



Contract Award Notification

Title	: Group 38604 Traffic Paint (Waterborne – Lead Free) & Glass Spheres for Reflectorized Pavement Marking (Various Types) (All State Agencies and Political Subdivisions) Classification Code(s): 31 & 73
Award Number	: <u>23056 - RA-SW-ES</u> (Replaces Awards 22360 & 21869)
Contract Period	: May 18, 2017 to May 17, 2022
Bid Opening Date	: April 19, 2017
Date of Issue	: May 18, 2017 (Revised March 26, 2019) (All revisions shown in red)
Specification Reference	: As Incorporated In The Invitation for Bids
Contractor Information	: Appears on Page 5 through 7 of this Award

Address Inquiries To:

State Agencies & Vendors	Political Subdivisions & Others
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Procurement Services values your input.
Complete and return "Contract Performance Report" at end of document.

Description

This award contains:

- Traffic paint for use in the designation of Handicapped spaces, EZ-Pass lanes and Bike Paths.
- Glass spheres for reflectorized pavement marking for use in conjunction with waterborne traffic paint as an additive for producing reflective roadway stripes for improved visibility and traffic safety.
- Drying agent compound for use in accelerating the drying process to reduce wet paint tracking into driving lanes.

Highway and road traffic paint is used to delineate the highway edges and traffic lane; drying agents and glass spheres are to enhance the effectiveness of the paint.

Traffic markings (stripes) are regarded as one of the most cost-effective methods of controlling traffic flow; these products increase driver awareness and help ensure the safety of the driving public.

This award has a 3% SDVOB participation goal for traffic paint.

(continued)

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SECTION 1: CONTRACTOR INFORMATION

1.1 Contractor Information

This Contract Award Notification is published as an informational aid for NYS OGS Procurement Services contract users to assist them in the use of Award 23056. It is not the contract document. The information herein is compiled from the actual contract documents individually executed with each of the contractors listed below.

CONTRACT #	CONTRACTOR & ADDRESS	CONTRACT ADMINISTRATOR INFORMATION	FED.IDENT. #/ NYS VENDOR ID #
PC67790	Ennis-Flint, Inc 115 Todd Court Thomasville, NC 27360 <i>Accepts NYS Procurement Card for purchases up to \$50,000</i>	Stacey Chapman (336) 477-8367 contracts@ennisflint.com	75-2657523 1000009671
PC67791	Ozark Materials, LLC 591 Glendale Ave Greenville, AL 36037 <i>Accepts NYS Procurement Card for purchases up to \$50,000</i>	Dyana Heartsill (334) 371-2308 dyana@ozarkmaterials.net	45-4117820 1100182975
PC67792	Potters Industries, LLC 300 Lindenwood Dr Malvern, PA 19355 <i>Accepts NYS Procurement Card for purchases up to \$50,000</i>	Yvonne D. Harris (610) 651-4714 (800) 552-3237 Yvonne.Harris@pottersbeads.com	22-1933307 1000016855
PC67793	The Sherwin-Williams Company 101 W Prospect Ave, 720 Guildhall Cleveland, OH 44115 <u>Reseller/Distributor/Dealer for The Sherwin-Williams Company:</u> Noreast Property Management Corp. 414 Elwood Ave Hawthorne, New York 10532 <i>Authorized to: Take Orders, Ship Direct, Receive Payment</i> <i>Reseller is a NYS Certified Service Disabled Veteran-Owned Business</i>	Pam Phillips (443) 370-8370 pam.s.phillips@sherwin.com Anthony Gisondi (914) 557-0281 info@noreastpm.com	34-0526850 1000031328 47-5356462 1100167789

**See below for additional contact information regarding:
Contact for NYS Contract Orders, Emergency Contacts, and Container Returns**

Additional Contact Information: Traffic Paint (Waterborne—Lead-Free)

The Sherwin-Williams Company		
Contract #: PC67793	Contact for NYS Contract Orders / Emergency Contact	Contact for Container Returns
Name	Pam Phillips	Pam Phillips
Title	Sales Coordinator	Sales Coordinator
Phone	(443) 370-8370	(443) 370-8370
Toll Free Phone	(800) 368-2026	
Email	Pavement.markings.cs@sherwin.com	pam.s.phillips@sherwin.com
Hours of Operation	8:30 AM – 5:00 PM EST – Monday through Friday	

Ozark Materials, LLC		
Contract #: PC67791	Contact for NYS Contract Orders / Emergency Contact	Contact for Container Returns
Name	Dyana Heartsill	Rita Miles
Title	Inside Sales/Customer Service	National Container Group
Phone	(334) 371-2308	
Toll Free Phone		(800) 774-6956
Cell Phone	(334) 530-9931	
Email	dyana@ozarkmaterials.net	ritam@nationalcontainer.com
Hours of Operation	8:00 AM – 5:00 PM EST – Monday through Friday	

Traffic Paint (Waterborne—Lead-Free)		
<u>LOT #</u>	<u>LOT Description</u>	<u>Contractor</u>
LOT I	Traffic Paint (Waterborne—Lead-Free) – OGS Item 1: White, OGS Item 2: Yellow	The Sherwin-Williams Company
LOT II	Traffic Paint (Waterborne—Lead-Free) - OGS Item 3: Black	Ozark Materials, LLC
LOT III	Traffic Paint (Waterborne—Lead-Free) - OGS Item 4: Blue	Ozark Materials, LLC
LOT IV	Traffic Paint (Waterborne—Lead-Free) - OGS Item 5: Green	Ozark Materials, LLC
LOT V	Traffic Paint (Waterborne—Lead-Free) - OGS Item 6: Purple	Ozark Materials, LLC

Additional Contact Information: Glass Spheres for Reflectorized Pavement Marking (Various Types)

Potters Industries, LLC		
Contract #: PC67792	Contact for NYS Contract Orders	Emergency Contact
Name	Yvonne D. Harris	David Fenn
Title	Contract Administrator	Senior Regional Sales Manager
Phone	(610) 651-4714	(860) 567-3552
Toll Free Phone	(800) 552-3237	(800) 552-3237
Cell Phone		(203) 733-2294
Email	Yvonne.Harris@pottersbeads.com	David.Fenn@pottersbeads.com
Hours of Operation	7:00 AM – 4:00 PM EST – Monday through Friday	

Ennis-Flint, Inc		
Contract #: PC67790	Contact for NYS Contract Orders	Emergency Contact
Name	Anne Selby	Don Vermeer
Title	Team Leader, Contract Administration	Director Government Sales
Phone	(336) 308-3767	
Toll Free Phone	(800) 331-8118	
Cell Phone		(972) 689-4803
Email	contracts@ennisflint.com	Don@ennispaint.net
Hours of Operation	8:00 AM – 5:00 PM EST – Monday through Friday	

Glass Spheres for Reflectorized Pavement Markings (Various Types)		
LOT #	LOT Description	Contractor
LOT VI	Glass Spheres for Reflectorized Pavement Marking for Highway, Road and Street Use - Product Classification A: OGS Item 7: Type I Glass Spheres (with Moisture Resistant Coating)	Potters Industries, LLC
LOT VII	Glass Spheres for Reflectorized Pavement Marking for Highway, Road and Street Use - Product Classification A: OGS Item 8: Type III Glass Spheres (with Silane Type Adhere)	Potters Industries, LLC
LOT VIII	Glass Spheres for Reflectorized Pavement Marking for Airport Runway Use - Product Classification B: OGS Item 9: Type I Glass Spheres (Low index recycled glass spheres for drop-on applications per detailed specifications)	Ennis-Flint, Inc
LOT IX	Glass Spheres for Reflectorized Pavement Marking for Airport Runway Use - Product Classification B: OGS Item 10: Type III Glass Spheres (High index glass spheres for increased retro-reflectivity needs per detailed specifications)	Potters Industries, LLC
LOT X	Glass Spheres for Reflectorized Pavement Marking for Airport Runway Use - Product Classification B: OGS Item 11: Type IV Glass Spheres (Low-index recycled glass spheres for drop-on applications per detailed specifications)	Potters Industries, LLC
LOT XI	Glass Spheres for Reflectorized Pavement Marking: OGS Item 12: Glass Spheres with Drying Agent	Potters Industries, LLC

**INVOICES MUST BE SENT DIRECTLY TO THE ORDERING AGENCY FOR PAYMENT.
(See "Contract Payments" and "Electronic Payments" in this document.)**

AGENCIES SHOULD NOTIFY THE NEW YORK STATE PROCUREMENT PROMPTLY IF THE CONTRACTOR FAILS TO MEET DELIVERY OR OTHER TERMS OF THIS CONTRACT. PRODUCTS OR SERVICES WHICH DO NOT COMPLY WITH THE SPECIFICATIONS OR ARE OTHERWISE UNSATISFACTORY TO THE AGENCY SHOULD ALSO BE REPORTED TO THE PROCUREMENT SERVICES.

1.2 Overview & Scope

This Award is issued by the New York State (“NYS”) Office of General Services (“OGS”), Procurement Services for highway and road traffic paint used to delineate the highway edges and traffic lanes as well as drying agents and glass spheres to enhance the effectiveness of the products.

The award contains:

- Road paint for use in the designation of Handicapped spaces, EZ-Pass lanes and Bike Paths.
- Glass spheres for reflectorized pavement marking for use in conjunction with waterborne traffic zone paint as an additive for producing reflective roadway stripes for improved visibility and traffic safety.
- Drying agent compound for use in accelerating the drying process to reduce wet paint tracking into driving lanes.

Products as specified herein are for all Authorized Users eligible to purchase through this Award.

Traffic markings (stripes) are regarded as one of the most cost-effective methods of controlling traffic flow and these products increase driver awareness and help ensure the safety of the driving public.

1.3 Small, Minority and Women-Owned Businesses

The letters SB listed under the Contract Number indicate the contractor is a NYS small business. Additionally, the letters MBE and WBE indicate the contractor is a Minority-owned Business Enterprise and/or Woman-owned Business Enterprise.

1.4 Recycled, Remanufactured and Energy Efficient Products

The Procurement Services supports and encourages the purchase of recycled, remanufactured, energy efficient and "energy star" products. If one of the following codes appears as a suffix in the Award Number or is noted under the individual Contract Number(s) in this Contract Award Notification, please look at the individual awarded items for more information on products meeting the suffix description.

RS,RP,RA	Recycled
RM	Remanufactured
SW	Solid Waste Impact
EE	Energy Efficient
E*	EPA Energy Star
ES	Environmentally Sensitive

1.5 Note to Authorized Users

When placing purchase orders under the contract(s), the authorized user should be familiar with and follow the terms and conditions governing its use which usually appears at the end of this document. The authorized user is accountable and responsible for compliance with the requirements of public procurement processes. The authorized user must periodically sample the results of its procurements to determine its compliance. In sampling its procurements, an authorized user should test for reasonableness of results to ensure that such results can withstand public scrutiny.

The authorized user, when purchasing from OGS contracts, should hold the contractor accountable for contract compliance and meeting the contract terms, conditions, specifications, and other requirements. Also, in recognition of market fluctuations over time, authorized users are encouraged to seek improved pricing whenever possible.

Authorized users have the responsibility to document purchases, particularly when using OGS multiple award contracts for the same or similar product(s)/service(s), which should include:

- a statement of need and associated requirements,
- a summary of the contract alternatives considered for the purchase,
- the reason(s) supporting the resulting purchase (e.g., show the basis for the selection among multiple contracts at the time of purchase was the most practical and economical alternative and was in the best interests of the State).

1.6 Estimated Quantities

The quantities or dollar values listed in this Award are estimated only. A Contract resulting from this Award shall be an estimated quantity Contract. No specific quantities are represented or guaranteed and the State provides no guarantee of individual Authorized User participation. The Contractor must furnish all quantities actually ordered at or below the Contract prices. The anticipated dollar value of the award for this Award, based on historical purchases under previous awards, is approximately \$6 million annually. The individual value of each resultant Contract is indeterminate and will depend upon the number of Contracts issued and the competitiveness of the pricing offered. Authorized Users will be encouraged to purchase from Contractors who offer the Products and pricing that best meet their needs in the most practical and economical manner. See Appendix B, *Estimated/Specific Quantity Contracts* and *Participation in Centralized Contracts*. Numerous factors could cause the actual quantities of Products purchased under a Contract resulting from this Award to vary substantially from the estimates in the Award. Such factors include, but are not limited to, the following:

- Such Contracts may be non-exclusive Contracts.
- There is no guarantee of quantities to be purchased, nor is there any guarantee that demand will continue in any manner consistent with previous purchases.
- The individual value of each Contract is indeterminate and will depend upon actual Authorized User demand and actual quantities ordered during the contract period.
- The State reserves the right to terminate any Contract for cause or convenience prior to the end of the term pursuant to the terms and conditions of the Contract.
- Contract pricing that is lower than anticipated could result in a higher quantity of purchases by Authorized Users than anticipated.
- Contract pricing that is higher than anticipated could result in a lower quantity of purchases by Authorized Users than anticipated.

1.7 Definitions

Capitalized terms used in this Award shall be defined in accordance with Appendix B, *Definitions*, or as below.

“Bid Deviation” shall refer to any variance submitted or proposed by a Bidder, which deviates from, adds extraneous terms to, conflicts with or offers an alternative to any term, condition, specification or requirement of the Award.

“Business Day” shall refer to Monday through Friday from 8:00 AM – 5:00 PM ET, excluding NYS Holidays and federal holidays.

“MWBE” shall refer to a business certified with NYS Empire State Development (“ESD”) as a Minority- and/or Women-owned Business Enterprise.

“NYS Holidays” refers to the legal holidays for State employees in the classified service of the executive branch, as more particularly specified on the website of the NYS Department of Civil Service. This includes the following: New Year’s Day; Martin Luther King Day; Washington’s Birthday (observed); Memorial Day; Independence Day; Labor Day; Columbus Day; Veteran’s Day; Thanksgiving Day; and Christmas Day.

“NYS Vendor ID” shall mean the ten-character identifier issued by New York State when a vendor is registered on the Vendor File.

“Preferred Source Products” shall refer to those Products that have been approved in accordance with State Finance Law § 162.

“Preferred Source Program” shall refer to the special social and economic goals set by New York State in State Finance Law § 162 that require a governmental entity purchase select Products from designated organizations when the Products meet the “form, function and utility” requirements of the governmental entity. Under State Finance Law § 163, purchases of Products from Preferred Sources are given the highest priority and are exempt from the competitive bidding requirements. The New York State Preferred Sources include: The Correctional Industries Program of the Department of Corrections and Community Supervision (“Corcraft”); New York State Preferred Source Program for People Who Are Blind (“NYSPSP”); and the New York State Industries for the Disabled (“NYSID”). These requirements apply to a state agencies, political subdivisions and public benefit corporations (including most public authorities).

“Procurement Services” shall refer to a business unit of OGS, formerly known as New York State Procurement (“NYSPRO”) and Procurement Services Group (“PSG”).

“Resellers” any model for distribution of Product other than direct from the Contractor. Resellers include but are not limited to approved value added resellers (VARs), distributors, dealers, sales agents, and alternate channel partners.

“SDVOB” shall refer to a NYS-certified Service-Disabled Veteran-Owned Business

SECTION 2: TERMS AND CONDITIONS

2.1 Contract Term and Extension

The Contract will be in effect for a term of five (5) years. The Contract term shall commence after all necessary approvals and shall become effective upon mailing or electronic communication of the final executed documents to the Contractor (see Appendix B, *Contract Creation/Execution*).

2.2 Short Term Extension

This section shall apply in addition to any rights set forth in Appendix B, *Contract Term – Extension*. In the event a replacement Contract has not been issued, any Contract let and awarded hereunder by the State may be extended unilaterally by the State for an additional period of up to 30 calendar days upon notice to the Contractor with the same terms and conditions as the original Contract and any approved modifications. With the concurrence of the Contractor, the extension may be for a period of up to 90 calendar days in lieu of 30 calendar days. However, this extension automatically terminates should a replacement Contract be issued in the interim.

2.3 Price

Price shall include all customs duties and charges and be net, F.O.B. destination any point within the state of New York, as designated by the ordering agency, including dock delivery (unloading of the product will be performed by the Authorized User, unless previously agreed by the vendor). Additional fees may be charged to the purchaser when delivery to point of use is not possible via dock, any other door, stairway or elevator freight service and/or when specialized service is requested in writing by the purchaser. Such costs shall be prepaid and added to the invoice. Authorized Users will not be charged for delivery to their building location since price is FOB destination; Authorized User must be informed of the additional cost prior to delivery and agree to the additional charge.

Contract prices for all lots shall be firm except that price updates will be permitted in accordance with Section 2.4 - *Price Updates*.

Note: If it is determined the contractor is charging excessive amounts for specialized delivery services, the state may seek reimbursement for such amounts and may cancel the contract.

2.3.1 Traffic Paint (Waterborne – Lead-Free): LOT I-V (OGS Items 1-6)

Both 55-gallon and 275-gallon capacity containers remain the property of the contractor and are to be removed **at no additional cost**. Upon notification, contractor shall be responsible for picking up and removing at their own expense, all drums and totes furnished by the contractor during the contract period. See Section 3.1.7 - *Packaging* for additional information.

2.4 Price Updates

Prices set forth in this contract are firm through May 31, 2018. The prices are then subject to an increase or decrease every six months following the schedule included in table 2.4 – Price Updates Schedule (see below) in accordance with the provisions of this clause.

The prices shall be adjusted on the basis of the originally published Producer Price Indices (PPIs) specified in this section, published by the US Department of Labor, Bureau of Labor Statistics. Any published figure used that is preliminary will not be updated should a different figure replace it as permanent in the future.

A base index shall be established by averaging the period of six months starting March 2017 through August 2017. An adjusted index shall then be established by averaging the six month period ending three months prior to the first price update date. The adjusted index will then become the base index for the price update period immediately following. Each succeeding six months will follow this format (including any contract extensions or renewals). The average adjusted index is then compared with the base index, and the resulting percentage of increase or decrease shall be applied to the contract prices. Price increases shall not exceed 5%.

Table 2.4 – Price Updates Schedule.

Base Average Period	Price Update Effective Date	Index Average Period
March 2017 – August 2017	June 1, 2018	Sept 2017 – February 2018
Index Average Period (from previous price update)	December 1, 2018	March 2018 – August 2018
Index Average Period (from previous price update)	June 1, 2019	Sept 2018 – February 2019
Index Average Period (from previous price update)	December 1, 2019	March 2019 – August 2019
Index Average Period (from previous price update)	June 1, 2020	Sept 2019 – February 2020
Index Average Period (from previous price update)	December 1, 2020	March 2020 – August 2020
Index Average Period (from previous price update)	June 1, 2021	Sept 2020 – February 2021
Index Average Period (from previous price update)	December 1, 2021	March 2021 – August 2021

2.4 Price Updates (Cont'd)

The following US Department of Labor Producer Price Indices (PPIs) will be used in determining the price updates that will apply to contracts awarded under this procurement:

Traffic Paint (Waterborne – Lead-Free): LOTS I-V

<u>Index Name</u>	<u>Series ID#</u>
Group: Chemicals and allied products (Not Seasonally Adjusted) Item: Special purpose coatings, including all marine coatings and traffic marking paints	WPU06210301
Industry: General freight trucking, long-distance LTL Product: Primary services	PCU484122484122p

Glass Spheres for Reflectorized Pavement Marking (Various Types): LOTS VI-XI

<u>Index Name</u>	<u>Series ID#</u>
Group: Chemicals and allied products (Not Seasonally Adjusted) Item: Other inorganic chemicals, nec	WPU06130283
Group: Fuels and related products and power (Not Seasonally Adjusted) Item: Natural gas	WPU0531
Industry: Glass product manufacturing made of purchased glass Product: primary products	PCU327215327215p
General freight trucking	PCU484122484122p

Should any referenced Producer Price Indices (PPIs) become discontinued during the course of the contract, they will be replaced by alternative PPIs also published by the US Department of Labor, Bureau of Labor Statistics, and adjustments will be calculated based on the same methodology as outlined above, but with the data from the new replacement index.

