

Item No. 872S
Prefabricated Pavement Markings

872S.1 Description

This item shall govern furnishing and placement of prefabricated pavement markings of the colors, types, shapes, and sizes indicated on the Drawings.

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

872S.2 Materials

Prefabricated pavement marking materials shall conform to TxDOT Departmental Materials Specification DMS-8240.

Materials shall be stored in weatherproof enclosure in such a manner to prevent damage.

872S.3 Sampling.

Sampling will be conducted in accordance with TxDOT Test Method Tex-732-I.

872S.4 Construction Methods

A. General.

When required by the Engineer, the Contractor and the Engineer or designated representative shall review the sequence of Work to be followed and the estimated progress schedule. Waste generated by this Work shall be removed from the job site before the end of each working day.

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

The pavement markings shall be placed in proper alignment with the guides. The deviation rate in alignment shall not exceed 1 inch per 200 feet {25 mm per 60 meters} of street. The maximum deviation shall not exceed 2 inches {50 millimeters} nor shall any deviation be abrupt.

B. Seasonal Limitation.

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

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 shown 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 the surface condition, moisture and temperature requirements specified by this specification item.

E. Surface Preparation

Surface preparation shall be accomplished by any cleaning method approved by the Engineer or designated representative that effectively removes contaminants, loose materials and conditions deleterious to proper adhesion. Surface preparation by blast cleaning will not be required unless shown on the Drawings. When required, blast cleaning shall be done in accordance with 875S, "Pavement Surface Preparation for Markings". Surfaces shall be further prepared after cleaning by sealing or priming, as recommended by the manufacturer of the pavement marking material 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 pavement marking material. Portland cement concrete pavement surfaces shall not be cleaned by grinding.

F. Moisture.

The pavement shall be completely dry before the material is applied. Pavements shall be considered dry if, on a sunny day after observation for 15 minutes, no condensation occurs on the underside of a 1 foot square (300-mm square) piece of clear plastic that has been placed on the pavement and weighted on the edges.

G. Temperature

The pavement and ambient air temperature requirements 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 temperature is below 60°F (16°C) or above 120°F (49°C).

872S.5 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 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.

Unless otherwise shown on the Drawings, pavement markings shall meet all the requirements of this technical specification for a minimum of 15 calendar days after installation. Pavement markings that fail to meet all requirements of this specification shall be removed and replaced by the Contractor at its own expense. The Contractor shall replace all pavement markings failing the requirements of this technical specification within 30 calendar days following notification by the Engineer or designated representative of

such failing. All replacement markings shall also meet all requirements of this technical specification for a minimum of 15 calendar days after installation.

872S.6 Measurement

This Specification Item will be measured by the lineal foot (lineal meter) by each word(s), shape or symbol, or by any other unit as shown on the Drawings.

872S.7 Payment

The work performed and materials furnished in accordance with this Specification Item and measured as provided under "Measurement" will be paid for at the Unit bid price for "Prefabricated Pavement Markings" of the various types, colors, shapes and sizes specified. This price shall include full compensation for cleaning the pavement by any suitable means other than blast cleaning; for furnishing and placing all materials; and for all other labor, tools, equipment and incidentals necessary to complete the Work, except as described below.

Surface Preparation, when indicated on the Drawings, will be paid for under Specification Item 875S, "Pavement Surface Preparation for Markings."

Payment will be made under one or more of the following:

Pay Item 872S-A:	Prefabricated Pavement Markings ___inches in width, _____ in color	<u>Words.</u> per each.
Pay Item 872S-B:	Prefabricated Pavement Markings ___inches in width, _____ in color	<u>Shapes</u> per each.
Pay Item 872S-C:	Prefabricated Pavement Markings ___inches in width, _____ in color	<u>Symbols.</u> per each.

