

State of New York Executive Department
Office of General Services – NYS Procurement
Corning Tower - 38th Floor
Empire State Plaza
Albany, NY 12242

INVITATION FOR BIDS

**IMPORTANT: SEE “NOTICE TO BIDDERS” CLAUSES HEREIN
BIDS MAY BE SENT TO THE ABOVE ADDRESS ONLY
(E-Mail or Facsimile Bid Submissions Are NOT Acceptable)**

BID OPENING: DATE: 04/16/2013 TIME: 11:00 AM ET	TITLE: Group 31555 – Comprehensive Liquid Bituminous Materials (Asphalt Emulsions; Chip Seal - Conventional & Fiber Reinforced; Cold Recycling; Joint & Crack Filler/Sealer; Microsurfacing and/or Quick Set Slurry Seal; and Paver Placed Surface Treatment – Conventional & Rubber Modified) (All State Agencies and Political Subdivisions) Classification Codes: 30
INVITATION FOR BIDS NO: 22669	SPECIFICATION REFERENCE: SPEC-927 dated January 18, 2013 and as amended in the Invitation For Bids (Supersedes SPEC-919 dated September 27, 2010)
CONTRACT PERIOD: May 1, 2013 to April 30, 2014	

DESIGNATED CONTACTS

PRIMARY CONTACT	SECONDARY CONTACT	SECONDARY CONTACT	TERTIARY CONTACT
Jose De Andres Phone: 518-474-3024 jose.deandres@ogs.ny.gov	Marcos Ortiz Phone: 518-474-1557 marcos.ortiz@ogs.ny.gov	Joseph Hodder Phone: 518-474-3668 joseph.hodder@ogs.ny.gov	Hasib Khan Phone: 518-457-1572 hasibul.khan@dot.ny.gov

The bid must be fully and properly executed by an authorized person. **By signing you certify your express authority to sign on behalf of yourself, your company, or other entity and full knowledge and acceptance of this INVITATION FOR BIDS, Appendix A (Standard Clauses For New York State Contracts), Appendix B (OGS General Specifications), and State Finance Law §139-j and §139-k (Procurement Lobbying), and that all information provided is complete, true and accurate. By signing, Bidder affirms that it understands and agrees to comply with the OGS procedures relative to permissible contacts as required by State Finance Law §139-j (3) and §139-j (6) (b).** Information may be accessed at:

Procurement Lobbying: <http://www.ogs.ny.gov/aboutOgs/regulations/defaultAdvisoryCouncil.html>

Bidder’s Federal Tax Identification Number: <i>(Do Not Use Social Security Number)</i>	NYS Vendor Identification Number: <i>(See “New York State Vendor File Registration” clause)</i>			
Legal Business Name of Company Bidding:				
D/B/A - Doing Business As (if applicable):				
Street	City	State	County	Zip Code
If applicable, place an “x” in the appropriate box (check all that apply):	<input type="checkbox"/> Small Business #Employees	<input type="checkbox"/> Minority Owned Business	<input type="checkbox"/> Women Owned Business	
If applicable, place an “x” in the appropriate box (check all that apply):	<input type="checkbox"/> Manufactured Within New York State	<input type="checkbox"/> Manufactured Outside New York State		
If you are not bidding, place an “x” in the box and return this page only.				
<input type="checkbox"/> WE ARE UNABLE TO BID AT THIS TIME BECAUSE:				
Bidder’s Signature:	Printed or Typed Name:			
Title:	Date:			
Phone:	Extension	Toll Free Phone:	Extension	
Fax:	Extension	Toll Free Fax:	Extension	
E-mail Address:	Company Website:			

FOR NYS PROCUREMENT USE ONLY

P.R. # 22669	LIT <input type="checkbox"/>	MEMO <input type="checkbox"/>	LET <input type="checkbox"/>	OTHER <input type="checkbox"/>	MISSING PAGES
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INDIVIDUAL, CORPORATION, PARTNERSHIP, OR LLC ACKNOWLEDGMENT

STATE OF _____ }
: _____ SS.:
COUNTY OF _____ }

On the _____ day of _____ in the year 20____, before me personally appeared _____, known to me to be the person who executed the foregoing instrument, who, being duly sworn by me did depose and say that he resides at _____,

Town of _____, County of _____,

State of _____; and further that:

[Check One]