The Office of General Services, Procurement Services will notify all interested parties of effected price adjustments by way of a contract update.

2.4 Price Updates (Cont'd)

2.4.1 Traffic Paint (Waterborne – Lead-Free)

LOTS I – V (OGS Items 1 – 6):

90% of the price update of awarded contract prices will be adjusted according to activity reported by the United States Department of Labor Producer Price Index (PPI) for the group chemicals and allied products: special purpose coatings, including all marine coatings and traffic marking paints. Series ID#: WPU062103012, not seasonally adjusted.

10% of the price update of awarded contract prices will be adjusted according to activity reported by the US Department of Labor, Producer Price Index (PPI) Industry Data for General Freight Trucking. Series ID#: PCU484122484122p.

2.4.2 Glass Spheres for Reflectorized Pavement Marking (Various Types)

LOTS VI – XI (OGS Items 7 – 12):

40% of the price update of awarded contract prices will be adjusted according to activity reported by the US Department of Labor, Producer Price Index (PPI) for the group chemicals and allied products, other inorganic chemicals. Series ID#: WPU06130283, not seasonally adjusted.

35% of the price update of awarded contract prices will be adjusted according to activity reported by the US Department of Labor, Producer Price Index (PPI) Commodity Data for Fuels and related products and power-Natural Gas. Series ID#: WPU0531, not seasonally adjusted.

20% of the price update of awarded contract prices will be adjusted according to activity reported by the US Department of Labor, Producer Price Index (PPI) Industry Data for Glass product mfg. made of purchased glass. Series ID#: PCU327215327215P

5% of the price update of awarded contract prices will be adjusted according to activity reported by the US Department of Labor, Producer Price Index (PPI) Industry Data for General Freight Trucking. Series ID#: PCU484122484122p

2.5 Best Pricing Offer

During the Contract term, if the Commissioner becomes aware that the Contractor is selling substantially the same or a smaller quantity of a Product outside of this Contract upon the same or similar terms and conditions as that of this Contract at a lower price to a federal, state or local governmental entity, the price under this Contract, after consultation with the Contractor, may be reduced to a lower price on a prospective basis at the discretion of the Commissioner. The Commissioner reserves the right to request information to verify pricing for the purposes of this clause.

2.6 Pricing Structure

- A. If, during the Contract Term, the Contractor is unable or unwilling to meet contractual requirements in whole or in part based on the price structure of the Contract, it shall immediately notify the Office of General Services, Procurement Services in writing. Such notification shall not relieve the Contractor of its responsibilities under the Contract. The State may, but is not required to, consider an equitable adjustment in the Contract terms and/or pricing in the circumstances outlined in Appendix B, *Savings/Force Majeure*.
- B. Should the Commissioner in his or her sole discretion determine during the Contract Term that (i) the Contract price structure is unworkable, detrimental, or injurious to the State, or (ii) the Contract price structure results in prices which are unreasonable, excessive, or not truly reflective of current market conditions, and no adjustment in the Contract terms and/or pricing is mutually agreeable, the State may terminate the Contract upon 10 business days written notice mailed to the Contractor.

2.7 Volume Discounts

Volume discounts may be applied per purchase order, cumulatively per customer agency, and cumulatively statewide.

Volume discounts shall be defined and applied as follows:

1. Purchase order volume discounts shall be additional discounts applied to individual purchase orders over a specified dollar amount.
2. Cumulative agency volume discount shall be additional discounts applied to all future orders made by an individual agency once an established volume has been met by that agency.
3. Cumulative statewide volume discounts shall be additional discounts applied to all future orders for all state and non-state orders once an established volume has been met under this contract.

2.8 Cash Discounts

Vendors may offer cash discounts for prompt rapid payment of invoices.

2.9 Invoicing and Payment

Invoicing and payment shall be made in accordance with the terms set forth in Appendix B, *Contract Invoicing*.

The Contractor is required to provide the Authorized User with one invoice for each Purchase Order at the time of delivery. The invoice must include detailed line item information to allow Authorized Users to verify that pricing at point of receipt matches the Contract price on the original date of order.

At a minimum, the following fields must be included on each invoice:

- Contractor Name
- Contractor Billing Address
- Contractor Federal ID Number
- NYS Vendor ID Number
- Account Number
- NYS Contract Number
- Name of Authorized User indicated on the Purchase Order
- NYS Agency Unit ID (if applicable)
- Authorized User's Purchase Order Number
- Order Date
- Invoice Date
- Invoice Number
- Invoice Amount
- Product Descriptions
- Unit Price
- Quantity
- Unit of Measure
- Dates of Service (if applicable)

2.10 Product Returns and Exchanges

In addition to the provisions of Appendix B, *Title and Risk of Loss*, *Product Substitution*, and *Rejected Product*, Products returned or exchanged due to quality problems, duplicated shipments, outdated Product, incorrect Product shipped, Contractor errors otherwise not specified, or Products returned or exchanged due to Authorized User errors, shall be replaced with specified Products or the Authorized User shall be credited or refunded for the full purchase price.

Products shall be replaced within 10 business days of written notification to the Contractor of the Authorized User's intent to return or exchange the Product. Contractor can charge only a restocking fee for Product returned or exchanged due to Authorized User error that is determined not to be suitable for resale; the restocking fee cannot exceed the net price of the returned or exchanged Product.

Any credit or refund shall be applied against the next bill/invoice submitted by the Contractor to the Authorized User. If no credit or refund, or only a partial credit or refund, is made in such fashion, the Contractor shall pay to the Authorized User the amount of such credit or refund or portion thereof still outstanding, within 30 calendar days of demand.

2.11 Unanticipated Excessive Purchase

The State reserves the right to negotiate lower pricing, or to advertise for Bids, for any unanticipated excessive purchase.

An "unanticipated excessive purchase" is defined as an unexpected order for contract product(s) totaling more than \$100,000.00 either for traffic paint (waterborne—lead free) or for glass spheres for reflectorized pavement marking

2.12 Contract Administration

The Awardee shall provide a sufficient number of Customer Service employees who are knowledgeable and responsive to Authorized User needs and who can effectively service the Contract. Awardee shall also provide an Emergency Contact in the event of an emergency occurring after business hours or on weekend/holidays.

Awardee shall provide a dedicated Contract Administrator to support the updating and management of the Contract on a timely basis. Contractor must notify OGS within five Business Days if it's Contract Administrator, Emergency Contact, or Customer Service employees change, and provide an interim contact person until the position is filled. Changes shall be submitted electronically via e-mail to the OGS Contract Management Specialist.

2.13 NYS Financial System (SFS)

New York State is currently operating on an Enterprise Resource Planning (ERP) system, Oracle PeopleSoft software, referred to as the Statewide Financial System (SFS). SFS is currently on PeopleSoft Financials version 9.2. SFS supports requisition-to-payment processing and financial management functions.

The State is also implementing an eProcurement application that supports the requisitioning process for State Agencies to procure Products in SFS. This application provides catalog capabilities. Contractors with Centralized Contracts have the ability to provide a "hosted" or "punch-out" catalog that integrates with SFS and is available to Authorized Users via a centralized eMarketplace website. Additional information may be found at: <https://nyspro.ogs.ny.gov/content/nys-emarketplace-1>

There are no fees required for a Contractor's participation in the catalog site development or management. Upon completion and activation of an on-line catalog, State Agencies will process their orders through the SFS functionality and other Authorized Users can access the catalog site to fulfill orders directly.

The State is also implementing the PeopleSoft Inventory module in the near future to track inventory items within the item master table. Further information regarding business processes, interfaces, and file layouts may be found at: www.sfs.ny.gov and <http://www.osc.state.ny.us/agencies/guide/MyWebHelp/>.

2.14 Insurance

The Contractor shall maintain in force at all times during the terms of the Contract, policies of insurance pursuant to the requirements outlined in Attachment – *Insurance Requirements*.

2.15 Report of Contract Usage

Contractor shall submit Attachment – *Report of Contract Usage* including total sales to Authorized Users of this Contract by Contractor, and all authorized resellers, dealers and distributors, if any, by the fifteenth day of the month following each report period (unless otherwise indicated) as follows:

<u>Report</u>	<u>From</u>	<u>To</u>	<u>Report Due Before</u>
1 st	Contract Start Date	12/31/2017	1/15/2018
2 nd	1/1/2018	12/31/2018	1/15/2019
3 rd	1/1/2019	12/31/2019	1/15/2020
4 th	1/1/2020	12/31/2020	1/15/2021
5 th	1/1/2021	12/31/2021	1/15/2022
6 th	1/1/2022	5/17/2022	6/1/2022

Contractors shall specify if any authorized resellers, dealers or distributors are NYS Certified Minority- and/or Women-Owned Business Enterprises (MWBs), small business enterprises (SBEs), or Service-Disabled Veteran-Owned Businesses (SDVOBs).

The report is to be submitted electronically via e-mail in Microsoft Excel to OGS Procurement Services, to the attention of the individual listed on the front page of the Contract Award Notification and shall reference the Contract Group Number, Award Number, Contract Number, Sales Period, and Contractor's name.

The report in Attachment – *Report of Contract Usage* contains the minimum information required. Additional related sales information, such as detailed user purchases may be required by OGS and must be supplied upon request. Failure to submit reports on a timely basis may result in Contract cancellation and designation of Contractor as non-responsible.

2.16 Contractor Requirements and Procedures for Business Participation Opportunities for the NYS Certified Minority and Women-Owned Business Enterprises and Equal Employment Opportunities for Minority Group Members and Women

I. New York State Law

Pursuant to New York State Executive Law Article 15-A and Parts 140-145 of Title 5 of the New York Codes, Rules and Regulations (“NYCRR”), the New York State Office of General Services (“OGS”) is required to promote opportunities for the maximum feasible participation of New York State-certified Minority- and Women-Owned Business Enterprises (“MWBEs”) and the employment of minority group members and women in the performance of OGS contracts.

II. General Provisions

- A. OGS is required to implement the provisions of New York State Executive Law Article 15-A and 5 NYCRR Parts 140-145 (“MWBE Regulations”) for all State contracts as defined therein, with a value (1) in excess of \$25,000 for labor, services, equipment, materials, or any combination of the foregoing or (2) in excess of \$100,000 for real property renovations and construction.
- B. The Contractor agrees, in addition to any other nondiscrimination provision of the Contract and at no additional cost to OGS, to fully comply and cooperate with OGS in the implementation of New York State Executive Law Article 15-A and the regulations promulgated thereunder. These requirements include equal employment opportunities for minority group members and women (“EEO”) and contracting opportunities for MWBEs. Contractor’s demonstration of “good faith efforts” pursuant to 5 NYCRR § 142.8 shall be a part of these requirements. These provisions shall be deemed supplementary to, and not in lieu of, the nondiscrimination provisions required by New York State Executive Law Article 15 (the “Human Rights Law”) or other applicable federal, State, or local laws.
- C. Failure to comply with all of the requirements herein may result in a finding of non-responsiveness, a finding of non-responsibility, breach of contract, withholding of funds, suspension or termination of the Contract, and/or such other actions or enforcement proceedings as allowed by the Contract and applicable

III. Equal Employment Opportunity (EEO)

- A. The provisions of Article 15-A of the Executive Law and the rules and regulations promulgated thereunder pertaining to equal employment opportunities for minority group members and women shall apply to all Contractors, and any subcontractors, awarded a subcontract over \$25,000 for labor, services, including legal, financial and other professional services, travel, supplies, equipment, materials, or any combination of the foregoing, to be performed for, or rendered or furnished to, the contracting State agency (the “Work”) except where the Work is for the beneficial use of the Contractor.
 - 1. Contractor and subcontractors shall undertake or continue existing EEO programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability, or marital status. For these purposes, EEO shall apply in the areas of recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff or termination, and rates of pay or other forms of compensation. This requirement does not apply to: (i) the performance of work or the provision of services or any other activity that is unrelated, separate, or distinct from the Contract; or (ii) employment outside New York State.
 - 2. By entering into this Contract, Contractor certifies that the text set forth in clause 12 of Appendix A, attached hereto and made a part hereof, is Contractor’s equal employment opportunity policy. In addition, Contractor agrees to comply with the Non-Discrimination Requirements set forth in clause 5 of Appendix A.
- B. Form EEO 100 – Staffing Plan. To ensure compliance with this section, the Contractor agrees to submit, or has submitted with the Bid, a staffing plan on Form EEO 100 to OGS to document the composition of the proposed workforce to be utilized in the performance of the

2.16 Contractor Requirements and Procedures for Business Participation Opportunities for the NYS Certified Minority and Women-Owned Business Enterprises and Equal Employment Opportunities for Minority Group Members and Women (Cont'd)

- C. Contract by the specified categories listed, including ethnic background, gender, and federal occupational categories.
- D. Form EEO - 101 - Workforce Utilization Reporting Form (Commodities and Services) (“Form EEO-101-Commodities and Services”)
 - 1. The Contractor shall submit, and shall require each of its subcontractors to submit, a Form EEO-101-Commodities and Services to OGS to report the actual workforce utilized in the performance of the Contract by the specified categories listed including ethnic background, gender, and Federal occupational categories. The Form EEO-101-Commodities and Services must be submitted electronically to OGS at EEO_CentCon@ogs.ny.gov on a **quarterly** basis during the term of the Contract **by the 10th day of April, July, October, and January.**
 - 2. Separate forms shall be completed by Contractor and all subcontractors.
 - 3. In limited instances, the Contractor or subcontractor may not be able to separate out the workforce utilized in the performance of the Contract from its total workforce. When a separation can be made, the Contractor or subcontractor shall submit the Form EEO-101-Commodities and Services and indicate that the information provided relates to the actual workforce utilized on the Contract. When the workforce to be utilized on the Contract cannot be separated out from the Contractor's or subcontractor's total workforce, the Contractor or subcontractor shall submit the Form EEO-101-Commodities and Services and indicate that the information provided is the Contractor's or subcontractor's total workforce during the subject time frame, not limited to work specifically performed under the Contract.
- E. Contractor shall comply with the provisions of the Human Rights Law and all other State and federal statutory and constitutional non-discrimination provisions. Contractor and subcontractors shall not discriminate against any employee or applicant for employment because of race, creed (religion), color, sex, national origin, sexual orientation, military status, age, disability, predisposing genetic characteristic, marital status, or domestic violence victim status, and shall also follow the requirements of the Human Rights Law with regard to non-discrimination on the basis of prior criminal and conviction and prior arrest.

IV. Contract Goals

- A. For purposes of this procurement, OGS conducted a comprehensive search and determined that the **Contract does not offer sufficient opportunities to set goals for participation by MWBEs as subcontractors, service providers, or suppliers to Contractor.** Contractor is, however, encouraged to make every good faith effort to promote and assist the participation of MWBEs on this Contract for the provision of services and materials. The directory of New York State Certified MWBEs can be viewed at: <https://ny.newnycontracts.com/FrontEnd/VendorSearchPublic.asp?TN=ny&XID=2528>.

Additionally, following Contract execution, Contractor is encouraged to contact the Division of Minority and Women's Business Development ((518) 292-5250; (212) 803-2414; or (716) 846-8200) to discuss additional methods of maximizing participation by MWBEs on the Contract.

2.16 Contractor Requirements and Procedures for Business Participation Opportunities for the NYS Certified Minority and Women-Owned Business Enterprises and Equal Employment Opportunities for Minority Group Members and Women (Cont'd)

B. Good Faith Efforts

Pursuant to 5 NYCRR § 142.8, evidence of good faith efforts shall include, but not be limited to, the following:

1. A list of the general circulation, trade, and MWBE-oriented publications and dates of publications in which the Contractor solicited the participation of certified MWBEs as subcontractors/suppliers, copies of such solicitations, and any responses thereto.
2. A list of the certified MWBEs appearing in the Empire State Development (“ESD”) MWBE directory that were solicited for this Contract. Provide proof of dates or copies of the solicitations and copies of the responses made by the certified MWBEs. Describe specific reasons that responding certified MWBEs were not selected.
3. Descriptions of the Contract documents/plans/specifications made available to certified MWBEs by the Contractor when soliciting their participation and steps taken to structure the scope of work for the purpose of subcontracting with, or obtaining supplies from, certified MWBEs.
4. A description of the negotiations between the Contractor and certified MWBEs for the purposes of complying with the MWBE goals of this Contract.
5. Dates of any pre-bid, pre-award, or other meetings attended by Contractor, if any, scheduled by OGS with certified MWBEs whom OGS determined were capable of fulfilling the MWBE goals set in the Contract.
6. Other information deemed relevant to the request.

V. Fraud

Any suspicion of fraud, waste, or abuse involving the contracting or certification of MWBEs shall be immediately reported to ESD’s Division of Minority and Women’s Business Development at (855) 373-4692.

ALL FORMS ARE AVAILABLE AT: <http://www.ogs.ny.gov/MWBE/Forms.asp>

2.17 Participation Opportunities for New York State Certified Service Disabled Veteran-Owned Businesses

Article 17-B of the New York State Executive Law provides for more meaningful participation in public procurement by certified Service-Disabled Veteran-Owned Businesses (“SDVOB”), thereby further integrating such businesses into New York State’s economy. OGS recognizes the need to promote the employment of service-disabled veterans and to ensure that certified service-disabled veteran-owned businesses have opportunities for maximum feasible participation in the performance of OGS contracts.

In recognition of the service and sacrifices made by service-disabled veterans and in recognition of their economic activity in doing business in New York State, Bidders are expected to consider SDVOBs in the fulfillment of the requirements of the Contract. Such participation may be as subcontractors or suppliers, as protégés, or in other partnering or supporting roles.

2.17 Participation Opportunities for New York State Certified Service Disabled Veteran-Owned Businesses (Cont'd)

I. Contract Goals

- A. OGS hereby establishes an overall goal of 3% for SDVOB participation for Lots I - V (OGS Items 1 - 6): Traffic Paint (Waterborne—Lead-Free), based on the current availability of qualified SDVOBs. For purposes of providing meaningful participation by SDVOBs, the Bidder/Contractor should reference the directory of New York State Certified SDVOBs found at: https://ogs.ny.gov/Veterans/Docs/CertifiedNYS_SDVOB.pdf. Questions regarding compliance with SDVOB participation goals should be directed to the Designated Contacts within the OGS Division of Service-Disabled Veterans' Business Development (the "Division"). Additionally, following Contract execution, Contractor is encouraged to contact the Division at 518-474-2015 to discuss additional methods of maximizing participation by SDVOBs on the Contract.
- B. Contractor must document "good faith efforts" to provide meaningful participation by SDVOBs as subcontractors or suppliers in the performance of the Contract (see clause IV below).

II. SDVOB Utilization Plan

- A. In accordance with 9 NYCRR § 252.2(i), Bidders are required to submit a completed SDVOB Utilization Plan on Form SDVOB 100 with their bid.
- B. The Utilization Plan shall list the SDVOBs that the Bidder intends to use to perform the Contract, a description of the work that the Bidder intends the SDVOB to perform to meet the goals on the Contract, the estimated dollar amounts to be paid to an SDVOB, or, if not known, an estimate of the percentage of Contract work the SDVOB will perform. By signing the Utilization Plan, the Bidder acknowledges that making false representations or providing information that shows a lack of good faith as part of, or in conjunction with, the submission of a Utilization Plan is prohibited by law and may result in penalties including, but not limited to, termination of a contract for cause, loss of eligibility to submit future bids, and/or withholding of payments. Any modifications or changes to the agreed participation by SDVOBs after the Contract award and during the term of the Contract must be reported on a revised SDVOB Utilization Plan and submitted to OGS.
- C. OGS will review the submitted SDVOB Utilization Plan and advise the Bidder/Contractor of OGS acceptance or issue a notice of deficiency within 20 days of receipt.
- D. If a notice of deficiency is issued, Bidder/Contractor agrees that it shall respond to the notice of deficiency, within seven business days of receipt, by submitting to OGS a written remedy in response to the notice of deficiency. If the written remedy that is submitted is not timely or is found by OGS to be inadequate, OGS shall notify the Bidder/Contractor and direct the Bidder/Contractor to submit, within five business days of notification by OGS, a request for a partial or total waiver of SDVOB participation goals on SDVOB 200. Failure to file the waiver form in a timely manner may be grounds for disqualification of the bid or proposal.
- E. OGS may disqualify a Bidder's bid or proposal as being non-responsive under the following circumstances:
 - a) If a Bidder fails to submit an SDVOB Utilization Plan;
 - b) If a Bidder fails to submit a written remedy to a notice of deficiency;
 - c) If a Bidder fails to submit a request for waiver; or
 - d) If OGS determines that the Bidder has failed to document good faith efforts.
- F. If awarded a Contract, Contractor certifies that it will follow the submitted SDVOB Utilization Plan for the performance of SDVOBs on the Contract pursuant to the prescribed SDVOB contract goals set forth above.
- G. Contractor further agrees that a failure to use SDVOBs as agreed in the Utilization Plan shall constitute a material breach of the terms of the Contract. Upon the occurrence of such a material breach, OGS shall be entitled to any remedy provided herein, including but not limited to, a finding of Contractor non-responsibility.

