

Pavement

MAY 2026

Project Title: Partnered Pavement Research Center (PPRC)
23: Sustainability

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Task Manager:

Jamieson Scott
Associate Environmental Planner
jamieson.scott@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.

Pilot testing for feasibility of technologies for inventorying complete streets assets and condition evaluation rating system

Testing New Technologies to Improve Complete Streets Maintenance.

WHAT IS THE NEED?

Complete Streets policies aim to create safe, accessible routes for people walking, bicycling, using public transit, and driving. Yet sidewalks, bike lanes, and other active transportation facilities often receive less attention than roads and highways in asset management programs. A national survey of all 50 state Departments of Transportation (DOTs), along with interviews conducted with the California Department of Transportation (Caltrans) and the Georgia DOT, found no consistent system for assessing sidewalk cracking, surface evenness, or compliance with the Americans with Disabilities Act (ADA). Without reliable data and clear maintenance guidelines, these multimodal assets deteriorate, posing risks to safety, accessibility, and long-term infrastructure value.

WHAT ARE WE DOING?

This task comprises four sub-tasks:

- **Revise the Complete Streets Technical Memorandum:** Update the condition-maintenance decision trees and evaluation framework based on Caltrans feedback.
- **Conduct a Technology Literature Review:** Identify and review hardware and software tools for collecting sidewalk and bike path inventory data and determining asset condition to support the decision trees.
- **Demonstrate LiDAR-Based Methods:** Pilot the use of Light Detection and Ranging (LiDAR) and other data sources to inventory sidewalks, assess their condition, and check for ADA compliance.

- Prepare Project Deliverables: Develop technical memoranda and a final research report summarizing all findings and recommendations.

WHAT IS OUR GOAL?

The main goal of this task is to incorporate sidewalks, curb ramps, and bike lanes into routine asset management alongside highways and bridges. Standardized condition ratings, paired with modern data collection tools, will help transportation agencies plan, prioritize, and fund maintenance of these multimodal facilities using the same consistent, data-driven practices applied to roadways.

WHAT IS THE BENEFIT?

Integrating these methods will improve safety and accessibility for pedestrians and cyclists by identifying and addressing hazards quickly. Automated data collection and decision-tree frameworks will reduce labor demands, improve consistency, and lower costs. Including ADA compliance checks in routine workflows will help agencies meet legal obligations and promote equitable access for all users. Overall, this effort will support the long-term sustainability of Complete Streets features through reliable asset management and maintenance planning.

WHAT IS THE PROGRESS TO DATE?

- Completed the Technical Memorandum and maintained ongoing coordination with the Caltrans Office of Safety lead, including a joint meeting.
- Completed the technology literature review, presented the findings, and submitted the report to Caltrans for review.
- Reviewed the University of California, Davis LiDAR data and shipped the data to the Georgia Institute of Technology for the demonstration.

- Completed all analysis and presented to Caltrans.
- Edited draft final report. Reformat report in University of California Pavement Research Center template, remediate for ADA compliance and publish final report.