MICHIGAN

DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

FOR

**GUARDRAIL DELINEATORS FOR SNOWPLOW GUIDANCE**

PMK:MKB 1 of 2 APPR:MWB:CT:05-12-21

**a. Description.** This work consists of preparing guardrail surfaces and applying retroreflectorized white, yellow and/or red reflectors or reflective sheeting reflector systems for guardrail delineation for snowplow guidance. Complete this work in accordance with this special provision, the project plans, the *MMUTCD*, the standard specifications, and as directed by the Engineer.

**b. Materials.** Provide all reflectors and reflective sheeting reflectors and supports meeting the requirements of section 919 of the Standard Specifications for Construction, and the manufacturer’s specifications.

For dual-color and/or bidirectional delineation (i.e. white/red or yellow/yellow), choose from the following, or Engineer approved equal:

1. Shur-Tite Guardrail Post Flat Mount Delineator, 33 inch height.

2. Impact Recovery GRP Guardrail Delineator, 35 inch height.

3. Trinity Highway/Safe-Hit Flexible Guardrail Delineator, 27 inch height.

Reflector or sheeting application is required on both faces of each unit for bidirectional viewing. Ensure the reflective area on each face is a minimum of 18 square inches.

**c. Construction.** Clean and dry the guardrail offset block surface and remove any obstacles or debris that can interfere with the installation of the delineation system.

Mount the guardrail delineation to the front side of guardrail offset blocks and not the posts unless otherwise approved by the Engineer.

Do not install guardrail delineators on guardrail approach terminals. Place guardrail delineators beginning on standard run of guardrail.

Mechanically fasten the selected line delineation system to the clean, dry surface in accordance with this special provision, the manufacturer’s requirements, and as directed by the Engineer. Adhesives may be used to supplement mechanical fasteners, but not in lieu of them. Install the selected delineation system at the spacing shown in Table 1 or as directed by the Engineer:

**Table 1: Delineation System Spacing**

|  |  |
| --- | --- |
| Delineation System | Spacing (Center-to-Center in feet) |
| Shur-Tite Flat Mount Guardrail Delineator | 100 |
| Impact Recovery GRP Guardrail Delineator | 100 |
| Trinity Highway/Safe-Hit Flexible Guardrail Delineator | 100 |
| Approved Equal | As directed by the Engineer |

Orient reflectors on the selected delineation system per the manufacturer’s requirements, so that the reflective sheeting and optical performance requirements of section 919 of the Standard Specifications for Construction are met. Match the color of reflectors with the color of pavement edge lines stipulated in *MMUTCD*. When installing a dual color and/or bidirectional post mount delineation system, install and match the color of the pavement edge lines on both sides of the traveled roadway. Use of adhesive as the permanent attachment is prohibited; a mechanical attachment is required. Take care not to damage the guardrail during installation. Repair any damage caused by the installation as directed by the Engineer at the Contractor’s expense.

Perform final cleanup of the completed area prior to moving to the next section of installation.

**d. Measurement and Payment.** The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

**Pay Item Pay Unit**

Delineation, Bidirectional, Guardrail, Offset Block Mtd Each

**Delineation, Bidirectional, Guardrail, Offset Block Mtd** includes the cost of preparing the guardrail surface, removal of any existing guardrail delineators, providing and installing the selected system and all its supporting elements for installation, and final cleanup of the entire project.

The cost of repairs to any damaged guardrail not caused by the Contractor’s operations is included in the unit price for the related repair pay items. Repairs due to the Contractor’s operations must be made at the Contractor’s expense.