2.17 Participation Opportunities for New York State Certified Service Disabled Veteran-Owned Businesses (Cont'd)

III. Request for Waiver

- A. **Prior to submission of a request for a partial or total waiver, Bidder/Contractor shall speak to the Designated Contacts in the Division for guidance.**
- B. In accordance with 9 NYCRR § 252.2(m), a Bidder/Contractor that is able to document good faith efforts to meet the goal requirements, as set forth in clause IV below, may submit a request for a partial or total waiver on Form SDVOB 200, accompanied by supporting documentation. A Bidder may submit the request for waiver at the same time it submits its SDVOB Utilization Plan. If a request for waiver is submitted with the SDVOB Utilization Plan and is not accepted by OGS at that time, the provisions of clauses II (C), (D) & (E) will apply. If the documentation included with the Bidder's/Contractor's waiver request is complete, OGS shall evaluate the request and issue a written notice of acceptance or denial within 20 days of receipt.
- C. Contractor shall attempt to utilize, in good faith, the SDVOBs identified within its SDVOB Utilization Plan, during the performance of the Contract. Requests for a partial or total waiver of established goal requirements made subsequent to Contract award may be made at any time during the term of the Contract to OGS, but must be made no later than prior to the submission of a request for final payment on the Contract.
- D. If OGS, upon review of the SDVOB Utilization Plan and Monthly SDVOB Compliance Report (SDVOB 101) determines that Contractor is failing or refusing to comply with the contract goals and no waiver has been issued in regards to such non-compliance, OGS may issue a notice of deficiency to the Contractor. The Contractor must respond to the notice of deficiency within seven business days of receipt. Such response may include a request for partial or total waiver of SDVOB contract goals.

Waiver requests should be sent to primary contact at: Brandy.Alden@ogs.ny.gov

IV. Required Good Faith Efforts

In accordance with 9 NYCRR § 252.2(n), Contractors must document their good faith efforts toward utilizing SDVOBs on the Contract. Evidence of required good faith efforts shall include, but not be limited to, the following:

- (1) Copies of solicitations to SDVOBs and any responses thereto.
- (2) Explanation of the specific reasons each SDVOB that responded to Bidders/Contractors' solicitation was not selected.
- (3) Dates of any pre-bid, pre-award or other meetings attended by Contractor, if any, scheduled by OGS with certified SDVOBs whom OGS determined were capable of fulfilling the SDVOB goals set in the Contract.
- (4) Information describing the specific steps undertaken to reasonably structure the Contract scope of work for the purpose of subcontracting with, or obtaining supplies from, certified SDVOBs.
- (5) Other information deemed relevant to the waiver request.

V. Monthly SDVOB Contractor Compliance Report

In accordance with 9 NYCRR § 252.2(q), Contractor is required to report Monthly SDVOB Contractor Compliance to OGS during the term of the Contract for the preceding month's activity, documenting progress made towards achieving the Contract SDVOB goals. This information must be submitted using form SDVOB 101 available on the OGS website and should be completed by the Contractor and submitted to OGS, by the 10th day of each month during the term of the Contract, for the preceding month's activity to: Brandy.Alden@ogs.ny.gov

VI. Breach of Contract and Damages

In accordance with 9 NYCRR § 252.2(s), any Contractor found to have willfully and intentionally failed to comply with the SDVOB participation goals set forth in the Contract, shall be found to have breached the contract and Contractor shall pay damages as set forth therein.

ALL FORMS ARE AVAILABLE UNDER AT: <https://ogs.ny.gov/Veterans/default.asp>

2.18 Use of Recycled of Remanufactured Materials

New York State supports and encourages Contractors to use recycled, remanufactured or recovered materials in the manufacture of Products and packaging to the maximum extent practicable without jeopardizing the performance or intended end use of the Product or packaging unless such use is precluded due to health or safety requirements or Product specifications contained herein. Refurbished or remanufactured components or Products are required to be restored to original performance and regulatory standards and functions and are required to meet all other requirements of this Solicitation. Warranties on refurbished or remanufactured components or Products must be identical to the manufacturer's new equipment warranty or industry's normal warranty when remanufacturer does not offer new equipment. See Appendix B, *Remanufactured, Recycled, Recyclable or Recovered Materials*.

2.19 Surplus/Take-Back/Recycling

- I. A State Agency is reminded of its obligation to comply with the NY State Finance Law § 167, Transfer and Disposal of Personal Property, and § 168, The Management of Surplus Computer Equipment, regarding transfer and disposal of surplus personal property before utilizing take-back, recycling, or other options for disposition of equipment that is still in operable condition.
- II. If Contractor offers a take-back/recycling program, then Contractor shall provide a record of disposition to each Authorized User who participates in the take-back/recycling program for units transferred for disposition. Contractor shall provide documentation that the units were disposed of in an environmentally sound manner in compliance with applicable local, state and federal laws. See Section III below for specific requirements governing electronic equipment recycling.
- III. The NYS Department of Environmental Conservation (“DEC”) Electronic Equipment Recycling and Reuse Act (“Act”) (Environmental Conservation Law, Article 27, Title 26, Electronic Equipment Recycling and Reuse), requires manufacturers to establish a convenient system for the collection, handling, and recycling or reuse of electronic waste. If Contractor is a manufacturer of electronic equipment covered by the Act, Contractor agrees to comply with the requirements of the Act. More information regarding the Act can be found on the DEC website at: <http://www.dec.ny.gov/chemical/65583.html>
- IV. If a Contractor offers a take-back/recycling program or offers an electronic equipment recycling program pursuant to the Act, and an Authorized User participates in same, then the Authorized User shall ensure the destruction of all data from any hard drives surrendered with the machines/covered electronic equipment. Contractor shall not require an Authorized User to surrender the hard drive, as an Authorized User may wish to retain the hard drive for security purposes. Contractor shall advise the Authorized User in advance if the retention of the hard drive results in additional fees or reduction in trade-in value. It is recommended that an Authorized User use a procedure for ensuring the destruction of confidential data stored on hard drives or other storage media that meets or exceeds the National Institute of Standards and Technology (“NIST”) Guidelines for Media Sanitation as found in NIST Special Publication 800-88.
- V. **Traffic Paint (Waterborne – Lead-Free):**

Affected entities are encouraged to buy only the amount of paint needed for the job to avoid managing leftover paint. If leftover paint cannot be re-used in the in the next few years before its quality degrades, affected entities are encouraged to recycle/dispose of the excess paint in an environmentally sound manner in accordance with all current Federal, State and Local regulations governing hazardous disposition. Authorized users are encouraged to purchase paint with maximum recycled content.

In order to be considered for use by affected entities, recycled or waste materials must exhibit the desired engineering characteristics, consistently satisfy specification requirements, provide an acceptable level of performance, be economically competitive with available materials as determined by the affected entity, and not be harmful to the environment.

2.20 Environmental Attributes and NYS Executive Order Number 4

New York State is committed to environmental sustainability and endeavors to procure Products with reduced environmental impact. One example of this commitment may be found in Executive Order No. 4 (Establishing a State Green Procurement and Agency Sustainability Program), which imposes certain requirements on State Agencies, authorities, and public benefit corporations when procuring Products. More information on Executive Order No. 4, including specifications for offerings covered by this Contract, may be found at <http://ogs.ny.gov/EO/4/Default.asp>. In accordance with Executive Order Number 4, the Office of General Services will award to a bidder who can furnish Products that are compliant with the Order's Pavement Marking Paint specification found at <https://ogs.ny.gov/EO/4/Docs/2015/PavementMarkingPaint.pdf>. State entities subject to Executive Order No. 4 are advised to become familiar with the specifications that have been developed in accordance with the Order, and to incorporate them, as applicable, when making purchases under this Contract

2.21 Consumer Products Containing Mercury

Contractor agrees that it will not sell or distribute fever thermometers containing mercury or any Products containing elemental mercury for any purpose under the Contract.

2.22 Overlapping Contract Products

Products available under the resulting Contract may also be available from other New York State Contracts. Authorized Users will be advised to select the most cost effective procurement alternative that meets their program requirements and to maintain a procurement record documenting the basis for this selection.

2.23 Preferred Source Products

Section 162 of the State Finance Law requires that Authorized Users afford first priority to the Products of Preferred Source suppliers such as Corcraft (the marketplace name for the NYS Department of Corrections and Community Supervision, Division of Industries), New York State Preferred Source Program for People who are Blind (NYSPSP), and New York State Industries for the Disabled (NYSID), and others determined by law, when such Products meet the form, function and utility of the Authorized User. Some Products in the resultant Contract may be available from one or more Preferred Sources. An Authorized User must determine if a particular Product is approved for a Preferred Source and follow the requirements of State Finance Law § 162(3) or (4)(b), respectively, before engaging the Contractor.

2.24 NYS Vendor Responsibility

OGS conducts a review of prospective Contractors ("Bidders") to provide reasonable assurances that the Bidder is responsive and responsible. A For-Profit Business Entity Questionnaire (hereinafter "Questionnaire") is used for non-construction Contracts and is designed to provide information to assess a Bidder's responsibility to conduct business in New York based upon financial and organizational capacity, legal authority, business integrity, and past performance history. By submitting a bid, Bidder agrees to fully and accurately complete the Questionnaire. The Bidder acknowledges that the State's execution of the Contract will be contingent upon the State's determination that the Bidder is responsible, and that the State will be relying upon the Bidder's responses to the Questionnaire, in addition to all other information the State may obtain from other sources, when making its responsibility determination.

OGS recommends each Bidder file the required Questionnaire online via the New York State VendRep System. To enroll in and use the VendRep System, please refer to the VendRep System Instructions and User Support for Vendors available at the Office of the State Comptroller's (OSC) website at http://www.osc.state.ny.us./vendrep/vendor_index.htm or to enroll, go directly to the VendRep System online at <https://portal.osc.state.ny.us>.

Vendors must provide their New York State Vendor Identification Number when enrolling. OSC provides direct support for the VendRep System through user assistance, documents, online help, and a help desk. The OSC Help Desk contact information is located at <http://www.osc.state.ny.us/portal/contactbuss.htm>. Bidders opting to complete and submit the paper questionnaire can access this form and associated definitions via the OSC website at http://www.osc.state.ny.us/vendrep/forms_vendor.htm.

2.24 NYS Vendor Responsibility (Cont'd)

In order to assist the State in determining the responsibility of the Bidder prior to Contract award, the Bidder must complete and certify (or recertify) the Questionnaire no more than six (6) months prior to the Bid due date. A Bidder's Questionnaire cannot be viewed by OGS until the Bidder has certified the Questionnaire. It is recommended that all Bidders become familiar with all of the requirements of the Questionnaire in advance of the bid opening to provide sufficient time to complete the Questionnaire.

The Bidder agrees that if it is awarded a Contract the following shall apply:

The Contractor shall at all times during the Contract term remain responsible. The Contractor agrees, if requested by the Commissioner of OGS, to present evidence of its continuing legal authority to do business in New York State, integrity, experience, ability, prior performance, and organizational and financial capacity.

The Commissioner of OGS, in his or her sole discretion, reserves the right to suspend any or all activities under this Contract, at any time, when he or she discovers information that calls into question the responsibility of the Contractor. In the event of such suspension, the Contractor will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, the Contractor must comply with the terms of the suspension order. Contract activity may resume at such time as the Commissioner of OGS issues a written notice authorizing a resumption of performance under the Contract.

The Contractor agrees that if it is found by the State that Contractor's responses to the Questionnaire were intentionally false or intentionally incomplete, on such finding, the Commissioner may terminate the Contract.

Upon written notice to the Contractor, and a reasonable opportunity to be heard with appropriate OGS officials or staff, the Contract may be terminated by the Commissioner of OGS at the Contractor's expense where the Contractor is determined by the Commissioner of OGS to be non-responsible. In such event, the Commissioner of OGS may complete the contractual requirements in any manner he or she may deem advisable and pursue available legal or equitable remedies for breach.

In no case shall such termination of the Contract by the State be deemed a breach thereof, nor shall the State be liable for any damages for lost profits or otherwise, which may be sustained by the Contractor as a result of such termination.

2.26 "OGS or Less" Guidelines

Purchases of the Products included in the Solicitation and resulting Contract are subject to the "OGS or Less" provisions of State Finance Law § 163(3)(a)(v). This means that State Agencies can purchase Products from sources other than the Contractor provided that such Products are substantially similar in form, function or utility to the Products herein and are (1) lower in price and/or (2) available under terms which are more economically efficient to the State Agency (e.g. delivery terms, warranty terms, etc.).

Agencies are reminded that they must provide the State Contractor an opportunity to match the non-Contract savings at least two business days prior to purchase. In addition, purchases made under "OGS or Less" flexibility must meet all requirements of law including, but not limited to, advertising in the New York State Contract Reporter, prior approval of the Office of the State Comptroller and competitive bidding of requirements exceeding the discretionary threshold. State Agencies should refer to Procurement Council Guidelines for additional information.

2.27 Non-State Agencies Participation in Centralized Contracts

New York State political subdivisions and others authorized by New York State law may participate in Centralized Contracts. These include, but are not limited to, local governments, public authorities, public school and fire districts, public and nonprofit libraries, and certain other nonpublic/nonprofit organizations. See Appendix B, *Participation in Centralized Contracts*. For Purchase Orders issued by the Port Authority of New York and New Jersey (or any other authorized entity that may have delivery locations adjacent to New York State), the terms of the *Price* clause shall be modified to include delivery to locations adjacent to New York State.

Upon request, all eligible non-State agencies must furnish Contractors with the proper tax exemption certificates and documentation certifying eligibility to use State contracts. A list of categories of eligible entities is available on the OGS web site (<http://www.ogs.state.ny.us/purchase/snt/othersuse.asp>). Questions regarding an organization's eligibility to purchase from New York State Contracts may also be directed to NYS OGS Procurement Services Customer Services at 518-474-6717.

2.28 Extension of Use

Any Contract resulting from this Solicitation may be extended to additional States or governmental jurisdictions upon mutual written agreement between New York State and the Contractor. Political subdivisions and other authorized entities within each participating state or governmental jurisdiction may also participate in any resultant Contract if such state normally allows participation by such entities. New York State reserves the right to negotiate additional discounts based on any increased volume generated by such extensions.

2.29 Contract Advertising

In addition to the requirements set forth in Appendix B, *Contract Publicity*, any Contractor press or media releases, advertisements, or promotional literature, regardless of the medium, referring to an awarded Contract must be reviewed and approved by OGS prior to issuance. Contractor also cannot use, for any purpose, the New York State of Opportunity registered trademark or the State coat of arms without prior approval from the State.

2.30 New Accounts

Contractor may ask State Agencies and other Authorized Users to provide information in order to facilitate the opening of a customer account, including documentation of eligibility to use New York State Contracts, agency code, name, address, and contact person. State Agencies shall not be required to provide credit references.

2.31 Centralized Contract Modifications

- A. OGS, an Authorized User, or the Contractor may suggest modifications to the Centralized Contract or its Appendices. Except as specifically provided herein, modifications to the terms and conditions set forth herein may only be made with mutual written agreement of the parties. Modifications may take the form of an update or an amendment. “Updates” are changes that do not require a change to the established Centralized Contract terms and conditions. A request to add new Products at the same or better price level is an example of an update. “Amendments” are any changes that are not specifically covered by the terms and conditions of the Centralized Contract, but inclusion is found to be in the best interest of the State. A request to change a contractual term and condition is an example of an amendment.
- B. Updates to the Centralized Contract and the Appendices may be made in accordance with the contractual terms and conditions to incorporate new Products, make price level revisions, delete Products, or to make such other updates to the established Centralized Contract terms and conditions, not resulting in a change to such terms and conditions, which are deemed to be in the best interest of the State.
- C. OGS reserves the right to consider modifications which are not specifically covered by the terms of the Centralized Contract, but are judged to be in the best interest of the State. Such modifications are deemed amendments to the Centralized Contract and may require negotiations between Contractor and OGS before execution.
- D. All modifications proposed by Contractor shall be processed in accordance with Appendix C, *Contract Modification Procedure*. The Contractor shall submit all requests in the form and format contained in Appendix C, *Contract Modification Procedure*. The form contained within Appendix C is subject to change at the sole discretion of OGS.
- E. Modifications proposed by OGS or an Authorized User, including updates and amendments, shall be processed in accordance with the terms of the Centralized Contract and Appendix B, *Modification of Contract Terms*.

2.32 Drug and Alcohol Use Prohibited

For reasons of safety and public policy, in any Contract resulting from this Solicitation, the use of alcoholic beverages or illegal drugs by the Contractor’s personnel shall not be permitted in performance of the Contract.

2.33 Traffic Infractions

Neither the State nor Authorized Users will be liable for any expense incurred by the Contractor’s personnel for any parking fees or as a consequence of any traffic infraction or parking violation attributable to employees of the Contractor in performance of the Contract.

2.34 Instruction Manuals

At the time of delivery, Contractor shall provide a complete instruction manual for the Product and for each component supplied, as applicable, to the Authorized User. In the case of Glass Spheres for Reflectorized Pavement Marking, the manual shall include complete instructions for unpacking, inspecting, installing, adjusting, aligning, and operating the product, together with layout and interconnection diagrams, preventive and corrective maintenance procedures, and complete parts lists, manufacturer's catalog numbers, and ordering information, if applicable.

2.35 Samples

A. Bidder Supplied Samples

The Commissioner reserves the right to request from the Bidder/Contractor a representative sample(s) of the Product offered at any time prior to or after award of a Contract. Unless otherwise instructed, samples shall be furnished within the time specified following the instructions indicated in the request. Untimely submission of a sample may constitute grounds for rejection of the bid or cancellation of the Contract. Samples must be submitted free of charge and be accompanied by the Bidder's name and address, any descriptive literature relating to the Product and a statement indicating how and where the sample is to be returned. Where applicable, samples must be properly labeled with the appropriate Solicitation or Contract reference.

2.35.1 Traffic Paint (Waterborne – Lead-Free)

LOTS I – V (OGS Items 1 - 6): All Colors

The contractor shall be aware that the Office of General Services-Procurement Services may request samples to be provided within 72 hours of a written (e-mail) request by the Office of General Services. The contractor(s) must ship one (1) one-pint (16 liquid oz.) sample which are representative of the paint to be furnished under this contract. They are to be sent to the primary contact for this procurement. The samples shall be supplied in unbreakable plastic containers with tightly sealed and secured lids and shall be labeled per the Section 3.1.8 - *Labeling*. If sampled, no paint shall be shipped until approved. Subsequent samples may be requested prior to each painting season of the contract term.

