

# WisDOT Southeast Region Pilots Strategy to Address Freeway Wrong-Way Incidents with LegendViz® Traffic Signs Installation



## CUSTOMER NAME

The Wisconsin Department of Transportation (WisDOT) Southeast Region

## PRODUCTS

[LegendViz® Do Not Enter Signs as part of Wrong-Way Alert Systems](#)

## SUMMARY

Freeway wrong-way driving incidents resulted in Wisconsin Department of Transportation (WisDOT) to pilot TAPCO's new LegendViz® sign technology at two Milwaukee-area off-ramps. The one-year study included placement of a single LegendViz® Do Not Enter sign at the bottom of each of these ramps and monitoring of the wrong-way events with TAPCO's BlinkLink® Event Management Software.

## ORGANIZATION

WisDOT oversees more than 12,000 miles of state, federal and interstate highways, in addition to numerous bridges, airports and public bus systems.

## SITUATION

Like peer agencies throughout the United States, WisDOT faces the challenge of wrong-way drivers. According to the National Highway Traffic Safety Administration (NHTSA), Wisconsin ranks seventh in the nation for wrong-way driving fatalities. What's more — since 2015, there's been a 39% increase in wrong-way driver fatalities. Wrong-way accidents are notoriously deadly. A study by the California Department of Transportation (Caltrans) reports that wrong-way collisions have a fatality rate 12 times higher than all other highway collisions.

Wrong-way driving incidents are also more likely to occur at night, when visibility is low and the likelihood of encountering intoxicated drivers is high. According to the National Transportation Safety Board, 78% of fatal wrong-way driving incidents occur between the hours of 6 p.m. and 6 a.m.

In an effort to address freeway wrong-way incidents, WisDOT has piloted two LegendViz® Do Not Enter signs in Milwaukee County. Once a wrong-way driver is detected, TAPCO's BlinkLink® Event Management Software sends out an alert, containing images of the incident. At the same time, the previously existing continuous flash, dusk to dawn Wrong-Way signs will redirect the driver. WisDOT currently operates the LegendViz® Do Not Enter sign in continuous illuminated mode between dusk and dawn.



Both locations had a history of freeway wrong-way incidents. Over a three-year period (2018-2020), one ramp experienced an event every 46 days (24 events total). During the same period, the other ramp experienced an event every 25 days (44 events total). Both ramps entail a partial-cloverleaf ramp configuration. Partial-cloverleaf ramp configurations are proven to increase wrong-way movements due to their side-by-side, on-ramp and off-ramp design. To increase safety, WisDOT enhanced their existing Wrong-Way Alert systems at these locations by installing a single LegendViz® Do Not Enter sign at the base of each ramp.

## SOLUTION

The Wrong-Way Alert Systems WisDOT installed at these locations consisted of a Do Not Enter sign at the bottom of the off-ramp, as well as multiple Wrong Way signs further up the ramp. One of the locations also had multiple Do Not Enter signs. At both locations, WisDOT upgraded one of the traditional static Do Not Enter signs to a LegendViz® Do Not Enter sign.

LegendViz® Traffic Signs enhance sign legibility thanks to their LED-illuminated backlit legend, which has shown to increase sign legibility distance in low-light conditions by as much as 100 percent, according to testing done by the Texas A&M Transportation Institute.

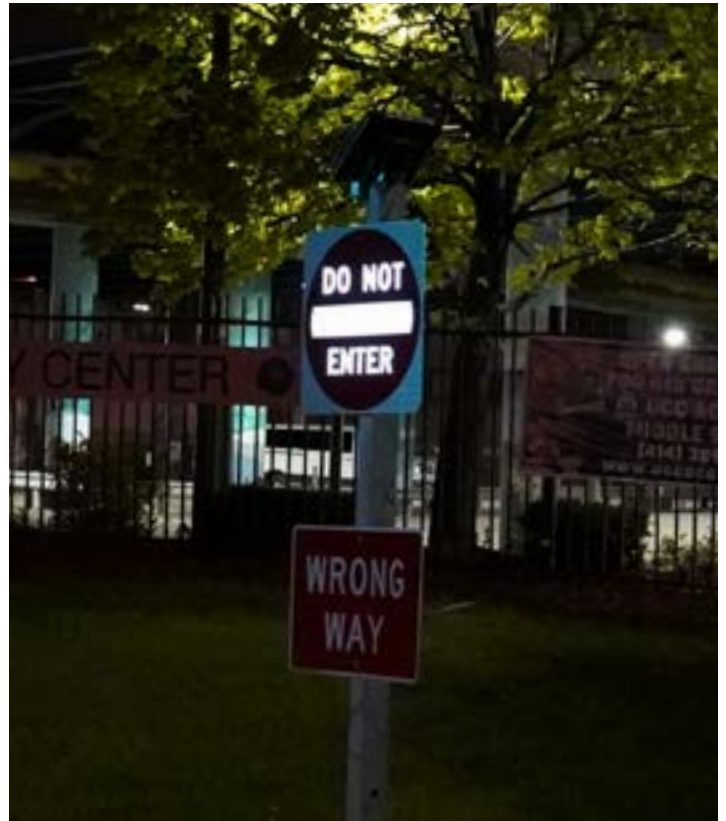




## RESULTS

One year after installation, TAPCO presented WisDOT with BlinkLink® data gathered from these two Wrong-Way System locations. The data shows a 38% reduction in the average number of wrong-way events since the installation of LegendViz® Do Not Enter signs. The timespan between wrong-way events at these locations also increased up to 93%. Additionally, 100% of the wrong-way events occurred at night, showing the significance of the LED-illuminated backlit legend that LegendViz® Traffic Signs offer.

Since the short-term success at these two locations has been promising, WisDOT has continued the pilot study to assess the medium-term effectiveness of the LegendViz® signs at these two locations.



 ***Learn more about the TAPCO LegendViz® Traffic Sign System here.***

## ABOUT TAPCO

As an industry-leading innovator, TAPCO manufactures, services and distributes a wide portfolio of traffic and parking safety solutions designed to increase safe travels for all. Since 1956, we have set the standard for delivering reliable, cutting-edge traffic safety enhancements. From our world-renowned line of LED-enhanced BlinkerSign® solutions to our pedestrian crossing products and early detection warning systems, safety is at the heart of all TAPCO innovations.

Working alongside traffic professionals for more than 60 years gives our team an exclusive perspective on the past, present and future needs of the traffic and parking safety industry.

