

## **SECTION 419 -- PLOWABLE PAVEMENT MARKERS**

### **419.01 -- Description**

This work shall consist of furnishing and installing two-way, plowable, all weather, abrasion resistant, prismatic, reflective pavement markers in accordance with the plans.

### **419.02 -- Material Requirements**

1. Only plowable pavement markers that are on the NDR Approved Products List shall be installed.
2. Epoxy shall meet the marker manufacturer's requirements.

### **419.03 -- Construction Methods**

1. The Contractor shall install the plowable markers in accordance with the manufacturer's instructions.
2. The markers shall be free of dirt, dust, oil, grease, rust, moisture, or any foreign matter which will impair adhesion to the pavement at time of installation.
3. Before beginning installation, the Contractor shall accurately and adequately lay out the location of all pavement markers to assure their proper placement and alignment. No marker shall be more than 1/4 inch or 10 degrees out of alignment with the locations shown in the plans.
4.
  - a. Pavement markers shall not be placed on pavement surfaces that show visible evidence of cracking, checking, spalling, or failure of underlying base material.
  - b. If, during the pre-installation layout operation, it is determined that a marker would be placed at a point with a pavement surface defect, at a pavement construction joint, or within the intersection of a driveway or public street as the result of typical marker spacing, the affected marker shall be relocated longitudinally a sufficient distance to a point not to exceed 10 percent of the typical marker spacing or as approved by the Engineer.
5.
  - a. The Contractor shall saw cut the pavement to the marker manufacturer's recommended dimensions.
  - b. Before placing the marker in the cut, the cut shall be brushed or blown clean.
  - c. Epoxy shall be placed in the cut in accordance with the manufacturer's recommendation.
  - d. The Contractor shall apply constant foot pressure for 30 seconds to seat the marker in the epoxy.
  - e. The 4 lugs on the marker shall rest on the pavement.
6. At the end of each day, markers shall be set and epoxied in place in all marker cuts.
7.
  - a. The Contractor may attach the prismatic reflector to the casting in the field or in a shop.

b. If the reflector is attached in the field, it shall not be attached to the casting until after the adhesive in the pavement slots has properly hardened.

c. Any rust or foreign matter shall be removed from the surface of the casting on which the reflector is to be attached. The recessed attachment area shall be painted with an adhesive primer in accordance with the manufacturer's instructions.

d. The release paper shall then be peeled from the butyl adhesive on the bottom of the reflector, and the reflector shall be inserted into the recessed attachment area and pressed into place until a firm bond has been made with the casting.

e. The Contractor shall press the reflector into place with constant foot pressure applied for 30 seconds.

8. When the Contractor is required to remove and reinstall plowable pavement markers, the markers shall be refurbished to a like new condition before reinstallation. New reflectors shall be installed in the casing as part of the refurbishment process.

**419.04 -- Method of Measurement**

Plowable pavement markers will be measured for payment by the each.

**419.05 -- Basis of Payment**

- | <b>1. Pay Item</b>                   | <b>Pay Unit</b> |
|--------------------------------------|-----------------|
| Plowable Pavement Marker             | Each (ea)       |
| Install Pavement Marker              | Each (ea)       |
| Remove and Reinstall Pavement Marker | Each (ea)       |
2. Payment is full compensation for all work prescribed in this Section.