Regional Safety Action Plan

Transportation Advisory Board



Regional Safety Action Plan overview



General overview

- Focus: Vehicle crashes and bicycle-vehicle crashes with an emphasis on fatalities and serious injuries in MPO planning area, consistent with Safe System Approach
- Team: Consultant project with SRF and support from Alta Planning, Safe Streets Research, Isthmus Engineering, and Zan Associates
- Technical Advisory Group with representatives from local, state, and federal partners
- Intended to help address requirements for USDOT Safe
 Streets and Roads for All funding program, along with other applications

Federal Safe Streets & Roads for All

Discretionary program

- Federal funds for 2022-2026
- Promote safety and work toward eliminating deaths and serious injuries from crashes
- Develop and use safety action plans to guide the work
- https://www.transportation.gov/grants/SS4A

Funding opportunities

- Planning and demonstration
 - Includes supplemental activities –
 enhance or improve action plan
 - Demonstration work to inform action plans
- Implementation projects for infrastructure improvements, along with other work on behavioral or operational strategies

Plan elements

- Worked with Technical Advisory Group
- Public engagement
- State of the practice review
- Trend summaries
- High Injury Streets identification by mode (pedestrians, bicyclists, motorists, motorcyclists)
- Systemic Crash Risk Index analysis (bicyclists and motorists)
- Crash rate analysis
- Top corridors in the region and by county based on the reactive and proactive analyses
- High-level countermeasures toolkit
- Programmatic recommendations

Ways this work can be used

Help prioritize regional funding

- Regional Solicitation or other competitive funds at the regional level
- High Injury Streets and the top 25 corridors within those to help focus on existing safety concerns; potentially in combination with the other analyses
- Provide support for local planning, policies, and investments
 - Identify areas where safety projects and safety audits may be needed
 - Inform project scoping for other projects that may not originate from safety concerns
- Monitor safety performance
 - Annual safety targets and performance review at the regional level

Public engagement



Approach for this project

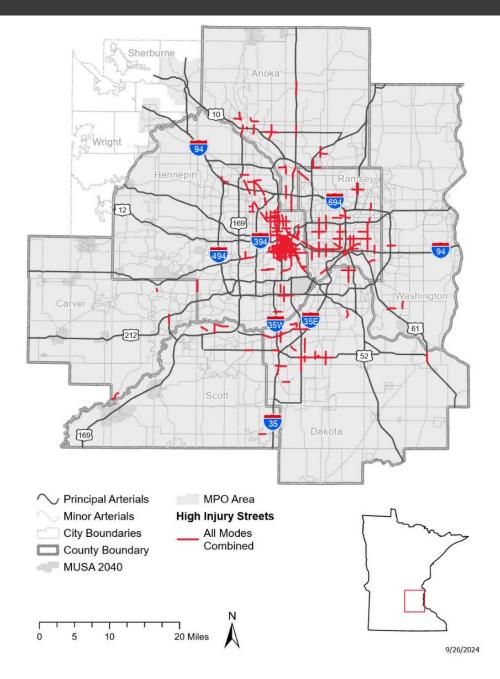
- Summarized recent engagement from other Met Council projects and from partner agencies' transportation projects related to safety across the region.
- Identified communities that were insufficiently engaged in recent transportation projects regarding safety.
- Engaged with people from communities that have been identified as missing or underrepresented in recent transportation conversations through community-based organizations.
- Used images of existing transportation infrastructure to focus on what people wanted to see in their communities.

Engagement findings

- Interconnected walking and biking systems are essential for safer travel.
- Pedestrians and bicyclists need safe and accessible crossings. Mode separation helps feeling safer.
- Clear signage is necessary for safe travel.
- Slower streets are preferred in residential areas and in areas with community destinations.
- Roundabouts slow down drivers but can be difficult for pedestrians to navigate.
- Better lighting makes people feel safer in areas where they walk.



Regional High Injury Streets



30.8% of severe crashes on 1.8% of the regional network

- Reviewed four modes using 2018-2022 data
 - Pedestrians
 - Bicyclists
 - Motorcyclists
 - Motor vehicles
- Included fatal and serious injuries in addition to minor injury crashes for pedestrians, bicyclists, and motorcyclists
- Weighted injuries by severity with fatal and serious injury crashes weighted as 3. For pedestrians, bicyclists, and motorcyclists minor injury crashes were weighted as 1.
- The four separate modes were then combined into an overall High Injury Streets selection for the region.
 - Each mode can also be viewed separately.

Systemic analysis

Crash Risk Index analysis

- Identify road segments and intersections with high-risk characteristics for bicycles and motor vehicles.
- The analysis uses crash history to determine high-risk roadway characteristics but, unlike the High Injury Street, it is not a reflection of where crashes have been happening.

