

AGENDA

APO TECHNICAL ADVISORY COMMITTEE MEETING

THURSDAY, OCT. 26, 2023 – 10 A.M.
STEARNS COUNTY HIGHWAY DEPARTMENT
455-28TH AVE. S, WAITE PARK

ZOOM OPTION AVAILABLE BY REQUEST

1. Introductions
2. Public Comment Period
3. Consideration of Consent Agenda Items (*Attachments A-D*)
 - a. Receive staff report of the Sept. 21, 2023, Policy Board meeting (Attachment A)
 - b. Approve minutes of Sept. 28, 2023, TAC meeting (Attachment B)
 - c. Receive staff report of the Oct. 5, 2023, Central Minnesota Area Transportation Partnership Meeting (Attachment C)
 - d. Receive staff report of the Oct. 12, 2023, Policy Board meeting (Attachment D)
4. Capital Asset Management Software Presentation (Attachment E), Brian Gibson, Executive Director
 - a. **Suggested Action: None, informational.**
5. Consideration of the FY 2028 Highway Safety Improvement Program Projects (Attachments F1-F2), Vicki Johnson, Senior Transportation Planner
 - a. **Suggested Action: Recommend Policy Board approval.**
6. Consideration of the Looking Ahead 2050 Goals, Objectives, Strategies, and Performance Measures Chapter (Attachments G1-G2), *Vicki Johnson, Senior Transportation Planner*
 - a. **Suggested Action: Recommend Policy Board approval.**
7. Other Business & Announcements
8. Adjournment

English

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Somali

Ururka Qorsheynta Deegaanka ee Cloud Cloud (APO) wuxuu si buuxda u waafaqsanahay Cinwaanka VI ee Xuquuqda Xuquuqda Rayidka ee 1964, Cinwaanka II ee Sharciga Naafada Mareykanka ee 1990, Amarka Fulinta 12898, Amarka Fulinta 13116 iyo qawaaniinta iyo qawaaniinta la xiriira. APO waa u furan tahay dhammaan dadka awooda oo dhan. Qofka u baahan dib-u-habeyn ama dejin, caawimaad gargaar ah, adeegyo turjumaad, adeegyo turjubaan, iwm, si uu uga qeyb galo kulan dadweyne, oo ay ku jiraan helitaanka ajendahaan iyo / ama ku lifaaqan qaab kale, ama luqadda fadlan la xiriir APO. 320-252- 7568 ama at admin@stcloudapo.org ugu yaraan toddobo (7) maalmood kahor kulanka.

Spanish

La Organización de Planificación del Área de Saint Cloud (APO en inglés) cumple plenamente con el Título VI de la Ley de Derechos Civiles de 1964, con el Título II de la Ley sobre los Estadounidenses con Discapacidad de 1990), de la Orden Ejecutiva 12898, de la Orden Ejecutiva 13116 y los estatutos y reglamentos relacionados. La APO es accesible para todas las personas de todas las capacidades. Una persona que requiere una modificación o acomodación, ayudas auxiliares, servicios de traducción, servicios de interpretación, etc., para poder participar en una reunión pública, incluyendo recibir esta agenda y/o archivos adjuntos en un formato o idioma alternativo, por favor, contacta a la APO al número de teléfono 320-252-7568 o al admin@stcloudapo.org al menos siete (7) días antes de la reunión.



1040 County Road 4, Saint Cloud, MN 56303-0643

T. 320.252.7568 F. 320.252.6557

TO: Saint Cloud Area Planning Organization Technical Advisory Committee
FROM: Brian Gibson, Executive Director
RE: Staff Report on Policy Board Meeting
DATE: October 9, 2023

A Policy Board meeting was held on Thursday, September 21, 2023. The Board took the following actions:

1. The Board approved the 2024-2027 Transportation Improvement Program (TIP) as recommended by the TAC.
2. The Board approved the Metropolitan Transportation Plan (MTP) existing conditions chapter, as recommended by the TAC.
3. The Board approved the MTP environmental chapter, as recommended by the TAC.
4. The Board approved updates to the APO's personnel policies which included:
 - a. Adding Juneteenth as an official paid holiday;
 - b. Updating the salary scales for staff;
 - c. Updating the sick leave policies to conform with the State's Earned Sick and Safe Leave law;
 - d. Other minor technical corrections.
5. The Board approved the adjusted Urban Area Boundary map, as recommended by the TAC.
6. The Board approved a motion to include the environmental review for a potential new bridge at 33rd Street South in St. Cloud as the APO's top work item for 2025.

Suggested Action: None, informational.

SAINT CLOUD AREA PLANNING ORGANIZATION TECHNICAL ADVISORY COMMITTEE (TAC) MEETING

Thursday, Sept. 28 @ 10 a.m.

A meeting of the Saint Cloud Area Planning Organization’s (APO) Technical Advisory Committee (TAC) was held at 10 a.m. on Thursday, Sept. 28, 2023. Senior Transportation Planner Vicki Johnson presided with the following people in attendance:

Voting Members:

Matt Glaseman	City of Saint Cloud
Tracy Hodel	City of Saint Cloud (alternate)
Mike Decker	Stearns County (alternate)
Dave Blommel	City of Waite Park (alternate)
Chris Byrd	Benton County
Kari Theisen	City of Sartell
Andrew Witter	Sherburne County
Randy Sabart	City of Saint Joseph
Michael Kedrowski	Saint Cloud Metro Bus
Todd Schultz	City of Sauk Rapids
Steve Voss	MnDOT District 3

Non-Member Attendees:

Vicki Johnson	APO, Senior Transportation Planner
Alex McKenzie	APO, Associate Transportation Planner
James Stapfer	APO, Transportation Planning Technician

Zoom Attendees:

Innocent Eyoh	Minnesota Pollution Control Agency
Jeff Lenz	MnDOT District 3
Colin Korst	Federal Transit Administration
Voni Vegar	MnDOT Office of Transit and Active Transportation
Angie Tomovic	MnDOT District 3

Introductions were made.

PUBLIC COMMENT PERIOD

No members of the public were present.

CONSIDERATION OF CONSENT AGENDA

- a. Approve minutes of Aug. 31, 2023, TAC meeting
- b. Consideration of the 2024 Technical Advisory Committee meeting schedule

Ms. Hodel made a motion to approve consent agenda items. Mr. Voss

seconded the motion. Motion carried.

CONSIDERATION OF THE LOOKING AHEAD 2050 REFINED SCENARIO MODEL RESULTS

Ms. Johnson provided a recap of the July 27 TAC meeting's activity surrounding the development of the 2050 Metropolitan Transportation Plan (MTP) model. After the conclusion of the July meeting, she stated TAC representatives were given the opportunity to suggest additional projects be added to the 2050 MTP project list. She also stated the initial project list was shared with members of the Policy Board for their review. APO staff compiled the list of proposed changes to the 2050 project list – both expansion and reconstruction/system preservation projects – the consultant did project cost estimates on the additional projects as well as added the new expansion projects to the model as part of the refined scenario. The consultant also ran a model scenario which included the refined 2050 MTP projects alongside the portions of the urban beltline that did not meet fiscal constraint.

Ms. Johnson reviewed the initial model results as compared to the 2050 no build scenario and noted only a slight decrease in vehicle miles traveled (VMT), no change in vehicle hours traveled (VHT) and a 3.9% decrease in travel delay.

There were four additional MnDOT projects added to the 2050 MTP project list as well as an additional 24 projects added by the cities and counties. With the addition of those projects, Ms. Johnson noted very minimal change between the initial and refined model results – virtually unchanged VMT and VHT results, but a 4.7% decrease in travel delay.

The beltline scenario was developed based upon the alignment from the 2045 MTP as well as the recommendations from the southwest beltline study and the 33rd Street S Mississippi River Crossing study. The consultant modeled the full beltline – regardless of fiscal constraint – with the refined scenario. With that scenario, Ms. Johnson explained there was a sizeable decrease in travel delay as compared to the refined scenario by itself – travel delay was down 16.2%, a difference of 11.5 percentage points. She said the most notable improvement was on the principal arterial system which saw a 9% improvement in travel delay with the beltline as opposed to not.

Ms. Johnson did note at the August Policy Board meeting there was a discussion about whether the beltline should remain a regional priority. She said the APO will be working to host a regional meeting in January or February to discuss this and how the region should proceed.

Ms. Theisen had inquired if the model results presented regarding the beltline will be included in the region-wide beltline discussion this winter. Ms. Johnson said she was uncertain about what specifically would be addressed, but she said she was under the impression that model results aside the discussion would be on whether the beltline was still a regional priority and how to handle it on a regional level.

Mr. Glaseman made a motion to approve the Looking Ahead 2050 MTP project list. Ms. Theisen seconded the motion. Motion carried.

CONSIDERATION OF THE 2024 PM1 SAFETY TARGETS

Mr. Stapfer said Performance Measure (PM) 1 targets must be looked at on an annual basis. This target (PM1) is primarily used at the state level – if the state fails to meet their safety targets, they must divert additional funding to safety projects. Mr. Stapfer said MnDOT calculates and establishes targets for PM1, however, those targets aren't applicable at the APO level. Mr. Stapfer said the APO's PM1 target must be adopted by no later than Feb. 28, 2024.

Mr. Stapfer discussed the 2022 results in comparison to the 2022 PM1 targets established in 2020. He also provided information on the 2023 targets as the MnDOT 2024 PM1 targets for comparison. Mr. Stapfer said based on the 2022 data, the APO met the 2023 safety targets for non-motorized fatalities and serious injuries. Based on past precedent, Mr. Stapfer has proposed keeping the 2024 PM1 targets the same as the 2023 targets with the exception of the non-motorized fatalities and serious injury crashes which he recommended setting at the 2022 result rate.

The 2024 PM1 targets would be as follows (based on five-year rolling averages):

- Fatalities: 8.0.
- Fatality Rate (100 MVMT): 0.626.
- Serious Injuries: 23.0.
- Serious Injury Rate (100 MVMT): 1.946.
- Non-Motorized Fatalities and Serious Injuries: 6.2.

Mr. Stapfer also provided 10 years' worth of safety data to discuss the trends the region is experiencing. Those trends include experiencing a lower fatality rate while having more VMT.

Mr. Byrd made a motion to recommend Policy Board approval of the APO's 2024 PM1 Safety Targets. Mr. Schultz seconded. Motion carried.

OVERVIEW OF THE 2023-2024 GRANT SOLICITATIONS

Ms. Johnson presented the current and upcoming grant solicitations.

The Highway Safety Improvement Program (HSIP) is designed for low-cost, high-impact solutions designed to reduce fatalities and serious injuries on all public roadways. This program, which is currently open, requires a 10% local match minimum and applicants can request up to \$750,000 in Federal funding. Ms. Johnson reviewed the anticipated funding targets for HSIP for ATP-3 between 2025 and 2028.

