

Research PPTG Subtask Group
ATTACHMENT 4G

SUBTASK GROUP MEMBERS	SUBTASK GROUP PURPOSE
MICHAEL SAMADIAN, LARRY SANTUCCI, ERWIN KOHLER, DAVID JONES*, JOHN HARVEY*, GARY HICKS, ALFREDO RODRIGUEZ, JOE HOLLAND, BRUCE STEVEN	Identify Research Needs on Pavement Preservation Issues for California and Disseminate Information to Caltrans and Local Agencies

*** CO-CHAIR BACKUPS**

2007 MAJOR ACCOMPLISHMENTS

- 20. Completed Analysis of Caltrans PMS Data from late 1990s/early 2000s regarding Pavement Preservation Practices, Expected Lives of Thin Overlays, and Life Cycle Cost Analysis of Pavement Preservation.
- 21. Developed Technical Advisory Guide for Pavement Preservation Experiments in California.
- 22. Completed Evaluation of MB Asphalt Overlays under HVS Testing.
- 23. Gathered Additional Information regarding Importance of Tack Coats between Asphalt Pavement Layers.

2008 WORKPLAN

Description of Tasks	Who's working on it?	Projected Completion Date?
30. Complete Chip Seal Guide for Caltrans	David Jones	Sept., 2008
31. Incorporate 3 Pavement Preservation ETG Research Needs into Caltrans Partnered Pavement Research Program with Pavement Research Center at UC Davis a. <u>Performance-related Specifications (PRS) for Pavement Preservation Treatments (Implementation Project)</u>	John Harvey/ UCPRC/ Caltrans	Start July, 2008 to develop detailed work plan

This project will determine: which engineering properties need to be measured for performance/acceptance, how performance parameters should be measured, and which pavement preservation treatments lend themselves to incentive/disincentive clauses, and recommend limits for incentives/disincentives. The project will recommend a template for incorporating PRSs into treatment-specific projects, and will produce a draft manual that provides guidance and measurement techniques for the identified engineering properties.

This project is also in the national Pavement Preservation Road Map (Construction #2) developed at a workshop by AASHTO and FHWA with participation by experts from the Department and the UC Contract Team.

b. Acceptance Criteria for Surface Treatments (Implementation Project)

The proliferation of method specifications has resulted in thin surface treatment performance deficiencies. In response to these difficulties, contractors, industry, and agencies have begun moving toward the development and implementation of performance specifications. This project will follow-up in large part the project listed above and will include field validation of the performance-related specifications. The PPRC will field test testing protocols developed in the previous project,

then validate prototype specifications by working with the Department to apply them to field projects. The field projects will then be monitored. Control field projects will also be monitored for comparison. Validation of the use of the specifications and acceptance criteria will be compared in early reports. Performance will then be monitored for up to five years or to the end of the life of the treatment for comparison. The test section evaluation will follow the Pavement Preservation Studies Technical Advisory Guide (PPSTAG) prepared for the Department as part of the current PPRC contract, and distributed by FHWA. Life cycle cost analysis will be performed to identify changes in the agency cost of implementing the performance-related specifications and acceptance criteria.

This project is also in the national Pavement Preservation Road Map (Materials #2) developed at a January 2008 workshop conducted by AASHTO and FHWA with participation by experts from the Department and the UC Contract Team.

c. Integrating Pavement Preservation into the Design Process (Implementation Project)

The objective of this project is to develop information that can be incorporated into further enhancements of mechanistic-empirical design. The flexible pavement mechanistic-empirical analysis procedure being developed for the Department by the PPRC includes a preliminary consideration of pavement preservation on predicted performance. In this project, the PPRC will develop pavement preservation performance prediction capabilities, and include them in the mechanistic-empirical concrete pavement design procedures being implemented by the Department. When the models for flexible and rigid pavement are completed, they will be evaluated by the Department and partner DOTs and updated. The PPRC will then work with the Department to incorporate the models into design procedures, and the Department's Life Cycle Cost Analysis Manual.

This project is also in the national Pavement Preservation Road Map (Design #6) developed at a January 2008 workshop conducted by AASHTO and FHWA with participation by experts from the Department and the UC Contract Team.

32. Complete Last Reports on Dowel Bar Retrofit, including Summary	UCPRC Harvey/ Kohler	June, 2008
33. Complete Final Reports on 3 years of Noise, Durability, Friction and Roughness Monitoring of Asphalt Overlays. Continue Monitoring, including New Materials as requested by Caltrans	UCPRC Harvey/ Kohler	July, 2008
5. Measure Noise on California Concrete Surfaces, including some New Surface Types and Resurfacing Treatments	UCPRC Harvey/ Kohler	Sept, 2010
6. Provide Periodic Updates on Recommended Pavement Preservation Practices based on Research Findings via UC Berkeley Tech Transfer Mailings (Newsletter and/or Technical Topics)	Larry Santucci	Ongoing

**7. Support Caltrans and Industry on Implementation of 2007
Research Results (see above)**

UCPRC Ongoing