CONNECTED CORRIDOR PROJECT OVERVIEW

What is the Connected Corridor?
The Connected Corridor is a vision for a key regional arterial to be outfitted with Connected Vehicle (CV) communications infrastructure enabling exchange of information with nearby vehicles. This Vehicle-to-Infrastructure (V2I) technology, deployed at traffic signals, will allow for deployment of a number of applications to improve safety and efficiency of roadway users.

Where is the Connected Corridor?
MnDOT has selected the TH-55 corridor between downtown Minneapolis and I-494 as initial location to deploy this technology. In additions, ramp intersections along the parallel I-394 corridor may be outfitted with connected vehicle infrastructure to allow for additional applications related to integrated corridor management.

What are the initial applications envisioned?
The backbone of the Connected Corridor project will be the broadcast of Signal, Phase and Timing (SPaT) information to vehicles directly from traffic signal controllers along the corridor. SPaT data can enable a number of high-value applications that have been identified as initial use cases for a national connected vehicle deployment. In addition, MnDOT will be developing the communications infrastructure and data management systems to support a range of existing and future technologies. The data exchange system will enable the merging of data from multiple sources, as well as sharing of agency data with third parties, to improve information-sharing and enable more efficient system management.
How will you benefit from the Connected Corridor program?

- **ARRIVE SAFELY**: Whether traveling by car, by bus, or as a pedestrian, the Connected Corridor will leverage technology to help make your trip safer. The mobile work zone warning system, to be piloted in the project area, will support better traveler information to all motorists through dynamic signs, mobile applications, and direct radio messages, of road maintenance and short-term work zones. This information will not only help to protect both you and road workers, but additionally help you to make more informed choices on travel routes. Once developed as part of the Connected Corridor, this system could be extended to assist travelers throughout the Twin Cities region.

  When traveling by bus along I-394, the express lane merge assistance application will support bus drivers with real-time information about express lane status when entering the freeway, allowing safer operation. And when walking along or near TH-55, the transit/pedestrian intersection conflict warning system will provide bus drivers with an alert when you are in a crosswalk that a bus may be turning through, providing an additional level of safety to pedestrians as they cross busy intersections.

- **BETTER INFORMATION FOR A BETTER TRIP**: MnDOT is committed to partnering with the private sector to provide the best available information to Minnesota’s motorists. By sharing real-time traffic signal data with third party providers, MnDOT and partners will be offering eco-driving applications direct to consumers, through both integrated vehicle systems or mobile devices. These applications can not only help to reduce fuel consumption, but additionally to support safer operation on the roadways and reduce driver stress. The data exchange, which will serve as the foundation of this system, will also enable other future partnerships by combining our valuable system data with private sector innovation to find new ways of delivering better transportation solutions for Minnesota.

- **MORE EFFICIENT OPERATIONS**: Snow clearing is a critical function to keep Minnesota moving during winter months. Along surface roadways and at ramps, stops at traffic signals are extremely disruptive to plow operations, resulting in inefficient clearing and often leading to a second trip by the plows to clear intersection areas, or incomplete snow clearance. In addition to the time and cost of clearance, additional time on route and longer snow clearance times equates to reduced safety for both plow operators and motorists on the corridor.

  Using connected vehicle technology, snow plow signal priority will allow prioritized treatment at traffic signals for plow clearing operations along and across TH-55, reducing the number of stops. This will allow operators to clear intersections in a single pass, reduce total snow clearance time, and get plows off the road faster.

- **YOUR TRANSPORTATION DEPARTMENT BUILDING FOR THE FUTURE**: The Connected Corridor is just one of many steps MnDOT is taking to build Minnesota’s transportation system of the future. As the presence of connected and automated vehicles on our roads increases in the coming years, technology will become critical to supporting these advanced vehicles and creating opportunities for improved safety and mobility. By partnering with Metro Transit and local communities, MnDOT is transforming the department and building the technical foundation to drive the future of mobility for Minnesotans.

**Contact:**

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