- If an individual):** he executed the foregoing instrument in his/her name and on his/her own behalf.
- If a corporation):** he is the _____ of _____, the corporation described in said instrument; that, by authority of the Board of Directors of said corporation, he is authorized to execute the foregoing instrument on behalf of the corporation for purposes set forth therein; and that, pursuant to that authority, he executed the foregoing instrument in the name of and on behalf of said corporation as the act and deed of said corporation.
- If a partnership):** he is the _____ of _____, the partnership described in said instrument; that, by the terms of said partnership, he is authorized to execute the foregoing instrument on behalf of the partnership for purposes set forth therein; and that, pursuant to that authority, he executed the foregoing instrument in the name of and on behalf of said partnership as the act and deed of said partnership.
- If a limited liability company):** he is a duly authorized member of _____ LLC, the limited liability company described in said instrument; that he is authorized to execute the foregoing instrument on behalf of the limited liability company for purposes set forth therein; and that, pursuant to that authority, he executed the foregoing instrument in the name of and on behalf of said limited liability company as the act and deed of said limited liability company.

Notary Public
Registration No.

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APPENDICES AND ATTACHMENTS

Appendices

- Appendix A - Standard Clauses for New York State Contracts (December 2012)
- Appendix B - General Specifications (July 2006)

Attachments

- Attachment 01 - NYS Map
- Attachment 02 - General Questions
- Attachment 03 - New York State Required Certifications
- Attachment 04 - Insurance Requirements
- Attachment 05 - Report of Contract Purchases
- Attachment 06 - Inquiries Template
- Attachment 07 – Group Specifications #927
- Attachment 08 – Quick Quote/ Price Calculation Worksheets (Examples)
- Attachment 09 – Asphalt Emulsions Price Pages
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- Attachment 15 – NYSDOT Work Zone Traffic Control Drawings

SECTION 1: INTRODUCTION

Since taking office in January, 2011, Governor Andrew Cuomo has committed his administration to implementing enterprise-wide changes that will utilize modern business practices in running New York State government. New Yorkers need a government in which they can take pride, and this comprehensive overhaul of operations will help accomplish that goal. This Invitation for Bids (IFB) is a part of Governor Cuomo's Procurement Transformation, by the Division of the Budget and the Office of General Services and focuses on implementing best practices and identifying opportunities for savings. The new procurement process balances the needs of achieving savings with the administration's policy goals of encouraging small businesses and certified minority and women owned business enterprises. The scope, contents and format of this IFB are structured in accordance with the goals of the initiative and Bidders are encouraged to review the information contained in this IFB thoroughly to understand the extent of changes from the present Contracts. For more information on the initiative, a Bidder can refer to: <http://www.governor.ny.gov/press/10122011ImproveGovernmentEfficiency> and <http://www.ogs.ny.gov/BU/PC/SourcingFAQ.asp>.

This IFB is issued by the New York State Office of General Services (OGS) NYS Procurement (NYSPRO). The commodity Contracts awarded as a result of this IFB will be centralized Contracts primarily for, but not limited to, New York State Agencies (see Section "*Non-State Agencies Participation in Centralized Contracts*"). Accordingly, references to the State and its agencies as Authorized Users under this IFB and the ensuing Contract(s) encompass and include all such entities within the definition of "Authorized User" set forth in Appendix B, §5, *Definitions*.

This IFB outlines the terms and conditions, and all applicable information required for submitting a bid. A Bidder should pay strict attention to the bid opening date and time to prevent disqualification. To ensure compliance with bid requirements and prevent possible disqualification, Bidder must follow the format and instructions in Section "*Format and Content of Bid Submittal*".

1.1 Overview and Scope

This bid and any resultant contract(s) is intended to provide a procurement mechanism for all State Agencies and Political Subdivisions to purchase Liquid Bituminous Materials. These materials are divided in several groups: Asphalt Emulsions, Joint & Crack Filler/Sealer and several pavement preventive/corrective maintenance treatments including Chip Seal – Conventional and Fiber Reinforced, Cold Recycling, Microsurfacing and/or Quick Set Slurry Seal and Paver Placed Surface Treatment. The Contract Award Notification shall be comprised of Contractors located throughout the State who can provide Liquid Bituminous Materials as needed by Authorized Users and as provided for in this Invitation for Bids and accompanying Group Specification. Each participating entity will make a final determination on their usage of the Contract Award after their evaluation of the awarded prices. Agencies are to make the purchasing decisions based upon the most practical and economical alternative which is in the best interests of the State, and best meets their form, function, and utility requirements. Agencies are encouraged to use the lowest bidder, but if the lowest bidder is not selected, then the agency must prepare documentation for the procurement record explaining the action taken (i.e., the low Contractor could not provide the product in the time frame required, Contractor did not have the needed equipment, etc.).

