

**SECTION 14 - RESTORATION OF SURFACES
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SECTION 14 - RESTORATION OF SURFACES

14-1 GENERAL

All existing curbs, gutters, sidewalks, driveways, road shoulders, pavement, and similar items removed, damaged or displaced during the Work must be restored by the Contractor. Restoration must be done using the same types of materials as in the original construction, and to not less than the original dimensions, subject to minimum requirements specified herein, as shown or as specified in the Contract, or as directed by Agency. All work must be constructed to match current standards and must match the appearance of the existing improvements.

14-2 PRIVATE ROADS

Trench compaction must conform to the requirements in Section 19, “Trench Excavation, Bedding and Backfill,” of these Specifications. Where asphalt surfacing exists, the surface restoration must match the corresponding portions of the existing private road but not be less than 2 inches of asphalt concrete over 4 inches of Class 2 aggregate base. Aggregate base and asphalt concrete must be as specified in Section 14-3, “Streets and Parking Lots,” in this Section of these Specifications. Where gravel, stone, or crushed rock surfacing exists, surface restoration must match the existing surface of the private road but not be less than 4 inches of Class 2 aggregate base. The remaining gravel or stone roadway must be reshaped to preconstruction cross sections and given an application of a minimum of 2 inches of 3/4 inch maximum size gravel or crushed rock compacted into place. The restored surface of a private road must be at least equivalent to the preconstruction surface condition.

14-3 STREETS AND PARKING LOTS

Attention is directed to the requirements in Section 12, “Safety and Construction Area Traffic Control,” of these Specifications.

Subgrade preparation must be performed in accordance with Section 18, “Earthwork,” and the aggregate base materials and placement must meet the requirements of Section 22, “Base Material,” of these Specifications.

Repaving of trenched areas must be in accordance with Section 23, “Asphalt Concrete,” and Standard Drawing 4-64, of these Specifications.

14-3.01 Trench Restoration

Edges of trench restoration must be cut/ground so that edges are parallel or perpendicular to the centerline of the roadway. Sand/slurry/fog seal must be placed so that edges are parallel to or perpendicular to the centerline of the roadway. Edges of existing pavement that are broken or damaged must be removed and neatly trimmed back to stable and undisturbed base and surface materials. For locations where the existing pavement is severely fractured, remove loose asphalt to the nearest crack beyond the specified restoration limits, as directed by the Agency. For the purposes of this section, a lane line is defined as a vehicular traffic lane line. Edge line, bike lane, buffered bike lane or parking lane lines are not considered to be vehicular traffic lane lines.

Intermediate trench backfill, per Standard Drawing 4-64, must be in accordance with Section 19-2.03, “Trench Backfill,” of these Specifications. Repaving of trenched areas must be in accordance with Standard Drawing 4-64, including shallow, trench, deep trench, and earth saw trench details.

14-3.01.A Roadways with pavement less than 3 years old

County Code Section 12.09.120 prohibits excavations in newly constructed or overlaid roadways for a period of 3 years. In circumstances such as emergency repair work where no other feasible options exist, the Sacramento County Dept. of Transportation may grant a waiver

to this restriction. If a waiver is granted, the applicant must be prepared to meet more stringent restoration requirements than those in these Specifications.

14-3.01.B Roadways with 3 to 5 year old pavement

For cuts in pavement that have been constructed or overlaid within 3 to 5 years, grind a minimum of 2 inches from lane line to lane line or edge of pavement/lip of gutter and overlay with asphalt concrete. At roadway intersections and cul-de-sac bulbs, minimum grind and overlay shall extend to include the entire quadrant of the roadway affected by the work.

The 2 inch grind depth is a minimum. The grinding must produce a stable surface for new pavement material. A seal coat is not required.

