

Research Results

Maintenance

JULY 2026

Project Title: No Boundaries Transportation Maintenance Innovations - TPF-5(441)

Task Number: 3735

Start Date: July 1, 2021

Completion Date: December 31, 2025

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No Boundaries Transportation Maintenance Innovations

This project provided a forum for state Departments of Transportation (DOTs) to share their maintenance innovations with each other.

WHAT WAS THE NEED?

Implementation of new technologies is important to enhance the safety of our employees in work zones and change how we do business by improving our products and services. The implementation of new innovations requires considerable resources (time and money) to integrate the technologies into day-to-day business practices for state DOTs. This project provided a forum for state DOTs to share their maintenance innovations with each other, and support technology transfer activities.

WHAT WAS OUR GOAL?

The goal of this project was to improve the safety of highway workers and travelling public by promoting maintenance innovations and best practices among participating state DOTs and allowing them to learn from each other in a coordinated effort.

WHAT DID WE DO?

The lead state for this pooled fund Colorado DOT worked with other participating State DOTs to facilitate the transfer of knowledge for promising maintenance innovations and technologies. Here are some of the accomplishments of this pooled fund.

- Identified new and better equipment, materials and procedures such as maintenance practices from member states.
- Facilitated demonstrations and information exchanges among member agencies on priority roadway maintenance topics.
- Developed marketing plans and communication



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materials for selected ready-to-deploy innovations and technologies.

- Trained staff in the use of new equipment and procedures through in-person and online courses, videos and webinars.
- Created an online database where maintenance innovations developed across the country can be identified and accessed.

WHAT WAS THE OUTCOME?

The California Department of Transportation (Caltrans) along with the participating states Departments of Transportation gained valuable knowledge on maintenance practices and maintenance equipment that help in maintaining the public roadways, these practices and the equipment provide efficiency and safety. This research effort is continuing under a new Pooled fund project titled "No Boundaries Transportation Maintenance Innovations: Phase IV TPF-5(548)."

WHAT IS THE BENEFIT?

Caltrans benefitted from this research by learning about new practices and equipment that improve efficiency and safety.

LEARN MORE

All reports related to this research can be found at:
[Overview - No Boundaries](#)