

ITEM 642 TRAFFIC PAINT

642.01 Description

642.02 Materials

642.03 Equipment

642.04 Application

642.05 Basis of Payment

642.01 Description. This work consists of furnishing and applying fast dry water-based traffic paint or fast dry water-based traffic paint for cold weather applications according to Item 641, 740.01, 740.02, 740.09, and the additional requirements specified below.

642.02 Materials. Furnish materials from the City’s QPL conforming to:

Traffic Paint	740.02
Glass Beads, Type A	740.09

The Engineer may obtain random samples from the application equipment. Furnish the manufacturer’s identification information for the sampled liquid materials. The City will test the quality assurance sample for conformance to the manufacturer’s production ranges. For samples not meeting the manufacturer’s production ranges, re-apply, at no cost to the City, any markings using that sample. The City will consider all other untested batches to be not approved materials and will either require testing or re-application.

Do not apply paints that have exceeded the manufacturer’s shelf life. Do not use glass beads that are wet.

642.03 Equipment. Use equipment capable of applying the traffic paint as recommended by the manufacturer and applying glass beads at the time of line placement. Furnish a calibrated measuring device acceptable to the Engineer to measure the traffic paint in the striper tanks.

Equip all striping equipment for center line, lane line and edge line markings with a computerized Data Logging System (DLS) conforming to 641.04 when the length of marking exceeds 0.5 miles (0.8 km) of continuous line equivalent.

Furnish written documentation to the Engineer for the equipment’s operational capabilities from the equipment manufacturer.

642.04 Application. Apply pavement markings only when the surface is clean and dry in accordance with the paint manufacturer’s written application instructions.

If application is required when air and pavement temperatures are between 35 °F (2 °C) and 50 °F (10 °C) obtain approval from the Engineer and apply only pre-qualified Type 1A cold weather traffic paint materials. Apply traffic paint per manufacturer’s recommendations and protect line from tracking.

Keep the paint thoroughly mixed during application.

Apply 20 mil (0.51 mm) thick traffic paint Type 1 at the following rates:

20 Mil Thickness	Line Width (inch)				
	4	5	10	20	24
	Gallon per Mile of Line				
Solid Line	22	27.5	55	110	132
Broken Line	5.5	6.88	13.76	27.52	33
Dotted Line	5.5	6.88	13.76	27.52	33
Areas, Symbols, Words	1.25 gallon per 100 square feet				

0.51 mm Thickness	Line Width (mm)				
	100	127	254	508	600
	Liter per Kilometer of Line				
Solid Line	50	62.5	125	250	300
Broken Line	12.5	15.75	31.5	63	75
Dotted Line	12.5	15.75	31.5	63	75
Areas, Symbols, Words	0.51 L/m ²				

Apply 15 mil (0.38 mm) thick traffic paint Type 1A at the following rates:

15 Mil Thickness	Line Width (inch)				
	4	5	10	20	24
	Gallon per Mile of Line				
Solid Line	16	20	40	80	96
Broken Line	4	5	10	20	24
Dotted Line	4	5	10	20	24
Areas, Symbols, Words	0.94 gallon per 100 square feet				

0.38 mm Thickness	Line Width (mm)				
	100	127	254	508	600
	Liter per Kilometer of Line				
Solid Line	37	46.5	93	186	222
Broken Line	9.3	11.65	23.3	46.6	56
Dotted Line	9.3	11.65	23.3	46.6	56
Areas, Symbols, Words	0.38 L/m ²				

Do not dilute the paint. However, the Contractor may add spent traffic paint solvents, generated during performance of this work, to virgin traffic paint. If adding spent solvents, add them in a maximum ratio of 1:50 of spent solvents to virgin paint. Ensure that the maximum concentration of spent solvents in the striping equipment tanks is maximum 2 percent. Add spent solvents during the loading of the striping equipment.

Apply glass beads to the wet paint so that the beads are embedded and retained in the paint and provide uniform retroreflectivity in the paint surface. Apply glass beads at a minimum rate of 15 pounds per 100 square feet (7.3 kg per 10 m²) for Type 1 traffic paint. Apply glass beads at a minimum rate of 8.0 pounds per 100 square feet (3.9 kg per 10 m²) for Type 1A traffic paint.

Ensure temperature of the paint at the discharge point is within the range recommended by paint manufacturer.

Replace unsatisfactory markings according to 641.11.

Furnish the Engineer daily, biweekly and final DLS reports according to 641.04.

642.05

Perform traffic control operations for all 642 pavement markings according to 614.12 and MT-99.20M, but provide for center line, edge line, lane line and channelizing line traffic control equipment according to MT-99.20M equipment requirements for center line, longer than 2 minute dry.

Include this work in the 642 price per mile for Center Line, Edge Line and Lane Line and the 642 price per foot for channelizing Line.

642.05 Basis of Payment. The City will pay for accepted quantities at the contract prices, or prices adjusted according to 641.11, measured according to 641.12, with the provisions specified in 641.13, and as follows:

Item	Unit	Description
642	Mile (Kilometer)	Edge Line, Type ____
642	Mile (Kilometer)	Lane Line, Type ____
642	Mile (Kilometer)	Center Line, Type ____
642	Foot (Meter)	Channelizing Line, Type ____
642	Foot (Meter)	Stop Line, Type ____
642	Foot (Meter)	Crosswalk Line, Type ____
642	Foot (Meter)	Crosswalk Line Type II, Type ____
642	Foot (Meter)	Transverse/Diagonal Line, Type ____
642	Foot (Meter)	Curb Marking, Type ____
642	Square Foot (Square Meter)	Island Marking, Type ____
642	Each	Handicap Symbol Marking, Type ____
642	Each	Railroad Symbol Marking, Type ____
642	Each	School Symbol Marking, __ inch (____ mm), Type ____
642	Foot (Meter)	Parking Lot Stall Marking, Type ____
642	Each	Lane Arrow, Type ____
642	Each	Lane Drop Arrow
642	Each	Word on Pavement, __ inch (____ mm), Type ____
642	Foot (Meter)	Dotted Line, __ inch (____ mm), Type ____
642	Each	Bike Marking, Type ____
642	Each	Speed Hump Marking, Type ____
642	Foot or Square Foot (Meter or Square Meter), or Each	Removal of Pavement Marking
642	Lump Sum	Two-Way Radio Equipment