

## **54.19 SUPPLY AND INSTALL DELINEATORS**

### **54.19.1 GENERAL**

The Work consists of the removal and disposal of existing guideposts and the supply and installation of flexible guidepost traffic delineators.

### **54.19.2 MATERIALS**

The Contractor shall supply flexible guideposts which return to upright positions following repeated impacts and passages of vehicles over them. Such collisions shall not cause serious damage to the post or vehicle. Failure to conform to the requirements specified herein shall be cause for rejection.

#### **54.19.2.1 General**

The posts shall be of uniform high quality and workmanship and be free from defects.

The Contractor shall provide a complete report of the physical properties of the post to the Engineer. This report shall include properties such as low temperature impact resistance, after-impact recoverability and weather resistance.

#### **54.19.2.2 Specifications - Dimensions, Colour and Construction**

The round posts shall have a minimum outer diameter of 90 mm and an overall length of 1.67 metres. The semi flat fibreglass posts shall have a minimum width of 90 mm and an overall length of 1.67 metre.

The top 250 mm of the post length shall be black and the remainder shall be white.

The post shall be straight. Straight is defined as having no point along the length of the post any more than 6 mm removed from a perfectly straight edge placed parallel to any side of the post.

Round posts shall be open at the top and bottom.

The surface of the post shall be smooth and free from irregularities or defects. The surface of the post shall not be affected by cleaning using scrapers, detergent and water, or solvent.

The black portion of the post shall accept and hold securely high-intensity reflectorized sheeting applied to its surface area with heavy-duty stainless steel staples, glue or other adhesives deemed suitable by the manufacturer.

If one piece construction is not used, then the connections between the pieces shall be at least as strong as if constructed of a single piece. The strength shall exist at temperatures ranging from -50°C to 50°C.

The reflective portion of round posts shall be visible from all directions and shall be of sufficient size so as to be recognizable in the dark as a guidepost reflector. The reflective portion of semi flat posts shall be visible to traffic.

#### **54.19.2.3 Weather Resistance and Durability**

The post shall not be seriously affected by ozone, exhaust fumes, asphalt or road oils, dirt, vegetation, deicing salts or any other types of air contamination or materials likely to be encountered after installation.

The post shall withstand without serious damage all elements likely to be encountered after installation including hot (50°C) or cold (-50°C) temperatures, rain, snow, hail, abrasion and physical abuse.

#### **54.19.2.4 Strength And Flexibility**

The posts shall resist, without breaking, tearing, shattering or other serious damage, one highway vehicle impact at a speed of 100 km/h at a test temperature of -33°C.

The post shall not bend, warp or distort when installed at temperatures up to 50°C or installed in wind velocities up to 120 km/h.

#### **54.19.2.5 Installation of High-Intensity Reflectorized Sheeting**

Each post shall have a 50 mm wide high-intensity reflectorized sheeting material (3M#9880 Scotchlite or equivalent) installed between 100 mm and 150 mm from the top of the post.

#### **54.19.3 EQUIPMENT**

The Contractor shall supply all equipment tools necessary to complete the Work.

#### **54.19.4 PROCEDURE**

All Work shall be performed during daylight hours only, unless adequate lighting exists which provides visibility of at least 700 metres and prior approval of the Engineer is obtained. No Work shall be performed when the visibility is less than 700 metres.

The Contractor shall remove and dispose of existing guideposts and/or install new guideposts at locations identified by the Engineer.

Prior to digging any holes, the Contractor shall contact all applicable utility companies to arrange for utility location and marking.

Guideposts shall be installed straight and plumbed vertical to a uniform depth in accordance with drawings TEB 3.49, TEB 3.50 and TEB 3.51.

All replaced soil around the delineator shall be firmly compacted. The Contractor shall supply any additional material required to ensure that the delineator has a suitable foundation.

Upon completion of the installation, the work area shall be restored to its original condition.

#### **54.19.5 TIME TO COMPLETE**

The Contractor shall complete the Work within 30 calendar days of the issuance of the Work Order.

#### **54.19.6 MEASUREMENT AND PAYMENT**

Measurement will be made of the number of each type of guidepost installed.

Payment will be made at the applicable unit price bid per guidepost for "Supply and Install Flexible Guidepost/Delineators - Round" or "Supply and Install Flexible Guidepost/Delineators -Semi Flat". This payment will be full compensation for supply of the guideposts, removal and disposal of existing posts when necessary, installation of the new posts, and all labour, material, equipment, tools and incidentals necessary to complete the Work.

**54.19.7            WARRANTY**

There warranty period for this Work is 1 year.