2.35.2 Glass Spheres for Reflectorized Pavement Marking (Various Types)

LOTS VI - X (OGS ITEMS 7 - 11): Type I, Type III, & Type IV

The contractor shall be aware that the Office of General Services-Procurement Services may request samples to be provided within 72 hours of a written (e-mail) request by the Office of General Services. The contractor(s) must ship two (2) five pound (5lb) glass sphere samples which are representative of the spheres to be furnished under this contract. They are to be sent to the primary contact for this procurement. The samples shall be supplied in unbreakable plastic containers with a tightly sealed and secured lid, and each container shall be suitably packaged in individual cartons. Damaged containers shall not be accepted for testing. The containers and cartons shall be clearly identified with the following information:

- Name and Address of contractor and sphere manufacturer (if different);
- Identification of the bid document as follows:
 - Commodity Group 38604 – Award #23056
 - Traffic Paint (Waterborne—Lead Free) & Glass Spheres for Reflectorized Pavement Marking,
 - OGS Item Number
 - Bid Opening Date, including lot number of product submitted.
- Manufacturer's product name or product code, and sample submission date.

LOT XI (OGS Item 12) Glass Spheres with Drying Agent:

The Contractor shall be aware that the Office of General Services-Procurement Services may request samples to be provided within 72 hours of a written (e-mail) request by the Office of General Services. The Contractor(s) must ship two (2) five pound (5lb) glass sphere samples which are representative of the spheres to be furnished under this contract. They are to be sent to the primary contact for this procurement. The samples shall be supplied in unbreakable plastic containers with a tightly sealed and secured lid, and each container shall be suitably packaged in individual cartons. Damaged containers shall not be accepted for testing. The containers and cartons shall be clearly identified with the same information as described for labeling LOTS VI-X.

2.35 Samples (Cont'd)

A sample may be held by the Commissioner during the entire term of the Contract and for a reasonable period thereafter for comparison with deliveries. At the conclusion of the holding period, the sample, where feasible, will be returned as instructed by the Contractor, at the Contractor's expense and risk. Where the Contractor has failed to fully instruct the Commissioner as to the return of the sample (i.e., mode and place of return, etc.) or refuses to bear the cost of its return, the sample shall become the sole property of the receiving entity at the conclusion of the holding period.

B. Enhanced Samples

When an approved sample exceeds the minimum specifications, all Product delivered must be of the same enhanced quality and identity as the sample. Thereafter, in the event of a Contractor's default, the Commissioner may procure a Product substantially equal to the enhanced sample from other sources, charging the Contractor for any additional costs incurred.

C. Conformance with Samples

Submission of a sample (whether or not such sample is tested by, or for, the Commissioner) and approval thereof shall not relieve the Contractor from full compliance with all terms and conditions, performance related and otherwise, specified in the Solicitation. If in the judgment of the Commissioner the sample or Product submitted is not in accordance with the specifications or testing requirements prescribed in the Solicitation, the Commissioner may reject the bid. If an award has been made, the Commissioner may cancel the Contract at the expense of the Contractor.

D. Testing

All samples are subject to tests in the manner and place designated by the Commissioner, either prior to or after Contract award. Unless otherwise stated in the Solicitation, Contractor samples consumed or rendered useless by testing will not be returned to the Contractor. Testing costs for samples that fail to meet Contract requirements may be at the expense of the Contractor.

E. Office of General Services, Sampling and Testing

The New York State Office of General Services, Procurement Services or the New York State Department of Transportation may monitor the contractor's deliveries to State Agencies by random selection of field samples for testing by an independent laboratory.

Field Sampling for Glass Spheres for Reflectorized Pavement Marking (Various Types)

The contractor shall be aware that throughout the duration of the contract, to ensure compliance with the detailed specifications at all times, each delivery made may be subject to field sampling prior to its use by the ordering agency. The sampling procedure for a typical truckload lot (40,000 lbs. in twenty (20) 2000 lb. boxes) shall be as follows:

1. From the total of twenty (20) boxes, three (3) boxes shall be selected at random.
2. Using a thief or sampling tube (commonly known as a "grain sampler"), a "spot sample" will be taken from each corner of the three (3) boxes selected above. For square or rectangular shaped boxes, an additional "spot sample" shall be taken from each of the three (3) boxes at the center of one side.
3. All "spot samples" taken using the above procedure will be combined into (1) "test sample" container and deemed to constitute a representative sample of the subject truckload delivery. The "test sample" should weigh approximately 5 lbs. This "test sample" will be forwarded to the ordering agency's designated laboratory for analysis.

Any deviations from the detailed specification found in the field sample shall be sufficient justification for rejection of entire shipment and a conforming replacement shipment shall be delivered within seven (7) calendar days of date of rejection notice, as per specifications.

F. Requests for Samples by Authorized Users

Requests for samples by Authorized Users (except for New York State Office of General Services, Procurement Services and the New York State Department of Transportation) require the consent of the Contractor. Where Contractor refuses to furnish a sample, Authorized User may, in its sole discretion, make a determination on the performance capability of the Product or on the issue in question.

2.36 New York State Procurement Card

See "Procurement Card" in Appendix B, OGS General Specifications. All Contractors shall indicate in Section 1.1 – Contractor Information if they will accept the NYS Purchasing Card for orders not to exceed \$50,000. No extraordinary paper work is to be required of the contract user. No additional processing fees shall be applied to any procurement card transaction.

2.37 Recalls

The contractor must immediately notify the Office of General Services, Procurement Services of any recalls pertaining to product on contract.

2.38 Resellers

A. Definitions

Reseller

A Reseller is any model for distribution of Product other than direct from the Contractor. Resellers include but are not limited to approved value added resellers (VARs), distributors, dealers, sales agents, and alternate channel partners.

B. Conditions of Reseller Participation

Resellers must be approved in advance by the State as a condition of eligibility under the Contract. The State also reserves the right to rescind any such participation or request that Contractor name additional Resellers, in the best interests of the State, at the State's sole discretion, at any time. Contractor shall have the right to qualify Resellers and their participation under this Contract by product line, contracting program (e.g., government/educational sales), geographic region, size/sales volume, technical training or other criteria ("qualifying criteria"), provided that:

1. such qualifying criteria are uniformly applied to all potential Resellers based upon Contractor's established, neutrally applied commercial/governmental program criteria, and not to a particular procurement;
2. all general categories of qualifying criteria must be disclosed by the Contractor to the State, in advance, at the beginning of the Contract term;
3. those qualifying criteria met by the Reseller must be identified in Reseller designations [insert attachment/appendix name where resellers will be identified] at the time that Reseller approval is requested; and,
4. Immediate advance notice is provided to OGS in the event that a change in Reseller's status occurs during the Contract term.

All Resellers who have been approved in accordance with the foregoing paragraph shall be eligible to quote lower pricing for procurements under this Contract which meet their qualifying criteria. Contractor warrants and represents that it shall not, directly or indirectly, by agreement, communication or any other means, restrict any Reseller's participation or ability to quote a particular order.

C. Designation of Resellers

When Resellers are submitted for approval, Contractor must provide the State, in advance, with all necessary ordering information, billing addresses and Federal Identification numbers in the format requested in [insert attachment/appendix name where resellers will be identified]. Contractor shall also specify whether orders must be placed directly with Contractor, or may be placed directly with designated Resellers.

D. Responsibility for Reporting/Performance

Contractor shall be fully liable for a Reseller's performance and compliance with all Contract terms and conditions. Product purchased through a Reseller must be reported by Contractor in the required quarterly sales reports to the State as a condition of payment. In addition to inclusion of Reseller volume in the Contractor's sales reporting obligation to the State, at the request of an Authorized User, the Reseller shall provide the Authorized User with reports of the individual Authorized User's Contract activity with the Reseller.

E. Applicability of Contract Terms

Product ordered directly through Resellers shall be limited to Products previously approved for inclusion under this Contract and shall be subject to all terms and conditions of this Contract as a condition of Reseller participation.

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.1 Specifications

3.1.1 Standards

All standards herein are minimum standards.

3.1.2 Percentages

All percentages used are calculated by weight.

3.1.3 Service

As proper application is deemed essential to the success of this process, the manufacturer shall provide at least one technician with experience to instruct in the application of these types of materials. The technician will be familiar with the application equipment and the materials, and have successful experience in the placing of the reflective markings specified herein.

3.1.4 Quality Assurance Provisions

The contractor shall be responsible for complying with all physical and chemical test requirements as stipulated in the specifications.

3.1.5 Field Quality of Paint

The manufacturer shall make immediate corrective adjustments to the paint formulation if the supplied paint

- contains thick skins, lumps, or coarse particles in the shipping containers;
- exhibits severe settling or separation in the shipping containers;
- cannot be easily pumped from the shipping containers into the paint tanks on the striping equipment;
- is clogging any component of the striping truck pumping, heating, or spraying system on a regular basis;
- cannot be sprayed properly through mobile, long line striping equipment; or
- is not reaching a suitable no-track condition after field application.

All material supplied within the contract is subject to random sampling and testing for specification compliance at any time.

3.1.6 Shelf Life

Shelf life is the period during which the product shall be satisfactory in every respect for use and is figured from the date of delivery.

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.1 Specifications (Cont'd)

3.1.7 Packaging

The paint shall be packaged in shipping containers which meet U.S. Department of Transportation Code of Federal Regulations (CFR) Title 49, Parts 173 and 178. Each container shall be properly marked and labeled in accordance with CFR, Title 49, Part 172.

The exterior of all containers shall be clearly marked or colored in a manner to easily identify the color of the contained paint.

The paint shall be supplied in the following types of containers (subject to the requirements of the Lot as directed by Attachment – Pricing):

A. 275 Gallon High Density Polyethylene IBC Totes

Clean and sound, high-density polyethylene IBC totes. The container sizes shall be as required by the Invitation for Bids in Attachment - *Pricing*, and shall be capable of holding 275 liquid gallons.

Totes must be able to maintain structural integrity during transport and storage and be capable of being stacked. Totes may be reused only after being thoroughly cleaned out; no contaminants are allowed to be left in the totes when refilling. Totes may be refilled only by the paint manufacturer at the point of manufacture.

B. 55 Gallon Removable Head Low Carbon Steel Drums

New, removable head, low carbon steel containers, which are permanently lined so as to be compatible with the type of material being delivered within. (Note: Both cover and drum must be new). The container size shall be as required by the Invitation for Bids in Attachment – *Pricing*, and shall be 55 gallons. They shall have sufficient structural integrity to be capable of being stacked.

The minimum uncoated thickness of 55-gallon containers shall be 18 gauge for the body and bottom head, and 16 gauge for the removable head. Bolted ring closures shall be 12 gauge thickness.

The container covers shall provide a tight cover seal and shall be such that they can be readily resealed after partial use of the contents.

C. 5 Gallon Lidded High Density Polyethylene Pails

New cylindrical high-density polyethylene (HDPE) plastic pails of 11 to 12 inches in diameter and 13 to 15 inches in height capable of holding 5 liquid gallons. Pails shall be provided with a metal handle. They shall be able to withstand temperatures below freezing and up to 150°F. Wall thickness shall be equal to or greater than 90 mil. The container will be USDA, UFC, UN 1H2/Y25/30 and NMFC compliant. Pails will be topped with a UN approved snap on type lid, gasketed for positive seal. Lids equipped with screw-capped pour spouts are acceptable if supplied at no additional cost.

CONTRACTORS/AUTHORIZED USER NOTE:

The 55-gallon drums and 275-gallon IBC totes remain the property of the contractor and shall be promptly recovered by the contractor at the request of the using agency at no additional cost. The 5-gallon pails shall be the property of the buyer and disposed of by the using agency in accordance with existing environmental procedures.

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.1 Specifications (Cont'd)

RETURNS of EMPTY CONTAINERS:

The 275-gallon totes and 55-gallon drums will remain the property of the paint supplier. It is the responsibility of the paint supplier to remove the empty containers from the using agency's yard(s) in a timely manner after receiving notification from the using agency as to the readiness. It is the responsibility of the agency to notify the contractor when the location has accumulated a minimum of 12 empty 275-gallon totes or 60 empty 55-gallon drums at no additional cost. Smaller quantities may be picked up upon mutual agreement between paint supplier and agency personnel at no additional cost.

The contractor shall schedule container pick-up at the agency's site. The paint supplier or truck driver shall call the user to arrange for pick-up of the empty totes. Pickup may be scheduled Tuesdays through Thursdays between the hours of 10:00 AM and 3:00 PM excluding State holidays, unless the using agency approves other arrangements. It is the responsibility of the using agency to use agency equipment to place the fully discharged containers onto the truck as directed by the truck driver. The truck driver will be responsible for properly securing the empty totes for shipment.

NOTE: Resultant contractor(s) will not be required to pick up containers having more than one inch of paint residue.

3.1.8 Labeling

The containers for the pigmented binders shall be clearly labeled so that they can be easily distinguished from other paints. Each container shall bear a label including the following information:

Although Consumer Product Safety Commission (CPSC) Regulation 16 CFR 1303 may not be applicable for these industrial type coatings, in the interest of safety and use by State Agencies, each container shall bear a label including one of the following clauses in a conspicuous location on the label with attention size lettering:

“FREE FROM LEAD HAZARD”

Also, the following wording or its practical equivalent shall be included on the label:

“Do not apply on toys and other children's articles, furniture or interior surfaces of any dwelling or facility, which may be occupied or used by children. Do not apply on those exterior surfaces of dwelling units, such as window sills, porches, stairs or railings to which children may be commonly exposed.”

The label shall also include the following:

“KEEP OUT OF REACH OF CHILDREN”.

The following designations shall also be required on all labels and/or packaging:

- Name and Address of Manufacturer.
- Manufacturer's Product Name and Identifying Number.
- Kind of paint, color name, and its identifying number.
- Volatile Organic Content (VOC), expressed in pounds per gallon.
- Net volume of paint in container.
- N.Y.S. Item Number.
- Use intended and directions for application.
- Precautionary instructions in regard to hazardous properties such as lead content, toxicity, fumes, storage temperature, minimum temperature for application, etc.
- Each item that complies with NYS ENCON 6 NYCRR Part 205, shall bear on the label or container the following:

“PRODUCT COMPLIES WITH NYS ENCON Title 6 NYCRR. PART 205”.

NYS Contract Number, Production Batch Number and date of manufacture shall be clearly shown on each container (by stamping or pressure sensitive sticker or similar means).

IMPROPERLY LABELED CONTAINERS MAY BE REJECTED.

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.1 Specifications (Cont'd)

3.1.9 Quality Assurance Requirements: LOT I

The Contractor shall be aware that samples may be requested prior to each painting season throughout the duration of the contract, to ensure compliance with the detailed specifications at all times. Each delivery made may be subject to field sampling prior to its use by the ordering agency. The sampling procedure shall be random for an adequate supply of paint to test in accordance with the specifications listed below in Table - *Quality Assurance Process for LOT I*:

Every season throughout the duration of the contract the New York State Department of Transportation may assign inspection at the paint manufacturing facility to implement the quality assurance requirements. In that case the manufacturer is required to notify assigned inspection agency of the intention to can paint for this contract at least 48 hours in advance of the canning of the initial batch of paint. Contact the Product Operations Office of the Materials Bureau at (518) 457-5642 for information on the assigned inspection agency.

The manufacturer is responsible for quality control testing and certification of each batch (lot) of paint produced for the Department under this contract. Once the manufacturer begins production of the contract items, the Department will sample and test for specification compliance. The Department shall test and take appropriate action on a given lot no later than 14 working days from receipt of sample(s). During this time period, no lot of paint may be shipped by the manufacturer until it has been accepted as passing.

Failure to meet this requirement may result in liquidated damages assessed to the manufacturer by the State. See Liquidated Damages clause for more information.

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.1 Specifications (Cont'd)

Table - QUALITY ASSURANCE PROCESS FOR LOT I		
<u>STEP</u>	<u>RESPONSIBILITY</u>	<u>DESCRIPTION</u>
<u>1.</u>	<u>Manufacturer</u>	Plans to manufacture a batch of paint.
<u>1A.</u>	<u>Manufacturer</u>	<p>Assigns a batch number to the batch :</p> <p><i>(A batch shall consist of a specific color of paint which is canned at one time from a single pouring tank. This may be the combination of two or more mix tanks that have been completely blended in the pouring tank, but may never represent more than a single pouring tank, filled once)</i></p> <p>Each batch is assigned a unique batch number by the manufacturer</p>
<u>1B.</u>	<u>Manufacturer</u>	Person responsible for scheduling the pour shall provide the inspection agency with the weekly production schedule at a minimum of 48 hours in advance of the first day of the production week that they plan to can their first batch of paint.
<u>1C.</u>	<u>Manufacturer</u>	<p>Subsequent to inspection and sampling of each lot, samples shall be submitted to NYSDOT Materials Lab for testing before February 1 of the calendar year.</p> <p><i>(Note: A partially filled container shall not be filled to capacity from another lot).</i></p>
<u>1D.</u>	<u>Manufacturer</u>	Of the first six (6) lots of paint manufactured three shall be white & three shall be yellow.
<u>*Failure to meet this requirement may result in liquidated damages assessed to the manufacturer by the State.</u>		
<u>2.</u>	<u>Inspection Agency</u>	Schedules an inspector to be at the manufacturing plant based on Step 1b as found above.
<u>3.</u>	<u>Agency Inspector</u>	<p>If the manufacturer does not start to manufacture paint within two hours of the inspector's scheduled arrival, the inspector shall leave**, otherwise proceed to step 4.</p> <p><u>**The person responsible for scheduling the pour must reschedule by contacting the inspection agency at a minimum of 48 hours in advance of the time they plan to can the batch of paint. In addition, the manufacturer shall reimburse the inspection agency for all inspection/travel costs associated with the manufacturer's inability to batch paint within two hours as described above.</u></p>
<u>4.</u>	<u>Agency Inspector</u>	Arrives at manufacturing plant and visually inspects the pouring tank to insure that all paint to be canned comes from that tank.
<u>4A.</u>	<u>Agency Inspector</u>	If the pouring tank contains paint from two or more mix tanks, verifies that the pouring tank contains mixing equipment.
<u>4B.</u>	<u>Agency Inspector</u>	Inspects the cleanliness of the containers that are to receive the paint to help avoid possible contamination of the material.

Table - QUALITY ASSURANCE PROCESS FOR LOT I		
Table - QUALITY ASSURANCE PROCESS FOR LOT I		
<u>STEP</u>	<u>RESPONSIBILITY</u>	<u>DESCRIPTION</u>
<u>4C.</u>	<u>Agency Inspector</u>	Checks the labels on the containers to ensure compliance in accordance with this Contract.
<u>4D.</u>	<u>Agency Inspector</u>	Visually determines the quantity of paint in the mixing tank.
<u>4E.</u>	<u>Agency Inspector</u>	Insures that the batch number for the batch to be canned is either already marked on the top or side of the containers, or the proper equipment is available to mark the cans as soon as they are filled
<u>5.</u>	<u>Agency Inspector</u>	A sample shall consist of a minimum of a one-pint can taken during the canning process. A total of 1 one-pint (16 liquid oz) sample of the paint shall be taken from each batch.
<u>5A.</u>	<u>Agency Inspector</u>	Two samples shall be taken from approximately the mid-point of each third of the pour for a total of six samples
<u>5B.</u>	<u>Agency Inspector</u>	Three (3) red tape seals shall be placed on the pint containers at 120 degree intervals and parallel to the long axis of the container, equally divided between the cover and the container side. See Illustration A
<u>6.</u>	<u>Agency Inspector</u>	Identifies the samples by marking the following information on the side of each can.
		<ul style="list-style-type: none"> a. Lot Number b. Batch Number c. Group/Item Number d. Manufacturer's name and location
<u>7.</u>	<u>Agency Inspector</u>	Verifies that the total quantity canned is reasonably close to the amount originally observed in the mixing tank.
<u>8.</u>	<u>Agency Inspector</u>	Prior to Certification, the inspector shall apply Department security seals as shown in Illustrations A, B and C
<u>9.</u>	<u>Agency Inspector</u>	<p>Completes the BR240a form <u>per lot</u>, See Illustration D. The Br240a shall be submitted as follows:</p> <p>Green and White copies submitted with inspector's report to Product Operations</p> <p>Pink retained by the inspector (<i>manufacturer is permitted to make a copy for their record</i>).</p> <p>Yellow and Buff go with the sample(s) to NYSDOT Materials Lab.</p>
<u>10.</u>	<u>Agency Inspector</u>	Packages samples, including Form BR-240a enclosed in a BR-241 envelope and places a red tape seal over tab of envelope to assure seal.
<u>11.</u>	<u>Manufacturer</u>	Assumes the responsibility and cost of transmitting all samples with proper forms to the NYSDOT Materials Lab for the duration of the Contract.
<u>12</u>	<u>NYSDOT Materials Lab</u>	Performs required test(s).

