



**Specifications for
Statewide Contract 178 Traffic Paint & Glass Beads
Event #32110-13310
State of Tennessee
Department of General Services,
Central Procurement Office**

The purpose of this solicitation is for the State of Tennessee to secure a statewide contract (“SWC”) for traffic paint and glass beads across the State. Tennessee State Agencies and Tennessee State governmental entities; Tennessee local governmental agencies; the board of trustees of the University of Tennessee system, the Tennessee board of regents systems or the state university boards; any private nonprofit institution of higher education chartered in Tennessee; and the nonprofit entities identified in Tenn. Code Ann. § 33-2-1001 (“Authorized Users”) may utilize the awarded Contract. Contractor agrees to extend this Contract to Authorized Users.

General Solicitation Information

1.1 Definition of Terms and Acronyms

Term/ Acronym	Definition
State Contract Administrator	Point of contact for all questions, concerns, and management of the designated statewide contract for the State.
ASTM D 711	Standard test method for no-pick-up time of traffic paint
AASHTO	American Association of State Highway and Transportation Officials

Federal Specifications and Testing Methods	The Contractor must supply product(s) in accordance with the Specifications of the Tennessee Department of Transportation Standard Specifications for Road and Bridge Construction and the latest revision of the MUTCD.
MUTCD	Manual on Uniform Traffic Control Devices published by the U.S. Department of Transportation – Federal Highway Administration.

1.2 Contractors responding to this ITB must be able to provide one (1) or more of the following categories to Authorized Users in the State of Tennessee

Category 1 – Traffic Paint

Category 2 – Glass Beads

Category 3 – Graffiti Cover-Up Paint

1.3 The State intends to award a contract for Category 1, 2, and 3 to the lowest responsive and responsible respondent or respondents in accordance with section 2.1. of the Terms and Conditions. Contractors must be able to service the entire State of Tennessee.

1.4 Current Environment

From July 15, 2019 to March 15, 2024, the State of Tennessee, including State agencies have spent an approximate total of \$332,080.00 on Traffic Paint and Glass beads.

General Requirements – these requirements are to be followed by all awarded Contractors for SWC 178 – Traffic Paint & Glass Beads.

2.1 Contract Manager

The Contractor shall designate a contract manager for the contract. The contract manager shall serve as the single point of contact for the State Contract Administrator and be responsible for addressing broad contract issues and requests brought to them by the State Contract Administrator. The contract manager should have the authority and competence to address and correct any issues related to the contract. The Contractor shall notify the State Contract Administrator in writing within three (3) business days of assigning a new contract manager. Contact information shall be provided for each Contractor location awarded under SWC 178. Contractors shall assist Authorized Users with questions including, but not limited to the following: scheduling, billing, invoices, estimates, and service.

2.2 Certification

The Contractor shall furnish the Authorized User, at no additional cost, a certified test report from the Contractor's laboratory covering each lot or unit of production of the paint or beads. These test reports shall contain the numerical laboratory test data required in this specification. The State of Tennessee may also perform these same tests to assure compliance with the specifications.

Category One: Quick Dry Traffic Paint (White and Yellow)

3.1 Description - Quick dry white and yellow traffic paint also referred to as pigmented binder, for use in marking traffic lanes or barrier lines on bituminous and concrete highways. Only those paints with a proven service performance will be considered. Documentary evidence of service performance and formulation of the proposed paint shall be submitted to the Authorized User..

3.2 Characteristic Requirements:

- a. The pigmented binder shall be properly formulated so as to be suitable for application by spray equipment when heated to 50 degrees Celsius (123 degrees Fahrenheit) maximum and applied on bituminous or concrete pavements.
- b. Pigment content shall be between 58% and 65% by weight. Pigment for white paint shall be lead free and contain 120 grams per liter (0.99 pounds per gallon) minimum of 94% titanium dioxide. Pigment for yellow paint shall be lead free and contain 26 grams per liter (0.22 pounds per gallon) minimum of 94% titanium dioxide.
- c. Total non-volatile shall not be less than 76% by weight.
- d. Vehicle non-volatile shall not be less than 41% by weight. Vehicle shall be Rohm and Haas E-2706, Dow DT211NA or equal.
- e. Minimum weight shall not be less than 1600 grams per liter (13.3 pounds per gallon).
- f. The paint viscosity shall be between 78 and 95 kreb units when tested at 25 degrees Celsius (plus or minus 1 degree Celsius).

3.3 Drying Time:

- a. **Field:** the paint shall dry to a no-tracking condition in 3 minutes when applied at 380 plus or minus 25 mm (15 plus or minus 1 mil). Wet film thickness with 0.7 kilograms (6 pounds of glass spheres per liter (gallon) of binder, when the

pavement temperature is between 4 and 49 degrees Celsius (40 and 120 degrees Fahrenheit) and the relative humidity is not exceeding 80%. The pigmented binder shall be applied with specialized equipment so as to have the binder at a temperature of 35 to 55 degrees Celsius (100 to 130 degrees Fahrenheit) at the spray gun. The no-pick-up time shall be determined by passing over the line as applied above in a simulated passing maneuver with a passenger car travelling 56 kilometers per hour (35 MPH). A line showing no visual deposition when viewed from a distance of 15 meters (50 feet) shall be accepted as conforming to this drying requirement.

