

Item No. **862S**
Temporary Removable Pavement Markings

862S.1 Description

This item shall govern furnishing, placement and removal of prefabricated removable pavement markings of the types, colors, shapes and sizes indicated on the Drawings or as directed by the Engineer or designated representative.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text, the inch-pound units are given preference followed by SI units shown within parentheses.

862S.2 Submittals

The submittal requirements of this specification item include:

- A. List of temporary, removable, pavement markings, shapes, words, etc. with associated manufacturer.
- B. Manufacturer's recommended preparation, cleaning, placement and installation instructions.
- C. Type of adhesive and application recommendations.

861S.3 Materials

The prefabricated pavement marking materials shall conform to TxDOT Departmental Material Specification DMS-8240. The materials shall be stored in a weatherproof enclosure in such a method that will prevent damage.

862S.4 Sampling

Sampling will be conducted in accordance with TxDOT Test method Tex-732-1.

862S.5 Construction Methods

A. General

Guides to mark the lateral location of pavement markings shall be established as indicated on the Drawings or as directed by the Engineer or designated representative. The Contractor shall establish the pavement marking guides and the Engineer or designated representative will verify the location of the guides prior to installation of final striping.

The pavement markings shall be placed in proper alignment with the guides. The deviation rate in alignment shall not exceed one (1) inch per 200 feet (25 mm in 60 meters) of roadway. The maximum deviation shall not exceed two (2) inches (50 mm) nor shall any deviation be abrupt.

B. Seasonal Limitation

Unless directed otherwise in writing by the Engineer or designated representative, temporary pavement marking materials shall not be placed between September 30 and March 1, subject to any specified temperature and moisture limitations.

C. Dimensions

Markings shall be in accordance with the color, length, width, shape and configuration indicated on the Drawings. The alignment and location shall be as indicated on the Drawings or as directed in writing by the Engineer or designated representative.

D. Methods

All material placement shall be in accordance with the material manufacturer's instructions, unless otherwise directed in writing by the Engineer or designated representative. In addition to the manufacturer's instructions, material placement shall be in accordance with surface condition, moisture and temperature requirements specified within this item.

E. Surface Preparation

Surface preparation shall be accomplished by any cleaning method, approved by the Engineer or designated representative, that effectively removes contaminants and loose materials and corrects existing conditions considered deleterious to proper adhesion. Surface preparation utilizing blast cleaning will only be required if indicated on the Drawings.

Surfaces shall be further prepared after cleaning by sealing or priming, as recommended by the manufacturer of the temporary pavement marking materials or as directed in writing by the Engineer or designated representative.

Adhesive, when required, shall be of the type and quality recommended by the manufacturer of the temporary pavement marking material. Portland cement concrete pavement surfaces shall not be cleaned by grinding.

F. Moisture

The pavement surface on which the marking material is to be placed shall be completely dry. A pavement shall be considered dry, if on a sunny day after observation for 15 minutes, condensation does not develop on the underside of a one (1) foot (300 mm) square piece of clear plastic, which has been placed on the pavement and weighted down on the edges.

G. Temperature

The pavement and ambient air temperature requirements, which are recommended by the material manufacturer, shall be followed. If no temperature requirements are established by the material manufacturer, the material shall not be placed if the pavement surface temperature is below 50°F (10°C) or above 130°F (55°C).

862S.6 Performance Requirements

A. Adhesion

Installed pavement markings shall not lift, shift, smear, spread, flow or tear by traffic action.

B. Appearance

Pavement markings shall present a neat, uniform appearance, free of excessive adhesive, ragged edges and irregular lines or contours.

C. Visibility

Installed pavement markings shall have uniform and distinctive retroreflectance when observed in accordance with TxDOT Test Method Tex-828-B.

D. Observation Period

The Contractor shall be responsible for maintaining at its own expense all temporary pavement markings from the time of installation until completion and acceptance of the Work in accordance with this Item and to the satisfaction of the Engineer or designated representative. Pavement markings, that fail to meet the requirements of this specification shall be removed and replaced by the Contractor at the Contractor's expense.

862S.7 Measurement

Measurement of the markings shall be made for each color by the lineal foot (lineal meter: 1 meter is equal to 3.281 feet) of the various widths; by each for word(s), shape or symbol or by any other unit as indicated on the Drawings, complete in place.

862S.8 Payment

The work performed and materials furnished as prescribed by this item and measured as provided under "Measurement," will be paid for at the unit bid price for "Temporary Removable Pavement Markings" of the various types, colors, shapes and sizes indicated on the Drawings. This price shall include full compensation for: cleaning the pavement surface by any suitable means other than blast cleaning; for furnishing, placing and removal of all materials; and for all labor, tools, equipment and incidentals necessary to complete the work.

Payment for Temporary Removable Pavement Markings will be made under the following:

Pay Item No. 862S-4Y:	4" yellow Markings,	Per Lineal Foot.
Pay Item No. 862S-24W:	24" yellow Markings,	Per Lineal Foot.
Pay Item No. 862S-TSH:	Shape(s) of _____ color	Per Each.
Pay Item No. 862S-TSY	Symbol(s) of _____ color	Per Each.
Pay Item No. 862S-TW:	Word(s) of _____ color	Per Each.

END

<i>SPECIFIC</i> CROSS REFERENCE MATERIALS
Specification Item 862S "Temporary Removable Pavement Markings"

Texas Department of Transportation: Manual of Testing Procedures

<u>Designation</u>	<u>Description</u>
Tex-732-I	Sampling of Prefabricated Pavement Marking Materials
Tex-828-B	Determining Functional Characteristics of Pavement Markings

Texas Department of Transportation: Departmental Materials Specifications

<u>Designation</u>	<u>Description</u>
DMS-8240	Temporary Marking Material

City of Austin Transportation Criteria Manual

<u>Designation</u>	<u>Description</u>
Section 8	Traffic Control

State of Texas Manual on Uniform Traffic Control Devices for Streets and Highways

<u>Designation</u>	<u>Description</u>
Part III	Markings
Part VI	Traffic Controls for Street and Highway Construction, Maintenance, Utility and Incident Management Operations
Part VI, Article D	Markings
Part VI, Article F	Control of Traffic Through Work Areas

<i>RELATED</i> CROSS REFERENCE MATERIALS
Specification Item 862S "Temporary Removable Pavement Markings"

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 867S	Epoxy Adhesive
Item No. 870S	Work Zone Pavement Markings
Item No. 874S	Eliminating Existing Pavement Markings and Markers
Item No. 875S	Pavement Surface Preparation For Markings

Texas Department of Transportation: Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges

<u>Designation</u>	<u>Description</u>
Item No. 662	Work Zone Pavement Markings
Item No. 677	Eliminating Existing Pavement Markings and Markers
Item No. 678	Pavement Surface Preparation For Markings

Texas Department of Transportation:

Manual of Testing Procedures

<u>Designation</u>	<u>Description</u>
Tex-829-B	Method for Measuring Pavement Temperatures Thickness