Ms. Johnson provided the deadlines for the HSIP solicitation. Applications are due to her by noon on Oct. 16 for review by the TAC and Policy Board. Full applications are due to Office of Traffic Engineering by Nov. 22. She encouraged counties to apply and for those cities that are interested in applying, Ms. Johnson said she will work to connect them with the appropriate state contact to help them navigate the process.

Ms. Johnson also reviewed both state funded grant solicitations – Active Transportation Infrastructure Grant and Safe Routes to School Infrastructure Grant. She stated these programs are funded at 100% with a minimum award of \$50,000 and a maximum award of \$1 million. For both programs projects must be constructed in 2024 or 2025 and they are competitive across the state. Ms. Johnson said the timeline for these grants include a letter of intent due Nov. 9, full application will be distributed by Nov. 27, and full applications are due Feb. 2.

The Surface Transportation Block Grant Program (STBGP) solicitation will open in early October. Applications are due to Ms. Johnson by 3 p.m. on Monday, Jan. 8. The TAC will recommend a ranking/prioritization at the Feb. 1 TAC meeting. Funding targets have not been established for the APO yet.

Transportation Alternatives (TA) solicitation will open with a letter of intent process in early October. LOIs due by the end of October/early November. Full applications will be sent out in mid-November. Applications are due to Jeff Lenz at MnDOT District 3 by Jan. 12.

Mr. Lenz said there will be workshops on Oct. 5 (in Brainerd) and Oct. 10 (in Saint Cloud) to review the process.

Local Partnership Program (LPP) is designed for locally led projects that will be completed on the trunk highway system. Ms. Johnson said the solicitation opens in mid-October with applications due at the end of January. Mr. Voss said they are anticipating \$4 million for this program.

Ms. Johnson said she would be willing to review jurisdictional applications prior to them being submitted. Ms. Tomovic also indicated her willingness to answer questions and provide assistance.

No action taken. Informational item only.

OTHER BUSINESS AND ANNOUNCEMENTS

Mr. Voss said next week's ATP meeting in Baxter will be cut short to allow for MnDOT's Office of Transportation System Management to conduct an open house on the Minnesota State Highway Investment Plan (MnSHIP). This will be from 11 a.m. to noon.

Mr. Eyoh sent Ms. Johnson information on an MPCA grant to assist communities in mitigation climate change. He has asked this email to be shared with the TAC.

ADJOURNMENT

The meeting adjourned at 10:42 a.m.



1040 County Road 4, Saint Cloud, MN 56303-0643

T. 320.252.7568 F. 320.252.6557

TO: Saint Cloud Area Planning Organization Technical Advisory Committee
FROM: Vicki Johnson, Senior Transportation Planner
RE: Staff Report on Oct. 5, 2023, Central Minnesota Area Transportation Partnership ATP-3 meeting
DATE: Oct. 6, 2023

The Central Minnesota Area Transportation Partnership (ATP-3) met in Baxter on Thursday, Oct. 5, 2023. At that meeting, the following topics were discussed:

1. Local Program Update

- a. MnDOT District 3 State-Aid Engineer Angie Tomovic provided an update on the locally funded projects (Surface Transportation Block Grant, Transportation Alternatives, Highway Safety Improvement Program) within District 3. She stated there are a good number of projects that are moving along. She said she has no concerns about projects at this point in time.
- b. Ms. Tomovic provided an update on the Local Partnership Program. She said the LPP solicitation will be kicking off in October. She estimates there will be approximately \$1.7 million for FY 2028 plus some additional funding that was unspent in previous years. This could mean the LPP solicitation could be up to approximately \$3.9 million across MnDOT District 3. Ms. Tomovic said the solicitation period will close in January with project selection in March and ATP-3 approval slated for April 2024.
- c. Ms. Tomovic also indicated the Highway Safety Improvement Program (HSIP) solicitation is currently open. She stated there is approximately \$4.7 million available in HSIP funds for FY 2028. Applications are due by Nov. 22. The state's selection committee will meet in December and January with project awards being announced in February 2024.

2. ATP-3 FY 2025-2028 STIP Development Timeline

- a. MnDOT District 3 Planning Director Steve Voss detailed a few changes to the 2025-2028 STIP Development Timeline. These changes include the new date for when the full application phase for the TA solicitation will begin – that new date being Nov. 24, 2023. He stated the District is still waiting guidance on the Carbon Reduction Program (CRP) and the Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) solicitations.

3. Recommended ATP-3 Transportation Alternatives (TA) Program Policy, Application, and Scoring Changes

- a. Mr. Voss discussed the work the TA scoring committee and the ATIP development committee conducted regarding the Transportation Alternatives program. This work included raising the minimum technical score to be considered eligible to receive TA funds from the District from 60 points to 65 points. In addition, Mr. Voss said the committees were recommending clearer guidance on the distribution of equity points. The committee requested the following: "To bring the ATP's award of equity points in alignment with

current inequity deficit of 4% or more, which would allow a region to receive four points when their inequity deficit hits 4%. The equity deficit would need to reach the next highest percentage without rounding to receive additional points.” The committee also recommended that once an application was formally submitted that no changes should be made to the application. Applicants should instead rely on their respective regional planners to assist in making their application as competitive as possible. The two committees also recommended several changes to the District’s TA application – including the clarification of equity/environmental justice, adding in two resources for applicants to use regarding equity, and adding equity information to the historical properties and scenic byways/environmental applications. Finally, Mr. Voss stated the committees recommended several changes to the ATP-3’s Operations and Policy Manual regarding the proposed changes/clarifications to the TA program.

- b. Members of the ATP-3 voted:
 - i. To approve the raising of the minimum technical score from 60 to 65 points.
 - ii. To approve the clarification surrounding equity point distribution.
 - iii. To approve the changes made to the TA applications and scoring sheets.
 - iv. To approve the changes made to the ATP-3’s Operations and Policy Manual.
4. FYs 2024/2025 Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Local Candidate Project Recommendations
- a. MnDOT District 3’s Engineering Specialist/Program Coordinator Jeff Lenz presented on the three projects the ATP-3 received as part of the PROTECT Solicitation. Those projects included:
 - i. The City of Baxter’s proposed improvements along MN 371 between Excelsior Road and Woida Road. This project would include significant stormwater upgrades to increase the size and number of drainage structures. The City was requesting \$625,000 in ATP-3 PROTECT funds.
 - ii. The City of Monticello’s proposed improvements to Wright County Ditch 33. This project would repair the failing section of ditch infrastructure north of I-94 to make this area more resilient to flooding and other extreme weather events. The City was requesting \$1.2 million in ATP-3 PROTECT funds.
 - iii. The City of Princeton’s proposed compact roundabout construction at the intersection of CSAH 31/First Street and CSAH 39/21st Avenue. The City was requesting \$480,000 in ATP-3 PROTECT funds.
 - b. Members of the ATP-3 voted:
 - i. To approve the City of Baxter’s PROTECT fund request contingent on the City continuing to work with MnDOT on the project scope.
 - ii. To table the City of Monticello’s PROTECT fund request. This project will need additional information and coordination with the city and county staff.
 - iii. To eliminate the City of Princeton’s PROTECT fund request from consideration due to it not meeting the program’s criteria.
5. FY 2028 ATP-3 Managed Program Federal Funding Project Solicitation

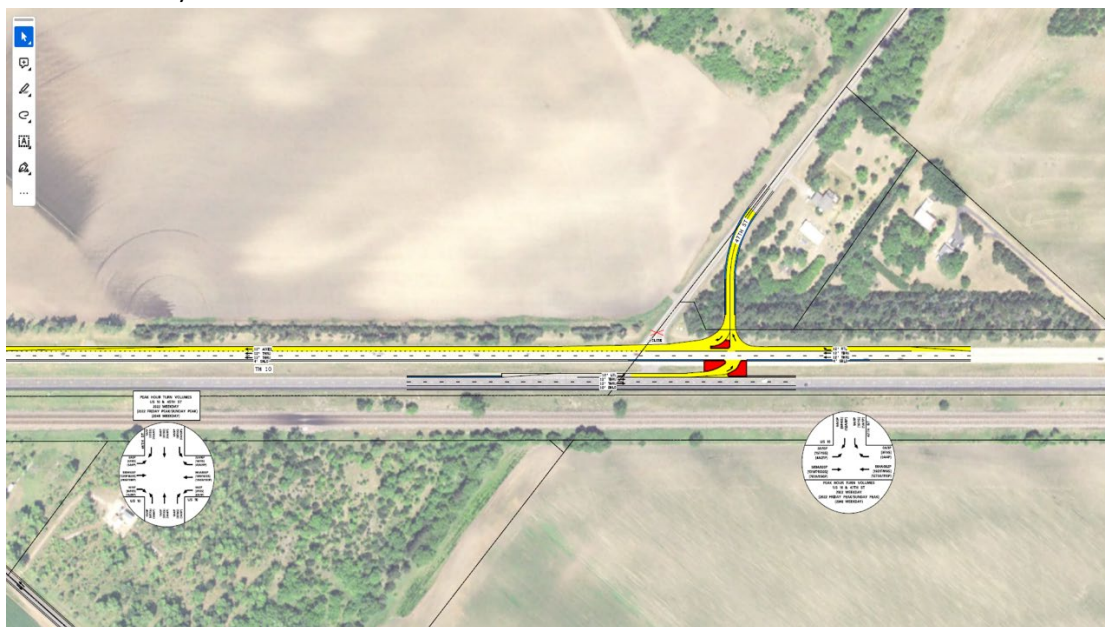
- a. Mr. Lenz presented the application guidance, application, and templated scoring guidance for the FY 2028 Surface Transportation Block Grant Program (STBGP) solicitation. No changes were made to the guidance, application, or recommended scoring template. Members of the ATP-3 voted to approve the solicitation. Ms. Tomovic will be working with regional representatives to develop a more formal award letter for successful applicants to be placed in the project file at the district.
6. FY 2028 ATP-3 Transportation Alternatives Program Project Solicitation Kick Off
 - a. Mr. Lenz provided an overview of the FY 2028 ATP-3 Transportation Alternatives Program solicitation. He stated workshops on the program will be provided at 1:30 p.m. on Oct. 5 in Baxter (after the ATP-3 meeting) as well as at 1:30 p.m. on Oct. 10 at the Saint Cloud MnDOT office. An overview of the program's solicitation timeline was provided as well as materials related to the Letter of Intent and the state's TA guidance. Members of the ATP-3 voted to approve the solicitation.
 7. MnDOT's Interpretation of Minnesota's Open Meeting Law Requirements on ATPs
 - a. Mr. Voss provided a follow-up to an inquiry from the June meeting regarding Open Meeting Laws. He stated that in reaching out to MnDOT senior leadership as well as MnDOT's legal counsel, it was determined that the ATPs do not need to abide by the state's Open Meeting Laws. This is because the ATPs are not considered a decision-making body – they are strictly an advisory body to the state's Commissioner of Transportation.