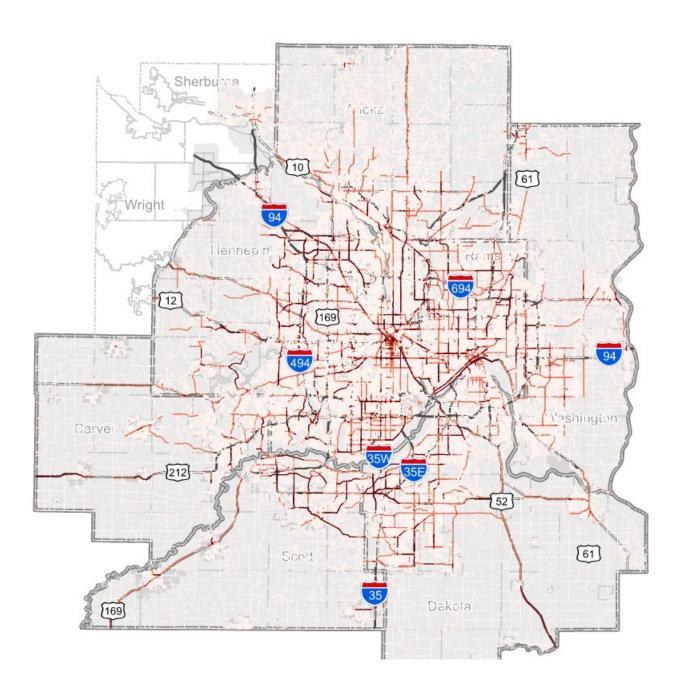






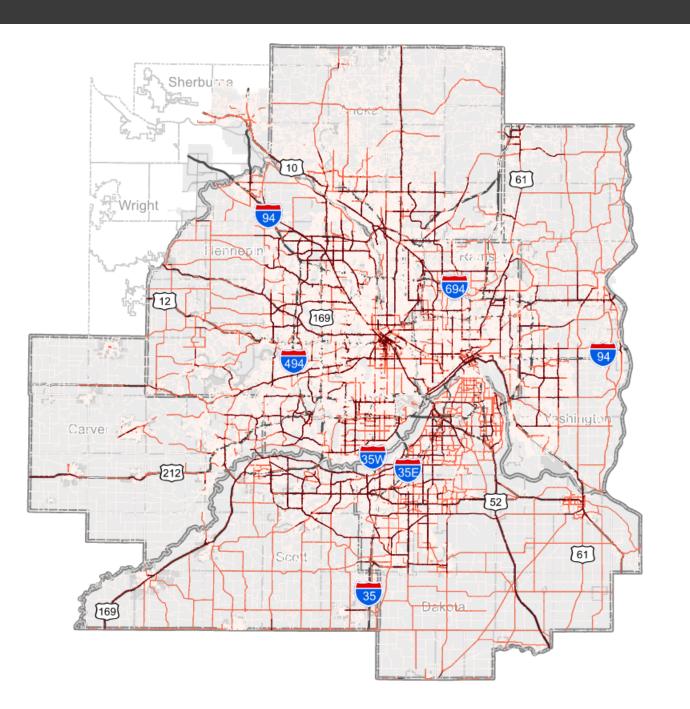
Crash Risk Index - Bicyclists

- The highest risks tend to appear on large arterial and collector roads with posted speeds over 30mph, Average Annual Daily Traffic (AADT) over 9,000, and 3 or more vehicle lanes.
- Pockets of high risk in downtown Minneapolis and on smaller urban roads also exists



Crash Risk Index - Drivers

- A lower number of these large roads throughout the region results in high Crash Risk Index scores for motor vehicles (as compared to bicycles).
- Lower density population areas show lower risk for bicyclists, and even lower risks for motor vehicles, even in rural and suburban downtown areas.



Recommended corridors

Top 25 for the region, up to 10 for each county

Lists are based on:

- Reactive Lists
 - High Injury Streets Scoring Results
- Proactive Lists
 - Crash Risk Index and Crash Rate Results

Locations with recent or upcoming projects remain on the list because they may be good candidates for further monitoring.

Locations without planned work are recommended for further work.

Countermeasures toolkit



Higher level recommendations

- Does not prescribe specific countermeasures for specific corridors or intersections
- Focused on five categories, primarily infrastructure
 - Speed management
 - Pedestrians and bicyclists
 - Roadway departures
 - Intersections
 - Crosscutting applications
- Complimentary strategies and initiatives should be considered

Programmatic recommendations

Five strategies

- 1. Update the plan regularly
- 2. Take a Safety in All Policies approach
- 3. Prioritize safety in funding allocations
- 4. Use the High Injury Streets and Crash Risk Index in Council decision making
- 5. Provide technical support for local agencies

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Strategy summaries

1. Regular updates

- Update for all modes together in future
- Use data-driven schedule for updates every 5 years
- Additional detail in plan

2. Safety in All Policies

- Incorporate safety in comprehensive planning work and support
- Review future TPP
 policies and actions, even
 those not specifically
 related to safety for
 unintended effects

5. Technical support

 Will have online map with the analysis layers

Strategy summaries related to funding

3. Prioritize safety in funding

- Develop regional guidance on using the Safe System Road Design Hierarchy
- Evaluate funding processes, including HSIP, for Safe System Approach alignment and unintended impacts of non-safety aspects
- Consider replacing benefit-cost ratio with more systemic approach
- Explore need/opportunities to fund local safety planning work

4. Use plan analysis in Council decision making

- Use the regional High Injury Streets and Crash Risk Index
- Apply in both safety-specific decisions and those where with a different primary goal

Ranking example for safety focus

• Reactive Priority List - Regional Top 25 Proactive Priority Lists - Regional Top 25 High Injury Streets (all) • Reactive and Proactive Priority Lists - County Top 10 • Crash Risk Index, Crash Rates, and Presence of Transit Stop/Station • Any local or statewide safety plan's High Injury Streets or High Injury Network

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Ranking example with other main goal

 Reactive and Proactive Priority Lists - Regional Top 25

 Reactive and Proactive Priority Lists - County Top 10

 High Injury Streets (all), Crash Risk Index, Crash Rates, and Presence of Transit Stop/Station

Any local or statewide safety plan's High Injury
 Streets or High Injury Network





https://metrocouncil.org/Transportation/Goals/Safety-and-Security/Regional-Safety-Action-Plan.aspx

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