14-3.01.C Roadways with pavement greater than 5 years old**14-3.01.C (1) Minor Roadways**

Alternate 1 – Eliminate the tee portion of asphalt restoration shown on Drawing 4-64 and limit the extent of paving to the projected area above the trench. Follow the trench paving with a minimum 2 inch grind and overlay from center of roadway to edge of pavement/lip of gutter. The 2 inch grind depth is a minimum. The grinding must produce a stable surface for new pavement material.

Alternate 2 - Slurry or sand seal from edge of pavement/lip of gutter to centerline of roadway and a minimum of 2 feet beyond the trench paving limits. At roadway intersections and cul-de-sac bulbs, minimum slurry seal or sand seal shall be placed on the entire quadrant of the roadway affected by the work. Limit sand seal applications to 250 square feet or less or as directed by the Agency. Black sand shall be used for sand seal applications.

14-3.01.C (2) Major Roadways: Roadways With 2 or More Lanes in Each Direction or 45 MPH or Greater Posted Speed

The 2 inch grind depth is a minimum. For all trench types shown in Standard Drawing 4-64, the 2-inch deep grind shall be from lane line to lane line or edge of pavement/lip of gutter. The grinding must produce a stable surface for new pavement material. A seal coat will not be required.

14-3.02 Repair to areas damaged by Contractor's Operations

Areas of existing asphalt surfaces damaged during construction must be removed and replaced to a depth equal to the existing asphalt but not less than 4 inches on collector and minor roadways and 6 inches on major roadways. The top 4 inches of base material below the damaged asphalt must be re-compacted to a minimum relative compaction (refer to Section 5) of 95 percent. Base or underlying material that is wet, loose, or otherwise unsuitable for supporting new paving must be removed to a maximum depth of 12 inches below the bottom surface of the new asphalt pavement section and replaced with aggregate base material per the requirements of Section 22, "Base Material," of these Specifications. Aggregate base material must be compacted in layers not exceeding 6 inches in depth to a minimum relative compaction (refer to Section 5) of 95 percent. If unsuitable materials exist below this depth, an approved geotextile fabric must be installed prior to placing the aggregate base.

14-3.03 Asphalt Concrete

The asphalt concrete must conform to requirements specified in Section 23, "Asphalt Concrete," of these Specifications. If the existing pavement surfacing is rubberized asphalt, the top layer of new asphalt surfacing must also be rubberized.

An asphalt paving machine must be used for placing the finish lift of asphalt concrete paving on all trench restorations. Limited areas inaccessible to mechanical spreading and compaction equipment or where irregularities or unavoidable obstacles exist may be spread, raked and luted by hand tools or other methods approved by the Agency.

Final pavement surface for trenches greater than 3 feet in width and mostly parallel to the centerline of the street must not vary from the edge of a 10 foot straight edge (placed parallel and perpendicular to the trench) by more than 3/8 inch, except at intersections or changes in grade.

Final pavement surface for trenches 3 feet or less in width, bore holes having an area less than 50 square feet, and trenches of any width not mostly parallel to the centerline of the street must

match the smoothness of the existing pavement and the final pavement surface grade must not be greater than 3/8 inch above a line between the existing pavement surface at each edge of the excavation. Final pavement below this line is not acceptable.

Pavement not meeting the above requirements must be removed to a minimum depth of 1- 1/2 inch for the full width of the trench and replaced. The minimum length of removal along the trench is 4 feet beyond the ends of the non-conforming areas but must not exceed the limits of the original pavement repair.

14-3.03.A Density requirements

The asphalt concrete density must conform to requirements specified in Section 23, “Asphalt Concrete,” of these Specifications. At the Agency’s request, the Contractor must provide quality assurance testing per Section 23, “Asphalt Concrete” of these Specifications. Asphalt not meeting the -specified compaction requirements will be rejected on a lot basis.

14-3.04 Seal Coats

14-3.04.A Slurry Seal (Type 2)

Slurry seal must be furnished and placed as specified in the State Specifications, except that the requirement for a tack coat is waived. The final product must be 1 layer between 1/8 and 1/4 inch thick.