Detailed information on the procurement process is set forth in Section "*Method of Award*".

1.2 Estimated Quantities

The historical dollar value of all contracts issued under previous awards was approximately \$30,000,000 annually. However, each contract shall be for the quantities or dollar values actually ordered during the contract period. The individual value of each contract is indeterminate and will depend upon the number of contracts issued and the competitiveness of the pricing offered. Agencies will be encouraged to purchase from Contractors who offer the supplies, services, and pricing that best meet their needs in the most practical and economical manner. (See Appendix B, §§ 39 *Participation in Centralized Contracts* and 42 *Estimated/Specific Quantity Contracts*).

1.3 Key Events/Dates

Event	Date	Time
IFB Release	03/25/2013	n/a
Closing Date for Inquiries	04/09/2013	11:00 AM ET
Submission of IFB and Bid Opening	04/16/2013	11:00 AM ET

1.4 Inquiries

1.4.1 Summary of Policy and Prohibitions on Procurement Lobbying

Pursuant to State Finance Law §§139-j and 139-k, this IFB includes and imposes certain restrictions on communications between OGS and a Bidder during the procurement process. A Bidder is restricted from making contacts from the earliest notice of intent to solicit offers/bids through final award and approval of the Procurement Contract by OGS and, if applicable, the Office of the State Comptroller (“restricted period”) to other than designated staff unless it is a contact that is included among certain statutory exceptions set forth in State Finance Law §139-j (3) (a). Designated staff, as of the date hereof, is identified on the first page of this IFB. OGS employees are also required to obtain certain information when contacted during the restricted period and make a determination of the responsibility of the Bidder pursuant to these two statutes. Certain findings of non-responsibility can result in rejection for Contract award and in the event of two findings within a four (4) year period, the Bidder is debarred from obtaining governmental Procurement Contracts. Further information about these requirements can be found on the OGS website: <http://www.ogs.ny.gov/aboutOgs/regulations/defaultAdvisoryCouncil.html>.

1.4.2 IFB Inquiries

Bidders are encouraged to submit inquiries about the IFB at any point up to the closing date for inquiries as listed in Section “*Key Events/Dates*”.

A Bidder should raise any potential assumptions, exceptions, caveats, etc. to the terms and conditions, specifications, and requirements of this IFB during the inquiry period of the procurement. OGS will not entertain any exceptions to Appendix A. OGS will also not entertain exceptions to this IFB and Appendix B that are of a material and substantive nature.

A Bidder should note that all clarifications and exceptions including those relating to the terms and conditions of the Contract are to be resolved prior to the submission of a bid. Bids that contain material changes to the terms and conditions, specifications, and requirements set forth throughout this IFB may be disqualified as non-responsive.

All inquiries concerning this IFB must be submitted to the official e-mail address listed as the designated contact on the front page of this IFB using the template found in Attachment 6 – *Inquiries Template* by the date and time listed in Section “*Key Events/Dates*”. When e-mailing Attachment 6 to the designated contacts, a Bidder should annotate the subject of its submissions as follows: “Inquiry for Comprehensive Liquid Bituminous Materials IFB.”

No inquiries submitted via phone, fax, or mail will be accepted.

Responses to all questions of a substantive nature will be provided electronically on the OGS website and released through the Bidder Notification Service as a formal addendum which will become part of the ensuing Contract.

1.5 Definitions

“Agency or Agencies” as defined in Appendix B.

“Authorized User(s)” as defined in Appendix B.

“Bidder” as defined in Appendix B.

“Business Day” shall refer to Monday through Friday, excluding State holidays.

“Business Hours” shall refer to 8:00 AM to 5:00 PM ET on Business Days.

“Contract” as defined in Appendix B.

“Contractor” as defined in Appendix B. See also “Bidder”, “Primary Contractor”, and “Secondary Contractor.”

“Delivery” as defined in Appendix B.

