0	0	0	0
Ped	0	0	1	0	0	0	1
Bike	0	0	0	0	0	0	0
Angle	0	0	0	0	1	0	1
SVROR	0	0	0	0	3	0	3
Other	0	0	0	1	0	0	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>11</b>



## Summary of Crash Incidents

-  Fatal (K)
-  Possible Injury (C)
-  Incapacitating Injury (A)
-  Property Damage - No Apparent Injury (N)
-  Non-Incapacitating Injury (B)

Box	Basic	Sev	Date	Time	Incident Id	RdSurf	Light	Weather
	Other		06/18/19	0847	00727623	Dry	Daylight	Clear
1			12/19/19	0700	00772775	Dry	Dark (Str Lights On)	Cloudy
6			10/23/21	1813	00968781	Dry	Daylight	Clear
8			08/04/21	1553	00932248	Dry	Daylight	Clear
10			04/26/20	0031	00808158	Dry	Dark (Str Lights On)	Clear
15			09/07/19	2330	00745788	Unknown	Dark (Str Lights On)	Unknown
16			10/03/21	1540	00944562	Dry	Daylight	Clear
17			02/25/19	0758	00691530	Snow	Daylight	Clear
20			03/18/19	1222	00698579	Dry	Daylight	Clear
21			11/21/19	2222	00764319	Dry	Dark (Str Lights On)	Clear
30			06/27/21	1610	00914718	Dry	Daylight	Clear

Selection Filter:

WORK AREA: County('659507') - FILTER: Year('2019','2020','2021')

# Intersection: CSAH 31 (Maryland AVE) and MSAS 129 (Johnson Pkwy)

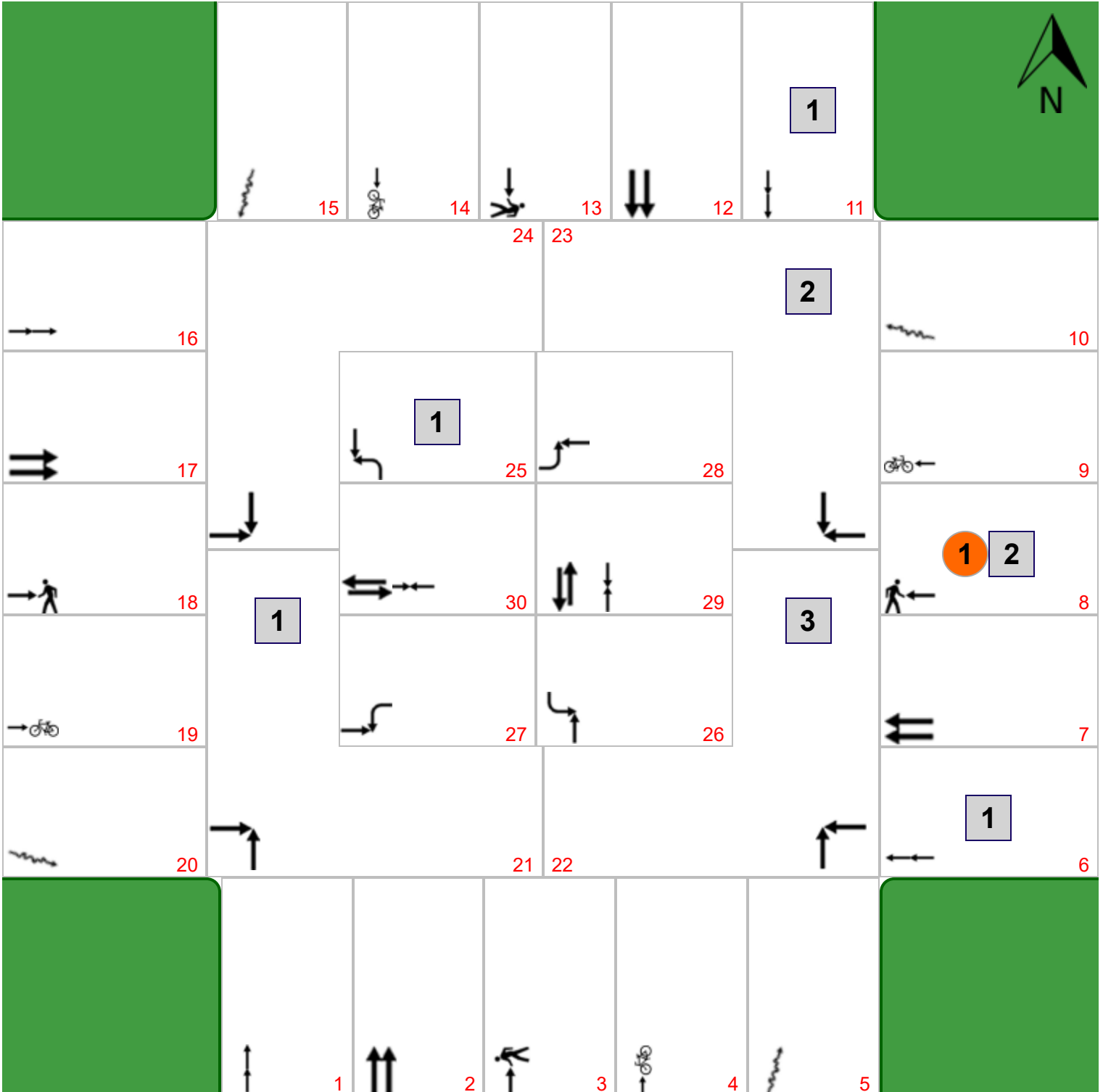
**K** Fatal (K)

