

EXPERIMENTAL PROJECTS WORK PLAN

EVALUATION OF URETHANE EPOXY PAVEMENT MARKINGS

Location:	I-15 (C000015), Jefferson County, Butte District. Milepost Reference Point Approximately 143-163
Project Name:	Pending
Project Number:	Pending
Type of Project:	Urethane Epoxy Pavement Markings
Principal Investigators:	Craig Abernathy, Experimental Project Manager (ExPM) Joe Nye, Inspection Operations Supervisor

Objective

Determine the effectiveness and long-term durability of the products Swarco MFUA-10 and Ennis HPS urethane epoxy pavement markings as compared to our currently approved epoxies.

Experimental Design

The following is the proposed layout of the installation plan:

Test Section 1. RP 143 to RP 153 South Bound

- Swarco MFUA-10
- ²Light Grind

Test Section 2. RP 153 to RP 163 South Bound

- Ennis HPS-4
- Light Grind

Control Section 3. RP 143 to RP 153 North Bound

- Product Meeting Current Specifications
- Light Grind

¹Control Section 4. RP 153 to RP 163 North Bound

- Product Meeting Current Specifications
- ²Heavy Grind

All Interstate longitudinal markings will be applied with the specified epoxy section treatment. Each section will receive the current standard specification application of a light grind prior to placement of the stated markings.

¹Control Section 4: This section will receive a heavy grind treatment prior to markings placement. The heavy grind application to be compared to the light grind specification to determine if this increases the durability of the marker to an extent that may be considered as a potential change in specification if supported by cost constraints.

²Light grinding is defined as continuous surface abrasion to the line to establish a roughened surface free of loose paint chips, loose seal aggregate and surface impurities. Heavy grinding is defined as complete removal of pavement markings (entire line width) to the top of the pavement surface.

Evaluation Procedures

Research will document the installation for best practice and any constructions concerns germane to the performance of the product. At a minimum, semi-annual inspections will report on pavement markings integrity and any other measurable outcomes. Additional site inspections may supplement the semi-annual visits based on need. District Maintenance will be asked to report on condition of markings as required.

Construction Documentation: Will include information specific to detail the placement of the markings. An initial retroreflectivity (refractive index –RI) readings will be conducted to be compared to succeeding RI's.

Post Documentation: Will entail semi-annual inspections (late fall, early spring) of pavement marking conditions for a minimum of sixty (60) months. RI documentation to be recorded annually.

Evaluation Schedule

Research will monitor performance for a minimum period of five years annually. This is in accordance with the Department's "Experimental Project Procedures". Delivery of a construction/installation report, interim, annual or semi-annual reports is required as well as a final project report (responsibility of Research). A web page will be dedicated to display all reporting from the project.

2012: Installation/Construction Report

2013-2016: Semi-Annual Inspections/ Annual Evaluation Reports

2017: Final Evaluation/Final Report