Table - QUALITY ASSURANCE PROCESS FOR LOT I		
Table - QUALITY ASSURANCE PROCESS FOR LOT I		
<u>STEP</u>	<u>RESPONSIBILITY</u>	<u>DESCRIPTION</u>
<u>13.</u>	<u>Product Operations</u>	Reviews test results and takes appropriate action of Accept or Reject for a tested lot.
<u>14.</u>	<u>Product Operations</u>	Notifies the Contract Administrator at OGS, the manufacturer and the inspection agency of Acceptance or Rejection for a tested lot.
<u>15.</u>	<u>Inspection Agency</u>	Schedules to go back to manufacturer to complete inspection process based on notification of accept or reject from Product Operations (<i>this must occur within 48 hours of notification</i>).
<u>16.</u>	<u>Agency Inspector</u>	Prior to Certification, if a lot is Accepted , the inspector places appropriate acceptance seals on containers from accepted lot (See Illustrations A, B and C) and checks to see that manufacturer placed labels on accepted containers with required information.
<u>17.</u>	<u>Agency Inspector</u>	Prior to certification, if a lot is Rejected , the inspector removes all red seals on containers from rejected lot. Manufacturer is not permitted to release rejected paint to the Regions.
<u>18.</u>	<u>Manufacturer –</u>	Manufacturer is now permitted to release accepted paint as requested.
<u>19.</u>	<u>Manufacturer On Certification</u>	The manufacturer is permitted to release paint to customers without the sampled and/or accepted seals affixed to the containers. However, the manufacturer shall furnish a certificate of compliance with a shipment of certified paint.
<u>19A.</u>	<u>Manufacturer On Certification</u>	The Department will monitor the quality of the paint while the manufacturer is permitted to supply on certification. The monitor program will require the manufacturer to notify the inspection agency in accordance with Step 1b of this appendix
<u>20.</u>	<u>Agency Inspector</u>	Under <u>Certification</u> , the monitoring program shall require the inspector to take samples at a rate of 1 per 5 lots per color or as directed by the Department. (<i>The Department reserves the right to sample and test every lot for Accept or Reject consideration in the event the manufacturer is unable to demonstrate acceptable quality control or is no longer permitted to supply under Certification.</i>)
<u>21.</u>	<u>Manufacturer</u>	The manufacturer shall keep all Inventory Records up to date and available upon request.

3.1.10 Shipping & Reporting

All Production Samples along with Form BR240a (Green & White copies) are to be shipped to:

Materials Bureau - Chemical Testing Laboratory
 New York State Department of Transportation Laboratories
 7 Harriman Campus Road
 Albany, NY 12206
 Attn.: Harry White

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.1 Specifications (Cont'd)

3.1.11 Lot I OGS Items 1 & 2: Traffic Paint (Waterborne – Lead-Free): white (OGS Item 1) & organic yellow (OGS Item 2):

SCOPE:

This portion of the specification covers ready-mixed, fast drying, white and organic yellow waterborne traffic paint for use on bituminous and Portland cement concrete pavements. Waterborne traffic paint supplied under this specification shall be designed for heated application by mobile long line striping equipment.

GENERAL:

The intent of this specification is to describe fast-setting, non-tracking pavement marking paint that is heated when used for pavement striping.

The paint shall be applied on standard types of pavement surfaces at a minimum wet film thickness of 15 mils for existing pavement and a minimum wet film thickness of 20 mils for new asphalt pavement. Wet film thickness is defined as the paint thickness (without reflective glass spheres) measured immediately after application. Specialty types of pavements with coarse aggregate or an open-graded pavement surface texture may require a wet film thickness in the 20 mil to 30 mil range. Examples of specialty type asphalt mixes are referred to as "open-graded" and "paver-placed surface treatment". Thicker applications of paint may increase the field drying time.

Organic yellow paint shall be manufactured without lead chromate type pigment or other types of pigments or filler materials containing toxic contaminants listed in Table 1 under Section 261.24 Toxicity Characteristic, Code of Federal Regulation Title 40 - Protection of Environment. Yellow-colored paint supplied under this specification shall be manufactured using prime organic yellow pigment (Pigment Yellow 65 or Pigment Yellow 74).

Qualified companies for the manufacturer of these paints, and required raw materials, when specified, are included within this specification.

PAINT COMPOSITION REQUIREMENTS:

The composition of fast drying waterborne paint shall be at the option of the manufacturer, providing the following requirements of this specification are met:

Paint shall be manufactured to adhere to existing paint, and to all types of pavement surfaces, and the paint shall provide good daytime appearance, hiding power, nighttime color and visibility, and retro-reflectivity. It shall be manufactured to resist appreciable fading and discoloration under ultraviolet sun exposure. When viewed at night under normal driving conditions, the color of organic yellow paint shall appear similar to its daytime color.

1. Pigment (ASTM D3723):

The pigment portion shall include a combination of prime and extended pigments as required to produce either white or organic yellow traffic paint meeting the color and other requirements of the finished product as specified in this specification. The "reported" total percent pigment by weight of the finished product shall not be less than 58.0% nor more than 62.0%

NOTE: ASTM D3723 requires placing the paint sample in a muffle furnace heated at $842 \pm 45^\circ\text{F}$. Organic yellow pigment may decompose at these temperatures, thereby resulting in an erroneous laboratory test result for pigment content. The manufacturer's "certified" organic yellow pigment content shall be used to determine the final laboratory test results for total pigment (%) and for nonvolatile vehicle (%). The Materials Bureau reserves the right to validate the manufacturer's "certified" organic yellow pigment content through outside independent laboratory testing.

Prime organic yellow pigment for organic yellow paint shall be either Color Index Pigment Yellow 65 (C.I. 11740) and/or Color Index Pigment Yellow 74 (C.I. 11741).

When tested in accordance with ASTM D 3335 Standard Test Method of Low Concentrations of Lead, Cadmium, and Cobalt in Paint by Atomic Absorption Spectroscopy, the lead content of organic yellow paint shall be less than 600 ppm.

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.1 Specifications (Cont'd)

3.1.11 Lot I OGS Items 1 & 2: Traffic Paint (Waterborne – Lead-Free): white (OGS Item 1) & organic yellow (OGS Item 2) (Cont'd):

2. Vehicle (ASTM D3723):

The non-volatile portion of the vehicle shall be composed of a fast drying emulsion. The "Lot" of finished paint shall be manufactured using only one type (brand name) fast dry emulsion. The nonvolatile vehicle solids percent by weight of vehicle shall not be less than 43.0%.

3. Finished Paint:

The finished paint shall meet the following requirements:

a. Pigment (ORGANIC YELLOW PAINT ONLY):

The organic yellow pigment content, by weight, shall be a minimum of 2.2%.

b. Volatile Organic Compounds (VOC):

The volatile organic compounds (VOC) content, expressed as pounds of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases, shall not exceed 0.85 pounds per gallon per Section 2.20 – *Environmental Attributes and NYS Executive Order Number 4*.

c. Total Solids Content (ASTM D3723):

The finished paint shall be not less than 76.0% total non-volatile by weight and shall be not less than 62.0% by volume.

d. Weight per Gallon (ASTM D1475):

The weight per gallon of the finished paint shall not be less than 13.5 pounds for white nor less than 13.0 pounds for organic yellow when tested using the weight per gallon cup.

e. Color:

White paint shall be an approximate visual color match to Munsell Book Notation N 9.5/0 when viewed under North Standard Daylight (ASTM D1535).

Organic Yellow paint shall be an approximate visual color match to Munsell Book

Notation 10YR 8/14 when viewed under North Standard Daylight (ASTM D1535), and it shall be within the chromaticity coordinate limits as found in the Chart B at the bottom of page 39.

Chromaticity coordinate testing shall be performed in accordance with ASTM E1347 using a color spectrophotometer with 45° circumferential illumination/0° viewing geometry, illuminant C, and 2° standard observer angle. The color instrument shall measure the visible spectrum from 3800 to 7200 Å with a wavelength interval and spectral band pass of 100 Å. The sample port aperture shall be 1.28 in.

The test specimens shall be prepared by applying the paint at a 15 ± 1 mil nominal wet film thickness drawdown (without glass spheres) to a Leneta Form 5C or equivalent. The paint specimens shall be allowed to dry for a minimum 24 hours prior to testing.

f. Directional Reflectance (ASTM E1347):

The directional reflectance (represented by CIE tristimulus value Y) of white and organic yellow paint shall be a minimum 84% and 54%, respectively.

Directional reflectance testing shall be performed using a color spectrophotometer with a 45° circumferential illumination/0° viewing geometry, illuminant C, and 2° standard observer angle. The color instrument shall measure the visible spectrum from 3800 to 7200 Å with wavelength interval and spectral bandpass of 100 Å. The sample port aperture shall be 1.28 in.

The test specimens shall be prepared by applying the paint (without glass spheres) to black and white contrast panels (Leneta Form 5C or equivalent) using two perpendicular nominal 5 mil wet film thickness drawdowns (total nominal wet film thickness of 10 mils).

The paint specimens shall be allowed to dry for a minimum 24 hours prior to testing.

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.1 Specifications (Cont'd)

3.1.11 Lot I OGS Items 1 & 2: Traffic Paint (Waterborne – Lead-Free): white (OGS Item 1) & organic yellow (OGS Item 2) (Cont'd):

- g. Viscosity (ASTM D562 Procedure B):
Waterborne paint shall have a consistency of 75 to 95 Krebs Units at 77°F when tested on The Stormer Viscometer at a shearing rate of 100 revolutions per 30 sec. The test shall be run within five minutes after the paint has been thoroughly mixed by hand stirring.
- h. Field No-Track Time:
Fast drying waterborne paint, applied at a wet film thickness of 15 ± 1 mil., and reflectorized with glass spheres at the rate of 6 pounds/gallon, shall reach a “no-track condition” in 3 minutes or less. This no-track time shall be met when the paint temperature at the spray gun is 140°F minimum, the pavement and ambient temperatures are above 55°F, and the relative humidity is 80% or less. A “no-track condition” occurs when a passenger car tire crosses over the painted line (without turning of the tire) at a speed of approximately 40 mph, and the paint is not deposited onto the pavement, when viewed from a distance of 50 feet.
- i. Bleeding:
The quality of the pigmented binder shall be such that it will cause no bleeding of the asphalt surface over which it is applied, which may impair the paints color or visibility.
- j. Dry Opacity (ASTM D2805):
The paint shall have a minimum contrast ratio of 0.95 when tested in accordance to the following procedure:
A 3-1/2 inch wide wet film shall be applied to black and white contrast panels with a Bird applicator or other suitable wet film applicator designed to produce a nominal wet film thickness of 5 mils. The black/white colors of the contrast panels shall match those of Leneta Form 5C or equivalent. The wet paint shall be drawn from the white to the black portion of the panel and allowed to dry for a minimum of one hour. Forty-five degrees reflectance measurements shall be taken on the white and the black portions of the panel. The contrast ratio shall be calculated by dividing the reflectance of the black portion by the reflectance of the white portion
- k. Abrasion Resistance (ASTM D4060):
Four plate samples for each lot shall be prepared for testing on the Taber Abraser. The paint shall be sprayed on steel plates, or applied by other suitable means so as to insure a nominal 15 mil wet film thickness on each plate. Plates are cured at standard laboratory temperature and humidity for 2 to 24 hours. The paint abrasion plates shall be cleaned, dressed, and baked at 105o C (221oF) for 18 hours. After this time the plates are allowed to cool in a dessicator for one hour and weighed. The plates shall be abraded for 1,000 cycles on the Taber Abraser. The Taber Abraser shall be operated with 500 gram (1.10 lb) weights and CS 10 wheels on the machine.
After abrading, the samples shall be cleaned with a soft brush, placed in a dessicator for one hour and weighed again. The average weight loss for the four plates shall not exceed 50 milligrams (0.00176 oz).
- l. Flexibility (Federal Specification TT-P-1952B, Section 4.5.4):
The paint shall not show cracking or flaking when tested in accordance with ASTM D522 Method B. The size of the test panels shall be four inch by six inch.
- m. Freeze-Thaw Stability (Federal Specification TT-P-1952b, Section 4.5.7):
The paint shall show no coagulation or change in consistency (ASTM D 562) greater than 15 Kreb Units.
- n. Heat Stability (Federal Specification TT-P-1952b, Section 4.5.8):
The paint shall show no coagulation, discoloration or change in consistency (ASTM D 562) greater than 15 Kreb Units when tested in an oven at 120 ± 1 °F.
- o. Dilution Test:
The paint shall be capable of dilution with water at all levels without curdling or precipitation such that the wet paint can be readily cleaned up with water only.
- p. Infrared Spectrophotometer Analysis (ASTM D3168):
The paint shall be a reasonable match to the first approved Lot of paint supplied under this contract.

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.1 Specifications (Cont'd)

3.1.11 Lot I OGS Items 1 & 2: Traffic Paint (Waterborne – Lead-Free): white (OGS Item 1) & organic yellow (OGS Item 2) (Cont'd):

Table – WATERBORNE TRAFFIC PAINT SPECIFICATION & TEST REQUIREMENTS SUMMARY				
THE SPECIFICATION	METHOD/Rule	COLOR	MIN	MAX
1. Pigment				
Reported % by weight	ASTM D3723	ALL	58%	62%
Lead Content	STM by Atomic Absorption Spectroscopy	Y	-	600 ppm
2. Vehicle				
Non Volatile Vehicle Solids	ASTM D3723	ALL	43%	
3. Finished Paint				
a. Pigment				
	Bid Spec	Y	2.20%	
b. VOC (lbs/gal)= [grams/liter]				
	6NYCRR, Part 205 Architectural & US-EPA 40 CFR Part 59	ALL		(0.85)=[101.853]
c. Total Solids Content				
by weight				
	ASTM D3723	ALL	76.0%	
by volume				
			62.0%	
d. Weight per Gallon				
	ASTM D1475	W	13.5 pounds	
		Y	13.0 Pounds	
e. Color				
	Munsell Book Notations and ASTM D1535 -- <i>See Chart B Below</i>			
f. Directional Reflectance				
	ASTM E1347	W	84%	
		Y	54%	
g. Viscosity				
	ASTM D562 (B)	ALL	75 Krebs Units	95 Krebs Units
h. Field - No Track Time				
	Bid Spec	ALL		3 Minutes
i. Bleeding				
	Bid Spec	ALL	Visual Inspection showing no bleeding on asphalt test surface.	
j. Paint Opacity				
	ASTM D2805	ALL	0.95	
k. Abrasion Resistance				
	ASTM D4060	ALL		Average weight Loss : 50 milligrams or 0.00167 oz.
l. Flexibility				
	Fed TT-P1952B/Sec 4.5.4& ASTM D522-B	ALL	Visual Inspection showing no cracking or flaking on a 4x6" Test panel	
m. Freeze Thaw Stability				
	Fed TT-P1952B/Sec 4.5.7 & ASTM D562	ALL		15 Krebs Units
n. Heat Stability				
	Fed TT-P1952B/Sec 4.5.8& ASTM D562	ALL		15 Krebs Units
o. Dilution				
	Bid Spec	ALL	Capability Statement Only	
p. Infrared Spectrophotometer Analysis				
	ASTM D3168	ALL	Reasonable match to first approved Lot supplied per season	

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.1 Specifications (Cont'd)

3.1.11 Lot I OGS Items 1 & 2: Traffic Paint (Waterborne – Lead-Free): white (OGS Item 1) & organic yellow (OGS Item 2) (Cont'd):

Table – WATERBORNE TRAFFIC PAINT SPECIFICATION & TEST REQUIREMENTS				
Chart B				
Section 3 – Finished Paint; Part e. Color: Munsell Book Notations being viewed under North Standard Daylight per ASTM D1535			for White - use: Munsell Notation N9.5/1	for Yellow - use: Munsell Notation 10YR 8/14
Coordinate	1	2	3	4
x	0.485	0.517	0.492	0.468
y	0.426	0.462	0.471	0.45

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.1 Specifications (Cont'd)

3.1.12 LOTS II – V OGS Items 3 – 6: Traffic Paint (Waterborne – Lead-Free): Additional Colors – Black, Blue, Green, & Purple

SCOPE:

This portion of the specification covers ready-mixed, fast drying, blue, black, green, and purple waterborne traffic paint for use on bituminous and Portland cement concrete pavements, for low-volume specialized spot use as designated by the guidelines of the Federal Highway Administration's Manual of Uniform Transportation Devices 2009 edition and 2011 interim approval list as found at https://mutcd.fhwa.dot.gov/res-interim_approvals.htm under section 1A-14.

GENERAL:

The paint shall be applied on standard types of pavement surfaces at a minimum wet film thickness of 15 mils for existing pavement, and a minimum wet film thickness of 20 mils for new asphalt pavement. Wet film thickness is defined as the paint thickness (without reflective glass spheres) measured immediately after application. Specialty types of pavements with coarse aggregate or an open-graded pavement surface texture may require a wet film thickness in the 20 mil to 30 mil range. Examples of specialty type asphalt mixes are referred to as "open-graded" and "paver-placed surface treatment". Thicker applications of paint may increase the field drying time.

LOT II-OGS ITEM 3: Traffic Paint (Waterborne—Lead-Free): BLACK

Expressly for use on roads where the surface color of the pavement has faded to a level where viewing conventional White and/or Yellow striping is difficult. By placing a Black stripe adjacent to the primary marking(s), the contrast between the color of the pavement and the marking is increased, thus improving the visibility of the primary marking. It may also be used as a pavement base color where the primary stripe or legend is installed on top of the Black to achieve increased visibility. **The addition of retroreflective glass spheres is not recommended.**

LOT III-OGS ITEM 4: Traffic Paint (Waterborne—Lead-Free): BLUE

Intended for parking lot striping, curb marking and stenciling to indicate the location of designated handicapped parking areas. The addition of glass spheres for retro-reflectivity is optional.

LOT VI-OGS ITEM 5: Traffic Paint (Waterborne—Lead-Free): GREEN

Intended for use in road striping and stenciling of designated bicycle lanes. This is for striping and legend stencil applications only and is not intended for use as a medium for full lane coloration. The addition of glass spheres for retro-reflectivity is optional.

LOT V-OGS ITEM 6: Traffic Paint (Waterborne—Lead-Free): PURPLE

Intended for use in the demarcation of electronic toll (EZ-Pass) lanes. This is for striping and legends only and is not intended for use as a medium for full lane coloration. The addition of glass spheres for retro-reflectivity is optional.

PAINT COMPOSITION REQUIREMENTS:

The composition of fast drying waterborne paint shall be at the option of the manufacturer, providing the following requirements of this specification are met.

Paint shall be manufactured to adhere to existing paint and to all types of pavement surfaces. The paint shall provide good daytime appearance, hiding power, nighttime color and visibility, and retro-reflectivity. It shall be manufactured to resist appreciable fading and discoloration under ultraviolet sun exposure. When viewed at night under normal driving conditions, the color shall appear similar to its daytime color.

With the exception of the prime pigment color, the paint in these lots shall be of the same specifications stated under the requirements for the items contained in this bid in Section 3.1.11 - *Lot I OGS Items 1 & 2: Traffic Paint (Waterborne - Lead-Free) - white (OGS Item 1) & organic yellow (OGS Item 2).*

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.1 Specifications (Cont'd)

3.1.12 LOTS II – V OGS Items 3 – 6: Traffic Paint (Waterborne – Lead-Free): Additional Colors – Black, Blue, Green, & Purple (Cont'd)

PIGMENT COLORS:

Pigments shall follow the same material specifications as found in Section 3.1.11 - *Lot I OGS Items 1 & 2: Traffic Paint (Waterborne - Lead-Free) - white (OGS Item 1) & organic yellow (OGS Item 2)*. Chromacity and Luminance requirements for Lots III, IV and V are found in the charts listed below. Black should be approximate to the MacAdam Limit factor of zero luminance.

