

MnDOT Highway 52 Connected and Automated Vehicle Study

Introduction

MnDOT's Office of Connected and Automated Vehicles (known as "CAV-X" to include future unknowns) is helping the state plan and prepare for emerging technologies like connected and automated vehicles (CAV). These technologies can improve the lives of Minnesotans by advancing safety, reducing transportation barriers, and creating a more efficient transportation system. MnDOT seeks to ensure the CAV industry develops technologies that solve the challenges we face in Minnesota.

Why this Project?

The Highway 52 CAV study is a partnership among MnDOT, SRF, the Highway 52 Coalition and other stakeholders to understand which CAV technologies could benefit the communities between St. Paul and Rochester. These applications could help solve winter weather driving challenges, work zone safety concerns, or other applications the study will review. These CAV technologies will be used to advance safety, equity, accessibility, mobility, and sustainability on Highway 52.



Corridor Vision

MnDOT has established the following vision for the Highway 52 Corridor:

- Engage with communities and stakeholders to see how technology can advance safety, equity, accessibility, mobility, and sustainability
- Test and deploy safety technologies that advance safety for human drivers and CAVs
- Promote work zone safety
- Support traveler information and traffic management
- Conduct applied research and testing that fills national gaps in research
- Understand how the state can operate and maintain new technologies
- · Validate what safety technologies can be used in Minnesota
- Develop scalable and replicable projects

Why this Corridor?

Highway 52 was identified for this CAV study for the following reasons:

- Several projects to enhance safety and mobility along the corridor have been completed over the last 20 years.
- Travel along the corridor continues to increase due to rapid growth in the Rochester area due to the Destination Medical Center.
- Partnerships have been established to secure funding and build physical improvements on the corridor.
- Traffic Management System (TMS) upgrades were recently completed along the corridor to allow advanced safety applications.
- Crash numbers increase as traffic enters St. Paul along the corridor.





Project Milestones

Specific tasks and milestones for this project include:

- Collaborate with project stakeholders to identify potential CAV applications
- Review gaps in national CAV testing and deployments
- Recommend Highway 52 CAV applications
- Determine short-term next steps for the next 1-5 years
- Understand how to include this work in MnDOT's larger strategic plans
- Review lessons learned for future projects

Project Schedule

September

- November 2020

> Project Kickoff Meetings

October -November 2020

Research Review and CAV Opportunities Analysis December 2020 - February 2021

> Stakeholder Workshops and Meetings

October 2020 - March 2021

Application Recommendations Study April 2021 - May 2021

Lessons Learned and Next Steps

Contact

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