

compacted and when the bituminous concrete pavement has attained a temperature range of 125°F to 155°F (68° C to 52° C).

Inlay the preformed pavement markings into the bituminous concrete surface by means of a mechanical roller. The mechanical roller shall be of sufficient weight capacity to inlay the preformed pavement marking to a minimum depth of 65 percent of the material thickness and to not more than 80 percent of the material thickness while the temperature range of the bituminous concrete is within 125°F to 155°F (68° C to 52° C). In the event the inlaid preformed pavement markings are distorted by these operations, fail to provide a uniform appearance, or are installed improperly, repair or replace the inlaid pavement markings at no additional charge in a manner approved by the Engineer. Install the inlaid preformed pavement markings in the finished surface of the bituminous concrete pavement work prior to conclusion of each day's work.

855.05. METHOD OF MEASUREMENT.

Traffic stripe (plastic) will be measured by the linear foot (meter) of 4 inch (100 mm) wide traffic stripe material actually placed or the equivalent 4 inch (100 mm) wide stripe when a narrower or wider stripe is specified in the Plans. Arrows, words, and symbols will be measured by each unit installed. Arrows shall be counted by each head.

855.06. BASIS OF PAYMENT.

Accepted traffic stripe (plastic), measured as provided above, will be paid for at the contract unit price as follows:

- (A) TRAFFIC STRIPE (PLASTIC) LINEAR FOOT (METER)
- (B) TRAFFIC STRIPE (PLASTIC) EACH

Such payment shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

**SECTION 856
CONSTRUCTION ZONE PAVEMENT MARKINGS**

856.01. DESCRIPTION.

This work shall consist of furnishing materials and placing pavement markings on detours and roadways on which traffic is maintained during construction in accordance with these Specifications and in reasonably close conformity with the locations, lines, and dimensions shown on the Plans or established by the Engineer. The use of paint, removable pavement marking tape, or other construction zone pavement markings will be as specified on the Plans or as directed by the Engineer.

856.02. MATERIALS.

Traffic stripe materials shall meet the requirements of Section 711. Other construction zone pavement-marking materials shall meet the specifications noted on the plans.

856.03. EQUIPMENT.

The application of pavement markings shall be in accordance with the manufacturer's recommendations. When applying construction traffic stripe (paint), the paint machine and bead dispenser shall meet the requirements of Subsection 854.03. During the period of application, the pavement surface shall be dry and the atmospheric temperature shall be above 50°F (10° C) and wind chill factor above 40°F (4°C).

856.04. CONSTRUCTION METHODS.

- (a) **Detours.** Complete pavement markings on detours, including lane lines and edge lines, before the detour is opened to traffic. When maintenance or restoration of pavement markers or restriping of detours is necessary as determined by the Engineer, start the maintenance, restoration and/or restriping within 24 hours (weather permitting) after being notified by the Engineer.
- (b) **Stage Construction.** When roadways are being resurfaced in successive stages, have pavement markings in place prior to opening to traffic in a manner as shown on the Plans or as directed by the Engineer.

If any detour or permanent pavement markings could conflict with the permanent pavement markings of the next phase of traffic control, remove them in a manner acceptable to the Engineer prior to switching traffic to the next phase of traffic control. Before existing pavement markings are removed from any roadway open to traffic, have temporary pavement markings in place. Also, remove all temporary pavement markings prior to the installation of final striping.

When additional pavement marking is necessary due to overlays, redirection of traffic, or restoration due to wear—or other reasons as determined by the Engineer—start the striping within 24 hours after being notified by the Engineer.

Install removable pavement marking tape and pavement markers in accordance with the manufacturer's recommendations as approved by the Engineer. The pavement surface shall be dry at the time of pavement marking application. Remove all dirt, debris, loose particles, curing compound, and heavy oil residues from the road surface application areas immediately prior to the installation of pavement markings.

All removable pavement marking tape and pavement markers shall present a uniform appearance and be clearly visible during the day and night for traffic control. If pavement markings fail to provide a uniform appearance or to be clearly visible during the day or night, correct them in a manner acceptable to the Engineer and at no additional cost to the Department.

When removable pavement markings are no longer required, as approved or determined by the Engineer, neatly remove the pavement marking and adhesive. Additional pavement markings may be installed as necessitated by traffic conditions, as approved or determined by the Engineer. Dispose of removed pavement marking tape and pavement markers immediately.

The removal of painted stripe and plastic stripe will be accomplished and paid for in accordance with Section 859. The removal of removable pavement marking tape and construction zone pavement markers will not be paid for separately and will be included in the unit price for that item.

856.05. METHOD OF MEASUREMENT.

Traffic stripe will be measured by the linear foot (meter) of 4 inch (100mm) wide traffic stripe material actually placed or the equivalent 100 mm stripe when narrower or wider stripe is required. Where arrows and words are placed, they will be measured by each unit. *Pavement markers* will be measured by each unit installed on the project. Costs for restoration of pavement markers, restriping, and maintenance of pavement markings shall be included in the price bid for the initial installation.

856.06. BASIS OF PAYMENT.

Traffic stripe, measured as provided above, will be paid for at the contract unit price as follows:

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|-----|---|---------------------|
| (A) | CONSTRUCTION TRAFFIC STRIPE (PAINT) | LINEAR FOOT (METER) |
| (B) | CONSTRUCTION TRAFFIC STRIPE (PAINT) | EACH |
| (C) | REMOVABLE PAVEMENT MARKING TAPE | LINEAR FOOT (METER) |
| (D) | REMOVABLE PAVEMENT MARKING TAPE | EACH |
| (E) | NONREMOVABLE PAVEMENT MARKING TAPE | LINEAR FOOT (METER) |
| (F) | NONREMOVABLE PAVEMENT MARKING TAPE | EACH |
| (G) | CONSTRUCTION ZONE PAVEMENT MARKERS | EACH |

Such payment shall be full compensation for road surface preparation, disposal of waste materials, and for all materials, labor, tools, equipment and incidentals to complete the work as specified.

SECTION 857 PAVEMENT MARKERS

857.01. DESCRIPTION.

This work shall consist of furnishing and installing pavement markers of the class and type specified on the Plans as directed by the Engineer, and in conformity with these Specifications.

857.02. MATERIALS.

Materials shall meet the requirements of Section 736.

857.03. EQUIPMENT.

The equipment used for mixing and application of epoxy resin adhesive shall meet the requirements of AASHTO M 237.

857.04. CONSTRUCTION METHODS.

The portions of the highway surface to which the marker is to be attached shall be free from dirt, curing compound, grease, oil, moisture, loose or unsound pavement, or any other material which might affect the attachment of the marker to the pavement. On portland cement concrete pavement, prepare the area to which the marker is to be affixed by sand blasting or wire buffing immediately prior to placement of the marker.