Prior to applying slurry seal, the Contractor shall cover all manholes, valve and monument covers, grates, or other exposed facilities located within the area of application, using a plastic or oil resistant construction paper secured to the facility being covered by tape or adhesive. The covered facilities shall be referenced by the Contractor, with a sufficient number of control points to relocate the facilities after the slurry seal has been placed. After completion of the slurry seal operation, all covers shall be removed and disposed of in a manner satisfactory to the Engineer.

14-3.04.B Sand Seal

Sand seal must be furnished and placed as specified in the State Specifications, except that the asphaltic emulsion and aggregate must be as follows:

- The asphaltic emulsion for sand seal must conform to the requirements in Section 50-17, “Asphalt, Liquid Asphalt, and Asphaltic Emulsion,” of these Specifications. The asphaltic materials must be CRS 1. The rate of application of CRS 1 must be between 0.08 and 0.15 gallons per square yard as directed by the Agency, depending upon the surface condition and weather.
- Aggregate for sand seal must conform to the State Specifications, and must be spread at the rate of 6 to 10 pounds per square yard or as directed by the Agency. Preparation of seal coat, applying bituminous binder, spreading, and finishing must be in accordance with the State Specifications, with the exception that steel wheeled rollers for sand seal may be eliminated and the pneumatic roller used for all seal operations. Asphaltic emulsion must be applied by a distributor truck.

14-3.05 Shoulders

Surface restoration of trenches located in a shoulder within 6 feet of the traveled way must consist of a structural section equal to the original, or as shown on the Plans, but having a minimum of 6 inches of aggregate base compacted to a relative compaction of 95 percent as determined by Test Methods ASTM D6938 and ASTM D1557.

14-4 CONCRETE

Repairs to concrete curbs, gutters, sidewalks, driveways, and other concrete surfaces must be made by removing and replacing the entire portions between joints or scores, except as follows:

- Curb and gutter must be replaced between saw cuts so that the remaining or new curb and gutter will not be less than 4 feet in length, measured from the saw cut to the nearest score mark, expansion joint, construction joint, or weakened plane joint.
- The entire width of sidewalk must be replaced between saw cuts for a length of not less than 4 feet providing the remaining sidewalk is not less than 4 feet in length, measured from the saw cut to the nearest score mark, expansion joint, construction joint, or weakened plane joint.
- Driveways must be replaced as directed by the Agency, either completely or partially, by saw cutting in the middle of the driveway. Existing driveways not in conformance with current ADA requirements must be completely removed and replaced to conform to current requirements.
- In accordance with section 4-18 of the County of Sacramento Improvement Standards and the American with Disabilities Act (ADA), California Code of Regulations, Title 24, and the California Manual on Uniform Traffic Control Devices, any modification of any portion of an intersection requires access improvements to all corners of that intersection. Re-construction of existing sidewalk ramps as a result of damage to the sidewalk ramp is considered a modification to a portion of the intersection. All existing corners of an intersection where sidewalk ramps are not in conformance with current ADA requirements must be completely removed and replaced to conform to current requirements.
- Curb dowels and reinforcing must be provided in accordance with Section 27-6 of these Specifications

Replacement must be in accordance with the applicable requirements, including the placement of Aggregate Base Class 2 under the new concrete as specified in Section 27, “Curbs, Gutters, Sidewalks, and Drainage Structures,” of these Specifications, except provisions for payment, for the type and classification of work set forth in other Sections of these Specifications. Pedestrian access must be maintained in accordance with Section 12-2.02, “Pedestrian and Bicyclist Access,” of these Specifications.