“**Executive Agency**” shall refer to all State departments, offices or institutions but, for the purposes of this IFB, excludes the State University of New York and excludes City University of New York. Furthermore, such term shall not include the legislature and judiciary. The term “Executive Agency” does not include any public benefit corporation, public authority, or local government entity.

“**Invitation for Bids (IFB)**” as defined in Appendix B.

“**May**” denotes the permissive in a Contract clause or specification. “May” does not mean “required.” See also “Shall” and “Must.”

“**Must**” denotes the imperative in a Contract clause or specification. “Must” is synonymous with “required.” See also “Shall” and “May.”

“**MWBE**” shall refer to a business NYS certified Minority and/or Women-owned Business Enterprise by Empire State Development (ESD). See also “Authorized Reseller.”

“**NB**” (**No-Bid**) shall refer to a case in which 1) a Bidder does not submit the required information for an item; 2) a Bidder submits invalid information into a pricing field for an item, and/or 3) an item does not meet the stated minimum specifications listed.

“**NYS Vendor File**” A centralized repository to maintain timely and reliable information on all Contractors registered to do business with the State.

“**NYS Vendor ID**” shall refer to the ten-digit identifier issued by New York State when a Contractor is registered in the NYS Vendor File.

“**N/A**” is a common abbreviation for *not applicable* or *not available*, used to indicate when information in a certain field on a table is not provided, either because it does not apply to a particular case in question or because it is not available.

“**OCP Insurance**” shall refer to the Owners and Contractors Protective Insurance Coverage.

“**Shall**” denotes the imperative in a Contract clause or specification. “Shall” is synonymous with “required.” See also “Must” and “May.”

SECTION 2: QUALIFICATIONS AND REQUIREMENTS

2.1 Qualification of Bidder

Upon request a Bidder shall submit satisfactory evidence that it possesses sufficient previous experience, financial resources and organization to perform the type, magnitude, and quality of work specified herein.

No bid will be considered unless the bidder submitting same can meet the following conditions:

- a. Bidder must indicate in their bids the plant locations and the NYSDOT Facility numbers from which material will be supplied in the event of award.
- b. A Bidder must certify its commitment to obtain all necessary proof of insurance with its proposal via Attachment 2 – *General Questions*. Upon tentative award, Bidder shall be required to procure all required insurance. If awarded a Contract, Contractor must provide proof of current insurance, certifications, licensing, etc. throughout the Contract term if requested by OGS. See Attachment 4 – *Insurance Requirements* for detailed insurance requirements.

A Bidder is advised that the State's intent in having the requirements listed above is to ensure that a responsive and responsible Bidder is awarded a Contract. OGS reserves the right to request any additional information regarding a Bidder's abilities, qualifications and procedures as it deems necessary to ensure safe and satisfactory performance under a Contract.

OGS reserves the right to investigate or make any inquiry into the capabilities of any Bidder to properly perform under any resultant Contract. See "Performance and Responsibility Qualifications", "Disqualification for Past Performance and Findings of Non-Responsibility", and "Employees/Subcontractors/Agents" in Appendix B, OGS General Specifications.

Note: Failure by a Bidder to provide any of the above information as requested by OGS or to meet any of the above qualifications in whole or in part may result in a rejection of that Bidder's bid.

2.2 Financial Stability

If requested, bidder must document its ability to service a contract with dollar sales volume similar to scope of this bid through submission of financial statements documenting past sales history. The bidder must be financially stable and able to substantiate the financial statements of its company. In addition to sales history, current financial statements may be requested and must be provided within five business days. The State reserves the right to request additional documentation from the bidder and to request reports on financial stability from independent financial rating services. The State reserves the right to reject any bidder who does not demonstrate financial stability sufficient for the scope of this bid.

2.3 Materials

Materials offered must be from a NYS Dept. of Transportation approved location. Materials offered from other than approved locations will not be considered for award and will be sufficient cause for rejection of bid.

SECTION 3: BID SUBMITTAL

3.1 Notice to Potential Bidders

Receipt of these bid documents does not indicate that OGS has pre-determined a company's qualifications to receive a Contract award. Such determination shall be made after the bid opening and shall be based on the evaluation of a bid submission compared to the specific requirements and qualifications contained in these bid documents.

3.2 Notice to Bidders

The Commissioner of OGS shall receive bids pursuant to the provisions of Article XI of the State Finance Law. All bids and accompanying documentation shall become the property of the State of New York and shall not be returned.

