DRISI

CALTRANS DIVISION OF RESEARCH, INNOVATION AND SYSTEM INFORMATION

Research Notes

Phase 2: Identification of Speeding-related, ROR, CO, and WW Collisions Locations

Developing a methodology for a speed-related safety monitoring program and updating other monitoring programs for alignment with the Safe System Approach

Safety

MAY 2024

Project Title:
Methods for Identifying High Collision Concentration Locations for Potential Safety Improvements

Task Number: 4287

Start Date: June 1, 2024

Completion Date: May 31, 2027

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WHAT IS THE NEED?

Caltrans is committed to safety as the top priority. Existing Safety Monitoring Programs are aimed at reducing injuries and fatalities along the California State Highway System. While these programs are effective, it is necessary to evaluate the alignment of these programs with best practices and existing policies. the California Zero Traffic Fatalities Task Force, assembled by AB 2363, has called for a speed-related safety program. The foundation for such a program was also laid out in the prior study phase. Considering this, there is an urgent need to build on the preliminary work that was done and establish a data-driven speed-related safety program. Additionally, the previous phase has identified a set of desirable safety thresholds considering the necessary categories, study period, and injury level combinations for the Run-Off-Road (ROR) Crashes; Cross Over (CO) Crashes; and Wrong Way (WW) Crashes across the state highway system. However, the state has recently adopted Director's Policy 36, which calls for adopting the Safe System Approach (SSA). The SSA specifies principles that can be incorporated into existing programs. To this end, the need is to re-develop these programs to be aligned with SSA principles.

WHAT ARE WE DOING?

The research addresses the needs in two different paths. First, the research will expand the methodology to identify speed-related crashes and develop a tool to conduct such screening along the state highway system. The methodology will be aligned with the SSA and may consider non-crash data too. Second, a best practices literature review and data analysis will be conducted for ROR crashes; CO crashes; and WW crashes. The results

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of the analysis will guide efforts to develop a methodology and accompanying tool to conduct safety programs for ROR crashes, CO crashes, and WW crashes. The methodologies will also be aligned with the SSA.

WHAT IS OUR GOAL?

The research will produce an SSA-based methodology for speed-related crashes and a tool for safety programs on ROR, CO, and WW.

The outcome of the research will be used to roll out a new pilot safety program for speed-related crashes and will also be accompanied by detailed documentation and training. Second, the project will implement a new pilot safety program for ROR, CO, and WW crashes. The revised program rollout will be accompanied by a user manual and a training session for the Division of Safety Programs to support implementation. All programs will be developed to allow for future incorporation into the Caltrans TSNR.

WHAT IS THE BENEFIT?

Identifying crash locations and corridors under these programs will enable Caltrans to utilize investigative resources more efficiently and allocate resources to the most critical crashes and locations. Moreover, this will provide opportunities for safety investigators to recommend countermeasures that reduce crashes and save lives. In addition, better identification would result in better utilization of the time and resources of Caltrans' traffic safety investigators, thus helping to improve safety and save time and money for Caltrans.

WHAT IS THE PROGRESS TO DATE?

The project has yet to begin, but we are working towards final approval and setting a date for kickoff.