**A** Incapacitating Injury (A)






**T** Total



























**Route System** CSAH  
**Route Number** 0400006595070031-I  
**Measure** 5.856  
**County** Ramsey  
**City** Saint Paul

	K	A	B	C	N	U	Total
Rear End	0	0	0	0	2	0	2
SSS	0	0	0	0	0	0	0
SSO	0	0	0	0	0	0	0
Head On	0	0	0	0	0	0	0
Left Turn	0	0	0	0	1	0	1
Ped	0	1	0	1	0	0	2
Bike	0	0	0	0	0	0	0
Angle	0	0	1	2	4	0	7
SVROR	0	0	0	0	0	0	0
Other	0	0	0	0	3	0	3
<b>Total</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>10</b>	<b>0</b>	<b>15</b>



# Summary of Crash Incidents

-  Fatal (K)
-  Possible Injury (C)
-  Incapacitating Injury (A)
-  Property Damage - No Apparent Injury (N)
-  Non-Incapacitating Injury (B)

Box	Basic	Sev	Date	Time	Incident Id	RdSurf	Light	Weather
	Angle		07/22/19	2250	00735299	Dry	Dark (Str Lights On)	Clear
	Other		08/01/19	1626	00737596	Dry	Daylight	Clear
	Other		08/10/21	1516	00933376	Dry	Daylight	Clear
	Other		11/24/20	1718	00865151	Wet	Dark (Str Lights On)	Rain
6			06/11/21	0530	00911504	Dry	Daylight	Clear
8			02/25/21	2045	00893031	Dry	Dark (Str Lights On)	Clear
8			07/29/19	1245	00736799	Dry	Daylight	Clear
11			08/01/19	0010	00737451	Dry	Dark (Str Lights On)	Clear
21			06/04/21	2110	00910057	Dry	Dark (Str Lights On)	Clear
22			01/21/19	1920	00678082	Wet	Dark (Str Lights On)	Clear
22			03/26/20	0239	00805275	Dry	Dark (Str Lights On)	Clear
22			12/11/19	1526	00771595	Dry	Daylight	Clear
23			02/24/20	1640	00800529	Wet	Daylight	Clear
23			04/01/21	0930	00898593	Dry	Daylight	Clear
25			02/07/20	2139	00786211	Dry	Dark (Str Lights On)	Cloudy

Selection Filter:

WORK AREA: County('659507') - FILTER: Year('2019','2020','2021')