Bidders are responsible for the accuracy of their bids. All Bidders are directed to take extreme care in developing their bids. Bidders are cautioned to carefully review their bids prior to bid submittal.

3.3 Bid Deviations

In accordance with the requirements set forth in Appendix B, §13 *Extraneous Terms*, a Bidder shall explain any deviation(s) or qualification(s) in Attachment 2 – *General Questions*.

3.4 Responsiveness

To be considered responsive, a Bidder must submit a complete proposal that satisfies and addresses all requirements stated in the IFB. A proposal that fails to conform to all requirements may be considered non-responsive and may be rejected.

3.5 Incorporation

Portions of the successful Bidder's proposal and of this IFB shall be incorporated into a final Contract. Therefore, the proposal must be signed by a partner, corporate officer, or other person authorized to commit the Bidder to all provisions of the IFB and the proposal as submitted.

3.6 Proposal Liability

The State of New York will not be held liable for any cost incurred by the Contractor for work performed in the production of a proposal or for any work performed prior to the formal execution of a Contract. Proposals must be received at the specified location on or before the date and time listed in Section "*Key Events/Dates*". Bidder assumes all risks for timely, properly submitted deliveries. A Bidder is strongly encouraged to arrange for delivery of bids to OGS prior to the date/time of the bid opening. Late bids shall be rejected except as provided in Appendix B, §11 *Late Bids*. E-mail or faxed bids are not acceptable and shall not be considered. The received time of proposals will be determined by OGS by the clock at the final receiving location.

Bids must remain open and valid for at least 90 calendar days from the due date, unless the time for awarding the Contract is extended by mutual consent of OGS and the Bidder. A bid shall continue to remain an effective offer, firm and irrevocable, subsequent to such 90 calendar-day period until either tentative award of the Contract by OGS is made or withdrawal of the proposal in writing by Bidder.

3.7 Prevailing Wage Rates - Public Works and Building Services Contracts

Work being bid is subject to the prevailing wage rate provisions of New York State Labor Law. See "Prevailing Wage Rates - Public Works and Building Services Contracts" in Appendix B, OGS General Specifications. Any federal or State determination of a violation of any public works law or regulation, or labor law or regulation, or any OSHA violation deemed "serious or willful" may be grounds for a determination of vendor non-responsibility and rejection of bid.

The applicable Prevailing Wage Rate Schedule for this project is **PRC # 2013000838**

For access to the Department of Labor (DOL) Prevailing Wage Schedule, use the following link:

<http://wpp.labor.state.ny.us/wpp/showFindProject.do?method=showIt>

For Prevailing Wage Updates, use the following DOL link:

<http://wpp.labor.state.ny.us/wpp/publicViewPWChanges.do?method=showIt>

Links to schedule updates appear in the table at the bottom of the web page.

IMPORTANT NOTE: The above PRC number MUST be noted on all purchase orders issued for purchases from this contract.

WORKER NOTIFICATION – A9052; S6240

This provision is an addition to the existing prevailing wage rate law, Labor Law §220, paragraph a of subdivision 3-a. It requires Contractors and subcontractors to provide written notice to all laborers, workers or mechanics of the *prevailing wage rate* for their particular job classification *on each pay stub**. It also requires Contractors and subcontractors to *post a notice* at the beginning of the performance of every public work contract *on each job site* that includes the telephone number and address for the Department of Labor and a statement informing laborers, workers or mechanics of their right to contact the Department of Labor if he/she is not receiving the proper prevailing rate of wages and/or supplements for his/her particular job classification. The required notification will be provided with each wage schedule, may be downloaded from www.labor.state.ny.us or made available upon request by contacting the Bureau of Public Work at 518-457-5589.

* In the event that the required information will not fit on the pay stub, an accompanying sheet or attachment of the information will suffice.

OSHA 10-Hour Construction Safety and Health Course - S1537-A

This provision is an addition to the existing prevailing wage rate law, Labor Law §220, section 220-h. It requires that on all public work contracts of at least \$250,000, all laborers, workers, and mechanics working on site be certified as having successfully completed the OSHA 10-hour construction safety and health course. It further requires that the advertised bids and contracts for every public work contract of at least \$250,000 contain a provision of the requirement AND only applies to workers on a public work project that are required under Article 8 to receive the prevailing wage.

