

Pavement & Materials Partnering Committee (PMPC)
Work Product Scoping Document
2019 Section 37 Bituminous Seals Update
March 9, 2020

Task Group

Asphalt Task Group (ATG)/ Pavement Preservation Subtask Group

Problem Process

- Annual
- Expedited
- Emerging Initiative

Title

2019 Section 37 Bituminous Seals Update

Statement of Effort/Improvement

Section 37 of the 2018 Standard Specifications includes specifications for placing bituminous seal coats and crack sealing. Section 37 needs to be revised to resolve the following construction issues that have been identified in the past three seasons:

- Remove Micro Deval testing from specifications.
- Review and update specification language and usage requirements for continuous vs. truck mount slurry/micro pavers.
- Missing surface preparation requirements for fog/flush seal coats.
- Evaluate Section 37-2.01A(4)(b)(iii), Chip Seals, and CT 339 to provide a recommendation for hot applied chip seals.
- Ensure correct removal of emulsion specification tables which have been moved to Section 94 and evaluate how these changes could affect the Quality Control (Q/C) and Quality Assurance (Q/A) requirements within the section.

Purpose

The purpose is to review Section 37 of Standard Specifications and Standard Special Provisions (SSP) to make the necessary modifications or corrections for consistency with Sections 39 and 94. The revisions may include terminology and minor specification changes.

Background

Section 37 has not been reviewed for technical content since the 2015 Standard Specification update. There are changes and technical improvements in the pavement preservation industry that need to be evaluated for possible adoption into specifications. Section 94 has been updated in the last year through PMPC which will be incorporated in the 2019 Revised Standard Specification. Since Section 94 will be updated, Section 37 shall be evaluated for consistency with Section 94.

In the micro surfacing specifications, the Micro Deval Test method is included for fine aggregates as a quality control test with a maximum reporting time but there are no specification requirements for the Micro Deval test. Aggregate suppliers in the state have indicated they do not have the equipment to perform the Micro Deval testing and neither does the state. The Micro Deval test needs to be removed from the Section 37 of the specifications for micro surfacing. The durability test is comparable to the Micro Deval test.

Approach

1. Street Ready Assurance

The working group will work with Industry, Construction, METS, and Asphalt Pavements to review the existing specifications for any technical issues on the specifications and test methods then circulate the revised specification for comments from Industry, Construction, Design, and METS personnel for fatal flaws.

2. Performance Tracking/Management

Periodic reviews by subtask group to ensure that changes are not creating problems for Construction or Industry.

3. Consistently Implemented

Work with Industry, Construction, METS, and Design to provide a transmittal memo and Construction manual update on the changes made to Section 37 to the districts.

4. Pilot Projects (if anticipated)

No pilot projects are anticipated.

5. Research Needs (if necessary)

Not applicable.

Team Members (Indicate CT Chair and Industry Lead)

CT/Industry	Division/Firm Name	Member Name
CT	Asphalt Pavement	Steve Lee (Chair)
CT	METS	Lisa Dobeck
CT	D9-Maintenance	John Fox
CT	Construction	Raguparan Thangavelautham
IN	PRISM Worldwide	Scott Dmytrow (Lead)
IN	VSS Emultech	Sallie Houston
IN	APS	Marc Bertsch

Team should include no more than 4 Caltrans staff and 4 members from Industry. See PMPC Standard Operating Procedures for more information.

Objectives/Deliverables/Due Dates

The objectives are:

- Review technical content of Section 37 of the Standard Specifications and determine if any technical changes are warranted.
- Correct QC/QA emulsion test methods to match the recent changes to section 94.
- Streamline specifications (if necessary) and recommend revisions to test methods to newer versions of AASHTO/ASTM.
- Clarify sampling and testing turn-around times.

