

**SUB WATER DEPARTMENT
STANDARD CONSTRUCTION SPECIFICATIONS
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**SECTION 32 19 00
PAVEMENT, SURFACE RESTORATION AND CLEANUP**

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PART 1 GENERAL

1.1 Description

- A. This section covers the work necessary to replace all pavements, pavement base, curbs, sidewalks and other surface features damaged directly or indirectly during construction. All work shall meet the standards of the Oregon Department of Transportation, the City of Springfield, and Lane County as appropriate to the location of the work.
- B. Lawns, planting, mulching, and topsoil shall conform to the requirements of Section 32 29 00, Planting.

1.2 Reference Standards

- A. References herein to “AASHTO” shall mean Association of American State Highway Transportation Officials.
- B. Standard Specifications: Where the term “Standard Specification” is used, such reference shall mean the current edition of the Oregon Department of Transportation Standard Specifications for Highway Construction. Where reference is made to a specific part of the Standard Specifications, such applicable part shall be considered as part of this section of the Specifications. In case of a conflict in the requirements of the Standard Specifications and the requirements stated herein, the requirements herein shall prevail.
- C. Engineering Design Standards for the City of Springfield.

1.3 Quality Assurance

The surface smoothness of the replaced pavement shall be such that when a 10-foot straightedge is laid longitudinally across the patched area between the edges of the old surfacing and surface of the new pavement, the new pavement shall not deviate from the straightedge more than 1/8 inch and surface drainage shall be maintained. Additionally, paving must conform to the grade and crown of the adjacent pavement and contain no abrupt edges, low or high areas or any other imperfections as determined by the Engineer. Pavement trench construction not meeting these requirements will be repaired by grinding the existing pavement to a 1-1/2 inch depth and replacing it with Level 3, 1/2-inch dense graded, Hot Mix Asphaltic Concrete (HMAC) placed the full width of the previous trench patch plus 4 inches on each side at no cost to SUB. HMAC will be compacted to 92% of the RICE value and approved by Lane County in the year that bids were accepted.

PART 2 PRODUCTS

2.1 Material

All materials required to accomplish the work as specified shall be provided and shall conform to the respective requirements for materials contained within this document or as approved by the Engineer.

2.2 Aggregate Material

Base Course and Leveling Course: The aggregate material shall be a clean, well-graded crushed base aggregate conforming to the Standard Specifications. Base course shall be 1-1/2 inches minus aggregate and leveling course shall be 3/4-inch minus aggregate, unless shown otherwise on the drawings or specified elsewhere.

2.3 Asphalt Concrete Pavement

A. Hot Mix Asphalt Concrete

Use Level 3, 1/2-inch dense graded, PG 64-22 HMAC approved by Lane County in the year that bids were accepted. Conform to the requirements as specified in Section 00744 OR 00745 of the Standard Specification.

B. Cold Mix Asphalt Concrete

Use cold mix asphaltic concrete and 1/2-inch-0-inch gradation with either MC 250 liquid asphalt, CMS-2, CMS-2S or CSS-1.

C. Asphalt Prime Coat

Liquid asphalt for use as a prime coat under asphaltic concrete shall be MC 250 liquid asphalt, CMS-2S or CSS-1.

D. Seal and Cover Coat

Asphalt material shall be CRS-2 cationic emulsified asphalt. Cover stone shall conform to size 1/4-inch - #10 aggregate in Standard Construction Specifications.

2.3 Topsoil

Topsoil shall be imported from approved sources and shall be approved by the Engineer. The topsoil shall be a sandy loam free of subsoil, grass, noxious weeds, and any material deleterious to plant health, and shall conform with the requirements of Section 32 29 00, Planting.

PART 3 EXECUTION

3.1 Surface Restoration, General

- A. All areas disturbed as a result of construction shall be restored to their original condition as nearly as possible, or surfaced as shown on the Plans. All excess material shall be removed from the site. Any damaged concrete walks or driveways shall be restored. All dirt and debris that accumulates from the Contractor's operations shall be removed from inlets, catch basins, connecting pipelines and similar structures. Any material entering manholes or ditch culverts from street resurfacing and trenching work shall be removed. Daily clean up of all visible mud and debris is required.
- B. All open fields, unpaved public rights-of-way or easements, and other areas not used as driveways, as shown on the Plans or as directed by the Engineer, shall be restored by placement of 12 inches of topsoil, fine grading, and hydroseeding.
 - 1. Seeding shall be completed as specified in Section 32 29 00, Planting.
 - 2. Settlement of 2 inches or more within 1 year of substantial completion shall require repairs and re-seeding as directed by the Engineer and at the Contractor's expense.
 - 3. Restorations occurring on private property shall be seeded to match existing conditions.
- C. In lieu of stockpiling topsoil, approved imported topsoil may be substituted at no expense to Owner. Payment for removing, stockpiling and replacing topsoil in the trench is incidental to the item bid. No further compensation will be made unless directed by the Engineer to place imported topsoil material.
- D. Surface Dressing - Slopes, sidewalk areas, planting areas, and roadway shall be smoothed and dressed to the required cross section and grade by means of a grading machine, insofar as it is possible to do without damaging the work or

