

# DRISI

CALTRANS DIVISION OF RESEARCH,  
INNOVATION AND SYSTEM INFORMATION

# Research Notes

Pavement

SEPTEMBER 2023

Project Title:  
PAV TPF 1542: Advance New  
Pavement Technologies

Task Number: 4186

Start Date: July 1, 2022

Completion Date: June 30, 2027

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## PAV TPF 1542 TPF-5(478): Advance New Pavement Technologies

Testing innovative technologies related to asphalt and concrete paving in partnership with the FHWA.

### WHAT IS THE NEED?

TPF-5(478) is important to test innovative technologies related to asphalt and concrete paving in partnership with the FHWA Accelerated Implementation and Deployment of Technologies Pavement Technologies Program (AIDPT) established in 2013.

### WHAT ARE WE DOING?

This project will allow to demonstrate and eventually adopt promising and innovative technologies for asphalt and concrete paving. Some potential technologies to be tested are balance mix design for asphalt and real time curing for concrete pavements.

### WHAT IS OUR GOAL?

The study goal is to showcase the implementation of innovative pavement technologies, products, and processes in partnership with FHWA and other State DOTs.

### WHAT IS THE BENEFIT?

With a small contribution of \$10,000 per year for 5 years, Caltrans will be able to partner with FHWA to test new technologies and receive up to \$250,000, up to 100 hours of technical assistance, and resources for developing case study reports and videos for each selected demonstration project. As FHWA will be contributing \$2,000,000 per year for 5 years. In addition to the financial support, FHWA will host peer exchanges for showcasing lessons learned and best practices from the projects, in which we will be able to collaborate with other State DOT and FHWA to advance initiatives we find important.



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## WHAT IS THE PROGRESS TO DATE?

Alabama: Completed a revised project proposal based on collaboration with National Center for Asphalt Technology (NCAT) – May 2023.

Arizona: ADOT initiated the following activities during the 3rd quarter and identify the activities as ongoing for the 4th quarter. Climate model data synthesis and starting analysis.

Colorado: Finalization of CDOT project support tools to determine EPD collection requirements based

on materials quantities/bid items consistent with protocol document.

Georgia: No progress.

Idaho: On April 7th submitted a proposal titled Integrating Construction and Materials Testing Data with Geospatial Locations for Development of a Construction and Materials Testing Database. ITD is waiting to hear back on the proposal.

Illinois: No progress.

Iowa: Currently deploying VIC monitoring, e-construction compaction reporting, and APLT modulus measurement technology on two pilot projects currently under construction.

Missouri: MU finished all the mix designs for the nine test sections and submitted it to the contractor and MoDOT for approval.

North Dakota: We are working with a stakeholder group representing contractors and industry to develop the test sections for a 2024 construction project on ND 14.

Pennsylvania: Research applications, new equipment, and specifications used by other states  
Summer 2023 Develop PennDOT draft specification  
Fall 2023 Finalize PennDOT specification  
Summer 2024.