

DRISI

CALTRANS DIVISION OF RESEARCH,
INNOVATION AND SYSTEM INFORMATION

Research Results

Maintenance

OCTOBER 2023

Project Title:

Balsi Beam Implementation
Research

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Balsi Beam Implementation Research

This project performed research and developed recommendations on where and under what conditions to use the Balsi Beam system in highway work zones to improve workers safety.

WHAT WAS THE NEED?

The Balsi Beam system was designed and developed by Caltrans as a Mobile Work Zone Protection System to help improve safety of its workers (from errant vehicles) at certain highway work zones. There were, however, no guidelines for proper and effective utilization of the Balsi Beam system for highway maintenance operations. There was a need to develop guidelines and procedures for the safe and effective utilization of Balsi Beam in appropriate highway maintenance and construction work zones.

WHAT WAS OUR GOAL?

The goal of this project was to identify where and under what conditions to use the Balsi Beam system in highway work zones, and thus improve the safety of highway workers.

WHAT DID WE DO?

This project performed research to identify where and under what conditions the Balsi Beam system can provide the best benefits at highway work zones and has developed draft guidance for the safety and effective utilization of Balsi Beam. In this project the research team evaluated previous studies, documents, and functional design of the Balsi Beam system, and developed functional and operational envelop of the Balsi Beam system. The research team also consulted with Caltrans field personnel and evaluated different categories of maintenance sites and functions where Balsi Beam system can best be utilized to improve worker safety. This project identified different maintenance functions and situations where the use of Balsi Beam system can improve the safety of highway workers.



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A set of recommendations has been developed that can be considered by Caltrans to update the maintenance manual and provide a standard reference for when and how to consider using the Balsi Beam system to improve the safety of highway workers.

WHAT WAS THE OUTCOME?

This project has developed a set of guidelines on when and how to use the Balsi Beam system to improve worker safety.

WHAT IS THE BENEFIT?

The guidelines developed in this project for the effective utilization of Balsi Beam system (in different maintenance and construction operations) are expected to improve the safety of highway workers.

LEARN MORE

Link to the final report is to be decided.

IMAGES