Suggested Action: None, informational only.

TO: Saint Cloud Area Planning Organization Technical Advisory Committee
FROM: Brian Gibson, Executive Director
RE: Staff Report on Policy Board Meeting
DATE: October 13, 2023

A Policy Board meeting was held on Thursday, October 12, 2023. The Board took the following actions:

1. Approved using the \$1 million in state funding appropriated in 2021 for US-10 to help Sherburne County rebuild the intersection of CR-61 & US-10. The project will realign CR-61 to 90-degress, make the intersection a $\frac{3}{4}$ access intersection, and install an acceleration lane for trucks.



2. Approve the 2050 MTP project lists as recommended by the TAC.
3. Approved the APO's 2024 safety (i.e., PM-1) targets, as recommended by the TAC.

Performance Measures	2022 Results	2022 Targets	2023 Targets	Proposed 2024 Targets	MnDOT 2024 Target
Fatalities	8.2	8.6	8.0	8.0	352.4
Fatality Rate (100 MVMT)	0.629	0.720	0.626	0.626	0.582
Serious Injuries	28.4	23.0	23.0	23.0	1,463.4
Serious Injury Rate (100 MVMT)	2.169	1.946	1.946	1.946	2.470
Non-Motorized Fatalities and Serious Injuries	6.2	7.8	6.6	6.2	258.4

Suggested Action: None, informational.



SAINT CLOUD | AREA PLANNING ORGANIZATION

1040 County Road 4, Saint Cloud, MN 56303-0643

T. 320.252.7568 F. 320.252.6557

TO: Saint Cloud Area Planning Organization Technical Advisory Committee
FROM: Brian Gibson, Executive Director
RE: Asset Management Software
DATE: October 13, 2023

Currently, every 5 years, the APO hires a vendor to collect and provide ride quality/pavement quality data for all collectors and arterials in the APO's planning area. That data is valuable for understanding the condition of the network. But it is only a snapshot in time. As time passes, the accuracy of that data diminishes.

For some time, the idea of developing or acquiring a pavement asset management software system has been in the air. Such a system would take the pavement condition data that we gather and allow us (including the TAC members) to begin to predict when a corridor would need treatment to help preserve pavement quality. The data collection effort would transform from a simple snapshot in time to a data point in a series of data points that will help us predict the rate at which pavement is deteriorating.

Recently, I was contacted by a firm called [Brightly Software](https://www.brightlysoftware.com/) (<https://www.brightlysoftware.com/>) which specializes in asset management software. After meeting with them several times, I thought it was worth the time of the TAC to learn more about their product in order to decide if we should acquire their product.

Our first-year costs would be \$33,314.48, and then our annual costs for the subsequent four years would be:

	2025	2026	2027	2028
Brightly Predictor Software	\$18,416.47	\$18,968.97	\$19,538.04	\$20,124.18

These costs would be distributed among the jurisdictions according to our typical per capita formula. So, for example, the 2024 costs per jurisdiction would be:

	2021 Population	Population %	Predictor 1 st Year Cost
St. Cloud	68,746	48.88%	\$16,284.12
St. Joseph	7,151	5.09%	\$1,695.71
Sartell	19,522	13.88%	\$4,624.05
Sauk Rapids	13,730	9.76%	\$3,251.49
Waite Park	8,368	5.95%	\$1,982.21
Benton County	5,426	3.86%	\$1,285.94
Sherburne County	2,630	1.87%	\$622.98
Stearns County	15,064	10.71%	\$3,567.98
Total	140,637	100%	\$33,314.48

Brightly provides training on how to use their software and each jurisdiction would have access to use the software. APO staff would serve as Brightly's point-of-contact and contract manager.

Brightly staff will provide a brief presentation at your October 26th meeting about their product so that you can learn more. My primary questions for you are:

- **Would the product be useful to you?**
- **Would you use it to help you make investment decisions?**

If not, then I don't want to waste our money on it. But if it is a good choice for asset management software, then we may be able to finally accomplish our long-standing goal of putting in place a pavement asset management system.

Suggested Action: No recommended action, but if the TAC finds the Brightly software to be useful, I can amend it into our 2024 UPWP. So, I am looking for a consensus from the TAC about whether to purchase the software or not.



1040 County Road 4, Saint Cloud, MN 56303-0643

T. 320.252.7568 F. 320.252.6557

TO: Saint Cloud Area Planning Organization Technical Advisory Committee
FROM: Vicki Johnson, Senior Transportation Planner
RE: 2025-2028 Greater MN Highway Safety Improvement Program projects
DATE: Oct. 13, 2023

As a comprehensive, intergovernmental transportation planning agency for the Saint Cloud Metropolitan Planning Area (MPA), the Saint Cloud Area Planning Organization (APO) works with member agencies and jurisdictions to facilitate local, state, and Federal funds for programs and surface transportation improvement programs. In order to accomplish this, the APO is tasked with prioritizing projects that align with its long-range transportation vision for the region.

The Metropolitan Transportation Plan (MTP) is a long-range, multimodal, surface transportation plan that identifies a regional vision for transportation and the steps necessary to achieve that vision. Part of those steps includes the identification of various transportation improvement projects within the Metropolitan Planning Area (MPA).

In order to carry out the vision of the MTP, the APO develops and maintains a Transportation Improvement Program (TIP). The TIP is a short-range (four year) programming document that reports on how the various agencies and jurisdictions within the Saint Cloud MPA have prioritized their use of limited Federal highway and transit funding. This document is updated on an annual basis.

Projects contained within the TIP must either be identified within the MTP or align closely with the goals and objectives of the MTP. In addition, these projects are funded in part by the Federal Government or are projects sponsored specifically by the Minnesota Department of Transportation (MnDOT).

One of the sources of transportation funding the Federal Government uses is the Highway Safety Improvement Program (HSIP). The goal of HSIP is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads and roads on tribal lands. This funding source requires a 10% local match with a maximum cap for a project being \$750,000 per location.

The 2025-2028 HSIP solicitation kicked off in mid-September by the Minnesota Department of Transportation's Office of Traffic Engineering (OTE). Applications are due to OTE by no later than Wednesday, Nov. 22.

As approved by the APO's Policy Board at the June 9, 2022, meeting, HSIP projects occurring within the APO's planning area must be reviewed by the APO's TAC and Policy Board prior to being submitted for funding consideration. All proactive/data-driven projects will receive an "equal prioritization" – meaning the APO's Policy Board will not rank/prioritize these projects. All reactive projects will be subject to a discussion based preliminary ranking by the TAC with final rankings/prioritization being handled at the Policy Board level.

Sherburne County has indicated their intent to apply for this solicitation with the following project:

- **PROACTIVE/DATA-DRIVEN:** Installation of transverse rumble strips at various intersections within Sherburne County. Note, this is part of a larger county wide

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project.

Suggested Action: Recommend Policy Board ranking/prioritization for HSIP funding consideration.

Due Nov. 22, 2023

Greater Minnesota, Local HSIP Solicitation

Application for Federal Safety Funds

1. Contact Information Details

Lead Agency	Contact Name
Sherburne County	David Roedel

2. Funding Details

Federal Funds	+	Local Match	=	Total Cost
\$21,600	+	\$2,400	=	\$24,000

NOTE: maximum of \$750,000 in federal funds per agency per project.

Preferred Funding Year(s)
2025

Funding Notes
County Funds will be used for the local match

3. Project Description

Project Description
Transverse Rumble Strips

ATP	County or Counties	Metropolitan Planning Organization (MPO)	Tribal Government
3	Sherburne County	St. Cloud Area Planning Organization	No

NOTE: if any portion of the project is located within MPO boundaries, a letter of support / priority from the MPO is needed.

Estimated Output	Units
0	Miles
5	Intersections
0	Curves

NOTE: estimate output for one of three metric: number of miles, number of intersections, or number of curves.

4. Selection Criteria

Describe how project was identified.
The intersections selected are not identified in the 2018 CRSP but were identified in the 2010 CRSP as high priority. Previous improvements were made to these intersections hoping to minimize crashes. These same improvements were constructed at other intersections throughout the county, and unfortunately they are still experiencing crashes. The county looks at all intersection with a systemic approach and is proposing to continue taking a proactive role in minimizing crashes by adding Transverse Rumble Strips.
Is this project in partnership with another agency?
No

5. Crash Data for Reactive Projects ONLY: Jan. 1, 2018 through Dec. 31, 2022

Number of Crashes	K	A	B	C	PDO	Total
All Crash Types	0	0	0	0	0	0

NOTE: set filters to 2018 through 2022 in MnCMAT if you submit an Intersection Report or Section Report.

OPTIONAL: Crashes by Basic Type	K	A	B	C	PDO	Total
Pedestrian	0	0	0	0	0	0
Bicyclist	0	0	0	0	0	0
Single Vehicle Run-off-road	0	0	0	0	0	0
Single Vehicle Other	0	0	0	0	0	0
Sideswipe Same Direction	0	0	0	0	0	0
Sideswipe Opposing Direction	0	0	0	0	0	0
Rear End	0	0	0	0	0	0
Head On	0	0	0	0	0	0
Left Turn	0	0	0	0	0	0
Angle	0	0	0	0	0	0
Other	0	0	0	0	0	0

OPTIONAL: Description of any unique characteristics.
None.

Reactive projects must have a benefit-cost ratio greater than 1.00; to simplify this analysis, OTE will conduct the calculation. An electronic copy of the analysis output will be available upon request.

6. OPTIONAL: Additional Notes

Additional Notes for Selection Committee

Attached is a Crash Summary Report from 2018 thru 2022. Sherburne County has been actively improving intersection awareness with the installation of Streetlights, "Cross Traffic Does Not Stop" plaques on existing stop signs, and at some locations LED Stop Signs. With the installation of these improvements, as shown on the attached layout, the county is still experiencing county wide crashes at intersection due to driver neglect. We feel by taking a proactive role and adding the Transverse Rumble Strips to these intersections, it will improve driver awareness of an upcoming intersection and prevent intersection crashes.

The Crash Summary Report unfortunately is not reflecting a decrease in crashes at rural intersections. It does show that overall crashes are staying relatively the same, with the exception of K and A's. K and A's which have increased over the past 5years. We feel this increase stems from distracted drivers, and with the installation of the Transvers Rumble Strip, this will improve driver awareness of an upcoming intersection.

