SECTION 02513 - ASPHALT CONCRETE PAVING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS:

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

A. Extent of asphalt concrete paving work is shown on drawings.

B. Prepared aggregate subbase is specified in earthwork sections.

C. Saw-cutting of edges of existing pavement as shown on drawings.

1.03 SUBMITTALS:

A. Material Certificates: Provide copies of materials certificates signed by material producer and Contractor, certifying that each material item complies with, or exceeds, specified requirements.

1.04 QUALITY ASSURANCE:

A. Codes and Standards: Comply with New York State Dept. of Transportation standard specification, latest edition, and with local governing regulations if more stringent than herein specified. Specifically, as follows:

Base/Binder Course of Pavement:	4 inches thickness, Type 3 Binder(NYSDOT)
Top Course of Pavement:	2 inches thickness, Type 7 Top (NYSDOT)

1.05 SITE CONDITIONS:

A. Weather Conditions: Apply prime and tack coats when ambient temperature is above 50 deg. F (10 deg. C), and when temperature has not been below 35 deg. F (1 deg. C) for 12 hours immediately prior to application. Do not apply when base is wet or contains an excess of moisture.

Base course may be placed when air temperature is above 30 deg. F (-1 deg. C) and rising.

B. Grade Control: Establish and maintain required lines and elevations.

PART 2 - PRODUCTS

2.01 MATERIALS:

A. General: Use locally available materials and gradations which exhibit a satisfactory record of previous installations.

B. Base Course Aggregate: Sound, angular crushed stone, crushed gravel, or crushed slag, stone or slag screenings.

C. Surface Course Aggregate: Crushed stone, crushed gravel, crushed slab, and sharp-edged natural sand.

D. Asphalt Cement: AASHTO M 226 (ASTM D 3381) for viscosity-graded material and AASHTO M 20 (ASTM D 946) for penetration-graded material.

2.02 ASPHALT-AGGREGATE MIXTURE:

A. Requirements:

Provide plant-mixed, hot-laid asphalt-aggregate mixture complying with ASTM D 3515 and as recommended by local paving authorities to suit project conditions.

PART 3 - EXECUTION

3.01 SURFACE PREPARATION:

A. Roll prepared subbase surface to check for unstable areas and areas requiring additional compaction.

Notify Contractor of unsatisfactory conditions. Do not begin paving work until deficient subbase areas have been corrected and are ready to receive paving.

3.02 PLACING MIX:

A. General: Place asphalt concrete mixture on prepared surface, spread and strike-off. Spread mixture at minimum temperature of 225 deg. F (107 deg. C). Place

inaccessible and small areas by hand. Place course to required grade, cross-section, and compacted thickness.

B. Joints: Make joints between old and new pavements, or between successive days' work, to ensure continuous bond between adjoining work. Construct joints to have same texture, density and smoothness as other sections of asphalt concrete course. Clean contact surfaces and apply tack coat.

3.03 ROLLING:

A. General: Begin rolling when mixture will bear roller weight without excessive displacement.

Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers.

B. Breakdown Rolling: Accomplish breakdown or initial rolling immediately following rolling of joints and outside edge. Check surface after breakdown rolling, and repair displaced areas by loosening and filling, if required, with hot material.

C. Second Rolling: Follow breakdown rolling as soon as possible, while mixture is hot. Continue second rolling until mixture has been thoroughly compacted.

D. Finish Rolling: Perform finish rolling while mixture is still warm enough for removal of roller marks. Continue rolling until roller marks are eliminated and course has attained maximum density.

E. Patching: Remove and replace paving areas mixed with foreign materials and defective areas. Cut-out suck areas and fill with fresh, hot asphalt concrete. Compact by rolling to maximum surface density and smoothness.

F. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.

G. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.04 FIELD QUALITY CONTROL:

A. General: Test in-place asphalt concrete courses for compliance with requirements for thickness and surface smoothness. Repair or remove and replace unacceptable paving as directed by the Engineer.

B. Thickness: In-place compacted thickness will not be acceptable if exceeding following allowable variation from required thickness:

1. Base Course: 1/2" plus or minus.

2. Surface Course: 1/4" plus or minus.

C. Surface Smoothness: Test finished surface of each asphalt concrete course for smoothness, using 10' straightedge applied parallel with, and at right angles to centerline of paved area. Surfaces will not be acceptable if exceeding the following tolerances for smoothness.

1. Base Course Surface: 1/4".

2. Wearing Course Surface: 3/16"

3. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template 1/4".

Check surface areas at intervals as directed by the Engineer.

END OF SECTION 02513