

## 1080 - TEMPORARY PAVEMENT MARKINGS

### 1080.1 DESCRIPTION

The Contractor shall furnish and install temporary white and/or yellow, longitudinal and/or transverse, pavement markings, and white legend/symbol (“ARROW” and “ONLY”) markings, as shown in the plans, details, specifications and in accordance with Part VI of the Manual on Uniform Traffic Control Devices (latest adopted revision) and shall maintain them for the duration of the project.

Temporary pavement markings shall be defined as markings that are required for long-term, stationary temporary traffic control work zones during the construction of the project. Long-term, stationary work is defined as that which occupies a location more than 3 days.

### 1080.2 MATERIALS

The material for temporary pavement markings shall be in accordance with this specification.

#### a. Approved Materials List

All material for temporary pavement markings used by the Contractor shall be from the City’s approved list of vendors. It is important that users be completely knowledgeable of all application requirements and procedures prior to product application. It is the responsibility of the installer to contact the supplier of all temporary pavement marking materials if questions regarding application procedures or conditions arise

#### b. Paint

The temporary pavement marking paint shall be a rapid dry. The traffic paint shall provide optimum adhesion for glass spheres when both binder and glass spheres are applied in the recommended quantities.

##### (1) Drying Time

When applied at a wet film thickness of 15 mils with a top dressing of 6-10 pounds of glass spheres per gallon of paint and when the pavement temperature is between 50 degrees F and 120 degrees F and the relative humidity doesn't exceed 80%, the binder shall dry to a no-tracking condition in a minimum of 20 seconds and a maximum of 60 seconds.

These dry times shall not be exceeded when the paint is applied with specialized equipment so as to have the pigmented binder at a temperature of 150 degrees F to 170 degrees F at the spray gun.

The no-tracking condition shall be determined by passing over the applied line in a simulated passing maneuver with a passenger car traveling 35 MPH. There shall be no visual deposition of the paint to the pavement surface when viewed from a distance of 50 feet. Furthermore, the pigmented binder, without glass spheres, shall dry to no-tracking condition in 180 seconds or less when tested in accordance with ASTM D-711-67

##### (2) Directional Reflectance

The daylight directional reflectance of white pigmented binder (without glass spheres) shall be not less than 85% relative to magnesium oxide when tested in accordance with Federal Test Method Standard No. 141a, Method 6121. If yellow, after drying shall suitably match color 33538 of Federal Standard 595.

##### (3) Glass Beads

The glass spheres shall meet the requirements of AASHTO Specification M 247-81, Type I with flotation and moisture resistance properties.

#### c. Temporary Tape

Temporary pavement marking tape shall be in accordance with the Standard Specifications for State Road and Bridge Construction of the Kansas Department of Transportation (latest version), Subsection 2210 for “Removable” Type I tape.

#### d. Temporary Raised Pavement Markers

Temporary Raised Pavement Markers (TRPMs) shall be in accordance with the latest adopted revision of the MUTCD and the Overland Park Approved Materials List.

### **1080.3 CONSTRUCTION REQUIREMENTS**

#### **a. Method of Installation**

The temporary pavement markings shall be installed true to line according to the plans, details, Manual on Uniform Traffic Control Devices (latest edition) and this specification. Temporary pavement markings shall be installed the same day that the existing pavement markings are damaged, removed or covered up.

##### **(1) Paint**

Temporary paint shall be used on all existing asphalt surfaces that are scheduled to be milled and overlaid or milled asphalt surfaces that are scheduled to be overlaid or replaced.

##### **(2) Glass Beads**

The glass beads should be applied at the rate of 8-10 pounds per gallon of paint. The glass beads shall be sprayed into the wet traffic paint through a pressurized glass gun set 1" to 4" behind the paint spray gun.

##### **(3) Tape**

Temporary reflective tape shall be used on newly overlaid surfaces, existing surfaces that are not scheduled for milling and overlay and concrete surfaces.

#### **b. Method of Removal**

The method of pavement marking removal shall be by a high pressure water blast method, a low pressure water and sand blast method, a steel shot blast method, burning method, peel-off method or a grinding method. Overlaying existing markings with black paint or asphalt shall not be allowed. However, the use of removable, non-reflective, preformed tape is permitted where markings need to be covered temporarily.

All pavement marking materials shall be removed without structurally damaging the pavement or scarring the surface, unless the surface is to be overlaid with the project.

Existing pavement markings shall be thoroughly removed as to be unidentifiable as pavement markings under day or night, wet or dry conditions to eliminate confusion with the temporary pavement markings.

All material deposited on the pavement, as a result of the removal operation shall be removed as the work progresses by methods approved by the inspector

### **1080.4 MEASUREMENT AND PAYMENT**

#### **a. Lump Sum**

The Engineer will measure the temporary pavement marking as indicated on the plans, complete-in-place and accepted, including symbols and legends, as a unit lump sum quantity for all work necessary.

Payment for "Temporary Pavement Marking" at the contract lump sum price bid is full compensation for the specified work.

No payment shall be made for "Removal of Existing Pavement Markings" nor for the "Removal of Temporary Pavement Markings". Any work required to remove the existing pavement markings or temporary pavement markings shall be considered subsidiary to the bid item "Temporary Pavement Markings".

All traffic control necessary for installation and removal of the existing pavement markings and temporary markings shall be subsidiary to the bid item "Temporary Pavement Markings"

#### **b. Subsidiary to Traffic Control**

The amount of completed and accepted work, for "Temporary Pavement Markings", including symbols and legends, shall not be paid for directly but shall be subsidiary to the bid item "Traffic Control". Such payment and price shall constitute full compensation for all labor, materials, tools and equipment necessary to complete the item.

No payment shall be made for "Removal of Existing Pavement Markings" nor for the "Removal of Temporary Pavement Markings". Any work required to remove the existing pavement markings or temporary pavement markings shall be considered subsidiary to the bid item "Traffic Control".

All traffic control necessary for installation and removal of the existing pavement markings and temporary markings shall be subsidiary to the bid item "Traffic Control".