Further information may be found at: www.labor.state.ny.us/workerprotection/publicwork/PWContents.shtm

3.8 U.S. Customary Units

All construction and materials quantities specified are in U.S. Customary units and should be bid accordingly.

3.9 References

References are made herein to New York State Department of Transportation, Standard Specifications, Construction and Materials, dated May 1, 2008 and all current addenda. A copy may be obtained through the Department's publication unit. Call 518-457-4401 for information.

3.10 Quick Quote/Price Calculation

Using agencies will select the appropriate Contractor to perform their particular project by using the quick quote/ price calculation worksheet.

3.10.1 Price Calculation Worksheet

Agencies may use the contract prices to complete the price calculation worksheet (see Attachment 8 – Quick Quote/Price Calculation Worksheet) to determine the Contractor offering the most practical and economical alternative using the agency’s form, function, and utility requirements. Agencies are encouraged to use the lowest bidder but if the lowest bidder is not selected, then the agency must prepare documentation for the procurement record explaining the action taken (i.e., the low Contractor could not provide the product in the time frame required, Contractor did not have the needed equipment, etc.).

3.10.2 Quick Quote

During the course of the award, agencies may wish to try to obtain lower prices and Contractors may wish to lower their contract prices for various reasons, i.e., excess supply, slow business, etc. Each quick quote situation is unique and the price is firm for that particular project only. If bid security is a concern, the agency may require bids to be sealed and/or opened publicly.

The use of the Quick Quote Worksheet will be MANDATORY for all purchases made by any Executive Agency through the Contract(s) resulting from this IFB , with the only exception for cases where the material is being picked up by the user (at the plant). In those cases, the use of the Quick Quote will be optional (at the user’s discretion).

OGS also encourages the use of the Quick Quote by Non- Executive Agencies as a way to get the best pricing possible.

Agencies using the quick quote are required to award to the lowest responsive bid meeting the agency’s requirements outlined in the requested quote. There are no negotiations permitted following the “Quick Quote” and prices cannot be changed once offered. If award is made to other than the lowest bid, the agency must prepare detailed documentation explaining the action taken for the failure to meet requirements. (i.e., the low Contractor could not provide the product in the time frame required, Contractor did not have needed equipment, etc.). This explanation along with the worksheets must be made a part of the procurement record.

Contractors are not required to lower prices when they receive a quick quote. They may quote the contract price. However, **at no time may a quick quote unit price (without the Price Adjustment) exceed the contract price. Materials cost, hauling expenses, etc., can be lowered by the Contractor during the quick quote process.**

Since asphalt price adjustments will be charged/credited to all invoices (after the work is finished), **the user and the Contractor understand that the Project's Total Cost shown in the Quick Quote includes all the needed Price Adjustments for the month indicated in the Quick Quote (the month when the Quick Quote was sent to the Contractor). If the project (or part of the project) is executed in a different month than the one used to calculate the Quick Quote, then the Project's Total Cost will change accordingly to reflect the Price Adjustments for the Month in which the project (or part of the project) was actually performed.**

3.11 Format and Content of Bid Submittal

This Invitation for Bids contains the following files:

Name	Format
Invitation for Bids # 22669	PDF
Attachment 01 – NYS Map	PDF
Attachment 02 – General Questions	Microsoft Excel
Attachment 03 – New York State Required Certifications	PDF
Attachment 04 – Insurance Requirements	PDF
Attachment 05 – Report of Contract Purchases	Microsoft Excel
Attachment 06 – Inquiries Template	Microsoft Excel
Attachment 07 – Group Specifications #927	PDF
Attachment 08 – Quick Quote/Price Calculation Worksheet (Example)	Microsoft Excel
Attachment 09 – Asphalt Emulsion Price Pages	Microsoft Excel
Attachment 10 – Chip Seal Price Pages	Microsoft Excel
Attachment 11 – Cold Recycling Price Pages	Microsoft Excel
Attachment 12 – Joint & Crack Filler/Sealer Price Pages	Microsoft Excel
Attachment 13 – Microsurfacing and/or Quick Set Slurry Seal Price Pages	Microsoft Excel
Attachment 14 – Paver Placed Surface Treatment Price Pages	Microsoft Excel
Attachment 15 – NYSDOT Work Zone Traffic Control Drawings	PDF

It is recommended that the bidder open, review and save/download all electronic files to the bidder's hard drive and/or to a secure back-up. Only completed files (in the specified format) should be saved to portable electronic media. Do not return copies of Appendix A and B with your bid. Please note that submitting a bid by fax or e-mail is not acceptable.