END

<u>SPECIFIC</u> CROSS REFERENCE MATERIALS
Specification Item No. 872S, "Prefabricated Pavement Markings"

City of Austin Contract Documents

<u>Designation</u>	<u>Description</u>
Section 00300U	Bid Form (Unit Prices)

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 875S	Pavement Surface Preparation For Markings

Texas Department of Transportation: Departmental Materials Specifications

<u>Designation</u>	<u>Description</u>
DMS-8240	Prefabricated Marking Materials

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

<u>RELATED</u> CROSS REFERENCE MATERIALS
Specification Item No. 872S, "Prefabricated Pavement Markings"

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 301S	Asphalts, Oils and Emulsions
Item No. 302S	Aggregates for Surface Treatments
Item No. 310S	Emulsified Asphalt Treatment
Item No. 311S	Emulsified Asphalt Repaving

City of San Marcos Adopted 05/15/2014

Item No. 312S	Seal Coat
Item No. 313S	Rubber Asphalt Joint and Crack Sealant
Item No. 315S	Milling Asphaltic Concrete Paving
Item No. 320S	Two Course Surface Treatment
Item No. 340S	Hot Mix Asphaltic Concrete Pavement
Item No. 341S	Paving Fabric
Item No. 350S	Heating, Scarifying and Repaving
Item No. 360	Concrete Pavement
Item No. 801S	Construction Detours
Item No. 803S	Barricades, Signs and Traffic Handling
Item No. 860S	Pavement Marking Paint (Reflectorized)
Item No. 863S	Reflectorized Pavement Markers
Item No. 864S	Abbreviated Pavement Markings
Item No. 865S	Non-Reflectorized Traffic Buttons
Item No. 866S	Jiggle Bar Tile
Item No. 867S	Epoxy Adhesive
Item No. 870S	Work Zone Pavement Markings
Item No. 871S	Reflectorized Pavement Markings
Item No. 873S	Raised Pavement Markers
Item No. 874S	Eliminating Existing Pavement Markings and Markers

City of Austin Standard Details

<u>Designation</u>	<u>Description</u>
863S-1	Pavement Buttons (Reflectorized-Type I & Type II)
865S-1	Traffic Buttons (Non-Reflectorized)

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

<u>Designation</u>	<u>Description</u>
Item No. 302	Aggregates for Surface Treatments
Item No. 314	Emulsified Asphalt Treatment
Item No. 315	Emulsified Asphalt Seal

<u>RELATED</u> CROSS REFERENCE MATERIALS - Continued
Specification Item No. 872S, "Prefabricated Pavement Markings"

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

<u>Designation</u>	<u>Description</u>
Item No. 316	Surface Treatments
Item No. 334	Hot Mix-Cold Laid Asphaltic Concrete Pavement
Item No. 340	Hot Mix Asphaltic Concrete Pavement
Item No. 342	Plant Mix Seal
Item No. 351	Repairing Existing Flexible Pavement Structure
Item No. 354	Planing and/or Texturing Pavement
Item No. 358	Asphaltic Concrete Surface Rehabilitation
Item No. 360	Concrete Pavement
Item No. 421	Hydraulic Cement Concrete
Item No. 427	Surface Finishes for Concrete
Item No. 428	Concrete Surface Treatment
Item No. 662	Work Zone Pavement Markings
Item No. 666	Reflectorized Pavement Markings
Item No. 667	Prefabricated Pavement Markings
Item No. 672	Raised Pavement Markers
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>
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Tex 729-I	Sampling of Traffic Markers
Tex-829-B	Method For Measuring Pavement Temperature
Tex-854-B	Evaluation Of Thermoplastic Striping For Uniformity And Thickness

Texas Department of Transportation: Departmental Materials Specifications

<u>Designation</u>	<u>Description</u>
DMS-4100	Jiggle Bar Tile
DMS-4200	Pavement Markers (Reflectorized)
DMS-4300	Traffic Buttons
DMS-4210	Pavement Markers
DMS-6130	Bituminous Adhesive
DMS-8200	Pavement Paint
DMS-8220	Thermoplastic marking material
DMS-8241	Removable Tape
DMS-8290	Pavement Paint
YPT-10 and/or WPT-10	Pavement Paint