The Safe System Approach in Minnesota

Integrating the Safe System Approach (SSA) into MnDOT programming and project delivery

WHAT DOES SUCCESS LOOK LIKE?

Shift traffic safety priorities. Change from reducing total crashes to eliminating fatalities and serious injuries.

Agency-wide SSA understanding and buy-in. Why is the shift necessary? How is this different? How does this integrate with existing safety programs?

DEPARTMENT OF TRANSPORTATION

HDR

RESEARCH

Perform SSA Best Practices Research

The project team began by researching SSA implementation best practices through a literature review and agency interviews.

AGENCY INTERVIEWS

STATE: FDOT, Caltrans, massDOT (Massachusetts Department of Transportation)

NATIONAL: U.S. Department of Transportation Federal Highway Administration

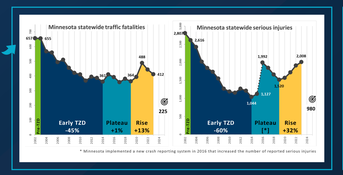
INTERNATIONAL: Queensland Government

KEY FINDINGS

- **Utilize a top-down approach:** Strong leadership support is crucial for successful agency-wide integration.
- **Provide training with actionable takeaways:** Training and education emphasize why the shift to the SSA is necessary and how practitioners can implement at a project-by-project level.
- **Prioritize engagement opportunities:** Public engagement with stakeholders is crucial to SSA implementation and minimizing public pushback.
- **Identify the easy wins:** Implementation of SSA practices can and should be integrated into existing agency programs, policies, and documents.
- **Consider a public health perspective:** A Safe System Pyramid—based on a widely adopted Health Impact Pyramid (*Frieden, 2010*)—considers which strategies have the greatest traffic safety impacts (*Ederer et al., 2023*). The SSA pyramid can indicate implementation strategy effectiveness. More individual effort means less impact on the population.

MN INSIGHT

Fatalities and serious injuries are increasing in Minnesota. The Safe System Approach is an opportunity to change this trend.



STRATEGIES

Develop MnDOT SSA Implementation Strategies

ORGANIZATION: Categories → Strategies → Actions

DRAFT CATEGORIES & STRATEGIES

Leadership Commitment & Institutionalization

1. Formally adopt the SSA as the agency-wide approach to traffic safety.
2. Integrate the SSA into MnDOT standard operating procedures (SOPs) and practices.
3. Identify SSA implementation leaders and champions throughout the agency.

Training & Educational Resources

4. Develop a robust tiered traffic safety training program centered around the SSA principles and elements.
5. Develop and publish a MnDOT SSA Policy and Implementation Tools Library.

Technology & Innovation

6. Leverage technology to aid in implementation efforts.
7. Establish innovative approaches to promoting SSA best practices and successful project or program-level implementation efforts.

Engagement & Cultural Change Initiatives

8. Deploy public traffic safety education materials to educate the public on the SSA.
9. Improve engagement efforts with local agencies (county boards, county and city engineers).
10. Improve partnership with SSA stakeholder agencies/groups to advance the shift in MN traffic safety culture.

LEADERSHIP & PROJECT ADVISORY COMMITTEE (PAC) ENGAGEMENT KEY FINDINGS

Resources

Key barriers to implementation include staff, time, and funding. It's important to identify existing MnDOT program alignment with the SSA as well as opportunities for additional alignment.

Culture Change & Change Management

MnDOT will establish a plan or approach to change management that aids in implementation of proposed strategies. This plan is considered a key foundational element to early adoption and implementation of the SSA.

Prioritization

Establishing a system to prioritize implementation strategies is an essential step to develop an executable plan, especially with limited agency resources available for implementation.

+ Prioritize by considering the anticipated levels of **effort** + **impact** for each strategy

*Exceptions to effort + impact ratings made for actions that are considered foundational to MnDOT's implementation. Foundational actions identified primarily fall under **Leadership, Training, and Engagement** categories.*

PAC members ranked each proposed action on a 1–5 scale (5 = highest effort/impact). The average score was used to establish draft priority tiers.

PRIORITY LEVELS

1. Impact **more than** Effort
2. Impact **equal to** Effort
3. Impact **less than** Effort

IMPLEMENTATION

Design a MnDOT SSA Implementation Plan

Next steps for the project team include translating the research and strategy development phases into a comprehensive MnDOT Safe System Implementation Plan. *This includes...*

1. **Incorporate PAC and Leadership Feedback on the Draft 2 Strategies and Actions List**
   - Assignment of priority level to refined strategies and actions
   - Assignment of MnDOT groups and individual roles responsible for approving, driving, and supporting each action
2. **Complete Draft Safe System Implementation Plan**
3. **Facilitate additional PAC and leadership input on draft plan**
4. **Refine and finalize the Safe System Implementation Plan**

FINAL VISION

The **MnDOT SSA Implementation Plan** will be a framework leading the agency to broad application of SSA principles throughout the project development process. The SSA will be seen as an approach for staff at MnDOT to utilize in their work toward eliminating fatalities and serious injuries.

CONTACT INFORMATION

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PROJECT SCHEDULE

OCTOBER 2023 – APRIL 2024

- Literature Review
- Work-Session
- Agency Interviews
- PAC Meeting #1

MAY - OCTOBER 2024

- Draft 1 Strategies and Actions List
- PAC Meeting #2
- Draft 2 Strategies and Actions List
- PAC Meeting #3
- Strategies and Actions Prioritization

NOVEMBER 2024 - MARCH 2025

- Draft SSA Implementation Plan and Presentation
- PAC Meeting #4
- Final SSA Implementation Plan and Presentation

AGENCY LEADERSHIP MEETINGS