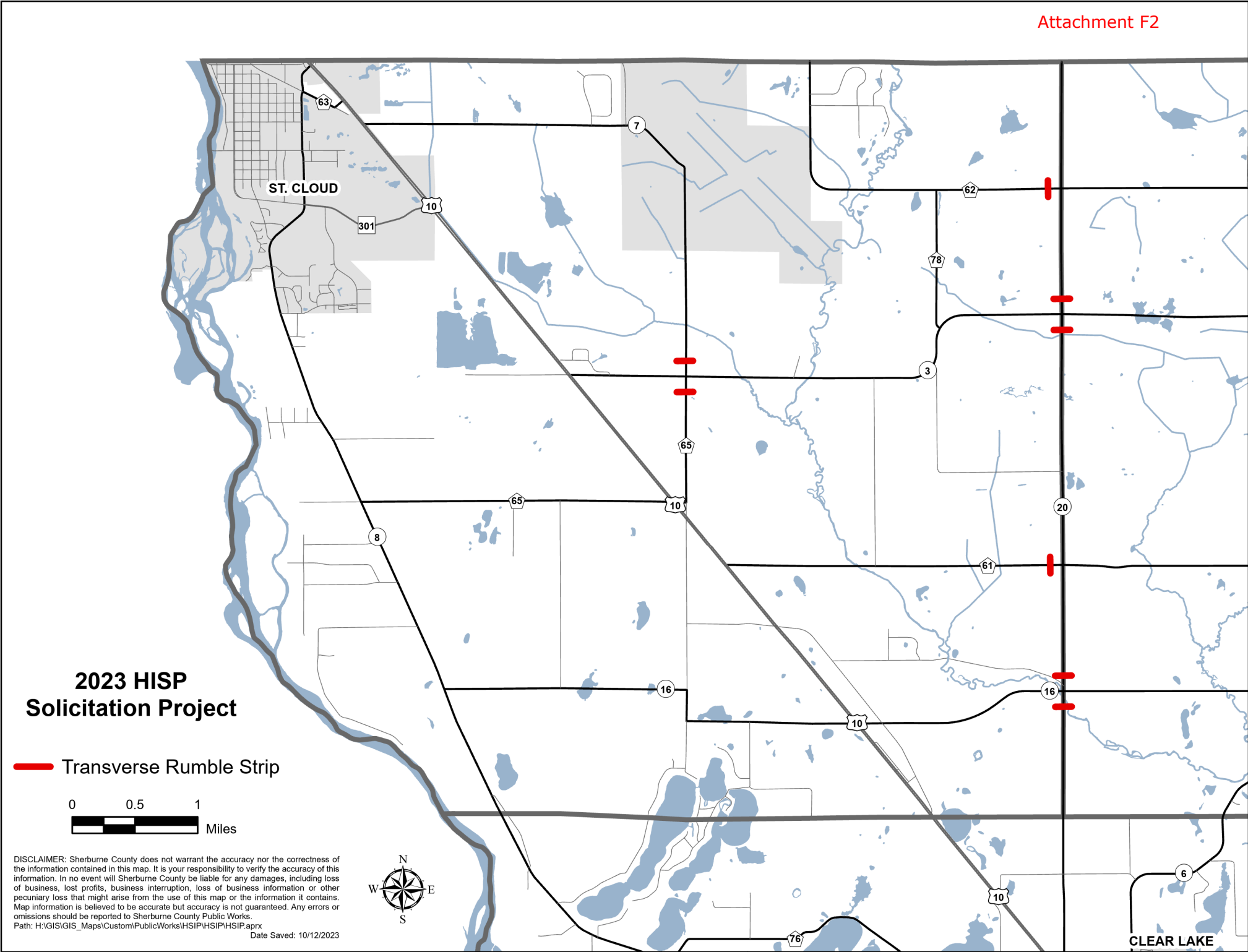
This application only applies to the proposed HSIP projects within the St. Cloud APO. This will be included with a county wide solicitation for the installation of Transverse Rumble Strips at Rural Intersections throughout the county.

7. Submission Information

Submit this application via PDF to SafetyProject.DOT@state.mn.us by **November 22, 2023**.

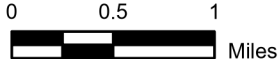
Please include the following as necessary:

- Map of project location(s)
- County Road Safety Plan project sheet(s)
- Letters of support
 - a. Metropolitan Planning Organization (MPO) if within borders
 - b. MnDOT District Traffic Engineer if work performed in MnDOT right-of-way



2023 HISP Solicitation Project

 Transverse Rumble Strip



DISCLAIMER: Sherburne County does not warrant the accuracy nor the correctness of the information contained in this map. It is your responsibility to verify the accuracy of this information. In no event will Sherburne County be liable for any damages, including loss of business, lost profits, business interruption, loss of business information or other pecuniary loss that might arise from the use of this map or the information it contains. Map information is believed to be accurate but accuracy is not guaranteed. Any errors or omissions should be reported to Sherburne County Public Works.

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Date Saved: 10/12/2023

CLEAR LAKE



Crash Summary Intersection Crashes

Crash Severity/Crash Year												
Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	18	0	0	0	0	0	2	5	3	1	4	3
A - Serious Injury	37	0	0	0	0	0	3	4	7	11	11	1
B - Minor Injury	199	0	0	0	0	0	38	30	42	42	35	12
C - Possible Injury	294	0	0	0	0	0	63	55	46	58	45	27
N - Prop Dmg Only	1338	0	0	0	0	0	253	252	196	247	269	121
U - Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Total	1886	0	0	0	0	0	359	346	294	359	364	164

Crash Severity/Number of Vehicles					
Crash Severity	Total	0	1	2	3+
K - Fatal	18	0	7	11	0
A - Serious Injury	37	0	6	29	2
B - Minor Injury	199	0	28	150	21
C - Possible Injury	294	0	22	230	42
N - Prop Dmg Only	1338	0	211	1035	92
U - Unknown	0	0	0	0	0
Total	1886	0	274	1455	157

Relationship to Intersection Summary		Total	%
Not at Intersection/Interchange		0	0.0
Four-Way Intersection		1156	61.3
T or Y Intersection		374	19.8
Five-Way Intersection or More		0	0.0
Roundabout		0	0.0
Intersection Related		356	18.9
Driveway Access Related		0	0.0
At School Crossing		0	0.0
Railway Grade Crossing		0	0.0
Shared Use Path or Trail		0	0.0
Interchange or Ramp		0	0.0
Crossover Related		0	0.0
Acceleration/Deceleration Lane		0	0.0
Other/Unknown		0	0.0
Total		1886	100.0

Basic Type Summary			Total	%
Pedestrian			5	0.3
Bike			6	0.3
Single Vehicle Run Off Road			196	10.4
Single Vehicle Other			67	3.6
Sideswipe Same Direction			112	5.9
Sideswipe Opposing			15	0.8
Rear End			774	41.0
Head On			26	1.4
Left Turn			116	6.2
Angle			496	26.3
Other			73	3.9
Total			1886	100.0

Weather 1 Summary		Total	%
Clear		1149	60.9
Cloudy		433	23.0
Rain		75	4.0
Snow		179	9.5
Sleet, Hail (Freezing Rain/Drizzle)		12	0.6
Fog/Smog/Smoke		10	0.5
Blowing Sand/Soil/Dirt/Snow		20	1.1
Severe Crosswinds		2	0.1
Other/Unknown		6	0.3
Total		1886	100.0

First Harmful Event Summary			Total	%
Pedestrian			5	0.3
Bicyclist			5	0.3
Motor Vehicle In Transport			1594	84.5
Parked Motor Vehicle			4	0.2
Train			0	0.0
Deer/Animal			46	2.4
Other - Non Fixed Object			14	0.7
Collision Fixed Object			163	8.6
Non-Collision Harmful Events			55	2.9
Other/Unknown			0	0.0
Total			1886	100.0

Light Condition Summary		Total	%
Daylight		1335	70.8
Sunrise		47	2.5
Sunset		61	3.2
Dark (Str Lights On)		292	15.5
Dark (Str Lights Off)		10	0.5
Dark (No Str Lights)		119	6.3
Dark (Unknown Light)		18	1.0
Other/Unknown		4	0.2
Total		1886	100.0



Crash Summary Intersection Crashes

Time of Day/Day of Week														Total	%
From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59			
SUN	3	3	4	6	9	20	39	28	29	23	11	6	181	9.6	
MON	3	2	13	27	21	27	28	40	49	26	17	10	263	13.9	
TUE	2	3	11	50	48	19	28	46	54	28	12	5	306	16.2	
WED	1	1	12	35	29	27	32	41	42	28	22	10	280	14.8	
THU	0	1	14	45	34	28	31	53	50	35	15	10	316	16.8	
FRI	3	2	11	31	31	29	38	51	58	36	20	13	323	17.1	
SAT	6	6	1	10	14	37	32	29	30	20	20	12	217	11.5	
Total	18	18	66	204	186	187	228	288	312	196	117	66	1886	100.0	
%	1.0	1.0	3.5	10.8	9.9	9.9	12.1	15.3	16.5	10.4	6.2	3.5	100.0	100.0	

Driver & Non-Motorist Age/Gender Summary						
Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	1	0	0	1	0.0
15	3	0	0	0	3	0.1
16	52	75	1	0	128	3.5
17	61	49	1	0	111	3.0
18	73	50	2	0	125	3.4
19	52	42	0	1	95	2.6
20	58	37	0	0	95	2.6
21-24	180	131	4	0	315	8.5
25-29	221	144	0	0	365	9.9
30-34	212	142	1	0	355	9.6
35-39	208	148	0	0	356	9.6
40-44	190	121	0	0	311	8.4
45-49	166	100	0	0	266	7.2
50-54	153	110	0	0	263	7.1
55-59	166	98	0	0	264	7.2
60-64	143	69	0	0	212	5.7
65-69	81	50	0	0	131	3.6
70-74	77	37	0	0	114	3.1
75-79	44	30	0	0	74	2.0
80-84	21	16	0	0	37	1.0
85-89	9	6	0	0	15	0.4
90-94	7	2	0	0	9	0.2
95+	1	0	0	0	1	0.0
No Value	0	0	0	44	44	1.2
Total	2178	1458	9	45	3690	100.0
%	59.0	39.5	0.2	1.2	100.0	100.0

Month Summary		Total	%
January		178	9.4
February		182	9.7
March		147	7.8
April		131	6.9
May		137	7.3
June		173	9.2
July		146	7.7
August		157	8.3
September		159	8.4
October		148	7.8
November		141	7.5
December		187	9.9
Total		1886	100.0

Physical Condition Summary		Total	%
Apparently Normal (Including No Drugs/Alcohol)		3448	94.6
Physical Disability (Short Term or Long Term)		2	0.1
Medical Issue (Ill, Sick or Fainted)		7	0.2
Emotional (Depression, Angry, Disturbed, etc.)		6	0.2
Asleep or Fatigued		35	1.0
Has Been Drinking Alcohol		66	1.8
Has Been Taking Illicit Drugs		10	0.3
Has Been Taking Medications		2	0.1
Other/Unknown		70	1.9
Not Applicable		0	0.0
Total		3646	100.0

Selection Filter:

WORK AREA: County('659515') - FILTER: County('659515'), Basic Type('1','2','3','4','5','6','7','8','9','10','90'), Crash Severity('1','2','3','4','5','0'), Relationship to Intersection('3','4','10'), Route System('02','03','04','07'), Year('2018','2019','2020','2021','2022','2023')

Analyst:
Daniel Knapek

Notes:



1040 County Road 4, Saint Cloud, MN 56303-0643

T. 320.252.7568 F. 320.252.6557

TO: Saint Cloud Area Planning Organization Technical Advisory Committee
FROM: Vicki Johnson, Senior Transportation Planner
RE: Looking Ahead 2050 Objectives, Strategies, and Performance Measures
DATE: Oct. 13, 2023

A Metropolitan Transportation Plan (MTP) is a long-range, multimodal, regional surface transportation plan that identifies a regional vision for transportation and the steps toward achieving that vision.