existing improvements, trees, and shrubs. Machine dressing shall be supplemented by handwork, as directed.

Upon completion of the cleaning and dressing, the project shall appear uniform in all respects. All areas shall be graded true to line and grade, as shown on the Plans and as approved by the Engineer. Existing planting areas shall be graded to match the elevation of the sidewalk or curb with allowance made for settlement.

3.2 Removal of Curb, Driveways, Sidewalk and Pavements

- A. Replacement of pavement, curb, and sidewalk shall conform to the requirements of the City of Springfield Standard Construction Specifications, "Section 407 RESURFACING TRENCH AREAS", or the comparable specifications of the agency having jurisdiction, or as specified in the Contract Documents.
- B. Cuts in bituminous pavement, Portland Cement concrete pavement, curbs, and sidewalks, regardless of thickness, shall be made with a pavement saw. The Contractor shall be required to replace complete sections of Portland Cement concrete pavement, curbs, and sidewalks between expansion and /or contraction joints.
- C. All curbs, sidewalks, driveways, and other structures damaged during construction of the work shall be repaired or replaced.
 - 1. Curbs shall be saw cut perpendicular to their alignment at the minimum width for the excavation, or as directed by the Engineer.
 - 2. Sidewalks shall be saw cut and removed in complete sections between expansion and contraction joints.
 - 3. Driveways shall be saw cut at the direction of the Engineer, either the minimum width for excavation or removal of entire sections.

3.2 Aggregate Pavement Base

- A. Place pavement base to the depth shown on the plans or as specified. In all cases, pavement base shall be compacted to a minimum depth of 6 inches. Bring the top of the pavement base to a smooth, even grade at a distance below finished grade equivalent to the required pavement depth. Pavement shall be compacted to 92% of RICE value.

- B. Compact the pavement base with mechanical vibratory or impact tampers to a density of not less than 95 percent of the maximum density, as determined by AASHTO T-180 test process.

3.3 Temporary Pavement

Where pavement is to be replaced, a temporary asphalt patch shall be applied within 24 hours of trench backfill. Before replacement of the permanent pavement, the Contractor shall continuously maintain the trenches in a condition acceptable to the Owner, Engineer and/or responsible roadway agency at no additional cost to the Owner.

3.4 Asphaltic Concrete Pavement

- A. The Contractor shall conform to the requirements for prime coat and tack coat in Standard Specifications. Tack coat all edges of existing pavement, manhole and clean out frames, inlet boxes and like items. When an application rate is not specified, asphalt will be applied at the rate of 0.1 gallon per square yard.

B. Asphaltic Concrete Placement

1. Except as specifically modified herein, asphaltic concrete pavement shall conform to the requirements for construction in Standard Construction Specifications. All trench cuts shall be kept in a smooth condition throughout the duration of the project.
2. The limits of the restoration shall include all damaged or undermined surfacing.
3. Provide a smooth tee cut by saw cutting the existing pavement parallel to the trench and beyond the sides of the trench excavation as shown on the plans. Remove any pavement which has been damaged or which is broken and unsound outside this area by making alternating traverse and parallel saw cuts. Parallel cuts must be a minimum of 25 feet long, unless otherwise directed by Engineer. Provide a smooth, sound edge for joining the new pavement.
4. Place the asphaltic concrete to the specified depth on the prepared subgrade over the trench. When a depth is not specified, place asphaltic concrete to the depth of the adjacent pavement, up to a maximum of 6 inches, at the direction of the Engineer. The minimum depth of pavement shall be 4 inches. When a prime coat is specified, place asphaltic concrete after the prime coat has set. The maximum thickness for any one lift of pavement shall not exceed 2 inches. Spread and level

the asphaltic concrete with hand tools or by use of a mechanical spreader.

5. When the utility trench is placed closer than 3 feet inside the edge of the existing pavement, the remaining pavement must be removed and replaced with the trench repair. When the trench is under the existing edge of pavement, additional pavement shall be removed to allow a three foot minimum width of repair and to maintain the original street width.
6. Settlement of 1/4-inch or greater for asphaltic concrete patches, occurring within one year of substantial completion, shall require repair or replacement as directed by the Engineer at the Contractor's expense.

