

SECTION 02500

PAVING AND SURFACING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Provide materials and labor for drive, parking and walkway; paving, pavement markings, and curbing.
- B. Cast-in-place concrete walk material, forming, and placement is NOT included in Division 2. Preparation of subgrade, soil fill materials, and compaction is included in Division 2.

1.02 STANDARD REFERENCE

- A. Reference is made to the latest revision of "Standard Specifications for Highways and Bridges" of the State of Maine Department of Transportation (MDOT), modified by these specifications.

1.03 RELATED SECTIONS IN OTHER DIVISIONS

- A. Section 03300: Cast-in-Place Concrete.

1.04 SUBMITTALS

- A. Submit pavement mix design of each grade.
- B. Submit field density test results of one test for each 100 tons of bituminous paving.
- C. Submit curbing manufacturer's literature.
- D. Submit sample pre-cast pavers and manufacturer's literature.

PART 2 - PRODUCTS

2.01 BITUMINOUS CONCRETE MATERIALS

- A. Hot bituminous pavement, MDOT, Section 403. Composition, preparation and transportation of bituminous concrete, including plant and equipment shall meet applicable portions of MDOT, Section 401, HOT MIX ASPHALT PAVEMENT.
- B. Binder course aggregate conforming to MDOT, Section 703.09, HMA Type 19 mm(or Grade B). Surface course aggregate for roads, parking, and walks conforming to MDOT, Section 703.09, HMA Type 9.5 mm(or Grade D).

2.02 TACK COAT

- A. A low viscosity liquid bituminous coating sprayed on an existing course prior to placing a new bituminous concrete course. Emulsified asphalt conforming to MDOT 702.04, Grade RS-1 or HFMS-1.

2.03 PRECAST CONCRETE PAVERS

- A. Manufactured of compressed concrete of 8,000 psi compression strength, with less than 5% water absorption capacity. The pavers shall be rectangular, " 4" x 8" x 2-3/8" size, and shall be of colors selected by the Architect. Approved Manufacturers are:
 - 1. "Hollandstone," by Duracon Paving - Genest Concrete, Sanford, ME.
 - 2. "Boston Colonial," by Ideal Concrete Block Co., Waltham, MA.
 - 3. "Traditional Prest Brick," by Hanover Architectural Products, Hanover, PA.

- B. Paver Edge Restraint System: Rigid vinyl edging for straight runs and flexible edging for radii. Use edging where no other pavement forms the edge. Edging shall be staked with 12" long x 3/8" diameter galvanized steel spikes spaced no greater than 3' o.c. Pave edge by Pave Tech, Inc., Bric-Edge by Oly-Ola Sales Inc., or approved equal.
- C. Detectable Warning Pavers: Precast compressed concrete of 8,000 psi compression strength, with less than 5% water absorption capacity. The stones shall be 4" x 8" x 2-3/8" size with a center groove providing a 4" x 4" grid. Color: Selected by the Architect. Approved Manufacturers are:
 1. "Hollandstone," by Duracon Paving - Genest Concrete, Sanford, ME.
 2. "Boston Colonial," by Ideal Concrete Block Co., Waltham, MA.
 3. "Traditional Prest Brick," by Hanover Architectural Products, Hanover, PA.

2.04 CONCRETE WALKS

- A. Conforming to design and joint layout shown on the Drawings, of uniform color and texture throughout, and conforming to Specification Section 03300.

2.05 CURBING

- A. Vertical Granite Curb: MDOT Type 1, 5" x 18" with sawn top, split face and saw-cut jointed ends on each section. Minimum length of 2 feet. Use curved sections on curb radius of 40 ft. or less. Where paver bricks meet granite curb, provide a smooth joint no more than 1/4 inch wide.
- B. Sloped Granite Curb: MDOT Type 5, 5" x 12" with sawn top, split face and saw-cut jointed ends on each section. Minimum length of 2 feet. Curb sections for curve radius greater than 6' shall be radially saw-cut with tapered ends. For curve radius equal to or less than six feet, use bullnose curved curbing sections, each piece curved on a slope, MDOT Type 5-circular curb.
- C. Bituminous Curb: Extruded 6" high x 8" wide, as specified in MDOT Section 609.

2.06 PAVEMENT MARKINGS

- A. Latex paint designated for traffic use; meeting the requirements of AASHTO M248. Cosmicoat Traffic Paint, Sherwin-Williams Waterborne Traffic Paint, or approved equal. Color white.

PART 3 - EXECUTION

3.01 CONSTRUCTION OF PAVEMENT

- A. Hot bituminous concrete pavement shall be constructed over gravel drive and walks in accordance with CONSTRUCTION REQUIREMENTS of MDOT, Section 401, except as modified herein. Exclude paragraphs 401.21 METHOD OF MEASUREMENT and 401.22 BASIS OF PAYMENT.
- B. Do not place pavement over frozen gravel.
- C. Replace existing pavement disturbed by the work of this Contract with new bituminous pavement of the thicknesses shown on the Drawings or match existing, whichever is greater.
- D. Where new and existing pavement join, saw-cut square and form a smooth transition of grades.
- E. Treat exposed existing pavement with sprayed bituminous tack coat prior to placing new adjacent or overlaying bituminous pavement. Pavement which has been in place longer than 30 days shall be considered existing. Conform to MDOT Section 409, excluding paragraphs 409.08 and 409.09.
- F. Prior to placing surface course or tack coat, thoroughly clean the paved surface of soil, loose material, and other objectionable material, to the approval of the Architect.

- G. Construct walks no steeper than 5% (1 vert. to 20 hor.) longitudinal grade, and no steeper than 2% (1 vert. to 50 hor.) cross slope.

3.02 PAVEMENT MARKINGS

- A. Apply lining paint in strict accordance with manufacturer's printed instructions after pavement has cured sufficiently to prevent bleeding or lifting (at least three weeks). Line width, 4" unless otherwise noted.
- B. Apply handicap symbols in accordance with ANSI A117.1, Section 4.28.
- C. Perform work in accordance with the U. S. Department of Transportation Manual of Uniform Traffic Control Devices.
- D. Finished lines and markings shall be straight, uniform, and well-defined without excessive overspray. Wet thickness of paint at least 15 mils. Symbols shall be painted using appropriate templates.

3.03 PRECAST PAVER INSTALLATION

- A. Following excavation to the depth required, place a foundation of compacted gravel base material. Place a dry sharp bedding sand over the gravel foundation and screed to the proper grade. Place the pavers on the prepared bed in the specified pattern with joint spaces no greater than 1/8 inch.
- B. After placement, tamp pavers with a mechanical vibrator until uniformly graded and compacted to obtain a smooth surface free from projecting corners. Fill joints by sweeping in dry bedding sand.

3.04 CURBING INSTALLATION

- A. Granite or concrete curb shall be adjusted to grade and alignment on a well-compacted gravel foundation so that the front line conforms to the line and grade required. The foundation shall be prepared in advance of setting the curb by grading the gravel to the proper elevation. The sections shall be fitted together to form an open joint no greater than 1/4 of an inch. Behind both vertical and sloped granite curb joints place a 12" wide layer of non-woven geotextile to prevent soil washout.
- B. Provide tapered end sections at handicap ramps, curb openings and ends of curbing.
- C. Bituminous curb shall be placed on a tack coat on the binder course of pavement and locked in place by the surface course. Conform to MDOT Section 609.

END OF SECTION