MTPs are a joint product of all individual jurisdictions within a metropolitan planning area (MPA) and represent a singular, agreed upon vision for the future of transportation within that region.

By Federal regulation, MTPs must have a planning horizon of at least 20 years and must be updated no less than every five years (or every four years if the region does not meet certain air quality standards).

Contained within the MTP are regional goals, objectives, and implementing strategies which assist MPA planners, engineers, and elected officials in achieving the region's vision.

Thus far in the planning process, APO staff has brought forth the following sections of the 2050 MTP for TAC recommendation:

- Looking Ahead 2050 Visioning Themes.
- Looking Ahead 2050 Existing Conditions.
- Looking Ahead 2050 Environmental Information.
- Looking Ahead 2050 Project Lists.
- Looking Ahead 2050 Build and Build + Beltline Model Results.

Each of these sections has been approved by the APO's Policy Board for inclusion into our final draft of the 2050 MTP.

This next section for your consideration pertains to the objectives, strategies, and performance measures that will be utilized to carry out our six visioning themes. Those approved visioning themes include:

- System and Environmental Stewardship: Protecting and preserving our existing infrastructure and environmental assets.
- Multimodal Connections: Providing a safe and equitable multimodal transportation network affordable for people of all ages and abilities to travel using their preferred modal choice.
- Congestion Management: Mindfully planning, developing, and operating an innovative transportation network to minimize unnecessary travel delays.
- Transportation Safety: Reducing fatalities and serious injuries by planning, designing, and building safe infrastructure and improving driving behavior.
- Interregional Connections: Supporting an economically vibrant region through developing and preserving vital connections to other state, national, and global

centers of commerce.

- **Technological Advancements:** Understanding and planning for future innovative transportation technologies and encouraging their presence and incorporation into the region's existing transportation network.

To help the region achieve the six visionary statements listed above, APO staff have worked closely to develop objectives and strategies to assist us (the APO, staff, and jurisdictional/agency partners) in creating our desired transportation network.

The objectives and strategies identified in the draft are consistent with the goals outlined by U.S. Department of Transportation, the State of Minnesota (as statutorily directed), as well as policies adopted as part of the Minnesota Department of Transportation's State Multimodal Transportation Plan (SMTP).

In addition to outlining the desired objectives and strategies, this chapter also identifies various performance measures and/or indicators APO staff will be monitoring to ensure progress is being made toward those desired visionary statements.

Attachment G2 contains the draft Goals, Objectives, Strategies, and Performance Measures Chapter for your review and consideration.

Suggested Action: Recommend Policy Board approval of the draft Looking Ahead 2050 Goals, Objectives, Strategies, and Performance Measures Chapter.

Introduction

Now that we have a pretty good handle on where we are (based on the groundwork discussed in both the existing conditions and environmental section), our next step is to figure out where we want to go.

After we've evaluated our current situation (both what is and is not working well) we need to identify a path forward and a means to get there. This chapter is designed to do just that.

As we Look Ahead to 2050, we need to come to an agreed upon destination. Assisting transportation planners, engineers, and local policymakers in this process is the creation of a transportation vision – answering the question of what we would like to achieve during this planning horizon. These higher-level visionary statements are meant to serve as aspirational goals for the region's transportation network.

Using objectives and strategies, we as a region can then start taking purposeful action steps to execute our goals. Keeping us in check along the way is a series of performance measures which allow us to assess our progress and/or redirect our efforts as needed.

Guiding our Goals at the National and State Level

While the APO does establish their own regional vision (goals), objectives, and strategies as part of the MTP process; these must be consistent with goals established at both the national and state levels. Because the APO is a recipient of Federal and State transportation funding which is used to carry out various programs – including the ultimate expenditure of Federal and/or State transportation funding for infrastructure – it is crucial that this plan's goals, objectives, and strategies are compliant.

National Transportation Goals

Federal law (as codified in 23 U.S.C. 150(b)) establishes the following national surface transportation goals:

Safety: To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

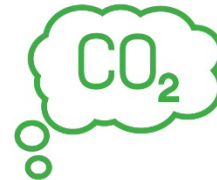


Infrastructure Condition:

To maintain the highway infrastructure asset system in a state of good repair.



System Reliability:
 To improve the efficiency of the surface transportation system.



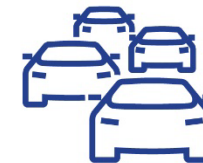
Environmental Sustainability: To enhance the performance of the transportation system while protecting and enhancing the natural environment.

Freight Movement and Economic Vitality: To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.



Congestion Reduction:

To achieve a significant reduction in congestion on the National Highway System.



Reduce Project Delivery Delays: To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.



Figure X.1: National surface transportation goals.

State Transportation Goals

In addition to the national transportation goals, the State of Minnesota has developed 16 statutory goals MnDOT must comply with:

1. To minimize fatalities and injuries for transportation users throughout the state.
2. To provide multimodal and intermodal transportation facilities and services to increase access for all persons and businesses and to ensure economic well-being and quality of life without undue burden placed on any community.
3. To provide a reasonable travel time for commuters.
4. To enhance economic development and provide for the economical, efficient, and safe movement of goods to and from markets by rail, highway, and waterway.
5. To encourage tourism by providing appropriate transportation to Minnesota facilities designed to attract tourists and to enhance the appeal, through transportation investments, of tourist destinations across the state.
6. To provide transit services to all counties in the state to meet the needs of transit users.
7. To promote accountability through systemic management of system performance and productivity through the utilization of technological advancements.
8. To maximize the long-term benefits received for each state transportation investments.
9. To provide for and prioritize funding of transportation investments that ensures that the state's transportation infrastructure is maintained in a state of good repair.
10. To ensure that the planning and implementation of all modes of transportation are consistent with the environmental and energy goals of the state.
11. To promote and increase the use of high-occupancy vehicles and low-emission vehicles.
12. To provide an air transportation system sufficient to encourage economic growth and allow all regions of the state the ability to participate in the global economy.
13. To increase the use of transit as a percentage of all trips statewide by giving highest priority to the transportation modes with the greatest people-moving capacity and lowest long-term economic and environmental cost.
14. To promote and increase bicycling and walking as a percentage of all trips as energy-efficient, nonpolluting, and healthy forms of transportation.
15. To reduce greenhouse gas emissions from the state's transportation sector.
16. To accomplish these goals with minimal impact on the environment.

Figure X.2: The 16 statutory transportation goals for the State of Minnesota.

MnDOT Policy Guidance

Over a decade ago the State of Minnesota launched a visioning process to “better align the transportation system with what Minnesotans expect for their quality of life, economy, and natural environment.” Known as Minnesota GO, this 50-year statewide vision established guiding principles regarding the future of transportation for the state by answering the question: “What are we trying to achieve with transportation over the next 50 years?”

In 2011 the state adopted the following vision: “Minnesota’s multimodal transportation system maximizes the health of people, the environment, and our economy.”

Guiding Principles for the Minnesota GO Vision

- Connecting Minnesota’s primary assets -- the people, natural resources, and businesses within the state -- to each other and to markets and resources outside the state and country.
- Providing safe, convenient, efficient, and effective movement of people and goods.
- To be flexible and nimble enough to adapt to changes in society, technology, the environment, and the economy.
- Recognizing and respecting the importance, significance, and context of place -- not just as destinations, but also where people live, work, learn, play, and access services.
- To be accessible regardless of socio-economic status or individual ability.
- To be designed in such a way that it enhances the community around it and is compatible with natural systems.
- To minimize resource use and pollution.
- To enhance and support Minnesota’s role in a globally competitive economy as well as the international significance and connections of Minnesota’s trade centers.
- Attracting human and financial capital to the state.

**LOOKING
AHEAD
2050** 

Figure X.3: A list of the guiding principles for the Minnesota GO Vision.

To assist in executing the policy portion of the vision, MnDOT has developed its [Statewide Multimodal Transportation Plan \(SMTP\)](https://tinyurl.com/m5bb5ud9) (<https://tinyurl.com/m5bb5ud9>). The SMTP is Minnesota’s highest level policy plan for transportation and provides direction to move the state’s transportation system forward.

With the latest update to the SMTP, the state has prioritized six key areas to focus their efforts.

1. **Transportation Safety:** Safeguard transportation users as well as the communities the system travels through. Apply proven strategies to reduce fatalities and serious injuries for all modes. Foster a culture of transportation safety in Minnesota.
2. **System Stewardship:** Strategically build, maintain, operate, and adapt the transportation system based on data, performance, and community needs. Ensure effective and efficient use of resources.
3. **Climate Action:** Advance a sustainable and resilient transportation system. Enhance transportation options and technology to reduce greenhouse gas emissions. Adapt Minnesota's transportation system to a changing climate.
4. **Critical Connections:** Maintain and improve multimodal transportation connections essential for Minnesotans' prosperity and quality of life. Strategically consider new connections that help meet performance targets and maximize social, economic and environmental benefits.
5. **Healthy Equitable Communities:** Foster healthy and vibrant places that reduce disparities and promote healthy outcomes for people, the environment, and our economy.
6. **Open Decision Making:** Make equitable transportation decisions through inclusive and collaborative processes that are supported by data and analysis.

Each of these focus areas has a series of objective statements as well as strategies and actions to support the achievement of these focus areas and that will ultimately contribute to the success of the Minnesota GO Vision.

As stated earlier, the APO's MTP must be consistent with the policies laid out by MnDOT including the ones established in the SMTP.

The Looking Ahead 2050 Visioning Process

Soon after the development of the 2045 MTP, APO staff sought to facilitate a community-wide visioning process to assist in the development of this long-range plan – Looking Ahead 2050. Utilizing a variety of public engagement tools and strategies, APO staff sought to understand the issues and priorities residents of the Saint Cloud MPA have regarding the regional transportation network.

During this visioning process, approximately 2,000 responses were collected and reviewed. Each of these responses were recorded and subsequently categorized into six themes in which the public believes the region should strive to achieve by planning horizon 2050. Those themes are:

- **System and Environmental Stewardship:** Protecting and preserving our existing infrastructure and environmental assets.
- **Multimodal Connections:** Providing a safe and equitable multimodal transportation network affordable for people of all ages and abilities to travel using their preferred modal choice.

