

## SECTION 02760 - PAVING SPECIALTIES

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. Bidding requirements, conditions of the contract and pertinent portions of sections in Division 1 of these specifications and MaineDOT Standard of Specifications (current version – as revised), Item 627 – Pavement Markings, apply to the section as fully as though repeated herein.
- B. Section Includes:
  - 1. Traffic lines and markings.
  - 2. Legends.
  - 3. Paint.
  - 4. Glass beads.
- C. Related Sections:
  - 1. Hot-Mix Asphalt Pavement: Section 02741

#### 1.02 UNIT PRICE - MEASUREMENT AND PAYMENT

#### 1.03 REFERENCES

- A. MaineDOT Standard Specifications Most Recent Edition
- B. American Association of State Highway and Transportation Officials:
  - 1. AASHTO M247 - Standard Specification for Glass Beads Used in Traffic Paint.
- C. ASTM International:
  - 1. ASTM D34 - Standard Guide for Chemical Analysis of White Pigments.
  - 2. ASTM D126 - Standard Test Methods for Analysis of Yellow, Orange, and Green Pigments Containing Lead Chromate and Chromium Oxide Green.
  - 3. ASTM D562 - Standard Test Method for Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using a Stormer-Type Viscometer.
  - 4. ASTM D711 - Standard Test Method for No-Pick-Up Time of Traffic Paint.
  - 5. ASTM D713 - Standard Practice for Conducting Road Service Tests on Fluid Traffic Marking Materials.
  - 6. ASTM D969 - Standard Test Method for Laboratory Determination of Degree of Bleeding of Traffic Paint.
  - 7. ASTM D1301 - Standard Test Methods for Chemical Analysis of White Lead Pigments.
  - 8. ASTM D1394 - Standard Test Methods for Chemical Analysis of White Titanium Pigments.
  - 9. ASTM D1475 - Standard test Method for Density of Liquid Coatings, Inks, and Related Products.
  - 10. ASTM D1640 - Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature.

11. ASTM D2202 - Standard Test Method for Slump of Sealants.
12. ASTM D2371 - Standard Test Method for Pigment Content of Solvent-Reducible Paints.
13. ASTM D2621 - Standard Test Method for Infrared Identification of Vehicle Solids From Solvent-Reducible Paints.
14. ASTM D2743 - Standard Practices for Uniformity of Traffic Paint Vehicle Solids by Spectroscopy and Gas Chromatography.

1.04 PERFORMANCE REQUIREMENTS

- A. Paint Adhesion: Adhere to road surface forming smooth continuous film one minute after application.
- B. Paint Drying: Tack free by touch so as not to require coning or other traffic control devices to prevent transfer by vehicle tires within two minutes after application.

1.05 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.
- B. Applicator: Company specializing in performing work of this section with minimum three years experience

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Section 01600 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.
- B. Invert containers several days prior to use when paint has been stored more than 2 months. Minimize exposure to air when transferring paint. Seal drums and tanks when not in use.
- C. Glass Beads. Store glass beads in cool, dry place. Protect from contamination by foreign substances.

1.07 ENVIRONMENTAL REQUIREMENTS

- A. Section 01600 - Product Requirements: Environmental conditions affecting products on site.
- B. Do not apply materials when surface and ambient temperatures are outside temperature ranges required by paint product manufacturer.
- C. Do not apply exterior coatings during rain or snow when relative humidity is outside humidity ranges, or moisture content of surfaces exceed those required by paint product manufacturer.
- D. Do not apply paint when temperatures are expected to fall below 50 degrees F for 24 hours after application.

- E. Volatile Organic Content (VOC). Do not exceed State or Environmental Protection Agency maximum VOC on traffic paint.

1.08 WARRANTY

- A. Section 01700 - Execution Requirements: Requirements for warranties.
- B. Furnish three year manufacturer's warranty for traffic paints.

1.09 MAINTENANCE SERVICE

- A. Section 01700 - Execution Requirements: Requirements for maintenance service.

PART 2 - PRODUCTS

2.01 PAINTED PAVEMENT MARKINGS

- A. Manufacturers:
  - 1. MaineDOT Approved Manufacturers
- B. Glass Beads:
  - 1. AASHTO M247, Type 1, coated to enhance embedment and adherence with paint.

2.02 EQUIPMENT

- A. Pavement markings must be applied in manner acceptable to MaineDOT Specifications

2.03 SOURCE QUALITY CONTROL

- A. QC in manner acceptable to MaineDOT

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Section 01300 - Administrative Requirements: Verification of existing conditions before starting work.
- B. Do not apply paint to concrete surfaces until concrete has cured for 28 days.

3.02 PREPARATION

- A. Maintenance and Protection of Traffic:
  - 1. Provide short term traffic control in accordance with Section 01500 - Temporary Facilities and Controls.
  - 2. Prevent interference with marking operations and to prevent traffic on newly applied markings before markings dry.
- B. Surface Preparation:

1. Clean and dry paved surface prior to painting.
2. Blow or sweep surface free of dirt, debris, oil, grease or gasoline.

3.03 APPLICATION

- A. Install Work in accordance with City of Portland and MaineDOT Standard Specifications

3.04 APPLICATION TOLERANCES

- A. Per MaineDOT Standard Specifications

3.05 FIELD QUALITY CONTROL

- A. Per MaineDOT Standard Specifications

3.06 PROTECTION OF FINISHED WORK

- A. Section 01700 - Execution Requirements: Requirements for protecting finished Work.
- B. Protect painted pavement markings from vehicular and pedestrian traffic until paint is dry and track free. Follow manufacturer's recommendations or use minimum of 30 minutes. Consider barrier cones as satisfactory protection for materials requiring more than 2 minutes dry time.

END OF SECTION 02760