14-5 PAVEMENT MARKINGS

Except where specified otherwise in these Specifications or the Special Provisions, the Contractor must replace all crosswalks, legends, and other permanent pavement markings and raised markers that have been disturbed, destroyed, or covered by the Work. Damaged pavement legends must be completely removed, and crosswalks must be removed from edge of road to edge of road for minor streets or from edge of road to median or centerline for roadways with 2 or more lanes in each direction or 45 mph or greater posted speed in accordance with Section 13-2.09, “Removal of Traffic Stripes and Pavement Markings,” of these Specifications, and a sand seal or slurry seal conforming to section 14-3.04, “Seal Coat,” of these Specifications, must be applied. Seal coat must cover the entire pavement surface and extend a minimum of 6 inches past the areas where the legend has been removed. All edges of seal coat must be perpendicular or parallel to the centerline of the roadway. Pavement markings must then be replaced in accordance with Section 48-2, “Thermoplastic Traffic Stripes and Pavement Markings,” of these Specifications.

14-6 TEMPORARY PAVING

Temporary paving must be placed and maintained at locations wherever excavation is made through pavement, sidewalk, or driveways, and as shown on the Plans or as directed by the Agency. Temporary paving must be placed as soon as the condition of the backfill is suitable to receive it and must remain in place until the condition of the backfill is suitable for permanent resurfacing. Asphalt concrete Type "A," conforming to Section 23, "Asphalt Concrete," of these Specifications, must be used as temporary paving on all roadways with 2 or more lanes in each direction or 45 MPH or greater posted speed. Temporary paving in all other paved areas may be asphalt plant-mix cutback, unless otherwise directed by the Agency. Thickness of temporary paving must be 1-1/2 inch unless otherwise shown on the Plans. In sidewalk areas, temporary paving must be at least 1 inch thick. Temporary paving must be maintained at the same level as the existing pavement until the permanent surfacing is placed. Temporary pavement must be replaced with permanent pavement within 30 Calendar Days of when it was first placed, unless approved in writing by the Agency.

All temporary paving must be identified by painting the words "TEMPORARY PAVEMENT" along with the name of the contractor responsible for maintaining the temporary paving material and the date on which the material was placed. Painted text must be in white lettering at the beginning, ending, and along the length of the temporary paving at maximum intervals of 500 feet. The text must be neatly stenciled a minimum 5 inches in height and must be maintained in a neat and legible condition.

Temporary pavement and/or portions of temporary pavement totaling 1000 feet or greater in length must also be identified with a construction sign placed along the edge of the roadway and constructed in accordance with Section 23 Asphalt Concrete of these Specifications. Temporary pavement signs must be 30 by 30 inches in a diamond configuration and must be orange with 5 inch black lettering. Signs must be installed at the beginning, ending, and at maximum intervals of 1000 feet and within the road right of way whenever possible. Signs must not be installed in a location that would obstruct visibility or create an obstacle for pedestrians. The property owner's permission must be obtained if signs are placed on private property.

14-7 MEASUREMENT AND PAYMENT

Unless otherwise specified in the Contract, Slurry Seal (Type 2) will be measured and paid per SQUARE FOOT of roadway surfaced with slurry seal mixture and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved including testing, furnishing mix design, traffic control, cleaning the roadway surface, furnishing added water and set-control additives, mixing water with asphaltic emulsion for coating the pavement, placement of the slurry seal mixture, and protecting the seal until it has set, all as shown on the plans, and as specified in these Special Provisions, and as directed by the Engineer.

The lump sum price paid for items of work included in the Contract for restoration of surfaces removed, damaged, or displaced by the Work includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved, complete in place, as shown or as specified in the Contract, specified in these Specifications, and as directed by the Agency.

If no item is included in the Contract for restoration of surfaces, full compensation for conforming to the provisions in this Section, not otherwise provided for, is included in the prices paid for the various items of work involved, and no separate payment will be made.

Temporary paving will be measured for payment by weight of asphalt concrete placed in the Work, in accordance with Section 23-11, "Measurement and Payment," of these Specifications.

The price paid per ton for temporary paving includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in temporary paving, complete in place, as shown or specified in the Contract, as specified in these Specifications, and as directed by the Agency.

If there is no item in the Contract for temporary paving, full compensation for conforming to the provisions in this Section, not otherwise provided for, is included in the prices paid for the various items of work involved, and no separate payment will be made.