3.5 Concrete

- A. Replace concrete ADA ramps, driveways, sidewalks and curbs to the same section, width, depth, line and grade as that removed or damaged. Saw broken or jagged ends of existing concrete on a straight line and to a vertical plane. Place new concrete only on an approved compacted trench.
- B. Replace concrete ADA ramps, driveways and sidewalks between scored joints and make replacement to prevent a patched appearance. Unless otherwise shown, provide a minimum 2-inch thick compacted leveling course of clean 3/4-inch minus crushed aggregate.
- C. All replaced concrete ADA ramps, driveways, sidewalks and curbs shall be constructed in accordance with City of Springfield Standard Construction Specifications.

3.6 Rock Surfacing

Place rock surfacing only where shown on the plans or as directed by the Engineer on streets, driveways, parking areas, street shoulders, and other areas disturbed by the construction. Rock surfacing shall be 1 ½ inches – 0 inches, or ¾ inch – 0 inches crushed aggregate, as directed. Spread the rock surfacing to conform to adjacent existing grades and surfaces as directed. Compact as directed with mechanical vibratory or impact tamper.

3.7 Landscaping Restoration

- A. Restore all landscaped areas, yards and areas specifically identified on the drawings damaged as a result of construction as specified in Section 32 90 00 Planting.

- B. Contractor shall hand-rake and drag all former grassed and/or planted areas leaving disturbed areas free from rocks, gravel, clay, or any other foreign material and ready, in all respects, for seeding. The finished surface shall conform to the original surface, be free-draining, and free from holes, rough spots, or other surface features detrimental to a seeded area.

3.8 General Project Cleanup

- A. Removal of Material - Contractor shall remove and dispose of all excess construction materials, debris, trash, or equipment remaining on the job site which resulted from the work under contract. Where brush, shrubs, and/or trees located outside of the limits of the project have been disturbed, the Contractor shall remove, replace, or otherwise restore the disturbed materials as directed and to the satisfaction of Engineer.
- B. Cleaning Drains - All drainage facilities such as inlets, catch basins, culverts, and open ditches shall be cleaned of all excess material and/or debris which is the result of the work.
- C. Cleaning Paved Surfaces and Appurtenances - All pavement surfaces, whether new or existing, within the limits of the project, shall be cleaned. Existing improvements such as curbs, gutters, walls, sidewalks, castings for manholes, monuments, water gates, lamp poles, vaults, signs, and other similar installations shall be cleaned.
- D. Restoring Mobilization, Borrow and Disposal Areas - All properties which were disturbed during construction of the project shall be cleaned. Haul routes to and from the project site, borrow, and disposal areas shall be inspected and cleaned of construction related debris and restored to the condition prior to the Contractors use. All uprooted stumps, felled trees, brush, excess excavation, rock, discarded materials, rubbish, and debris shall be disposed of. All equipment, machinery, tools, and supplies shall be removed, and the property occupied shall be put in a neat, clean, and orderly condition, equal to, or better than existing conditions prior to construction.

3.9 Roadway Signs, Utility Features and Stripping

- A. Removal of Temporary Signs - Warning, regulator, guide, or project signs shall not be removed prior to formal acceptance, except as directed.
- B. Replacement of Permanent Signs - Permanent roadway signing removed during the course of the work shall be replaced as directed by the Engineer.

- C. Restoring Utility Valve Access and Meter Boxes - All valve boxes and meter boxes damaged during construction of the work shall be replaced. Valve boxes shall be inspected for accessibility and construction debris removed to provide clear access and usability.
- D. Restoration of Permanent Pavement Striping and Marking - The Contractor shall restore all permanent pavement striping and marking that is removed or damaged during the project construction. The work shall include the removal of existing damaged markings where required, furnishing and installing thermoplastic and/or painted markings in accordance with the roadway owners' requirements and other incidental work as required to completely restore existing pavement striping and marking to the satisfaction of the roadway owners.

3.10 Dust Control

When the weather is dry and when, in the estimation of the Engineer, the dust becomes a nuisance, the Contractor shall sprinkle water on surface streets twice a day in order to keep the dust down. This sprinkling shall be maintained until the project is accepted. On paved streets when the backfilling has been completed, the streets shall be washed to remove all dirt and debris. If the dust becomes a nuisance before backfilling is completed, the Contractor shall wash the streets to the satisfaction of the Engineer.

END OF SECTION