

## 6.01 GENERAL

- A. The Contractor shall restore all surfaces damaged by his operations to the widths and extent detailed or noted on the plans or specified herein.
- B. Surface restoration in streets and roads maintained by the State Department of Highways shall be accomplished in accordance with applicable utility construction permits.
- C. Various conditions and types of surface restoration are shown on the details. Materials and construction methods to be in accordance with the following specification and the most recent DelDOT Specifications for Road and Bridge Construction.
- D. Existing pavement to be trimmed to secure a straight clean edge for repaving. Saw cut pavement as shown on the drawings and as directed to obtain a clean pavement edge.
- E. No staggered or irregular longitudinal trench repair widths shall be allowed in each block of work. Repairs shall be of a uniform width and in a straight line.
- F. Minimum pavement restoration width is four (4) feet, including edge of roads. Actual width shall be as detailed or noted on the plans. Payment is limited to these widths. Should the Contractor damage or disturb larger areas, he shall replace the additional area at his cost.
- G. Surface course and concrete sections shall be lifted out , not broken out.
- H. Undermined areas shall be grout filled or cut back.
- I. A temporary two (2)-inch layer of cold patch shall be placed on all utility trenches at the end of every workday.
- J. Metal plating may be used at the end point of the utility laying operation and must be used to protect the integrity of concrete patches.
- K. All adjustments to existing utilities shall be made prior to overlay operations and have to be repeated if there is any damage due to rolling and compacting operations.
- L. Manhole or catch basin adjustments can be made with pre-cast manhole adjustment rings, brick courses or mortar layers. Valve boxes shall be adjusted to the proper elevation using the screw adjustment.

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- M. Pavement adjacent to all trenches shall be cut back by one (1) foot on each side.
- N. Skewed patches will not be permitted. All patches shall be boxed square.
- O. Paving operations can be performed with the minimum temperatures, material types, and thicknesses as specified in Section 410 of the most recent DelDOT Specifications for Road and Bridge Construction.
- P. Catch basins, inlets, curbs and all other appurtenances shall be adequately covered and protected prior to application of bituminous materials. No earth or bituminous materials shall be allowed to enter any storm drainage system and suitable containment provisions shall be employed to prevent surface runoff of bituminous materials.
- Q. The final surface, except on overlays, shall match grades existing prior to construction and shall be such that a smooth transition free of abrupt changes in grade is made with adjacent pavements and/or sidewalks. No depressions or other misalignment shall obstruct, trap or otherwise misdirect the flow of surface water drainage.

#### 6.02 MAINTENANCE OF REFILLED EXCAVATIONS

- A. The Contractor shall maintain, at his own expense, all refilled excavations and surfacing in proper condition as specified herein. All depressions appearing in the refilled excavation, stabilized base and temporary paving shall be properly refilled. If the Contractor fails to make repairs within forty-eight (48) hours after receipt of written notice from the Engineer, the Owner may refill said depressions and the cost thereof shall be billed to the Contractor. In case of emergency, the Owner may refill any depression or protect with barricades without giving previous notice to the Contractor, and the cost of so doing shall be billed to the Contractor.
- B. The Contractor shall be responsible for any injury or damage that may result from lack of maintenance of any refilled excavation at any time.

#### 6.03 BASE COURSES

- A. Crusher Run

Crusher run base course shall be spread on prepared and compacted refilled excavations to the compacted depth shown on the drawing details.

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Materials and methods of construction shall meet the provisions of Section 302 of the referenced DeIDOT specifications.

B. Bituminous Concrete Base Course (Deeplift)

Bituminous concrete base course shall be spread on prepared and compacted refilled excavations to the compacted depth shown on the drawing details.

Materials and methods of construction shall meet the provisions of Section 401 of the referenced DeIDOT specifications.

6.04 BITUMINOUS SURFACE TREATMENT

A. Bituminous surface treatment shall consist of a number of courses of bituminous material and aggregate as shown on the drawings.

B. Materials and methods of construction shall meet the provisions of Section 404 of the referenced DeIDOT specifications.

6.05 BITUMINOUS CONCRETE PAVEMENT

A. Hot-mix, hot laid bituminous concrete shall consist of placing bituminous concrete base and/or wearing courses on a prepared base to the minimum compacted thickness shown on the drawings.

B. Hot-mix, hot laid bituminous concrete shall meet the provisions of Section 401 of the referenced DeIDOT specifications. All thicknesses detailed shall be compacted thicknesses.

6.06 CONCRETE PAVEMENT

A. Concrete used in the restoration of streets and roads shall be placed to the minimum thickness shown on the drawings. Concrete may be a base course with a bituminous concrete overlay or a finished surface course as shown on the drawings.

B. Concrete pavement shall meet the provisions of Section 500 -Rigid Pavement, of the referenced DeIDOT specifications.

C. Concrete sidewalk, curb, gutter and driveway restoration shall meet the provisions of Sections 701 and 705 of the referenced DeIDOT specifications.

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## 6.07 TOPSOIL AND SEEDING

- A. Topsoil shall be placed in areas where grass has been disturbed by the Contractor's operations. Depth of topsoil shall be six (6)-inches minimum. Topsoil salvaged and stockpiled during trench and structure excavation may be used for this purpose. When topsoiling, all materials shall meet the following provisions. Soil pH shall range between 5.8 and 7.5. Soluble salts shall be less than 0.5 mmhos/cm. Organic matter shall be 1.5% or greater. Phosphorus content shall be 50 ppm or greater. Potassium content shall be greater than 90 ppm. Soil texture shall meet the following USDA Classification, Loam, Silt Loam, Sandy Loam, Loamy Sand, or Sandy Clay Loam. Topsoil shall not contain more than 5% by volume fragments of 1.5" diameter.
- B. Seeding shall consist of furnishing and placing seed and soil supplements on topsoiled areas and at any other locations as directed by the Engineer. When seeding, all materials and methods of construction shall meet the provisions of Section 734 of the referenced DeIDOT specifications.
- C. Fertilizer shall be a recognized commercial fertilizer containing a minimum 5% nitrogen, 10% available phosphoric acid and 10% soluble potash by weight. It shall be applied in sufficient amounts to provide sixty (60) pounds of nitrogen per acre.
- D. Fertilizing and seeding application rates shall be in conformance with Section 734 "Seeding" of the referenced DeIDOT specifications as specified for "Standard Roadside Mix". Seed shall be applied at a rate of four (4) to five (5) pounds per 1000 square feet.
- E. No mulch shall be required unless the area to be seeded rests upon a slope greater than 3 to 1. Mulch for these areas shall consist of straw mulch as specified in Section 735 "Mulching" of the referenced DeIDOT specifications.

END OF SECTION

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