After application and drying the resultant colors should be visibly similar to the following Federal Standard 595B Colors or Pantone Colors:

LOT II (OGS Item 3) BLACK: Pantone 6 series;

LOT III (OGS Item 4) BLUE: Federal #35081 or Pantone 2945C;

LOT IV (OGS Item 5) GREEN: Federal #34115 or Pantone 342 series; and

LOT V (OGS Item 6) PURPLE: Pantone 259EC.

MUTCD Table 5 to Appendix to Part 655, Subpart F:

Daytime Color Specification Limits for Retroreflective Pavement Marking Material With CIE 2 deg. Standard Observer and 45/0 (0/45) Geometry And CIE Standard Illuminant D65.								
Color	Chromaticity Coordinates							
	1		2		3		4	
	X	Y	X	Y	X	Y	X	y
Blue	0.480	0.300	0.690	0.315	0.620	0.380	0.480	0.220
Green	0.230	0.754	0.266	0.500	0.367	0.500	0.444	0.555
Purple	0.300	0.064	0.309	0.260	0.362	0.295	0.475	0.144

MUTCD Table 5a to Part 655, Subpart F:

Daytime Luminance Factors (%) For Retroreflective Pavement Marking Material With CIE 2 Standard Observer And 45/0 (0/45) Geometry And CIE Standard Illuminant D65.		
Color	Luminance Factor (Y%)	
	Minimum	Maximum
Blue	5	14
Green	7	35
Purple	5	15

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.1 Specifications (Cont’d)

3.1.12 LOTS II – V OGS Items 3 – 6: Traffic Paint (Waterborne – Lead-Free): Additional Colors – Black, Blue, Green, & Purple (Cont’d)

MUTCD Table 6 to Appendix to Part 655, Subpart F:

Nighttime Color Specification Limits for Retroreflective Pavement Marking Material With CIE 2 deg. Standard Observer, Observation Angle of 1.05 deg., Entrance Angle of +88.76 deg. and CIE Standard Illuminant A.								
Color	Chromaticity Coordinates							
	1		2		3		4	
	X	Y	X	Y	X	Y	X	y
Green	0.230	0.754	0.336	0.540	0.450	0.500	0.479	0.52
Purple	0.338	0.380	0.425	0.365	0.470	0.385	0.635	0.221

Note: Luminance factors for retroreflective pavement marking materials are for materials as they are intended to be used. For paint products, that means inclusion of glass beads and/or other retroreflective components.

QUALITY ASSURANCE PROCEDURE FOR LOTS II – V (OGS Items 3-6):

The contractor shall be aware that throughout the duration of the contract, to ensure compliance with the detailed specifications at all times, each delivery made may be subject to field sampling prior to its use by the ordering agency. The sampling procedure shall be random for an adequate supply of paint to test in accordance with the specifications stated under Table: *Quality Assurance Procedure for Lot I* located under Section 3.1.9 – *Quality Assurance Requirements Lot I*.

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.2 Ordering

Purchase Orders shall be made in accordance with the terms set forth in Appendix B, *Purchase Orders*. Authorized Users may submit orders over the phone, and, if available, may submit orders electronically via web-based ordering, e-mail, or facsimile at any time. Orders submitted shall be deemed received by Contractor on the date submitted.

All orders shall reference Contract number, requisition, and/or Purchase Order number (if applicable). Upon Contractor’s receipt of an order, confirmation is to be provided to the Authorized User electronically or via facsimile. Order confirmation should be sufficiently detailed, and include, at a minimum, purchase price, date of order, delivery information (if applicable), Authorized User name, and sales representative (if applicable).

Purchase orders where deferred shipments are requested shall clearly detail the requirement dates. Contractor must promptly inform the buyer of any deferred shipment in which the requested delivery date extends beyond a current pricing period into a new scheduled price update period, so that proper pricing will be applied at the time of invoicing. For non-NYS DOT deferred orders, where the requested shipping dates are in excess of 90 days, a notation of pre-approval by the contractor shall be clearly noted, including date, time, and name of authorizing party. If approval was made in writing, a copy of the memo should be attached.

3.3 Minimum Order

The minimum orders for these products are as follows:

<u>LOT #</u>	<u>Minimum Order Amount</u>	<u>Note</u>
LOT I (OGS Items 1 & 2)	3,000 Gallons	May be in any combination of items, sizes or containers for a single location
LOTS II-V (OGS Items 3 - 6)	Two (2) 55-Gallon Drums	Not assortable within or between lots.
	Five (5) 5-Gallon Pails	

Contractor may elect to honor orders for less than the minimum order. For such orders, at the contractor’s option, shipping costs from the contractor’s address (as stated in bid) may be added to invoice with a copy of the freight bill. Shipping costs are to be prepaid by contractor and such orders are to be shipped on an F.O.B. destination basis. All such orders must be shipped by the most economical method for the proper delivery of the product unless special instructions are stated on the order by the agency.

Minimum production batch size for Lot I (OGS Items 1 & 2) shall be 4,000 gallons for each color of paint. A batch is further defined as appropriate in the quality assurance section for Lot I located in Section 3.1.9 – *Quality Assurance Requirements Lot I*. The remaining lots have no batching requirements.

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.4 Product Delivery

Delivery of all Contract Products shall be made in accordance with Appendix B, *Product Delivery and Shipping/Receipt of Product* except for the following modifications:

General-Delivery shall be expressed by the average (or usual) number of calendar days required to ship and complete the product delivery after receipt of a purchase order. The vendor shall be responsible for the delivery of product ordered to any location within New York State. Product will be required as soon as possible and delivery may be considered by an agency issuing a purchase order.

Unless otherwise stated on purchase order, delivery is required within 30 calendar days after contractor's receipt of purchase order. **Authorized Users may not** without prior written consent of the contractor **demand** delivery prior to 30 days after contractor's receipt of said order.

Contract users may request scheduled deferred deliveries. With the exception of NYS Department of Transportation orders, all schedules requiring delivery to be **delayed beyond 90 days** after contractor's receipt of order must have the prior approval of the related contractor and with such allowance noted on the given purchase order. All deferred shipping may be subject to a price update if the requested shipment overlaps scheduled price update periods.

Each individual instance of contractor's failure to conform to the above delivery requirements **plus 10 calendar days** (grace period) shall constitute sufficient reason to allow related agency to obtain overdue material deemed under the circumstances comparable by the using agency on the open market charging any increased cost over contract price to the contractor's account as well as triggering the *Liquidated Damages* clause found in Section 3.6 of this document. Resulting contractor(s) are cautioned that repeated failure to deliver within the guaranteed delivery period will be sufficient cause for the OGS Procurement Services to cancel the contract or any unit portion thereof and authorize open market purchase of applicable requirements charging any increased cost over contract price to the contractor's account, without the need to await passage of the stated grace period.

Shipping Dates and Delivery Time -

Contractor shall provide written acknowledgement of orders within five (5) business days after receipt of order which will include an anticipated shipping date of each order

If shipment will not be made within the delivery time, the contractor is required to notify the agency in writing at least two weeks prior to the latest date of the original delivery obligation. This notification must include the reasons for the delay and the latest date the product will be shipped. Notification does not negate the contractor's responsibility for shipment of product as soon as possible, nor the conditions noted under Section 3.6 - *Liquidated Damages*. Should the delay not be acceptable to the using agency, appropriate contract default proceedings will be initiated. Failure to supply timely written notification of delay may be cause for default proceedings.

All correspondence on shipping dates and delivery time shall be directed to the ordering entities' specified contact person.

Deliveries shall be made inside the yard facility at destinations as indicated on the purchase order. **Advance notice** of pending shipment shall be issued in writing to the buyer at least **7 days prior to delivery**, unless shipment is being made in under one week from receipt of order. If this situation occurs, Contractor shall notify the buyer of the shipment date as soon as it is scheduled.

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.4 Product Delivery (Cont'd)

Actual physical arrival and delivery of material must be scheduled by the carrier, contacting and coordinating with the recipient no more than 48 hours prior to a trucks arrival at the delivery site. Delivery will be scheduled no earlier than 7:00 a.m. or later than 3:00 p.m. and will have a 2 hour window of opportunity **within** those parameters, Tuesday through Thursday, excluding Holidays, **or as otherwise agreed to as mutually acceptable between the carrier and recipient.** Delivery will only be accepted within the time period scheduled. At the discretion of the Recipient, shipments arriving outside of the scheduled time frame may be expected to reschedule the shipment (if late) or return at the originally scheduled time (if early). Any and all changes required as a result of such arrivals are at the carrier's expense.

Delivery Condition - Contractor shall make no shipment that exposes the product at any time during transit to conditions detrimental to the product. Product must be delivered strictly in accordance with specifications and shall be "Ready for Use." In the event that an item is delivered with a deviation or deficiency, the contractor shall correct such deficiencies within **four (4) business days** of written notification of said deficiency or deviation. Otherwise the State has the option of making the corrections independently at the contractor's expense and also imposing the Liquidated Damages clause as found herein.

Delivery Certification - Contractor shall secure a signed receipt from agency certifying to delivery of product. In the event deficiencies are later noted and a properly signed receipt is not available, contractor will be responsible.

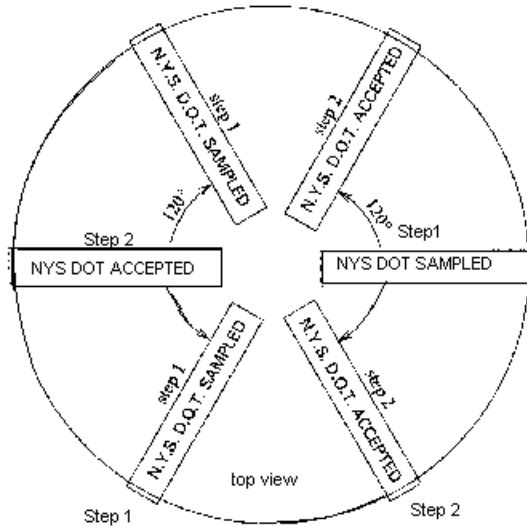
3.5 Drawings

- a. **Drawings Submitted With Bid** When the Solicitation requires the Bidder to furnish drawings and/or plans, such drawings and/or plans shall conform to the mandates of the Solicitation and shall, when approved by the Commissioner, be considered a part of the bid and of any resulting Contract. All symbols and other representations appearing on the drawings shall be considered a part of the drawing.
- b. **Drawings Submitted During the Contract Term** Where required to develop, maintain and deliver diagrams or other technical schematics regarding the scope of work, Contractor shall do so on an ongoing basis at no additional charge, and must, as a condition of payment, update drawings and plans during the Contract term to reflect additions, alterations, and deletions. Such drawings and diagrams shall be delivered to the Authorized User's representative.
- c. **Accuracy of Drawings Submitted** All drawings shall be neat and professional in manner and shall be clearly labeled as to locations and type of Product, connections and components. Drawings and diagrams are to be in compliance with accepted drafting standards. Acceptance or approval of such plans shall not relieve the Contractor from responsibility for design or other errors of any sort in the drawings or plans, or from its responsibility for performing as required, furnishing Product, or carrying out any other requirements of the intended scope of work.

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.5 Drawings (Cont'd)

3.5.1 Illustration A: Department security seal – 5 gallon pail or 1 pint container



5 Gallon Container or
1 Pint Container

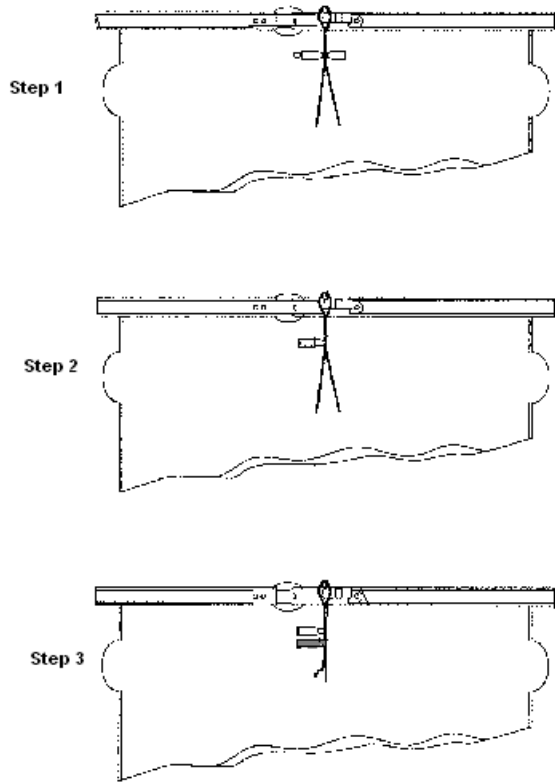
Not to Scale

Note: Three (3) Red and Green tape shall be placed at 120 degree intervals and parallel to the long axis of the container equqally divided between the cover and the container side as shown above. The cover lugs shall be considered as a portion of the cover and one end of each seals shall be placed in contact with a lug..

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.5 Drawings (Cont'd)

3.5.2 Illustration B: Department security seal – 55 gallon container



55 Gallon Container

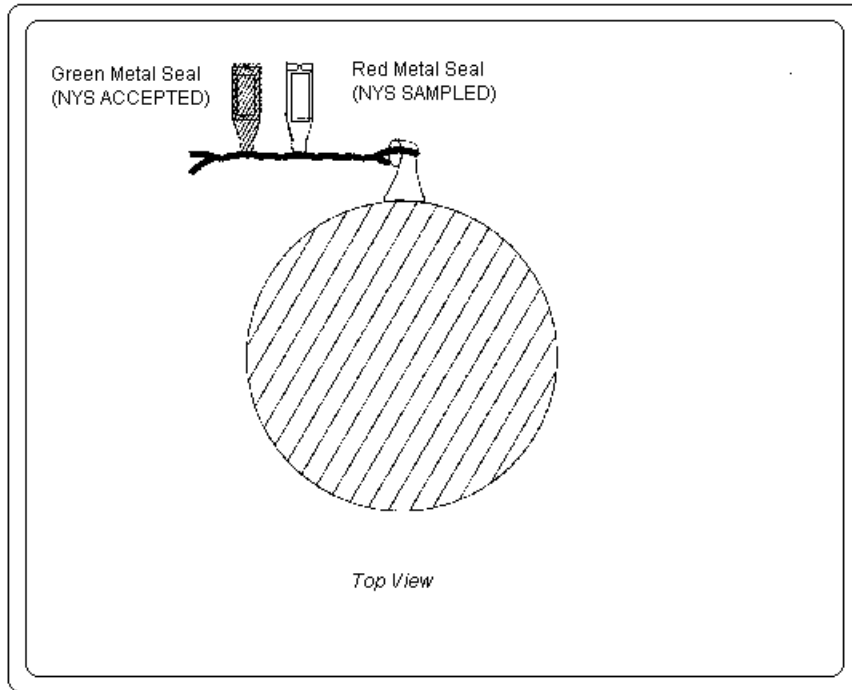
Not to Scale

Note: The wire shall be drawn securely and tightly through the eyelet. The Red & Green Seals shall be certified in such a manner that the connection can not be loosened without destroying the seal

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.5 Drawings (Cont'd)

3.5.3 Illustration C: Department security seal – 275 Gallon IBC Tote



High Density Polyethelyne IBC Tote

Not to Scale

Note: The wire shall be drawn securely and tightly through the eyelet.
The Red and Green Metal Seals shall be certified in such a manner that the connection can not be loosened without destroying the seal.

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.5 Drawings (Cont'd)

3.5.4 Illustration D: BR-240a form

BR 240a (11/74) SAMPLE AND ACCEPTANCE TRANSMITTAL NYS DOT MATERIALS BUREAU		SERIAL NO. 257232	DATE REC'D	TEST NO.
To: _____ Material Represented by the Sample Described Below Was _____				
On _____ For _____				
(Action Official Only When Validated Below By The Materials Bureau)				

UPPER PORTION FOR MATERIALS BUREAU ONLY — INSPECTOR TO COMPLETE ALL APPLICABLE BOXES BELOW				
16. Additional Info (See Instructions on Rear)				
Batch No.	1. MATERIAL White or Yellow Water-Borne Traffic Paint	2. Item No. 727-06XX	3. DATE SAMPLED XX/XX/XX	4. CONTRACT NO. Group #
	5. SUPPLIER AND LOCATION NAME, CITY, STATE		6. QUANTITY IN LOT XX GALLONS	7. LOT NO. XX
Quantities of Containers	8. MANUFACTURER LOCATION (IF DIFFERENT THAN ABOVE) LEAVE BLANK		9. BATCH NO. XXXXXX	10. DATE OF MFGR XX/XX/XX
6 - 1 pint samples sent in by Manufacturer	11. SAMPLED AT <input type="checkbox"/> MILL <input type="checkbox"/> PLANT <input type="checkbox"/> JOB	12. TYPE <input type="checkbox"/> CONTROL SAMPLE <input type="checkbox"/> INFO. Sample <input type="checkbox"/> SPR SAMPLE <input type="checkbox"/> APPROVED LIST MATERIAL <input type="checkbox"/> CERTIFIED MAT.	13. SAMPLED FROM POUR	
	15. CONTRACTOR AND PROJECT LOCATION LEAVE BLANK		14. SAMPLED BY (INC. DIST # or AGCY) NAME, I.A. CODE	
RETAIN PINK COPY FOR YOUR RECORDS FORWARD ALL OTHERS TO MATERIAL BUREAU		MATERIALS BUREAU VALIDATION		

BR 240a (11/74) SAMPLE AND ACCEPTANCE TRANSMITTAL NYS DOT MATERIALS BUREAU		SERIAL NO. 257232	DATE REC'D	TEST NO.
To: _____ Material Represented by the Sample Described Below Was _____				
On _____ For _____				
(Action Official Only When Validated Below By The Materials Bureau)				
UPPER PORTION FOR MATERIALS BUREAU ONLY — INSPECTOR TO COMPLETE ALL APPLICABLE BOXES BELOW				
16. Additional Info (See Instructions on Rear)				
Part A - White or Yellow Quantity of Part A Gallons	1. MATERIAL White or Yellow Epoxy Refl. Pav. Markings	2. Item No. 727-03	3. DATE SAMPLED XX/XX/XX	4. CONTRACT NO. Group #
	5. SUPPLIER AND LOCATION NAME, CITY, STATE		6. QUANTITY IN LOT XX GALLONS	7. LOT NO. XX
Part B - Quantity of Part B Gallons	8. MANUFACTURER LOCATION (IF DIFFERENT THAN ABOVE) LEAVE BLANK		9. BATCH NO. Part A XXXXXX Part B XXXXXX	10. DATE OF MFGR Part A XX/XX/XX Part B XX/XX/XX
2 - 1 pint samples of Part A 1 - 1 pint sample of Part B Sent in by Manufacturer	11. SAMPLED AT <input type="checkbox"/> MILL <input type="checkbox"/> PLANT <input type="checkbox"/> JOB	12. TYPE <input type="checkbox"/> CONTROL SAMPLE <input type="checkbox"/> INFO. Sample <input type="checkbox"/> SPR SAMPLE <input type="checkbox"/> APPROVED LIST MATERIAL <input type="checkbox"/> CERTIFIED MAT.	13. SAMPLED FROM POUR	
	15. CONTRACTOR AND PROJECT LOCATION LEAVE BLANK		14. SAMPLED BY (INC. DIST # or AGCY) NAME, I.A. CODE	
RETAIN PINK COPY FOR YOUR RECORDS FORWARD ALL OTHERS TO MATERIAL BUREAU		MATERIALS BUREAU VALIDATION		

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.6 Liquidated Damages

In the event of a delay or default in any delivery for items contracted under Lots I and II (white, yellow and black), providing such delay or default is not directly attributable to a material fault of the ordering agency, an agency shall be entitled to and shall assess against the vendor as liquidated damages, a sum calculated as follows:

Two-hundred fifty dollars (\$250.00) dollars per business day, not as a penalty but as liquidated damages, for each color of paint, to compensate for delay and other losses, detriments and inconveniences attendant upon such delay from the grace period, commencing from the time delivery was due under the contract. Saturdays, Sundays, and State legal-holidays will be excluded from the computations for the assessment of Liquidated Damages.

