

Safety Programs

May 2026

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

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Task Manager:

Nathan Loeb
Senior Transportation Engineer
(Electrical)
nathan.loeb@dot.ca.gov

DRISI Division Chief:

Prakash Sah, PE
Prakash.Sah@dot.ca.gov



DRISI provides solutions and knowledge that improves California's transportation system.

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.

WHAT IS THE NEED?

The California Department of Transportation (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 an adoption of 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 team will work with Caltrans bridge inspectors to identify inspection requirements. 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 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 a SSA-based methodology for speed-related crashes and tool for safety programs on ROR, CO, 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 with detailed documentation and training. Second, the project will implement a new pilot safety program for ROR, CO, and WW crashes. The revised program roll out 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 Transportation System Network Replacement.

WHAT IS THE BENEFIT?

Identifying crash locations and corridors under these programs will enable the 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 help to improve safety, and save time and money for Caltrans.

WHAT IS THE PROGRESS TO DATE?

- Task 2:
 - Continued work on the revised Chapter 2 draft, strengthening integration of the

Safe System Approach and relevant state agency monitoring programs.

- Refined content organization and incorporated feedback to improve clarity and alignment with project objectives.
- Task 3:
 - Continued evaluation and refinement of the speed-related monitoring methodology.
 - Assessed key parameters, including threshold and roadway segment definitions, and reviewed tool outputs to support ongoing improvements.
 - Incorporated feedback from the December 2025 progress meeting.
- Task 4:
 - Continued evaluation of the monitoring methodology for hotspot identification, focusing on threshold and bandwidth considerations.
 - Ensured alignment with findings from Task 2 and incorporated feedback from Caltrans.