



Specifications for the Rehabilitation, surfacing and striping of Nevada County Government Center parking areas and service roads

REVISED STANDARD SPECIFICATIONS

New or revised standard specifications. These specifications are available at the following website:
<https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications> and as stated in Section 2-1.06B of the Standard Specifications.

Highlighted specifications

DIVISION III EARTHWORK AND LANDSCAPE

SECTION 19 EARTHWORK

19-11 DIG-OUT AND REPAIR

19-11.01 CONSTRUCTION

“Dig-out and repair” includes removal AND REPAIR of failed roadway structural section and subgrade preparation. Engineer will mark out areas of failed roadway surface for removal/repair.

Contractor will remove failed roadway surfacing to a depth of 3 inches, prepare and compact existing base/subbase, place 3 inches of ½-inch maximum, medium grade type A asphalt concrete into repair area, and compact to 95% RC. Prior to placement of asphalt concrete, contractor shall compact any loose subgrade material to 95% RC. HMA fibers are not required in the HMA patch material.

Contractor will complete repairs a minimum of five days before placement of the slurry-surfacing materials.

DIVISION V SURFACING AND PAVEMENTS

SECTION 37 BITUMINOUS SEALS

37-1 GENERAL

Conform to section 37-1.01, “General;”, of the Standard Specifications and these Special Provisions.

Exact location of all pavement markings and striping shall be identified and recorded by the contractor prior to the placement of any road treatment.

The work shall consist of but not be limited to furnishing all labor, materials, equipment, and transportation for the application of crack sealing and Type II micro-surfacing the roadway.

Micro-surfacing shall not be placed on portions of the roadway where there is a high friction surface treatment. Protect high friction surface treatment areas from micro-surfacing materials or any damage during surface preparation, application, cleanup, striping or any other stage of operations

37-3 SLURRY SEAL AND MICRO-SURFACINGS

Conform to section 37-3, "Slurry Seal and Micro-Surfacings", of the Standard Specifications and these Special Provisions.

37-3.01C(4) SURFACE PREPARATION

In addition to the requirements of 37-3.01C(4) "Surface Preparation", surface preparation prior to micro-surfacing shall also include removal of any grass, weeds or other vegetation from the pavement, removal of any extensive grease spots or oil saturated surfaces by washing or lightly grinding the pavement, removal of any thermoplastic markings leaving behind a textured surface, removal of any pavement markers and residual adhesive, removal of any paint markings or striping that have substantial paint buildup, and any utility structures and castings such as manhole covers and valve boxes shall be appropriately covered for protection.

The pavement surface shall be dry and shall have been swept clean immediately prior to micro-surfacing.

37-3.01C(3) MIXING AND SPREADING EQUIPMENT

37-3.01C(3)(a) GENERAL

All equipment, attachments and accessories shall be in good working order and function as intended by the manufacturer, shall be free of fluid leaks, and shall be clean and free of unwanted materials and debris.

Sweepers shall meet applicable U.S. Environmental Protection Agency standards and shall have non-metallic bristles of the correct length that can be adjusted vertically to exert the proper downforce.

Provide enough mobile support units to allow continuous micro-surfacing operations.

37-3.01C(5)(d)(1) FINISHED SURFACES

Contractor shall make a minimum of 5 passes with a 5 to 8 ton rubber-pneumatic-tired roller as part of the finishing process, until the surface finish is smooth. The roller tire size, rating and pressures shall comply with manufacturer's recommendations, tire pressures shall be the same on all tires, and all tires shall have a smooth surface. Rolling shall not begin until the micro-surfacing is cool and stable and rollers shall travel at no more than 5 mph.

Micro-surfacing seams shall be straight and along the road centerline or edgelines.

37-3.03A(3) SUBMITTALS

At least 10 days before starting micro-surfacing, submit a mix design and a mix design report of laboratory tests performed for the micro-surfacing materials. A representative of the laboratory performing the mix design and tests must sign the report. The Engineer reviews and approves the submittal before you start micro-surfacing.

Do not substitute materials after the mix design is approved unless the substitute materials are laboratory-tested, and you submit a new mix design and report. Does not use substitute materials until the Engineer approves the mix design for those materials.

Submit a Certificate of Compliance with each MSE shipment as specified for asphaltic emulsion in Section 94-1.05, "Test Report," of the Standard Specifications.

37-3.03A(4) QUALITY ASSURANCE

37-3.03A(4)(a) GENERAL

Before micro-surfacing activities start, submit the name of a person authorized to communicate with the Engineer about days when unsuitable weather conditions prevent micro-surfacing. Temporary pavement markers shall be removed prior to placement of micro-surfacing material.

37-3.03B(5) MICRO-SURFACING MIX DESIGNS

Proportion limits for Water and Additives shall be amended to read: "No limit; must include 2- 3% latex additive."

Proportion limits for Mineral filler shall be amended to read: 1-5% of dry weight of aggregate.

The mix design report must include:

1. Test results used in the mix design
2. Based on the aggregate's dry weight, the proportions of:
 - 2.1. Aggregate
 - 2.2. Water, minimum and maximum
 - 2.3. Additives
 - a. Mineral filler, minimum and maximum
 - b. MSE residual asphalt content, minimum and maximum
2. Based on heating the mixture to 100 °F and mixing for 60 seconds, any recommended changes to the proportions of:
 - a. Water
 - b. Additives
 - c. Mineral filler

Do not recommend these changes when nighttime applications are specified or when atmospheric temperatures below 90 °F are forecast for daytime applications.

2. A comparison of each individual material's test results to its specified values. The Engineer accepts mix design reports prepared within the previous 12 months of this project's mix design report submittal if the test results are for the same materials.
3. The quantitative moisture effects on the aggregate's unit weight determined under ASTM C 29M.

37-3.03B(3) AGGREGATE

Aggregate must be free of:

- Vegetable matter
- Deleterious substances
- Clay lumps
- Oversized particles

37-3.03C(2) PROPORTIONING

A belt feeder with an adjustable cutoff gate must proportion aggregate. The gate opening height must be determinable.

For the aggregate belt feeder, the delivery rate for any individual check run must not deviate more than 2 percent from the average of the rates of 3 runs of at least 3 tons each.

Proportion MSE using a positive displacement pump.

For the emulsion pump, the delivery rate for any individual check run must not deviate more than 2 percent from the average of the rates of 3 runs of at least 300 gallons each.

37-3.03C(5)(c) MICRO-SURFACING PAVEMENT SURFACES

Type II micro-surfacing spread rate (application range) shall be amended to read: "**15 +/- 1**"