- b. Lab:** The pigmented binder without glass spheres shall dry to no-pick-up condition in 10 minutes or less when tested in accordance with ASTM D 711. The paint shall also have a dry through (early washout) requirement of the following: 380 plus or minus 25 mm (15 plus or minus 1 mil.) wet film of the candidate paint placed immediately in a humidity chamber maintained at 24 degrees Celsius plus or minus 1 degree Celsius (75 degrees Fahrenheit plus or minus 2 degrees) and 90% plus or minus 5% relative humidity shall have a dry-through time of 120 minutes maximum when tested in accordance with ASTM D 1640 except that the pressure exerted will be the minimum needed to maintain contact between the thumb and film.
- c.** The paint shall meet the current Environmental Protection Agencies requirements of Volatile Organic Compounds (EPA VOC) requirements.
- d.** The pH of the paint shall be a minimum of 9.6.

3.4 Qualitative Requirements - The finished paint shall meet the following quality requirements:

- a. Condition in container:** the paint received shall show no livering, skinning, mold growth, corrosion of the container or hard settling of the pigment. Any settling shall be readily dispersed when stirred by hand with no persistent foaming.
- b. Color:** the color for white after drying shall be flat white, free from tint, furnishing good opacity and visibility under both daylight and artificial light. For yellow, the color shall closely match chip 33538 of Federal Standard 595.
- c. Flexibility:** the paint shall show no cracking or flaking when tested on a 13 millimeter (1/2") mandrel in accordance with Federal Specification TT-P-1952B.
- d. Dry Opacity:** the minimum contrast ratio shall be 0.95 when drawn with a 0.005 bird applicator.
- e. Daylight Reflectance:** the daylight directional reflectance of white paint shall

be no less than 85% and no less than 50% for yellow paint (relative to manganese oxide) when measured in accordance with Federal Test Method No.1416.

- f. Bleeding:** the paint shall have a minimum bleeding ratio of 0.97 when tested in accordance with Federal Specification TT-P-1952B.
- g. Scrub Resistance:** the paint shall pass 300 cycles when tested in accordance with ASTM D 2484.
- h. Freeze-Thaw Stability:** the paint shall show no change in consistency greater than 10ku when tested in accordance with Federal Specification TT-P-1952B.
- i. Storage Stability:** when stored at 25 degrees Celsius plus or minus 2 degrees Celsius in a three-quarter filled can for a period of thirty days, the paint shall be in a homogeneous state with no skinning, curdling, hard settling or caking that cannot be readily re-mixed.

3.5 Inspection, Testing, Packaging, and Marking – All paint furnished under this contract shall be proportioned in accordance with the respective formulae set forth herein. Compounding shall be from ingredients or component materials that have been found to conform to the detail specifications as set forth herein by reference or otherwise. Each shipment of paint shall be accompanied by a detailed analysis for that particular batch and certification that all ingredients meet the requirements set forth in this specification. The Authorized User reserves the right to perform in-plant sampling of ingredients and finished product during manufacturing operations and to sample the packaged product when it is received by the Authorized User. Acceptance of the product may be withheld until analysis of the sample has been completed.

- a.** All paint shall be contained in either 55 gallon drums or 5 gallon pails.
- b.** All paint shall be shipped in containers that can be properly sealed.
- c.** Drums must have a removable plastic liner.
- d.** Drums can be new or reconditioned: free of defects/dents.
- e.** Drums shall be shipped on flatbed: palletized and banded.
- f.** Forty-eight (48) hour notice must be given prior to any delivery.
- g.** All containers shall be plainly marked/labeled to show the following information:
 - description of paint
 - color
 - net gallons
 - name of manufacturer
 - batch number

- date of manufacture (month and year)

Category Two: Glass Beads:

- 4.1 Description** - Glass beads will be dropped or sprayed upon pavement markings to produce a reflectorized pavement marking.
- 4.2 Requirements** - The glass beads shall meet the requirements of AASHTO M-247, Type 1. Glass beads shall be provided with a silane coating.
- 4.3 Packaging** - The glass beads shall be packaged in not more than 50 pound units and shall be clearly marked showing type and batch number.
- 4.4 Payment** - Measurement for payment will be by the pound.

Category Three: Graffiti Cover-Up Paint:

- 5.1 Description** - Graffiti Cover-Up Paint will be applied over painted or hand drawn graffiti appearing on roadway apparatus.
- 5.2 Requirements** - Graffiti Cover-Up Paint shall meet the characteristics of US Government Federal Standard 595C, Federal Specification No. 36440 - light grey and Federal Specification No. 37886 - white. And be compliant with Tennessee Department of Transportation Qualified Products List (QPL) 26.001 - Anti-Graffiti Products.
- 5.3 Packaging** - The Contractor shall provide Graffiti Cover-Up Paint that is packaged in one (1) and five (5) gallon containers.
- 5.4 Payment** - Measurement for payment will be by the gallon of paint supplied.