

DRISI

CALTRANS DIVISION OF RESEARCH,
INNOVATION AND SYSTEM INFORMATION

Research Notes

Pavement

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Project Title:
PPRC23: Pavement Management
System

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Task Manager:
Somayeh Mafi
Somayeh.mafi@dot.ca.gov

Scoping Study for Next Generation Pavement Management System (PMS)

Evaluate Frameworks for the Next Generation PMS

WHAT IS THE NEED?

Caltrans manages its pavements with a new and modern pavement management system, Pavem. While the Caltrans PMS (Pavem) has set a national standard for PMS practice, it is clear that the PMS architecture of the software (which is derived from 1980s computer architectures) is not adequate to handle the complex decision-making environment in California. However, PMS software vendors are not attempting to address these deficiencies. A better framework is needed to allow for full use of the data collected and provide more accurate predictions.

WHAT ARE WE DOING?

This project will investigate what type of decision support software is actually needed and will propose an architecture for this software based on modern computer architectures (e.g., cloud based, big data, machine learning). The scope will also include linking other software (design, LCCA, LCA) directly into the PMS to speed project delivery. This project will not develop this software, only outline what would be required, so that Caltrans can decide how to proceed.

WHAT IS OUR GOAL?

A scoping and architecture document will be provided for a next generation PMS. This project will not develop this software.

WHAT IS THE BENEFIT?

The improved APCS data will allow Pavem to make better pavement predictions and, thus, Caltrans can be more proactive in maintaining its pavements. This will lead to reduce maintenance costs and create savings by maintaining longer lasting pavements.



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



WHAT IS THE PROGRESS TO DATE?

This task has just been executed.