

MICHIGAN  
DEPARTMENT OF TRANSPORTATION  
  
SPECIAL PROVISION  
FOR  
**TEMPORARY WATER FILLED BASE SIGN SYSTEM**

OFS:RAL

1 of 2

APPR:CAL:CT:06-25-15

**a. Description.** This work consists of furnishing, installing, relocating, maintaining, and removing a sign system with a water filled base in accordance with the plans. The sign system must be *National Cooperative Highway Research Program Report 350* (NCHRP 350), Test Level 3 (TL-3) or *Manual for Assessing Safety Hardware* (MASH), Test Level 3 (TL-3) compliant and have FHWA acceptance. Prior to installation, furnish FHWA letters of federal aid eligibility to the Engineer indicating the sign system meets NCHRP 350, TL-3 or MASH, TL-3.

**b. Materials.** Provide a sign system in accordance with the following:

1. The base is constructed of a lightweight, recyclable, linear low density, polyethylene plastic shell, with UV stabilizers and anti-oxidants, designed to accept water ballast.

A. Base sections must include the following design elements;

(1) System for installation of an optional secure ground anchor.

(2) Constructed to enable movement by mechanical means with the water ballast installed.

(3) Characteristics that will allow surface drainage to flow under or around the system.

(4) Self-contained water ballast fill level indicator.

(a) Must display to observers the water level in the base, without requiring the use of a dipstick or additional devices.

(b) A diagram or written instructions will be displayed prominently on the base illustrating the correct fill level.

(5) A gravity operated water drain system.

B. Ensure the base color is homogeneous, and one of either: opaque ivory, or safety orange, for high visibility. Ensure the base is delineated with retroreflective conspicuity tape across the full width on the top and bottom of both sides.

2. Provide 2-inch diameter schedule 80 PVC pipe to support the sign panel above the base section. Ensure the sign/post combination is attached securely to the base, meets all of the applicable requirements of subsections 812.03.D and 922.02 of the Standard Specifications for Construction and is capable of securing signs up to 48 inches by 60 inches in size.

**c. Construction.** Deploy the sign system in accordance with the manufacturer's recommendations as well as the following requirements.

- 1. Install the base with sign supports securely connected at the locations indicated on the plans. Fill the base with water ballast to the level specified by the manufacturer.

Ensure the water inside the base does not freeze at any time during operation. If an anti-freezing agent is used in the water, ensure that it is environmentally safe and is recovered (if necessary) when the base is drained.

- 2. **Maintenance Throughout Duration of Use.** Ensure sign system is kept in clean condition to ensure proper reflectivity, and message legibility. Ensure the required level of ballast is present at all times while the sign system is in service.

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

<b>Pay Item</b>	<b>Pay Unit</b>
Water Filled Base Sign System, Temp, Furn .....	Each
Water Filled Base Sign System, Temp, Oper .....	Each

1. **Water Filled Base Sign System, Temp, Furn** includes all materials, labor, and equipment required to furnish and install the sign system (including miscellaneous hardware), excluding the sign panel. Replacement of sign systems damaged by vehicular traffic other than the Contractor's vehicles and equipment will be paid for as **Water Filled Base Sign System, Temp, Furn**.

2. **Water Filled Base Sign System, Temp, Oper** includes all materials, labor, and equipment required to operate, inspect, maintain, clean, relocate, and remove the sign system (including miscellaneous hardware), excluding the sign panel.

3. All sign panels attached to this system on the project will be paid for separately as **Sign, Type B, Temp, Prismatic, Furn**, and **Sign, Type B, Temp, Prismatic, Oper**.