# Intersection: CSAH 31 (Maryland AVE) and MSAS 135 (Forest ST)

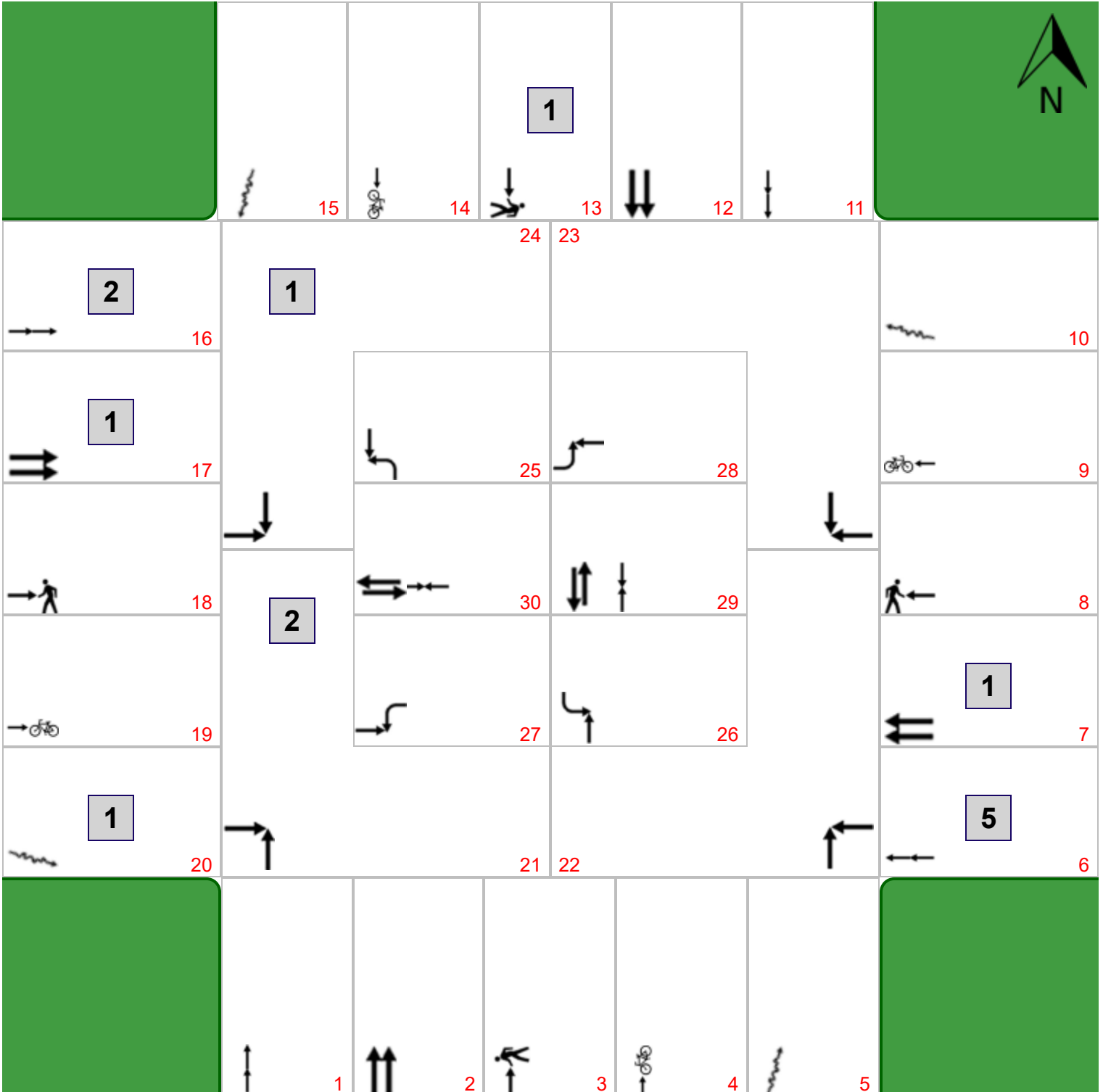
**K** Fatal (K)

**A** Incapacitating Injury (A)






**T** Total

**Route System** CSAH  
**Route Number** 0400006595070031-I  
**Measure** 5.161  
**County** Ramsey  
**City** Saint Paul

	K	A	B	C	N	U	Total
Rear End	0	0	0	2	5	0	7
SSS	0	0	0	0	2	0	2
SSO	0	0	0	0	0	0	0
Head On	0	0	0	0	0	0	0
Left Turn	0	0	0	0	0	0	0
Ped	0	0	1	0	0	0	1
Bike	0	0	0	0	0	0	0
Angle	0	0	0	3	1	0	4
SVROR	0	0	0	0	1	0	1
Other	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>9</b>	<b>0</b>	<b>15</b>



# Summary of Crash Incidents

-  Fatal (K)
-  Possible Injury (C)
-  Incapacitating Injury (A)
-  Property Damage - No Apparent Injury (N)
-  Non-Incapacitating Injury (B)