A grace period of ten (10) business days commencing on and including the contract date for delivery, shall be extended to the vendor prior to the assessment of such liquidated damages. Assessment of liquidated damages will then commence on the forty-fifth (45th) calendar day after placement of the purchase order by mail, or 41 calendar days after placement electronically. Notice is hereby given to the vendor that despite the extensions of the grace period herein specified, time shall be and is of the essence in regard to the delivery of these products to the using agency.

Whereas shipments of paint may not commence at the beginning of an annual painting season until the season's initial manufacturing run has been tested and independently certified as meeting the required specifications, such testing and any delays caused as a result of the testing process negate the liquidated damages clause. Once initial shipments have been approved for release, the terms of this clause become active. However, should any such initial delays be caused by the failure of the contractor to deliver the required sample requirements in a timely manner, or of the product to meet the stated specifications and requirements, the Contractor may be held liable for Liquidated Damages as stated here in.

The actual delivery date of each color will be used in computing the total amount of liquidated damages on a purchase order. Liquidated damages, if assessed, shall be deducted from payments due the contractor for each color of paint on each invoice for purchase orders that are delivered late.

3.7 Notice to State Agencies & Political Subdivisions

It shall be the responsibility of the user prior to use of the paint to determine whether or not its use is prohibited by any local Pollution Ordinances, or any other Local, State or Federal Regulations.

3.8 Performance Requirements

Emergency Service Number & Contact Information - The contractor will provide a toll free product emergency service, available seven days a week, twenty-four hours a day. Given the nature of the products, an emergency contact including name, number, cell number, fax, and email must be provided.

E-Mail and Telephone Contact - Contractors will provide active e-mail addresses and telephone numbers for all personnel assigned by the contractor to directly service the contract. Unless specifically designated as an emergency or after-hours contact the information should be adequate for the State to contact the party during normal working hours between 9:00 am and 4:30 pm EST, Monday through Friday.

Technical Assistance - Generalized instruction and technical assistance for the offered products in the normal course of doing business, or remotely via a customer or technical service website or telephone hotline is considered a part of the price of the product, and is to be available on an as needed basis.

SECTION 3: TRAFFIC PAINT (WATERBORNE – LEAD-FREE)

3.9 NYS Department of Transportation Annual Projections (Traffic Paint ONLY)

Proper and timely application of the subject paint is of obvious and paramount importance to maintaining safe highways for the motoring public. In order for the NYS Department of Transportation to properly address its attendant responsibilities, which include maintenance of painted traffic markings, and efficiently utilize available resources including limited manpower and equipment during the proper marking season, it is imperative that the contracted paint supply be provided on a timely basis and consist of acceptable quality materials. It is thus noted that with respect to deliveries **time is of the essence**.

Annually through the term of the contract, the NYS Department of Transportation will develop a schedule containing a projection estimating the paint quantity and delivery breakdown of traffic paint for use by the department for the upcoming paint season for Lot I. The schedule will be developed in recognition of NYS-DOT's overall program responsibilities coupled with the application rate to be expected from available manpower and equipment resources. The subject schedule will reflect approximate delivery requirements which will allow effective uninterrupted utilization of these resources during the forthcoming marking season. Note that the schedule is an estimate, and not a guarantee of actual quantity, need or order. See the "ESTIMATED QUANTITIES" clause for additional clarification.

SECTION 4: GLASS SPHERES FOR REFLECTORIZED PAVEMENT MARKING (VARIOUS TYPES)

4.1 Specifications

PRODUCT CLASSIFICATION A:

Glass Spheres for Reflectorized Pavement Markings for Highway, Road and Street Use

Covered Products:

Specs listed here (by Type and then by Lot, Item & Type) are for Glass Spheres that are used with traffic paint to produce a reflective painted roadway stripe on Highways, Roads, Streets and Parking Lots.

There are two distinct types of spheres for this use.

TYPE I Glass Spheres for use in conjunction with the application of waterborne traffic paint are glass spheres with moisture resistant coatings to be used with waterborne traffic paint to provide visual traffic delineation, both day and night, for the motoring public.

TYPE III Glass Spheres are for use with waterborne latex reflectorized pavement marking material (FHWA, fp-92, Type III glass spheres). Type III glass spheres are gravity dropped upon 15 mils of latex pavement markings to produce a wet-night-reflective pavement marking. The glass spheres shall be coated with a compatible silane-type adherence coating to enhance their embedment in and adherence to the applied latex binder film.

Glass spheres for the above mentioned application types shall be manufactured of glass of a composition designed to be highly resistant to traffic wear, decomposition, etching under atmospheric conditions, dilute acids, alkali's, paint film constitutes, and to the effects of weathering and should to the maximum extent practicable be composed of recycled glass. In addition, glass spheres shall not exhibit toxicity characteristics when tested in accordance with 40 CFR 261.24. Recycled cullet should contain a no more than 75 ppm of Arsenic, 100ppm of Lead, and/or 100ppm of Antimony, when determined by EPA method 6010B using EPA method 3052 for sample preparation.

4.1.1 LOT VI (OGS Item 7) Glass Spheres for Reflectorized Pavement Marking: TYPE I glass spheres with moisture resistant coating (for use in conjunction with waterborne traffic paint)

SCOPE:

This specification covers reflectorizing glass spheres with moisture resistant coating for application on waterborne traffic paint to produce a reflective painted roadway stripe. The spheres shall be manufactured of glass of a composition designed to be highly resistant to traffic wear, decomposition, etching under atmospheric conditions, dilute acids, alkalis, paint film constitutes, and to the effects of weathering.

INTENDED USE:

Type I glass spheres (LOT VI OGS Item 7) will be used with waterborne traffic paint to provide visual traffic delineation, both day and night, for the motoring public. In order to provide the reflectivity necessary, the glass spheres must meet all the specifications included in this Invitation for Bids (IFB). Spheres are applied by a standard truck mounted machine, under pneumatic pressure, while moving at speeds of 5 - 15 mph.

MATERIAL:

The spheres shall conform to the following requirements:

The glass particles shall be colorless, clean, transparent and free from milkiness or excessive air bubbles, and have a refractive index between 1.50 and 1.65 when tested by liquid immersion method at 25°C. The refractive index is measured by placing a small number of glass spheres on a microscope slide and placing the slide under a microscope. Using certified index of refraction liquids, put a drop of liquid on the sphere(s). Looking through the microscope, raise the microscope tube. If the ring around the sphere moves towards the sphere as the tube is raised, then the index of the sphere is higher than the index of the liquid. Repeat using higher index of refraction liquids until the ring around the sphere moves outward as the tube is raised. The index of refraction is between the index of the solution in which the ring goes in towards the sphere and the index of the solution in which the ring moves away from the sphere. (Certified Index of Refraction Liquids - Set RF1/2, manufactured by Cargill).

The glass particles shall be spherical in shape, containing not more than thirty (30) percent of irregularly shaped particles. At least 70% of the glass spheres shall be true spheres when tested accordance to ASTM D1155, Procedure A.

Gradation: The spheres shall meet the following gradation when tested according to ASTM D1214

<u>U.S. STANDARD SIZE</u>	<u>% PASSING</u>
#20	100%
#30	80-95%
#50	9-42%
#80	0-10%

The silica content of the glass spheres shall be not less than 60 percent when tested in accordance with ASTM C169.

The spheres shall show no tendency to absorb moisture in storage and shall remain free of clusters and hard lumps. They shall flow freely from dispensing equipment at any time when applying the pavement marking.

MOISTURE RESISTANT COATING:

The glass spheres shall pass the following moisture resistant test:

Place two pounds of glass spheres in a washed cotton bag having a thread count of 50 per square inch (warp and weft) and immerse the bag in a container of water for 30 seconds. Remove the bag and force excess water from the sample by squeezing the bag. Suspend and allow to drain for two hours at room temperature. Then, mix the sample in the bag by shaking thoroughly. Slowly transfer the sample to a clean, dry glass funnel (Corning 6120) having a 5" diameter, a 4" stem, stem length, a 0.43" stem inside diameter. The entire sample shall flow freely through the funnel without stoppage. If the glass spheres clog when first introduced into the funnel, it is permissible to lightly tap the funnel to initiate the flow of glass spheres.

4.1.2 LOT VII (OGS Item 8) Glass Spheres for Reflectorized Pavement Marking: TYPE III (for use with waterborne latex reflectorized pavement marking – FHWA, Fp-92)

SCOPE:

This specification covers Type III glass spheres to be gravity dropped upon 15mils of latex pavement markings to produce a wet-night-reflective pavement marking. These spheres shall be applied at a rate of 12 pounds per gallon of latex pavement marking material.

ADHERENCE COATING:

The glass spheres shall be coated with a compatible silane-type adherence coating to enhance their embedment in and adherence to the applied latex binder film.

REQUIREMENTS:

The glass spheres shall be transparent, clean, colorless glass, smooth and spherically shaped, free of milkiness, pits, or excessive air bubbles. They shall be manufactured of glass of a composition designed to be highly resistant to traffic wear, decomposition, etching under atmospheric conditions, dilute acids, alkalis, paint film constituents, and the effects of weathering. The silica content of the spheres shall be not less than 60%.

The glass spheres shall be spherical in shape and at least 70% of them shall be true spheres, when evaluated microscopically.

The Refractive Index of the glass spheres shall be not less than 1.50 as determined by the liquid immersion method at 25°C as specified above for LOT VI (OGS Item 7).

The glass spheres shall show no tendency to absorb moisture in storage and shall remain free of clusters and hard lumps. They shall flow freely from dispensing equipment during the painting process.

When tested in accordance with ASTM D1214 Gradation of glass spheres shall be as follows:

<u>US STANDARD SIEVE NO.</u>	<u>% RETAINED</u>	<u>% PASSING</u>
12	0	100
14	0-5	95-100
16	5-20	80-95
18	40-80	10-40
20	10-40	0-5
25	0-5	0-2
Pan	0-2	----

PRODUCT CLASSIFICATION B:

Glass Spheres for Reflectorized Pavement Markings for Airport Runway Use

COVERED PRODUCTS:

Specs listed here (by Type and then by Lot, Item & Type) are for Glass Spheres that are used with traffic and airfield marking paint to produce high visibility, retro-reflective striping on Airport Runways and Helipads.

There are three distinct types of spheres for this use.

Glass spheres for the above mentioned application types shall be manufactured of glass of a composition designed to be highly resistant to traffic wear, decomposition, etching under atmospheric conditions, dilute acids, alkali's, paint film constitutes, and to the effects of weathering. Composition shall vary by type.

Type's I and IV should to the maximum extent practicable be composed of reclaimed scrap glass (soda lime cullet). In addition, glass spheres shall not exhibit toxicity characteristics when tested in accordance with 40 CFR 261.24. Recycled cullet should contain a no more than 75 ppm of Arsenic, 100ppm of Lead, and/or 100ppm of Antimony, when determined by EPA method 6010B using EPA method 3052 for sample preparation.

Type III Spheres shall be custom made of 100% virgin glass cullet.

SPECIFICATION REFERENCE:

This product line specification has been adapted from the Federal Aviation Administration, Specification # TT-B-1325D, revised August 6, 2007.

**4.1.3 LOT VIII - X (OGS Items 9 - 11) Glass Spheres for Reflectorized Pavement Marking: TYPE I (OGS Item 9);
TYPE III (OGS Item 10); TYPE IV (OGS Item 11)**

4.1.3.1 SCOPE AND CLASSIFICATION.

Scope

This specification covers three types of retro-reflective spheres used to reflectorize traffic and airfield marking paints.

Classification

LOT VIII (OGS Item 9) Type I Glass Spheres – Low Index of Refraction recycled glass (fire-polished process)

- Gradation A (Coarse, Drop-on)
- Gradation B (Fine, Premix)

LOT IX (OGS Item 10) Type III Glass Spheres – High Index of Refraction

LOT X (OGS Item 11) Type IV Glass Spheres – Low Index of Refraction direct melt glass (molten glass kiln process)

- Gradation A (Large Coarse, Drop-on)
- Gradation B (Medium Coarse, Drop-on)

4.1.3.2 APPLICABLE DOCUMENTS

Government Publications

The issues of the following documents, in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

- FEDERAL LANDS, HIGHWAY - T 520-93 – Determining the Roundness of Large Glass Spheres
- FEDERAL STANDARDS - TT-B-1325D
- FED-STD-141 - Paint, Varnish, Lacquer, and Related Materials; Methods of Inspection, Sampling and Testing
- FED-STD-313 – Material Safety Data Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities

(Single copies of this specification, and other federal specifications and commercial item descriptions required by activities outside the Federal Government for bidding purposes are available without charge from the General Services Administration, Federal Supply Service, Specification Section, Suite 8100, 470 L'Enfant Plaza, SW, Washington, DC, 20407

Other publications

The following documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on the date of invitation for bids or request for proposal shall apply:

- American Society for Testing and Materials (ASTM) Standards:
 - D 1155 - Standard Test Method for Roundness of Glass Spheres
 - D 1214 - Standard Test Method for Sieve Analysis of Glass Spheres(Application for copies should be addressed to the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, (610) 832-9500, www.astm.org.)
- National Motor Freight Traffic Association, Inc. Agent: National Motor Freight Classification (Application for copies should be addressed to the ATA, Inc., Traffic Department, 2200 Mill Road, Alexandria, VA 22314, www.nmfta.org.)
- National Railroad Freight Committee, Agent: Uniform Freight Classification (Application for copies should be addressed to G.F. Earl, Tariff Publishing Officer, Suite 1120, 222 South Riverside Plaza, Chicago, IL 60606-5945)

SECTION 4: GLASS SPHERES FOR REFLECTORIZED PAVEMENT MARKING (VARIOUS TYPES)

4.1 Specifications (Cont'd)

4.1.3 LOT VIII - X (OGS Items 9 - 11) Glass Spheres for Reflectorized Pavement Marking: TYPE I (OGS Item 9); TYPE III (OGS Item 10); TYPE IV (OGS Item 11) (Cont'd)

4.1.3.3 PHYSICAL REQUIREMENTS:

Composition

The Type I spheres shall be manufactured from be composed of reclaimed scrap glass (soda lime cullet) to the maximum extent practicable. The Type IV spheres shall be manufactured from either reclaimed scrap glass (soda lime cullet) maximum extent practicable or virgin glass using a direct melt glass (molten glass kiln) process resulting in no visible carbon residue. (TT-B-1325D). Type III spheres are custom manufactured of virgin glass produced by a chemical compound glass process.

Physical properties

- Appearance
When tested as specified in Section 4.1.3.4: *Quality Assurance Provisions-Testing Procedure - Appearance*, the spheres shall be transparent, clean, dry, free-flowing, and free from bubbles and foreign matter.
- Roundness
When tested as specified in Section 4.1.3.4: *Quality Assurance Provisions-Testing Procedure - Roundness*, Type I and Type III spheres shall contain not less than 80 percent by weight of true spheres. The Type IV spheres shall contain not less than 85 percent by weight of true spheres.
- Index of refraction
When tested as specified in Section 4.1.3.4: *Quality Assurance Provisions-Testing Procedure - Index of refraction*, the index of refraction shall be as follows: For Type I and Type IV spheres 1.50 to 1.55; for Type III spheres 1.90 to 1.93.
- Specific gravity
When tested as specified in Section 4.1.3.4: *Quality Assurance Provisions-Testing Procedure - Specific gravity*, the specific gravity shall be as follows: For Type I and Type IV spheres 2.30 to 2.50; for Type III spheres 4.00 to 4.50.1

**SECTION 4: GLASS SPHERES FOR REFLECTORIZED PAVEMENT MARKING
 (VARIOUS TYPES)**

4.1 Specifications (Cont'd)

4.1.3 LOT VIII - X (OGS Items 9 - 11) Glass Spheres for Reflectorized Pavement Marking: TYPE I (OGS Item 9); TYPE III (OGS Item 10); TYPE IV (OGS Item 11) (Cont'd)

- Gradation.
 When tested as specified in Section 4.1.3.4: *Quality Assurance Provisions-Testing Procedure - Gradation*, the spheres shall pass each sieve series, as specified in Table I below.

Table I. Gradation, percent by weight, passing.

US Sieve #	Microns	Type I				Type III		Type IV			
		A		B		Min	Max	A		B	
		Min	Max	Min	Max			Min	Max	Min	Max
12	1700	-	-	-	-	-	-	100	-	100	-
14	1400	-	-	-	-	-	-	95	100	-	-
16	1180	-	-	-	-	100	-	80	95	95	100
18	1000	-	-	-	-	-	-	10	40	-	-
20	850	100	-	-	-	95	100	0	5	35	70
30	600	80	100	-	-	55	75	-	-	0	5
40	425	-	-	-	-	15	35	-	-	-	-
50	300	18	35	-	-	0	5	-	-	-	-
70	212	-	-	100	-	-	-	-	-	-	-
80	180	-	-	85	100	-	-	-	-	-	-
100	150	0	10	-	-	-	-	-	-	-	-
140	106	-	-	15	55	-	-	-	-	-	-
200	75	0	2	-	-	-	-	-	-	-	-
230	63	-	-	0	10	-	-	-	-	-	-

NOTE: For field verification, the mass of Type I and Type IV spheres should be 1570 grams per liter and Type III should be 2670 grams per liter.

- Resistance to acid
 When tested as specified in Section 4.1.3.4: *Quality Assurance Provisions-Testing Procedure - Resistance to acid*, the spheres shall not develop any surface haze or dulling.
- Resistance to calcium chloride
 When tested as specified in Section 4.1.3.4: *Quality Assurance Provisions-Testing Procedure - Resistance to calcium chloride*, the spheres shall not develop any surface haze or dulling.
- Resistance to sodium sulfide
 When tested as specified in Section 4.1.3.4: *Quality Assurance Provisions-Testing Procedure - Resistance to sodium sulfide*, the sodium sulfide should not darken the spheres.
- Water resistance
 When tested as specified in Section 4.1.3.4: *Quality Assurance Provisions-Testing Procedure - Water resistance*, the water shall not produce haze or dulling of the spheres, and not more than 4.5 mL of 0.1 N hydrochloric acid shall be used in the titration.

Safety Data Sheet

A Safety Data Sheet (SDS) shall be submitted in accordance with FED-STD-313 (see Section 4.1.3.6: - *Notes-Ordering Data*).

SECTION 4: GLASS SPHERES FOR REFLECTORIZED PAVEMENT MARKING (VARIOUS TYPES)

4.1 Specifications (Cont'd)

4.1.3 LOT VIII - X (OGS Items 9 - 11) Glass Spheres for Reflectorized Pavement Marking: TYPE I (OGS Item 9); TYPE III (OGS Item 10); TYPE IV (OGS Item 11) (Cont'd)

4.1.3.4 Quality Assurance Provisions

Responsibility for inspection

Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the government. The government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

Quality conformance inspection.

- Lot. A lot shall consist of all spheres of one type offered for inspection at one time.
- Inspection of preparation for delivery. An inspection shall be made to determine that the packing and marking comply with Section 4.1.3.5: - *Packaging* of this specification. The sample unit shall be one filled shipping container for each ten ordered, randomly selected from the lot.
- Sampling of the end item. Sampling shall be random in the ratio of 45 kg (100 lb) sample (in full bags) per 4,535 kg (10000 lb) shipped. Upon delivery, the material shall be reduced in a sample splitter to a size of approximately 1 kg (2.2 lb). The sample shall be submitted to the laboratory for testing.
- Certificate of compliance. When Type I or Type IV spheres are offered for inspection, the manufacturer shall certify that the spheres conform to the requirements of Section 4.1.3.3: - *Physical Requirements: Composition*.

Test procedure

The spheres shall be tested in accordance with the methods specified herein to determine compliance with the requirements of Section 4.1.3.3 - *Physical Requirements* of this specification. Unless otherwise specified all tests shall be conducted at conditions specified in section 9 of FED-STD-141. All test reports shall contain the individual values used in expressing the final results. Failure to pass any tests, or noncompliance with any requirement, shall be cause for rejection of the sample.