- **Congestion Management:** Mindfully planning, developing, and operating an innovative transportation network to minimize unnecessary travel delays.
- **Transportation Safety:** Reducing fatalities and serious injuries by planning, designing, and building safe infrastructure and improving driving behavior.
- **Interregional Connections:** Supporting an economically vibrant region through developing and preserving vital connections to other state, national, and global centers of commerce.
- **Technological Advancements:** Understanding and planning for future innovative transportation technologies and encouraging their presence and incorporation into the region's existing transportation network.

These visioning statements/themes serve as the foundational goals for the overall direction of the Looking Ahead 2050 MTP. In addition, these statements will serve as the guiding direction for the APO's planning efforts and ultimate the implementation of various infrastructure projects and/or policies for the region.

Appendix X provides a detailed overview of the APO's visioning process.

In the sections that follow, each of these visioning statements/goals will be further addressed through the identification of objectives and strategies to be implemented by the APO and/or its planning partners.

System and Environmental Stewardship

Transportation infrastructure is a significant public investment. And as such, care should be taken to preserve and protect that investment. According to the Federal Highway Administration (FHWA), delaying maintenance and repair of pavement until it has gone beyond its effective service life will be significantly more expensive than regularly scheduled preservation treatments. As stated in the article "[Pavement Preservation: Preserving Our Investment in Highways](https://tinyurl.com/muacwrr8)" (https://tinyurl.com/muacwrr8), authors Robert Davies and Jim Sorenson state that while pavement will not last forever, preservation activities reduce the rate of deterioration. Being proactive in preservation treatments – i.e., applying treatment to pavement when it is still in relatively good condition with no structural damage – results in an "extension of the service life of the original pavement, and extending the service life instead of having to rehabilitate the pavement translates into a savings in funds and a better overall ride quality."

In addition to preserving transportation assets such as roadways and bridges, it is important transportation planners understand the role this sector plays in terms of our region's natural resources. As stated in [Chapter X \(environmental chapter\)](#), transportation has both a direct (i.e., greenhouse gas emissions) and indirect (i.e., water quality and wildlife habitat) impact on the natural environment. As a contributing factor in climate change, the [U.S. Department of Transportation](https://tinyurl.com/22z9cmtn) (https://tinyurl.com/22z9cmtn) has outlined the responsibility the transportation sector has in finding a solution to the climate crisis. At the state level, MnDOT's SMTP outlines the importance of the state's natural resources and a commitment to minimizing harm to the environment.



Figure X.4: Cracking pavement along Graniteview Road in Waite Park taken in 2019.
Photo courtesy Saint Cloud APO.

What Does the Public Think?

The following is a representative sample of the comments received during the initial public input period as they pertain to the System and Environmental Stewardship Visioning Theme.

- "We need to be sure that we maintain our roads as needed, we have some roads that need attention."
- "Improve the condition of our roads and highways."
- "Repair bad roads and keep up with them."
- "Resurface the many streets that are REALLY rough – bad on drivers and passengers."
- "Better roads and sidewalks would be the best way to improve transportation. Right now they are broken and dangerous."

- “Some of the roads need to be retarred. Over by the Technical Community College especially, on the north side and all roads over there. The roads are so bumpy and cracked it makes the ride uncomfortable.”
- “Finding ways that are ‘greener’ to save our environment.”
- “Decrease carbon footprint.”
- “Reverse the effects of global warming.”
- “We need to develop e-car charging stations that are environmentally friendly (solar), accessible throughout the community and affordable.”
- “More availability of eco-friendly transportation.”

How to Address This Vision

In order to make progress toward achieving this visionary statement, the APO is committed to the following objectives and strategies:

1. Prioritize the maintenance and preservation of the existing transportation network.
 - a. The APO shall maintain and regularly update its pavement condition database to help identify areas in need of repair.
 - b. The APO shall develop and maintain a planning and programming process that prioritizes funding for bridges with a “poor” condition rating and roadways with a “poor” International Roughness Index (IRI) rating more highly than other bridges or roadways.
 - c. APO staff shall maintain and regularly update its shared use path pavement condition database to help identify areas in need of repair.
2. Invest in cost-effective transportation solutions.
 - a. The APO jurisdictional members shall use life-cycle cost estimates when evaluating the cost-effectiveness of potential changes to the transportation system.
3. Efficiently manage the transportation system.
 - a. APO staff will develop and regularly report on performance measures aimed at evaluating how efficiently and effectively the transportation systems are being operated/managed.
 - b. APO jurisdictional members shall regularly monitor and adjust traffic signal timings to improve traffic flow.
4. Protect the environment through the promotion of climate resilient transportation practices.
 - a. APO staff will monitor air and water quality to help ensure compliance with national and state quality standards.
 - b. The APO will work to support and promote transportation options with the smallest net environmental impact.
 - c. The APO staff and jurisdictional members shall integrate and encourage the integration of climate change considerations into transportation decision making and evaluate opportunities to mitigate risks.
5. Prevent and/or minimize disproportionate adverse impacts to communities containing a high level of low-income households and/or areas with high concentrations of Black, Indigenous, and People of Color (BIPOC) populations.
 - a. APO staff will monitor and regularly report on transportation impacts to neighborhoods with higher percentages of low-income households and/or areas with high concentrations of BIPOC populations.

Measuring Progress

Performance measures provide useful feedback on how the APO is doing in terms of achieving its desired vision/goals.

Performance management ensures the most efficient investment of transportation funds by increasing accountability, providing transparency, and linking investment decisions to key outcomes.

The following is a list of performance measures the APO will utilize to document progress toward the System and Environmental Stewardship Visionary Statement.

- *Interstate System Pavement Conditions.
- *Non-Interstate National Highway System (NHS) Pavement Conditions.
- Functionally Classified Roadway Pavement Conditions.
- *National Highway System (NHS) Bridge Conditions.
- Systemwide Bridge Conditions.
- Annual Air Quality.

Note, the performance measures denoted with an "*" are federally-required performance measures. For details on how each performance measure is calculated, please see [Appendix X](#).

Multimodal Connections

As stated in [Chapter X \(Existing Conditions\)](#), not everyone in the Saint Cloud MPA has or wants to rely on a motor vehicle to complete every trip.

Active (i.e., walking and biking) and public transportation are important components of the transportation network. However, according to author Todd Litman with the Victoria Transport Policy Institute, over the last century these forms of transportation have often taken a backseat to the automobile. As a result, Litman writes, such focus has essentially ignored the needs of non-vehicle travel demands.

In his paper titled "[Introduction to Multi-Modal Transportation Planning: Principles and Practices](#)" (<https://tinyurl.com/2s42nrd2>), Litman states, "Of course, not everybody uses all travel options, but most communities include people who need each one."

Multimodal options are critical components needed to develop an equitable transportation network for all users. Transportation – and in particular reliable and safe access to it – can be a barrier for some individuals including those in the BIPOC community, people with disabilities, people with low incomes, and people with limited English proficiency for example. Using the 2009 National Household Travel Survey, Litman concluded a typical community in the U.S. has approximately 20-40% of its total population unable to drive due to disability, economics, age constraints, or vehicle failures. Low to minimal cost alternatives to owning and/or maintaining a vehicle can provide individuals who rely on active or public forms of transportation the opportunity to be connected to employment, education, recreation, goods, and services.



Figure X.5: Students and parents crossing the street outside of Pleasantview Elementary School in Sauk Rapids.
Photo courtesy Saint Cloud APO.

What Does the Public Think?

The following is a representative sample of the comments received during the initial public input period as they pertain to the Multimodal Connections Visioning Theme.

- "Better care of our sidewalks. In particular, sidewalks should be cleared and salted by city workers during winter months to ensure that mobility challenged citizens are able to move safely and freely around the city at any time of the year."
- "Transportation policies and practices that prioritize people, not cars."
- "Make pedal biking and walking more accessible. I.e.: Make more bike lanes and walking paths or make some areas safer to bike/walk. Thanks!"
- "I live in St. Joe and I don't need a public bus. In the future if I need to, I would like to get public service from St. Joseph into St. Cloud."
- "Expanded paratransit and disability services."
- "I also think increasing the size of the bus network and its frequency of trips will be beneficial as currently many routes are quite long or require waiting for long intervals to arrive."

- “I do think those who can not drive or have a disability need public transportation so it’s a toss up to have it support itself and to be tax funded.”
- “It would be beneficial to have access to public transportation out here. We don’t have access to Tri-CAP or Dial A Ride. With a developmentally delayed adult son in my home, those transportation opportunities would be so helpful. On weeks I work 3-4 shifts, we spend over \$50/day in taxis to get him to and from work.”
- “Car dependence is convenient but prohibitively expensive.”
- “Transportation needs to be cheaper and more affordable to all.”

How to Address this Vision

In order to make progress toward achieving this visionary statement, the APO is committed to the following objectives and strategies:

1. Identify and maintain viable non-motorized transportation options.
 - a. APO staff will identify, map, and monitor the use of bicycle and pedestrian routes and facilities to determine gaps in the network and opportunities for improvements.
 - b. APO staff and jurisdictional members will work cooperatively to maintain and implement the regional active transportation plan.
 - c. APO staff will continue to coordinate with MnDOT regarding where regional and statewide bicycle facilities enter the Saint Cloud metro area and where they intersect with other local and regional facilities.
 - d. APO staff and Metro Bus will work cooperatively to ensure achievement and maintenance of a state of good repair for public transit assets.
2. Increase the accessibility and efficient mobility of people.
 - a. APO staff and jurisdictional members will encourage and support, to the extent possible, collaborative efforts with public and private transportation providers to ensure coordination of services, optimal sure of resources, and filling of service gaps.
 - b. APO staff and jurisdictional members will encourage and support transportation facilities that are compliant with the Americans with Disabilities Act (ADA) and meet Title VI, Title II, and other environmental justice requirements.
3. Enhance connectivity across and between modes of transportation.
 - a. APO staff shall complete a feasibility study on possible micromobility options for the region and their potential to augment, supplement, or replace other transportation options for residents.
 - b. The APO staff and Metro Bus will work cooperatively to regularly evaluate bus stops, bus shelter locations, condition, and auxiliary amenities to help ensure the needs of the traveling public are being met. Such an evaluation shall also include an evaluation of ADA-compliant access to stop locations.
 - c. APO staff and Metro Bus will work cooperatively to regularly evaluate urban public transit routes and services to help ensure efficient operations and optimal ridership.

Measuring Progress

Performance measures provide useful feedback on how the APO is doing in terms of achieving its desired vision/goals.

Performance management ensures the most efficient investment of transportation funds by increasing accountability, providing transparency, and linking investment decisions to key outcomes.

The following is a list of performance measures the APO will utilize to document progress toward the Multimodal Connections Visionary Statement.

