

RP 306 – Wrong Way Driver Hotspot Analysis

○ Project Description:

Wrong way driving (WWD) is a rare, but serious, problem on high-speed roadways. According to the National Transportation Safety Board (2012), WWD crashes make up about 3% of all crashes on high-speed divided highways. However, the fatality rate for WWD crashes can be up to 27 times that of other crash types. ITD has experienced a limited amount of WWD crashes in recent years but the full extent of the WWD problem in Idaho is unknown. This project will investigate the frequency of WWD events on limited access and other high-speed roadways in Idaho to identify the extent, characteristics, and contributing factors of WWD based on crashes, citations, computer-aided dispatch (CAD) calls, traffic management center (TMC) logs, and other available WWD data. Non-crash events, which could potentially lead to WWD crashes, will also be considered to fully understand the extent of WWD. It is important to consider all types of WWD events to obtain a comprehensive understanding of WWD behavior and risk. The status of existing signs, pavement markings, or other WWD countermeasures will also be examined to identify areas where these preventative measures could be implemented or improved.

The objectives of this project are:

1. To conduct a literature review and provide a summary of research methodologies and approaches used by other State DOT's, available tools and established methods for WWD typing and analysis, modeling efforts to identify significant contributing factors and locations with high WWD frequency, and various countermeasures available and effective at reducing WWD behavior.
2. To compile and examine all available data related to WWD events for all high-speed, limited access roadways in Idaho.
3. To thoroughly analyze WWD event data to identify locations, trends, patterns, common characteristics, and status of existing countermeasures, if present.
4. To use the above results to develop a WWD hotspot model for Idaho high-speed roadways.
5. To use data analysis and model outcomes to inform recommendations for future WWD countermeasure implementation and improvements.

○ Estimated Completion Date: June 5, 2025

○ Budget: \$325,000

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