- Appearance
Spread thinly 10 g of sample on white bond paper and examine visually for compliance with Section 4.1.3.3 - *Physical Requirements, Physical Properties-Appearance*.
- Roundness
The roundness of the Type I and Type III spheres shall be determined in accordance with ASTM method D 1155. Use Procedure A for Type III spheres and Procedure B for Type I spheres. The roundness of the Type IV spheres shall be determined in accordance with FLH Designation T 520-93. Evaluate for compliance with the requirements in Section 4.1.3.3 - *Physical Requirements, Physical Properties - Roundness*.
- Index of refraction
The index of refraction shall be determined by the immersion method. A microscope capable of a minimum of 100x magnification, equipped with a light source and certified immersion oils shall be used. Place crushed spheres on a microscope slide and immerse in a refractive index immersion oil at standard conditions. (The immersion oil shall have a refractive index within 0.02 units of that of the spheres to be tested.) Cover with a microscope slide and determine the refractive index of the spheres to the nearest one-hundredth of a unit. Evaluate for compliance with the requirements of Section 4.1.3.3 - *Physical Requirements, Physical Properties - Index of refraction*.

SECTION 4: GLASS SPHERES FOR REFLECTORIZED PAVEMENT MARKING (VARIOUS TYPES)

4.1 Specifications (Cont'd)

4.1.3 LOT VIII - X (OGS Items 9 - 11) Glass Spheres for Reflectorized Pavement Marking: TYPE I (OGS Item 9); TYPE III (OGS Item 10); TYPE IV (OGS Item 11) (Cont'd)

- **Specific gravity**
Place 100 g of the spheres in an oven at $105^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and dry to constant weight. Remove the spheres and place in a desiccator until the sample is cool. Remove 60 g of spheres from the desiccator and weigh the sample accurately. Pour the spheres slowly into a 100 mL graduated cylinder containing 50 mL of reagent-grade xylene. Make certain that air is not entrapped among the spheres. Calculate the specific gravity as follows:
$$\text{Specific gravity} = M/V - 50$$

$$M = \text{Mass of sample} \quad V = \text{total volume (xylene level after addition)}$$

Evaluate for compliance with Section 4.1.3.3 *Physical Requirements, Physical Properties - Specific Gravity*.
- **Gradation**
Determine the gradation of the spheres in accordance with ASTM method D1214 for compliance with Section 4.1.3.3 - *Physical Requirements, Physical Properties - Gradation*.
- **Resistance to acid**
Place 10 g of the spheres in a 100 mL beaker and cover with a 1N sulfuric acid. Let soak for 5 minutes. Rinse the spheres 3 times with distilled water. Dry, then examine the spheres under a microscope and compare with the untreated sample. Evaluate for compliance with Section 4.1.3.3 - *Physical Requirements, Physical Properties - Resistance to acid*.
- **Resistance to calcium chloride**
Place 10 g of the spheres in a 100 mL beaker and cover with a 1N calcium chloride solution. Let soak for 3 hours. Rinse the spheres 3 times with distilled water. Dry, then examine the spheres under a microscope and compare with the untreated sample. Evaluate for compliance with Section 4.1.3.3 - *Physical Requirements, Physical Properties - Resistance to calcium chloride*.
- **Resistance to sodium sulfide**
Place 10 g of the spheres in a glass stopper bottle and cover with a solution containing by weight 50% sodium sulfide, 48% distilled water, and 2% of an anionic wetting agent. Soak the spheres for one hour and then rinse the spheres 3 times with distilled water. Dry, then examine the spheres under a microscope and compare with untreated sample. Evaluate for compliance with Section 4.1.3.3 - *Physical Requirements, Physical Properties - Resistance to sodium sulfide*.
- **Water resistance**
Place 10 g of the spheres in a 20 x 80 mm extraction thimble. Place the thimble in a large (No. 3) Soxhlet extractor with a 125 mL boiling flask. Add 100 mL of distilled water, and reflux for two hours. Rinse the spheres 3 times with distilled water. Remove the spheres, dry, then examine the spheres under a microscope and compare with untreated spheres. Add five drops of one percent phenolphthalein indicator to the content of the boiling flask and titrate with 0.1N hydrochloric acid to the phenolphthalein indicator end point. Evaluate for compliance with Section 4.1.3.3 - *Physical Requirements, Physical Properties - Water resistance*.

SECTION 4: GLASS SPHERES FOR REFLECTORIZED PAVEMENT MARKING (VARIOUS TYPES)

4.1 Specifications (Cont'd)

4.1.3 LOT VIII - X (OGS Items 9 - 11) Glass Spheres for Reflectorized Pavement Marking: TYPE I (OGS Item 9); TYPE III (OGS Item 10); TYPE IV (OGS Item 11) (Cont'd)

4.1.3.5 PACKAGING.

Preservation

The glass spheres shall be furnished in lots as specified by the purchaser and packaged in moisture-proof containers. Containers shall be in accordance with the supplier's normal commercial practice, provided that there will be no interaction chemically or physically with the contents so as to damage the containers or alter the strength, quality, or purity of the contents. Containers are to be guaranteed to furnish dry and undamaged spheres. The container shall be securely closed to prevent accidental opening or loss of the glass spheres, and sufficiently strong to prevent accidental rupture during multiple shipments, handling and storage. The shipping containers shall also comply with the National Motor Freight Classification or Uniform Freight Classification requirements.

4.1.3.6 NOTES (Information for Guidance Only)

(This section contains information of a general or explanatory nature.)

Intended Use

- **Type I:**
 - Gradation A - coarse - low-index recycled glass spheres for drop-on applications are intended for marking highways and all airfield markings.
 - Gradation B - fine - low-index glass spheres for premixed paint are intended for marking highways, or for use in applying temporary airport or airfield markings.
- **Type III:**
 - High index glass spheres for drop-on applications are intended for applications where increased retro-reflectivity is needed.
- **Type IV:**
 - Gradation A – Large coarse, direct-melt, low-index glass spheres for drop-on applications are intended for highways and all airfield markings.
 - Gradation B – Medium coarse, direct-melt, low-index glass spheres for drop-on applications are intended for highways and all airfield markings.

[NOTE: The increased retro-reflective values obtained from use of high index of refraction glass spheres are only apparent to the observer in cases where the observer's line of sight is in close proximity to the path of the light source used to illuminate the markings. Studies by the USAF and the Federal Aviation Administration have shown that in cases where the light source is not in close proximity to the viewer's eye position, the added benefit from the use of the higher index of refraction spheres is negligible.]

See appropriate pavement marking guide for specific recommended uses and application rates.

Ordering Data

Purchasers should select the preferred options permitted herein and indicate the following information in procurement documents:

- Title, number, and date of this specification.
- Type and gradation required (see Section 4.1.3.1 - Classification and Section 4.1.3.6 - Intended Use).
- Palletization requirements.
- Special Marking requirements.
- Instructions and address for submission of SDS (see Section 4.1.3.3 - Safety Data Sheet).

**SECTION 4: GLASS SPHERES FOR REFLECTORIZED PAVEMENT MARKING
(VARIOUS TYPES)**

4.1 Specifications (Cont'd)

4.1.4 LOT XI OGS Item 12: Glass Spheres with Drying Agent

SCOPE:

This specification is for a compound to be used as an additive in conjunction with waterborne traffic paint and glass spheres to provide a drying agent which accelerates the no-tack time of the waterborne traffic paint a minimum of 40% faster than the same paint without the compound. In order to provide the reflectivity necessary and accelerate the no-track time, the compound must meet all the specifications included herein.

APPLICATION & USE

The compound should be able to be applied under pneumatic pressure by a standard truck-mounted dispensing machine moving at speeds of 5 to 15 mph.

MATERIAL:

The compound shall be a mixture of glass bead and drying aid materials.

When applied at a rate of 1.9 lbs. of compound with a drop-on rate of 7 to 8 lbs. of glass spheres per 100 sq. ft. of waterborne pavement markings paint at a 15 mil wet film thickness, the compound shall reduce the no-track time of the marking by at least 40%.*

The compound shall meet the following gradation when tested according to ASTM D1214:

U.S.	%
#16	100%
#20	90-100%
#30	65-95%
#50	10-35%
#100	0-5%

The glass bead component of the compound shall be colorless, clean, transparent and free from milkiness or excessive air bubbles, and have a refractive index between 1.50 and 1.65 when tested by liquid immersion method** (see footnote below) at 25°C. The glass particles shall be spherical in shape, containing not more than 30 % of irregularly shaped particles and be the equivalent of an AASHTO Type I glass bead. The silica content of the glass spheres shall be not less than 60 % when tested in accordance with ASTM C169. The component shall be manufactured of glass of a composition designed to be highly resistant to traffic wear, decomposition, etching under atmospheric conditions, dilute acids, alkali's, paint film constitutes, and to the effects of weathering and should to the maximum extent practicable be composed of recycled glass. They shall not exhibit toxicity characteristics when tested in accordance with 40 CFR 261.24. Recycled cullet should contain a no more than 75 ppm of Arsenic, 100 ppm of Lead, and/or 100ppm of Antimony, when determined by EPA method 6010B using EPA method 3052 for sample preparation.

SECTION 4: GLASS SPHERES FOR REFLECTORIZED PAVEMENT MARKING (VARIOUS TYPES)

4.1 Specifications (Cont'd)

4.1.4 LOT XI OGS Item 12: Glass Spheres with Drying Agent (Cont'd)

- The Drying Aid Component shall be smooth, and spherically shaped, amber to white in color and of a type that promotes accelerated coalescence of the latex polymer and as such reduces waterborne paint dry to touch time by a minimum of 40%.
- The compound shall show no tendency to absorb moisture in storage and shall remain free of clusters and hard lumps. It shall flow freely from dispensing equipment at any time when applying the pavement marking.
- The compound may be evaluated by the NYSDOT Materials Bureau before being considered acceptable for purchase from any contract awarded through this Invitation for Bids.

**NOTE: The actual application rate of the compound will be based on the wet mil thickness of the waterborne pavement markings being applied and the manufacturer's recommendations.*

****NOTE:** Liquid Immersion Method of determining the refractive index: The refractive index is measured by placing a small number of glass beads on a microscope slide and placing the slide under a microscope. Using certified index of refraction liquids; put a drop of liquid on the beads. Looking through the microscope, raise the microscope tube. If the ring around the beads moves towards the beads as the tube is raised, then the index of the beads is higher than the index of the liquid. Repeat using higher index of refraction liquids until the ring around the beads moves outward as the tube is raised. The index of refraction is between the index of the solution in which the ring goes in towards the beads and the index of the solution in which the ring moves away from the beads. (Certified Index of Refraction Liquids - Set RF1/2, manufactured by Cargill).

QUALITY ASSURANCE PROCEDURE FOR LOT XI (OGS Item 12) Glass Spheres with Drying Agent

The contractor shall be aware that throughout the duration of the contract, to ensure compliance with the detailed specifications at all times, each delivery made may be subject to field sampling prior to its use by the ordering agency. The sampling procedure shall be as follows:

1. The sampling shall be random.
2. Using a thief or sampling tube (commonly known as a "grain sampler"), a "spot sample" will be removed from at least three separate bags
3. All "spot samples" will be combined into one "test sample" container and deemed to constitute a representative sample of the subject truckload delivery. The "test sample" should weigh approximately five lbs. This "test sample" will be forwarded to the ordering agency's designated laboratory for analysis.
4. Alternatively, Statistical Process Control Methods following ASTM E 105 and E 1994, or ANSI/ASQ Z1.4 and Z1.9 may be used to monitor the quality of the product so that it meets the requirement of the applicable detail specification.

Any deviations from the detailed specification found in the field sample shall be sufficient justification for rejection of entire shipment and a conforming replacement shipment shall be delivered within seven (7) calendar days of date of rejection notice, as per specifications.

SECTION 4: GLASS SPHERES FOR REFLECTORIZED PAVEMENT MARKING (VARIOUS TYPES)

4.2 Ordering

Purchase Orders shall be made in accordance with the terms set forth in Appendix B, *Purchase Orders*. Authorized Users may submit orders over the phone, and, if available, may submit orders electronically via web-based ordering, e-mail, or facsimile at any time. Orders submitted shall be deemed received by Contractor on the date submitted.

All orders shall reference Contract number, requisition, and/or Purchase Order number (if applicable). Upon Contractor's receipt of an order, confirmation is to be provided to the Authorized User electronically or via facsimile. Order confirmation should be sufficiently detailed, and include, at a minimum, purchase price, date of order, delivery information (if applicable), Authorized User name, and sales representative (if applicable).

Authorized Users should indicate the following information in procurement documents:

- Type and gradation required
- Palletization requirements
- Special Marking requirements
- Instructions and address for submission of SDS

4.3 Minimum Order

The minimum order for this Contract shall be 10,000 POUNDS net weight and the weight may be assorted among sphere types within the confines of the spheres overall classification of either Highway Grade or Airport Grade. The classification Highway Grade and Airport Grade **may not be mixed** to achieve minimum weight.

Orders must be made in net weight as determined to be a multiple of stated package weight. Items designated as available in bags are to be ordered in multiples of 50 pounds. Items designated as available in box containers are to be ordered in multiples of 2000 pounds.

Contractor may elect to honor orders for less than the minimum order.

4.4 Product Delivery

Delivery of all Contract Products shall be made in accordance with Appendix B, *Product Delivery and Shipping/Receipt of Product* except for the following modifications:

4.4.1 General

Delivery shall be expressed by the average (or usual) number of calendar days required to ship and complete the product delivery after receipt of a purchase order. Product will be required as soon as possible and delivery may be considered by an agency issuing a purchase order.

4.4.2 Shipping Dates and Delivery Time

Contractor shall provide written acknowledgement of orders within five (5) business days after receipt of order which will include an anticipated shipping date of each order

If shipment will not be made within the delivery time, the contractor is required to notify the agency in writing at least two weeks prior to the latest date of the original delivery obligation. This notification must include the reasons for the delay and the latest date the product will be shipped. Should the delay not be acceptable to the using agency, appropriate contract default proceedings will be initiated. Failure to supply timely written notification of delay may be cause for default proceedings.

All correspondence on shipping dates and delivery time shall be directed to the ordering agency's contact person.

4.4.3 Delivery Conditions

Contractor shall be responsible to make no shipment of the product that will be exposed to conditions during transit, detrimental to the product. Product must be delivered strictly in accordance with specifications and shall be "Ready for Use."

SECTION 4: GLASS SPHERES FOR REFLECTORIZED PAVEMENT MARKING (VARIOUS TYPES)

4.4 Product Delivery (Cont'd)

4.4.4 Delivery Certification

Contractor shall secure a signed receipt from agency certifying to delivery of product. In the event deficiencies are later noted and a properly signed receipt is not available, contractor will be responsible.

4.4.5 Certificate of Analysis

The contractor is required to submit with each delivery a 'Notarized' and 'Certified' Certificate of Analysis, which will indicate the refractive index, percent roundness and sieve gradation of the delivered materials.

4.4.6 Shipping, Packing, Marking and Palletization

Shipping shall be only by covered trailers in order to maintain sphere dryness. The glass spheres shall be packed either in bags containing 50 lbs. net or cardboard boxes containing 2,000 lbs. net. The contractor shall be responsible for the proper delivery of the glass spheres, in specified containers. The containers shall not affect its contents. Bags or boxes of glass spheres shall not contain foreign contaminants.

If bags are used, they shall be either a standard cemented center seam, plastic lined, burlap bag, or plastic lined paper bags. A bag shall contain 50 lbs. net weight. If required by ordering agency, the bags shall be packed and delivered on disposable pallets, forty (40) bags to a pallet (2,000 lbs.).

If cardboard boxes are used they should be moisture resistant, multi-wall, five (5) wall box constructed new cardboard containers consisting of a box and a poly-liner to exclude moisture. **Boxes must have sufficient integrity to be stackable with visible indication of maximum stacking quantity.** Reusable boxes are unacceptable. Cardboard boxes shall be delivered on a skid or pallet. All pallets shall be constructed to allow use of forklifts.

The bags and boxes shall be marked with the name and address of the manufacturer and name and net weight of the material, the glass sphere coating type, the lot and/or batch number, and the date of manufacture (mm / yy).

The ordering agency shall have sufficient justification to reject bags or boxes of glass spheres that are: covered with water, supplied in improper containers, contaminated with foreign materials, or supplied on broken skids or pallets. Rejected glass spheres shall be replaced within seven (7) calendar days of the date of rejection notice.

4.4.7 LOT XI (OGS Item 12) Glass Spheres with Drying Agent

The packages shall be marked with the name and address of the manufacturer and name and net weight of the material, the material name, the lot and/or batch number, and the date of manufacture (mm /yy) and be secured on disposable pallets, 40 bags to a pallet (2,000 lbs.). The pallets shall be constructed to allow use of forklifts.

Shipping shall be only by covered trailers in order to maintain product dryness.

The compound shall be packed in bags and the contractor shall be responsible for the proper delivery thereof. The containers shall not affect its contents, nor contain foreign contaminants. Bags shall be either standard cemented center seam, plastic-lined burlap bags, or plastic-lined paper bags. A bag shall contain 50 lbs. net weight.

The ordering agency shall have sufficient justification to reject bags of compound that are covered with water, supplied in improper containers, contaminated with foreign materials, or supplied on broken skids or pallets. Rejected items shall be replaced within seven (7) calendar days of the date of rejection notice.

SECTION 4: GLASS SPHERES FOR REFLECTORIZED PAVEMENT MARKING (VARIOUS TYPES)

4.5 Performance Requirements

4.5.1 Retail Price Lists and Catalogs

Contractor shall be required to furnish, without charge, catalog and retail price lists identical to those accepted with their bid, including any changes (additions, deletions, etc.) pursuant to the contract, to all authorized users which request them. Catalogs and price lists provided must reflect all products excluded from the resultant contract either through the omission of those portions or by obvious indications within the catalogs and price lists. Fulfillment of any request must be made within 14 calendar days of the request.

Catalogs and retail price lists may be furnished in either hard-copy or electronic format. If available in both formats, they shall be furnished in the format preferred by the requesting authorized user. Upon request the contractor shall assist authorized users in the use of catalogs and retail price lists. Retail price lists provided to contract users under this contract may, at the vendor's option, include Net Prices reflecting the proper discounts for appropriate products in addition to the proper full list prices.

4.5.2 Discrepancies

The contractor shall resolve all order and invoice discrepancies (e.g., shortages, breakages, etc.) within five business days from notification.

4.5.3 Emergency Service Number & Contact Information

Given the nature of the products impact upon public safety, the contractor will provide a toll free product emergency service phone number that is available seven days a week, twenty-four hours a day. An emergency contact person is to be named, and a phone number, cell phone number, fax number, and email address for this contact shall be provided.

4.5.4 Contractor's Support

Onsite, field technical support shall be provided by the contractor within 48 hours of a request.

**State of New York
 Office of General Services
 Procurement Services
 Contract Performance Report**

Please take a moment to let us know how this contract award has measured up to your expectations. If reporting on more than one contractor or product, please make copies as needed. This office will use the information to improve our contract award, where appropriate. **Comments should include those of the product’s end user.**

Contract No.: _____ **Contractor:** _____

Describe Product* Provided (Include Item No., if available): _____

***Note:** “**Product**” is defined as a deliverable under any Bid or Contract, which may include commodities (including printing), services and/or technology. The term “Product” includes Licensed Software.

	Excellent	Good	Acceptable	Unacceptable
• Product meets your needs				
• Product meets contract specifications				
• Pricing				

CONTRACTOR

	Excellent	Good	Acceptable	Unacceptable
• Timeliness of delivery				
• Completeness of order (fill rate)				
• Responsiveness to inquiries				
• Employee courtesy				
• Problem resolution				

Comments: _____

Agency: _____ Prepared by: _____

Address: _____ Title: _____

_____ Date: _____

_____ Phone: _____

_____ E-mail: _____

Please email to: customer.services@ogs.ny.gov

OGS Procurement Services
 Customer Services, 38th Floor
 Corning Tower - Empire State Plaza
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