- *TRANSIT: State of Good Repair for Equipment, Facilities, and Rolling Stock.
- TRANSIT: Passengers Per Revenue Hour.
- TRANSIT: Number of Annual Transit Riders.

Note, the performance measures denoted with an "*" are federally-required performance measures. For details on how each performance measure is calculated, please see [Appendix X](#).

Congestion Management

Slow moving vehicles. Stop and go traffic. An increase in travel time. All signs of a common traffic problem known as congestion. Author James Brasuell describes congestion as a supply and demand imbalance – with more cars on the road than the space on the road allows. In his article, ["Planning and the Complicated Causes and Effects of Congestion"](#) (<https://tinyurl.com/y2xrkvz>), Brasuell writes: "Depending on the time of day, and the surrounding population and workforce densities, and the conditions of the road and its intersections, demand for the roadway can increase up to and beyond the point of saturation – when the volume of cars using the road is greater than the capacity of the road."

While we have an understanding of the effects of congestion – i.e., slower speeds, increases in travel delay, increases in fuel consumption – the causes of congestion are multifaceted and are often acting alongside each other. The Federal Highway Administration (FHWA) has outlined seven root causes of congestion according to the report ["Traffic Congestion and Reliability: Trends and Advanced Strategies for Congestion Mitigation"](#) (<https://tinyurl.com/23mjwzr3>):

1. Traffic Incidents.
2. Work Zones.
3. Weather.
4. Fluctuations in Normal Traffic.
5. Special Events.
6. Traffic Control Devices.
7. Physical Bottlenecks.



Figure X.6: Intersection of MN 15 at Veterans Drive/Eighth Street N in Saint Cloud.
Photo courtesy of Saint Cloud APO.

As the FHWA report indicates, "The problem is that with the exception of the physical bottlenecks, the sources of congestion occur with maddening irregularity – nothing is ever the same from one day to the next."

There is no one solution to eliminating congestion within a certain region. However, several tactics employed strategically can improve (or manage) the effects of congestion on our roadways.

What Does the Public Think?

The following is a representative sample of the comments received during the initial public input period as they pertain to the Congestion Management Visioning Theme.

- “Too many cars on same roads at peak travel times.”
- “St. Cloud division is too congested.”
- “I try to avoid traveling through St. Cloud because of all the traffic lights/congestion.”
- “Upgrade traffic lanes to accommodate volume of cars.”
- “Getting anywhere in this city requires going through SEVERAL stoplights. Although I believe there are plans for a ‘loop’ why are the main highways controlled by traffic lights? Highway 15, Highway 10, Highway 23 all inundated by stoplights.”
- “Another contributing factor is the length of stoplights. Crossing any of the major roads takes an eternity and God forbid an emergency vehicle needs to go through and resets the cycle. The lights to cross the major roads in Saint Cloud need to be more frequent. The amount of gas and time that is wasted just sitting at traffic lights is ridiculous.”
- “I would rather drive anywhere in the Twin Cities than Division Street in St. Cloud.”
- “Area needs a ring road or a bypass circling the St Cloud metropolitan area.”
- “Find a way around the St. Cloud city. It sucks having to drive thru the city to get from west to east. Need a roadway that goes around the city.”
- “We need a closer look at the traffic on Division Street. There are huge trucks that use that route during rush hours. Can this be restricted? Can we offer an alternative route for trade vehicles?”
- “There needs to be a truck bypass rather than truck traffic clogging our city.”

How to Address this Vision

In order to make progress toward achieving this visionary statement, the APO is committed to the following objectives and strategies:

1. Increase mobility of people and freight.
 - a. APO staff will continue to collect and analyze data related to travel time reliability, level of service, and vehicle miles traveled to identify areas for congestion mitigation measures.
 - b. The APO jurisdictional members will, to the extent possible, take measure to ensure appropriate densities and mixing of appropriate land uses to help reduce commute distances, encourage non-motorized options, and maximize the efficient delivery of public services to residents.
 - c. The APO will continue to explore the feasibility, costs, and potential benefits of an urban beltline corridor for longer distance and through movements around the MPA.

Measuring Progress

Performance measures provide useful feedback on how the APO is doing in terms of achieving its desired vision/goals.

Performance management ensures the most efficient investment of transportation funds by increasing accountability, providing transparency, and linking investment decisions to key outcomes.

The following is a list of performance measures the APO will utilize to document progress toward the Congestion Management Visionary Statement.

- *Annual Percent of Person-Miles Traveled on the Interstate that are Reliable.
- *Annual Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable.
- Annual Vehicle Miles Traveled.

Note, the performance measures denoted with an "*" are federally-required performance measures. For details on how each performance measure is calculated, please see [Appendix X](#).

Transportation Safety

Safety is of the utmost importance when it comes to the transportation network.

As the SMTP points out, "ensuring transportation user safety applies to all people who use the transportation system regardless of their mode of travel, as well as transportation workers."

Nationwide, safety has generally improved on the country's roadways over the last 40 years with fewer deaths and serious injuries reported annually. However, according to [MnDOT's 2022 General Transportation Safety Trend Analysis report](https://tinyurl.com/52htaz3s) (<https://tinyurl.com/52htaz3s>), trends in fatalities and serious injuries among motorcyclists, bicyclists, and pedestrians have been on the rise.

At the state level, MnDOT's approach to transportation safety includes embracing the six principles of Safe Systems. Those principles include:

1. Death/serious injury is unacceptable.
2. People make mistakes.
3. Humans are vulnerable.
4. Responsibility is shared.
5. Safety is proactive.
6. Redundancy is crucial.

Taken together, the Safe System Approach establishes the groundwork toward building a culture of safety rooted in a people-centered way. Through initiatives like Toward Zero Deaths (TZD) and Safe Routes to School (SRTS), the state is working toward reducing the number of fatalities and serious injuries on Minnesota roadways.

What Does the Public Think?

The following is a representative sample of the comments received during the initial public input period as they pertain to the Transportation Safety Visioning Theme.

- "Driving scares me. Especially in St. Cloud. I try my hardest to avoid it. Too many accidents. People on their phones and not paying attention."
- "More education for drivers to look out for bikers and pedestrians."
- "Stop the speeding and impatient drivers."
- "Slower speed limits and/or more stop signs may be beneficial on side roads as people tend to drive recklessly, and there are kids, bicycles, and people walking dogs, etc."
- "More enforcement on the roads."
- "Saint Cloud highway complex is the number 1 and number 2 worst in the state of Minnesota, it's the worst for accidents."
- "Fifth Avenue and University roundabout is called 'the wheel of death.'"
- "More roundabouts. They seem to be much safer than traffic lights."
- "We need safer roads – people do not understand how to use roundabouts or how to stop at stop signs and red lights."
- "Also, when I am riding in a car we need to enforce people rolling into stop signs and people running stop signs. It is something that I see all of the time at least twice a day and it needs to be fixed."
- "With the increase of cell phone use and driver distraction, I no longer feel safe biking on rural

roadways trusting that a motorist will see me and give me safe passage."

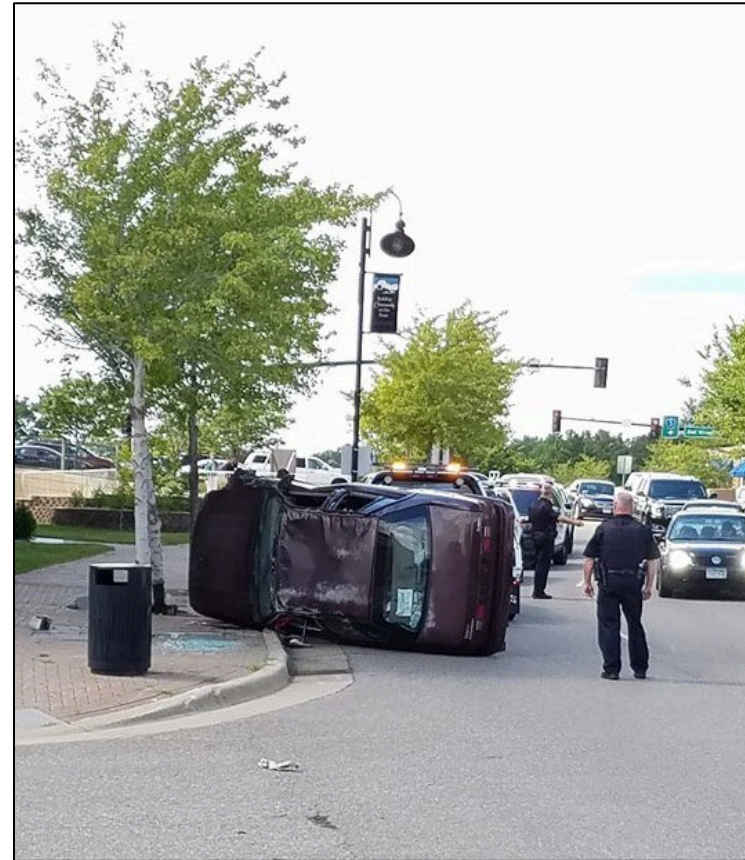


Figure X.7: Vehicle crash on North Benton Drive in the City of Sauk Rapids.

Photo courtesy of Saint Cloud APO.

How to Address this Vision

In order to make progress toward achieving this visionary statement, the APO is committed to the following objectives and strategies:

1. Build and maintain roadways that include appropriate safety infrastructure to help prevent crashes.
 - a. The APO jurisdictional members will, to the extent possible, implement appropriate traffic safety infrastructure based on roadway context to minimize fatal and serious injury crashes.
2. Identify and prioritize high-crash locations for investment and/or mitigation activities, as warranted.
 - a. APO staff will continue to monitor crash rates on the Federal-Aid roadway system to help identify high-crash locations and potential causes of crashes.
3. Reduce the regional rates of bicycle and pedestrian fatalities and serious injuries.
 - a. APO staff will collect and evaluate bicycle and pedestrian crash data to help determine the most common causes of fatalities and serious injuries and to identify action steps for the mitigation of crashes.
 - b. APO staff will continue to work with organizations and government agencies on multimodal transportation projects and programs that enhance access to schools through MnDOT's Safe Routes to School program.
 - c. APO staff and jurisdictional members will, to the extent possible, integrate active transportation safety measures into transportation infrastructure projects.
4. Support, to the extent practical, efforts by outside agencies and stakeholders to improve driving behavior.
 - a. APO staff will continue their participation in the East Central Minnesota Toward Zero Deaths program.
 - b. APO staff will maintain and regularly update a comprehensive regional traffic safety action plan.
5. Support, to the extent practical, a safe transit system.
 - a. APO staff, in cooperation with Metro Bus staff, will monitor and report on transit safety performance.

Measuring Progress

Performance measures provide useful feedback on how the APO is doing in terms of achieving its desired vision/goals. Performance management ensures the most efficient investment of transportation funds by increasing accountability, providing transparency, and linking investment decisions to key outcomes.