Box	Basic	Sev	Date	Time	Incident Id	RdSurf	Light	Weather
	Angle		06/22/19	1932	00728705	Dry	Daylight	Clear
6			10/01/20	1522	00844244	Dry	Daylight	Clear
6			10/21/20	1534	00848304	Wet	Daylight	Clear
6			03/30/21	1724	00898362	Dry	Daylight	Clear
6			08/05/20	0255	00833665	Dry	Daylight	Cloudy
6			10/08/20	1845	00845254	Dry	Dark (Str Lights On)	Clear
7			12/08/19	1814	00769093	Dry	Dark (Str Lights On)	Clear
13			12/08/19	1715	00769043	Dry	Dark (Str Lights On)	Clear
16			06/09/19	1249	00725671	Dry	Daylight	Cloudy
16			08/13/20	1825	00835294	Dry	Unknown	Clear
17			08/12/20	1139	00834862	Wet	Daylight	Rain
20			11/13/19	1708	00762288	Snow	Sunset	Cloudy
21			10/15/20	1742	00846610	Dry	Daylight	Clear
21			07/05/21	1817	00916347	Dry	Daylight	Clear
24			10/07/20	2047	00845053	Dry	Dark (Str Lights On)	Clear

Selection Filter:

WORK AREA: County('659507') - FILTER: Year('2019','2020','2021')

# Transportation Research Synthesis

Minnesota Department of Transportation  
Office of Research & Innovation  
651-366-3780  
[www.mndot.gov/research](http://www.mndot.gov/research)

TRS 2004

November 2020

## PREVENTIVE MAINTENANCE AND INSPECTION FOR TRAFFIC SIGNALS, ROADWAY LIGHTING AND OVERHEAD SIGN STRUCTURES

*Prepared by CTC & Associates LLC*

**The MnDOT Asset Management Program and Office of Traffic Engineering** are seeking information about the state of the practice in preventive maintenance and inspection strategies designed to extend the service life of traffic signals, roadway lighting and overhead sign structures. MnDOT is particularly interested in the

expected service lives of these roadway assets, preventive maintenance and inspection activities and schedules, cost-benefits associated with preventive maintenance and inspection strategies, and the criteria used to determine asset replacement.

This Transportation Research Synthesis presents findings from a survey of select transportation agencies and a literature search of relevant national and state practices, research and guidance.





## Service Life

MnDOT expects traffic signals to serve effectively for 30 years, as do Illinois and Ohio DOTs, Ontario and Columbus, Ohio (Table 1). Pennsylvania and Indiana DOTs expect shorter lives of 25 years, Quebec expects a slightly longer service life of 35 years, and Utah DOT did not indicate an expected service life for traffic signals.

**Table 1. Asset Expected Service Life (in Years)**

Agency	Traffic Signal	Roadway Lighting	Overhead Sign Supports
Minnesota	30	30 / 50 for high mast	60
Columbus, Ohio	30	N/R	30
Illinois	30	30-40	30-40
Indiana	25*	N/R	N/R
Ohio	30	50	50
Ontario	30*	30-40	N/R
Pennsylvania	25	25	50
Quebec	35	35	35
Utah	Not determined	N/R	30**

N/R No response

\*Indiana DOT expects poles to serve for 25 years, cabinets for 15 and controllers for five to 10 years. Ontario expects poles, mast arms and underground components to last for 30 years; cabinets, distribution equipment, hangars and support structures for 20 years; signal heads for 10 years; electronics and communications equipment for seven years; and LED signal units for five years.

\*\*Utah DOT expects 30 years of its galvanization, not necessarily of the structure itself

For roadway lighting, MnDOT expects 30 year of service from standard structures and 50 years from high mast light poles. Illinois DOT and Ontario expect 30 to 40 years of service, while Quebec expects 35. Ohio DOT expects 50 years of service from its lighting structures, matching MnDOT expectation for high mast structures. Only Pennsylvania DOT, with a life expectancy for roadway lighting structures of 25 years, holds lower expectations for service durability.

MnDOT expectations for overhead sign support structure service exceed all other agencies that responded to the survey, with a 60-year service expectation. Columbus, Ohio, expects 30 years of service from the support structures, Illinois DOT expects 30 to 40 years, Quebec expects 35, and Ohio and Pennsylvania DOTs expect 50 years. Utah DOT expects 30 years of its galvanization, not necessarily of the structure itself; after 30 years, the agency regalvanizes or repaints structures.

## Traffic Signals

Every survey respondent provided details about preventive maintenance and inspection of traffic signal structures. Two agencies shared knowledge about or interest in cost–benefits data on traffic signal inspections,