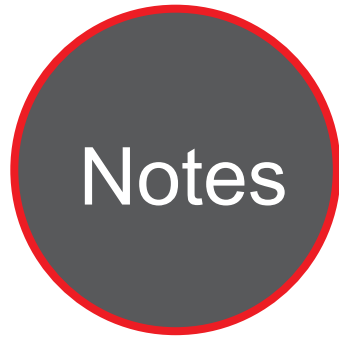




Caltrans Division of Research,  
Innovation and System Information

# Research



# Notes



Maintenance

AUGUST 2019

Project Title:  
Evaluation of Roadway Striping  
Management Services

Task Number: 3148

Start Date: November 7, 2017

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## Evaluation of Roadway Striping Management Services

Evaluate the effectiveness and benefits of roadway striping measurement services including the new technology.

### WHAT IS THE NEED?

The Federal Highway Administration published a Supplemental Notice of Proposed Amendment to the California Manual on Uniform Traffic Control Devices (MUTCD) in the Federal Register on January 4, 2017, regarding minimum maintained retroreflectivity of pavement markings.

California Department of Transportation (Caltrans) is adopting the policy to require a minimum retained retroreflectivity level of 100 mcd/m<sup>2</sup>/ls for all white and yellow traffic striping and pavement marking material for the State Highway System.

Traditionally, district Maintenance crews rely on experience and visual observations to determine when and where to maintain roadway striping. Despite the best efforts, operations conducted in this manner are subjective and can lead to misdirected efforts, lowered efficiency, and higher costs.

### WHAT ARE WE DOING?

The researchers will create a plan to evaluate laser scans for all Caltrans Districts pavement striping retroreflectivity. District 11 has developed a Scope of Work to conduct the laser scan service.

The research team will capture the data (field tests on selected routes and new construction projects) and process them into usable information. The information will be evaluated to determine if the service provides value to Caltrans' operations in the areas of striping maintenance and warranty monitoring.



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The researchers will also confirm the quality of the measurements through an independent checks/ comparison during initial measurement and follow-up measurements for the evaluation. Furthermore, they will establish methods for quality control, measured results reliability, and selection a sample size within the 81,000-lane miles measured.

## WHAT IS OUR GOAL?

The study will evaluate the effectiveness and value of outsourced services that evaluate roadway striping.

By evaluating the captured data, the researchers will establish methods for quality control of the data, the mobile measuring system, and the calibration process; and the reliability of the measured results. This will provide Caltrans an objective method for warranty enforcement and striping management.

## WHAT IS THE BENEFIT?

Caltrans will be able to meet the new federal amendment for MUTCD regarding pavement marking with a more accurate approach, which helps to enforce warranty on striping retroreflectivity to the minimum retained retroreflectivity requirement level for traffic stripe marking on the State Highway System.

The results will lead to better construction products and cost effectiveness.

## WHAT IS THE PROGRESS TO DATE?

Expected start date for this research is Nov 1, 2019.