

320.06 – Density

Density shall be determined in accordance with Section 315.05(e). The minimum density requirements for BM-25.0D+0.4 and BM-25.0D+0.8 are shown in Table III-9.

**TABLE III-9
DENSITY REQUIREMENTS**

Mixture Type	Minimum Control Strip Density (%)¹
BM-25.0D+0.4	94.0
BM-25.0D+0.8	96.0

¹The control strip density requirement is the percentage of theoretical maximum density of the job mix formula by SUPERPAVE® mix design or as established by the Engineer based on two or more production maximum theoretical density tests.

320.07 – Measurement and Payment

BM-25.0D+0.4 and BM-25.0D+0.8 will be measured in tons and paid for at the Contract ton price. This price shall include all materials and labor specified in Section 315 as modified in this Section for asphalt concrete base.

Payment will be made under:

Pay Item	Pay Unit
Asphalt Concrete Base Course Type BM-25.0D+0.4	Ton
Asphalt Concrete Base Course Type BM-25.0D+0.8	Ton

SECTION 321 – TRENCH WIDENING

SS321-002020-01

May 26, 2020

SECTION 321 – TRENCH WIDENING is inserted as follows:

321.01 – Description

This work shall consist of installing asphalt into a constructed trench to widen shoulders and travel lanes in accordance with the Plans and Specifications and as directed by the Engineer.

321.02 – Material

- (a) **Materials** shall conform to Section 211.02 and 315.02.
- (b) **Trench widening material** IM-19.0A shall be used for IM-19.0A(T) and IM-19.0D shall be used for IM-19.0D(T). Where BM-25.0(T) is designated, either BM-25.0A or BM-25.0D shall be used by the Contractor.

321.03 – Placement Limitations

The Contractor shall not place asphalt concrete mixtures when weather or surface conditions are such that the material cannot be properly handled, finished, or compacted. The surface upon which asphalt mixtures is to be placed shall be free of standing water, dirt, and mud and the base temperature shall conform to Section 315.04.

321.04 – Procedure

- (a) **Trench Widening Route Types:** The minimum lift density as determined according to VTM 22 is based on the type of trench widening as defined below and specified in the Contract. Where trench widening is 2 feet in width compaction may be performed with small single drum walk-behind rollers or other mechanical means acceptable to the Engineer.
1. **Type 1:Paved Shoulder Only** shall be installed on routes where the widening will serve as a paved shoulder and will not be subjected to constant traffic. The painted edge line will not be on the trench widening. The minimum density requirement will not be enforced for this type of trench widening. Steel double drum rollers weighing at least 8 tons shall perform compaction of the asphalt concrete. At least five passes shall be completed.
 2. **Type 2:Widened Travel Lane and Paved Shoulder** shall be installed on routes where the widening will serve as a wider travel lane and paved shoulder that will be subjected to traffic. The widening will not include removal of existing travel lane pavement, i.e., inside the edge line marking. The painted edge line will be on the trench widening. The minimum density applies to this type of trench widening.
 3. **Type 3:Repaired Travel Lane and Paved Shoulder** shall be used on routes where the widening will include a portion of the existing travel lane, serve as a paved shoulder and will be subjected to traffic as a part of the travel lane. The widening will include removal of existing pavement, i.e., inside the edge line marking. The painted edge line will be on the trench widening. The minimum density applies to this type of trench widening.
- (b) Trench widening routes shall be widened by trenching on one or both sides of the existing roadway and placing Trench Widening Material in accordance with the width and depth specified for that route.

Any remaining material, after final grading, shall be classified as excess material, and will be disposed of according to Section 106.04 of the Specifications or as directed by the Engineer.

The trench shall be shaped to have vertical sides with the width, depth and type specified in the Contract (2-foot minimum to 6-foot maximum width); be free of excess material; and shall be tacked against the existing pavement side before Trench Widening Material is placed.

The Contractor shall ensure that disruption to driveways, entrances, mailboxes, and intersections are minimized and that precautions are taken to ensure that roadway drainage does not pond on the roadway surface.

321.05 - Acceptance

Where density requirements apply, the Contractor is responsible for cutting cores or sawing plugs for density testing. One set of plugs or cores per course of material shall be obtained within the first 500 feet and every 2,500 feet thereafter of the trench widening route for testing by the Contractor or the Department. Core and plug locations shall be randomly selected within each section. If the density achieved is less than 91.5% of the maximum theoretical density for the Type 2 or 3 trench widening routes, payment adjustment will be made on the actual tonnage within the 500- or 2,500-foot lot according to Table III-6.

321.06- Measurement and Payment

Asphalt Concrete Type BM-25.0(T), IM-19.0A(T) or IM-19.0D(T) will be measured in tons and will be paid for at the Contract ton price. This price shall include furnishing and placing the Trench Widening Material, trenching, tack, grading and disposing of excess material.

Payment will be made under:

Pay Item	Pay Unit
Asphalt Concrete Type BM-25.0(T)	Ton
Asphalt Concrete Type IM-19.0A(T)	Ton
Asphalt Concrete Type IM-19.0D(T)	Ton

SECTION 322 – ASPHALT SURFACE PREPARATION AND OVERLAY
SS322-002020-01 **September 9, 2020**

SECTION 322 – ASPHALT SURFACE PREPARATION AND OVERLAY is inserted as follows:

322.01 – Description

This work shall consist of preparation of existing pavement before resurfacing, and placement of asphalt concrete overlay pavement courses on existing paved roadway surfaces. This work shall be performed in accordance with Sections 211 and 315, Sections 248 and 317 where Stone Matrix Asphalt (SMA) is specified,