The following is a list of performance measures the APO will utilize to document progress toward the Transportation Safety Visionary Statement.

- *Number of Fatalities – Five Year Rolling Average.
- *Rate of Fatalities – Five Year Rolling Average.
- *Number of Serious Injuries – Five Year Rolling Average.
- *Rate of Serious Injuries -- Five Year Rolling Average.
- *Number of Non-Motorized Fatalities and Serious Injuries – Five Year Rolling Average.
- Number and Percent of Crashes, Fatalities, and Serious Injuries that Involved Chemical Impairment – Five Year Rolling Average.

- Number and Percent of Crashes, Fatalities, and Serious Injuries that Involved Distracted Driving – Five Year Rolling Average.
- *TRANSIT: Number and Rate of Fatalities – Annual.
- *TRANSIT: Number and Rate of Injuries – Annual.
- *TRANSIT: Number and Rate of Safety Events – Annual.
- *TRANSIT: Total Number and Rate of Reportable Events Per Total Vehicle Revenue Miles by Mode.

Note, the performance measures denoted with an "*" are federally-required performance measures. For details on how each performance measure is calculated, please see [Appendix X](#).

Interregional Connections

Regional economic development experts agree transportation plays an integral role in furthering the prosperity of an area. Authors Dr. Jean-Paul Rodrigue and Dr. Theo Nottenboom argue in their book [The Geography of Transport Systems](#) (<https://tinyurl.com/8e9c8vt2>) that economic activities cannot take place without an infrastructure base. Efficient and interconnected transportation, they state, provides numerous economic and social opportunities such as better accessibility to markets and employment. "A poor transport service level can negatively affect the competitiveness of regions and their economic activities and thus impair the regional added value, economic opportunities, and employment."

"This is even more so in a global economy where economic opportunities have been increasingly related to the mobility of people and freight, including information and communication technologies. A relation between the quantity and quality of transport infrastructure and the level of economic development is apparent. High-density transport infrastructure and highly connected networks are commonly associated with high levels of development."

Dr. Jean-Paul Rodrigue and Dr. Theo Nottenboom

LOOKING
AHEAD
2050

Figure X.8: Excerpt from *The Geography of Transport Systems* by authors Dr. Jean-Paul Rodrigue and Dr. Theo Nottenboom.

The Saint Cloud MPA is not a self-sustaining economy. As stated in [Chapter X \(Existing Conditions\)](#), thousands of individuals both enter and leave the MPA for employment. Vital freight networks such as I-94, US 10, MN 15, and MN 23 run throughout the region transporting goods to market. This is on top of the region's airport and railway network. Connections not only within the MPA but outside of the MPA to areas like the Twin Cities, greater Minnesota, and even nationally/internationally are critical to sustaining the economic vibrancy of the MPA. Focus on preserving and protecting key roadway corridors not only helps

facilitate interregional travel, but also puts our region on the “radar” of firms interested in locating to or staying within the planning area.

What Does the Public Think?

The following is a representative sample of the comments received during the initial public input period as they pertain to the Interregional Connections Visioning Theme.

- “Better connections between Twin Cities and Sauk Rapids MN area.”
- “I believe there needs to be a transportation system linking St. Cloud to Minneapolis/St. Paul to connect to opportunities there.”
- “More options to travel to Minneapolis airports.”
- “We need ways to get to the Twin Cities besides driving on I-94 and Highway 10.”
- “Improved options for commuters for mass transit to the Twin Cities from St. Cloud.”
- “Improve transportation means for long distance traveling, like railways, buses, etc. not just flights.”
- “Easier travel to/from the cities.”
- “Competitively priced transport to Minneapolis airport.”
- “I also would like the St. Cloud airport to be utilized more as if I need to fly somewhere I look there first.”
- “Get the rail to St. Cloud.”
- “Commuter rail that reaches all the way to St. Cloud. I would use it way more often than. I drive now to visit family in the Twin Cities area.
- “Trains from Minneapolis to St. Cloud, Duluth, Rochester.”
- “We also need the light rail to finish its track to St. Cloud. People I know who do not have transportation are very rarely able to go to the cities. We could have much greater tourism and economic benefit long term if the two urban areas were linked by train.”

How to Address this Vision

In order to make progress toward achieving this visionary statement, the APO is committed to the following objectives and strategies:

1. Promote the efficient movement of people.
 - a. The APO, to the extent possible, will coordinate with jurisdictional and agency partners to identify, preserve, and enhance long-distance commuter connections, including, but not limited to, the extension of the Northstar Commuter Rail to the Saint Cloud metro.
 - b. The APO will support, as appropriate, further integration of the Saint Cloud Regional Airport into the regional transportation network, including, but not limited to, the desire for additional commercial passenger services.
 - c. The APO will support, as appropriate, multimodal connections to interregional transportation options such as Jefferson Lines, Amtrak, Tri-CAP, Northstar Commuter Rail, the Saint Cloud Regional Airport, etc.
2. Promote the efficient movement of goods and freight.

- a. APO staff shall keep abreast of economic development patterns and will promote consistency between economic development plans and transportation plans.
- b. APO staff and jurisdictional members will explore and implement, as prudent, freight movement performance data collection and analysis for all freight network tiers.

Measuring Progress

Performance measures provide useful feedback on how the APO is doing in terms of achieving its desired vision/goals. Performance management ensures the most efficient investment of transportation funds by increasing accountability, providing transparency, and linking investment decisions to key outcomes.

The following is a list of performance measures the APO will utilize to document progress toward the Interregional Connections Visionary Statement.

- *Truck Travel Time Reliability Index for Tier 1 Freight Network.
- Work Trip Commute Time and Distance for Jobs Located in the MPA.

Note, the performance measures denoted with an "*" are federally-required performance measures. For details on how each performance measure is calculated, please see [Appendix X](#).

Technological Advancements

It comes as no surprise that technology has and continues to evolve. This is incredibly apparent in the transportation sector where over the past decade, innovations within the industry have exploded.

Author Paul Lewis states in his article "[Transportation is being changed by technology. But what about our transportation policies?](https://tinyurl.com/3zdb2xac)" (https://tinyurl.com/3zdb2xac) the last real fundamental changes made to the nation's surface transportation system was during the 1960s and 1970s with the "massive build-out" of highways and transit systems. "While most of our transportation system has been funded and structured around moving vehicles, the widespread use of individualized technology has forced the transportation sector to focus on the customer," Lewis writes.

For consumers, this includes a network that is smarter, faster, safer, and most importantly convenient.

On a national level, the U.S. Department of Transportation has developed a program aimed at using computers and communication infrastructure to do just that. Known as Intelligent Transportation Systems (ITS), traffic engineers have utilized electronics to make improvements to a variety of transportation infrastructure such as traffic signals (including vehicle presence detection and transit signal priority), road weather information systems, and dynamic messaging signs.


In addition, changes to vehicle technology – both from the public and private sector – have led to the very real possibility of the presence of connected and automated vehicles (CAVs) on our roadways. Changes are already being felt in the industry with the

growing interest in electric vehicles and the increasing number of electric vehicle charging stations across the Saint Cloud metro.


What are Connected and Automated Vehicles?

Connected and automated vehicle (CAV) technology has sensors and system that analyze road conditions and scan for driving hazards.

Connected vehicles use technology to communicate with each other, connect with traffic signals, signs, and other road items, or obtain data from cloud technology.



Automated vehicles use technology to steer, accelerate, and brake with little to no human input. Some vehicles still require a human to monitor the roadway, while others require no human intervention.



Data courtesy of MnDOT CAV-X (<https://tinyurl.com/2ucx2z9e>)




Figure X.9: Differences between connected and automated vehicles.

Technological improvements are not going away. As such, close attention to the latest advancements in transportation technology will only help set our region up for future success in an ever-changing world.

What Does the Public Think?

The following is a representative sample of the comments received during the initial public input period as they pertain to the Technological Advancements Visioning Theme.

- “Infrastructure for electric vehicles has to be expanded with solar or carbon neutral options.”
- “Better infrastructure for electric cars so they can become more common.”
- “I look forward to a day when a little electric vehicle self-driving, will come to my door and bring me where I need to go.”

- “Our transportation system is in sort of transition as we work to modernize and adapt it to address the needs of all users. We need to be strategic in how, where, and when we make these improvements.”
- “Prepare for autonomous transportation – autonomous taxi service.”
- “I think the stoplights need to be improved as far as intelligence/timing. This is especially true on Second Street as well as Highway 15 (Division too, though maybe not as badly). Driving through cities like Omaha and Sioux Falls where I have lived before, I notice I hit green on a lot more lights because the lights seem to be working in conjunction with each other so you rarely need to stop when driving on a main road. This is a major issue here, because driving down Second Street, I hit red on every light pretty often. It doesn’t have to be this way if money was invested in more intelligent stoplights/intersections.”
- “The stop light system is severely outdated. Metro wide it should be updated with better more dynamic systems with smart AI rather than timing and some sensors. Surveys should be done automatically and consistently ensure traffic timing is accounted properly.”
- “Automated vehicles would be beneficial if affordable.”



Figure X.10: University of Minnesota CAV vehicle.
Photo courtesy of Saint Cloud APO.

How to Address this Vision

In order to make progress toward achieving this visionary statement, the APO is committed to the following objectives and strategies:

1. Promote the development and deployment of innovative transportation technology improvements.
 - a. APO staff will continue to monitor the development and likely impacts of driverless vehicles.
 - b. The APO will support, to the extent possible, the expansion of dynamic traffic signals and the active management of them to improve system efficiency and operation.
 - c. APO staff and jurisdictional members will, to the extent possible, promote alternative fuel technology, including but not limited to, electric vehicle infrastructure.

Measuring Progress

Performance measures provide useful feedback on how the APO is doing in terms of achieving its desired vision/goals.

Performance management ensures the most efficient investment of transportation funds by increasing accountability, providing transparency, and linking investment decisions to key outcomes.

The following is a list of performance measures the APO will utilize to document progress toward the Technological Advancements Visionary Statement.

- Number and Percent of Registered Vehicles Using Alternative Fuels.

Next Steps

As we conclude this portion of the transportation planning process, we begin the transition from understanding current conditions to planning for our future needs.

As we turn our attention to 2050, we will be considering the following:

- What is our system forecasted to look like in 2050?
- Approximately how much money can we reasonably expect there to be to address our future problems?
- What sorts of improvements can we make to the system to help us achieve our goals?
- What's next for our region's transportation system?

In short, we will be considering the implementation of transportation infrastructure projects and/or future planning efforts that will guide us to our desired future. Using the objectives and strategies identified in this chapter, the implementation of projects, plans, and/or policies outlined in the remaining sections of the plan will help us work toward achieving our visions/goals. What we want our end destination to look like is clear – how we will carry out the work to get us there will be the topic for the remainder of this plan.