The deliverables necessary to accomplish these objectives are:

- Updated Section 37 of the Standard Specifications
- Updated Section 37 Standard Special Provisions
- Identify and report key practice changes for Caltrans and Contractors to the ATG
- Recommendation for revisions of Test Methods
- Updated Construction Manual

Details:

Milestones	Name - Responsible Party	Due Date (Start/Complete)
Resolve Comments and/or Reach Consensus on Technical Content for Section 37	PPSTG Chair	Complete 7/15/20
Complete Draft Section 37 Revised Standard Specifications & SSPs and circulate for comments	PPSTG Chair	Complete 8/22/2020
Resolve/Resolve Comments and/or Come to Consensus	PPSTG Chair	Complete 10/1/2020
Report key changes to ATG	PPSTG Chair	Complete 10/15/2020
Finalize Section 37 Revised Standard Specifications & SSPs and Send to OCCS	PPSTG Chair	Complete 10/30/2020
Document justifications of changes and develop report to ATG and EC	WTG	Complete 2/1/2021
Training and guidance	ALL	Start 4/2021 Complete 11/2021

Some milestones listed above may not be necessary

Resources To Develop and Implement (Staff hours and expenses.)

Action	Caltrans Hours	Industry Hours
Development (collect and resolve comments, develop revised Section 37)	600 plus travel	600 plus travel
Implementation (finalize Section 37 Revised Standard Specifications, obtain stakeholder approval and send RSS to OCCS for posting)	80	40

Benefits

The benefits after the completion of this work product are:

- The technical content has not been reviewed since 2015. This effort would bring Section 37 current with the latest developments and correct issues with specification language that could lead to claims in construction.
- These efforts are in line with the Department’s goal of Organizational Excellence and reinforces the Department’s efforts to be the national leader in delivering quality projects.

Estimated Impact to Caltrans and Contractor

- Provide consistency in specifying test requirements for the asphaltic emulsions.
- Update Section 37 for technical content.
- Provide additional clarity to the placement and use of asphaltic emulsions specifications associated with Section 37 practices.

Impediments to Completion of Deliverables

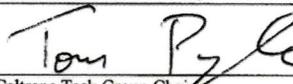
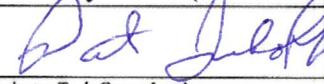
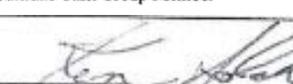
- Caltrans and Industry Resources: Busy schedules, construction seasons, and other projects
- Lack of data or expertise to verify technical content

Recommendation and Approval

This scoping document for Section 37 Bituminous Seals update was prepared by the Pavement Preservation Subtask group to address a priority issue with statewide significance and is within the PMPC mission as described in the PMPC Charter. The Subtask Group members have determined the scope, resources required and timeline for delivery of this project so that the deliverables are achievable. A signature here indicates that each Task Group and PMPC Executive Committee is committed to providing the resources to support this effort within the prescribed timeframes. Furthermore, it is everyone's responsibility to ensure that the final effort/improvement will be:

- 1) Street-Ready,
- 2) Monitored and reported for performance,
- 3) Successfully implemented statewide as appropriate.

Scoping Document Recommendation and Industry Concurrence:

Caltrans Name (Recommendation)	Date	Industry Name (Concurrence)	Date
 Caltrans Task Group Chair	3-17-20	 Industry Task Group Lead	3/30/20
 Caltrans Task Group Member	3/24/20	Phillip Reader Industry Task Group Co-Member	3/31/20
 Caltrans Task Group Member	3/24/20		

Scoping Document Approval and Industry Concurrence:

Caltrans Name (Approval)	Date	Industry Name (Concurrence)	Date
 Caltrans PMPC Executive Committee – Chair Pavement Program	4/16/20	Charles J. Rea Industry PMPC Executive Committee	4/16/20
 Caltrans PMPC Executive Committee Headquarters Construction	4/16/20	Brandon Miller Industry PMPC Executive Committee	4/16/20
Dolores Valls Caltrans PMPC Executive Committee Structures Policy and Innovation	4/16/20		
 Caltrans PMPC Executive Committee Materials Engineering and Testing Services	4/16/20		

Approval Date: 4/16/20