

SECTION 460: HOT IN-PLACE RECYCLING OF ASPHALT PAVEMENT

460.1 DESCRIPTION

This work shall consist of recycling the existing in-place asphalt surface in a multi-step process of cleaning, heating, milling, rejuvenating (if required), spreading, and leveling. This Work also consists of placing and compacting the new HMA over the recycled surface. The Contract may require the Contractor to blend the recycled Material with an asphalt-rejuvenating agent.

This work shall be accomplished by a single pass of the single repaver with additional preheaters as required to complete the work and shall be performed in accordance with Section 412, "Hot In-Place Recycling of Asphalt Pavement (Remixing Method)" of the NMDOT Standard Specifications for Highway and Bridge Construction, current edition except where stated otherwise.

460.2 MATERIALS

460.2.1 Rejuvenating Agent

The Contractor shall provide a rejuvenating agent in accordance with subsection 412.2.1, "Rejuvenating Agent" of the NMDOT Standard Specifications for Highway and Bridge Construction, current edition.

460.2.2 HMA

HMA Material shall be provided in accordance with Section 435, "Hot-Mix Asphalt (Superpave)" and Section 405, "Hot-Mix Asphalt (HMA) Material" of these Standard Specifications.

The Contractor shall provide an HMA mix design in accordance with subsection 405.2.7, "Mix Design" of these Standard Specifications. The Contractor shall provide a copy of the NMDOT issued HMA mix design as an attachment to the Asphalt Certification Letter for review and approval by the City Engineer or designee at a minimum five (5) working days prior to the beginning of the HMA paving operations.

The mix design shall be developed by a certified testing laboratory appearing on the approved Certified Testing Laboratory list maintained by the NMDOT.

460.3 CONSTRUCTION REQUIREMENTS

460.3.1 Equipment

The Contractor shall provide equipment in accordance with subsection 412.3.1, "Equipment" of the NMDOT Standard Specifications for Highway and Bridge Construction, current edition. Any reference to "Project Manager" shall be substituted with the words, "City Engineer or designee."

The Contractor shall use compaction equipment in accordance with subsection 435.3.4.4, "Compaction Equipment" of these Standard Specifications.

460.3.2 Construction Details**460.3.2.1 Cleaning of Existing Pavement Surface**

Before beginning hot in-place recycling, the Contractor shall clean the existing pavement surface of non-asphalt materials by blading and brooming or other methods approved by the City Engineer or designee.

460.3.2.2 Heating, Milling, and Processing

This work shall be performed in accordance with subsection 412.3.2.2, "Heating, Milling, and Processing" of the NMDOT Standard Specifications for Highway and Bridge Construction, current edition.

460.3.2.3 Placing and Compacting

This work shall be performed in accordance with subsection 412.3.2.3, "Placing and Compacting" of the NMDOT Standard Specifications for Highway and Bridge Construction, current edition except that compaction of the Material shall be performed in accordance with Section 435.3.5, "Placement Operations" of these Standard Specifications.

460.3.2.4 Temperature Requirements

The recycled mixture shall have a temperature in a range between 225 °F and 300 °F when measured immediately behind the laydown machine.

460.3.2.5 Joints

The heating unit shall heat a minimum of 4 inches beyond the width of recycling. Joints shall be constructed in accordance with subsection 435.3.5.7, "Joints" of these Standard Specifications.

460.3.2.6 Debris and Waste Material Disposal / Work Site Cleaning

The Contractor shall dispose of debris and waste material in an environmentally safe manner in accordance with all applicable environmental requirements.

The Contractor shall, at his own expense and as directed by the City Engineer or designee, immediately remove from all public and private property all temporary structures, rubbish, debris, or any waste materials resulting from work operations. The work site shall be left in a neat condition as directed by the City Engineer or designee.

460.3.2.7 Weather Limitations

Weather limitations shall be in accordance with subsection 435.3.5.5, "Temperature and Weather Limitations" of these Standard Specifications.

460.3.2.8 Surface Tolerance

The compacted surface of recycled pavement material or new HMA Material shall be placed in accordance with subsection 435.3.5.8, "Surface Tolerances" of these Standard Specifications.

460.3.2.9 Plan Surfacing Depths

The Contractor shall monitor and record the material depth of the compacted recycled pavement Material (including new HMA Material, if specified) during the placement operations. Surfacing depths shall be recorded at a minimum rate of 1 per 100 linear feet or as directed by the City Engineer or designee.

If the in-place compacted thickness is deficient by more than 0.5 inch, the in-place mixed Material shall be rejected by the City Engineer or designee and shall be removed and replaced by the Contractor at the Contractor's expense.

460.3.3 Protection of Pavement

After final rolling, no vehicular traffic of any kind shall be permitted on the pavement until it has cooled and hardened.

460.3.4 Contractor Quality Control**460.3.4.1 Contractor Quality Control for Materials**

New HMA Material shall be placed in accordance with Section 435.3.6.1, "Contractor Quality Control" and Section 435.3.6.1.1, "Contractor Quality Control of Aggregate" of these Standard Specifications except that random test samples of the HMA Material shall be taken from the HMA windrow before the Material goes through the paver.

460.3.4.2 Contractor Quality Control for Compaction

Contractor quality control for compaction shall be in accordance with Section 435.3.6.1.2, "Contractor quality Control for Compaction" of these Standard Specifications.

460.3.5 City Quality Assurance**460.3.5.1 City Quality Assurance for HMA**

New HMA Material shall meet the requirements of Section 435.3.6.2.1, "Acceptance" of these Standard Specifications with the exception that the City will base acceptance on random test samples taken from the HMA windrow before the Material goes through the paver.

460.3.5.2 City Quality Assurance Testing for HMA Compaction

The Contractor shall meet the density requirements of Section 435.3.6.2.1, "Acceptance" of these Standard Specifications.

The average mean density of the compacted mix shall be 95% minimum to 98% maximum of the theoretical maximum density as per Section 435.3.6.2.1, "Acceptance" of these Standard Specifications. In no case shall the percentage of theoretical maximum density exceed 98%. If a lot does not meet either of these density requirements, the Material in the lot shall be rejected and shall be removed and replaced at the Contractor's expense. Material removed shall be disposed of in a suitable manner and in compliance with all environmental requirements.

460.4 METHOD OF MEASUREMENT

If the Contract requires new HMA, the City will measure it in accordance with Section 435.4, “Method of Measurement” of these Standard Specifications.

460.5 BASIS OF PAYMENT

The City will pay for the new HMA Material in accordance with Section 435.5, “Basis of Payment” of these Standard Specifications.

Pay Item

Pay Unit

<i>Hot In-Place Recycled Asphalt Pavement</i>	Square Yard	
<i>Rejuvenating Agent</i>		Gallon
<i>HMA Sampling and Testing by the Contractor</i>	Lump Sum	