It is required that each Bidder submit the entire offering on portable electronic media (CD, DVD, memory stick, etc.) in accordance with the instructions below.

A complete bid proposal consists of the following:

1. **Two (2) sets of portable electronic media (2 separate CD's, 2 separate DVD's, or 2 separate memory sticks).**
Each of the two (2) CD's, DVD's or memory sticks to be sent should contain the following files:
 - a. **Completed Price Pages**
Any or all of the Attachments 9, 10, 11, 12, 13 and 14 for all the Treatments/Material Items that are being bid. **These price pages must be saved to the portable electronic media in Microsoft Excel format. Any price pages submitted in a different format than Excel will be rejected. Price pages in PDF format will also be rejected).**
If a Bidder is submitting bids from different treatments and/or plants, one separate Price Page labeled as "TREATMENT_YOUR COMPANY NAME_PLANT LOCATION", will be required for each treatment/plant;
 - b. **Pages 1 and 2 of the IFB**
These two pages must be signed and notarized and then scanned and submitted in the portable electronic media as a PDF document;
 - c. **Completed Attachment 2 – General Questions (all tabs)**
Attachment 2 – General Questions must be saved to the portable electronic media in Microsoft Excel format. Any Attachment 2 – General Questions submitted in a different format than Excel will be rejected. Attachment 2 – General Questions in PDF format will also be rejected).
 - d. **Completed Attachment 3 – New York State Required Certifications**
Attachment 3 - New York State Required Certifications must be signed, scanned and submitted in the portable electronic media as a PDF document;
 - e. **Completed Contractor Certification, ST-220-CA**
This form can be found at: http://www.tax.ny.gov/pdf/current_forms/st/st220ca_fill_in.pdf
The completed Contractor Certification, ST-220-CA must be signed and notarized and then scanned and submitted in the portable electronic media as a PDF document;

- f. If providing at the time of bid, **all necessary proof of insurance** (see Attachment 4 – *Insurance Requirements* for the detailed insurance requirements);
If providing at the time of bid, these documents should be scanned and submitted in the portable electronic media as a PDF document;
2. **Two (2) three-ring binders**
Each of the two (2) three-ring binders to be submitted should contain original versions with original ink signatures of each of the following:
- a. **Original pages 1 and 2 of the IFB with original ink signatures**
(two (2) sets of originals are required, one for each binder. Copies will be rejected);
- b. **Completed Attachment 3 – New York State Required Certifications with original ink signatures**
(two (2) sets of originals are required, one for each binder. Copies will be rejected);
- c. **Completed, notarized and signed Contractor Certification, ST-220-CA**
This form can be found at: http://www.tax.ny.gov/pdf/current_forms/st/st220ca_fill_in.pdf
(two (2) sets of notarized and signed original ST-220 forms are required, one for each binder. Copies will be rejected);
- d. If providing at the time of bid, **all necessary proof of insurance** (see Attachment 4 – *Insurance Requirements* for the detailed insurance requirements);

Bidder should note that any paper copy submission of Price Pages will be rejected. Only electronic copies of Price Pages will be accepted.

New York State Office of General Services NYS Procurement reserves the right to reject any bid submission or portion(s) thereof determined to have been altered/modified from the original format by the vendor. Such alterations/modifications include but are not limited to any change(s) to document header(s), footer(s) and/or cell(s); unprotecting worksheet(s)/workbook(s); hiding/unhiding cell(s)/column(s)/row(s)/worksheet(s); and locking/unlocking cell(s).

Also, please note that in the case of discrepancies between paper copies and electronic media submissions of the documents required in both formats, the electronic copy shall take precedence over the paper copy.

A Bidder should note that any indicators or messages that have been built into Attachment 2 – *General Questions* are informational only and provided solely for the purpose of assisting Bidders in completing the Attachments. The presence or absence of notes or indicators is not a determination by the State as to the sufficiency of the Attachments with respect to the IFB requirements. Bidders remain responsible for reviewing the Attachments to ensure compliance with the IFB requirements.

3.12 Bid Delivery

A Bidder assumes all risk for timely, properly submitted deliveries. A Bidder is strongly encouraged to arrange for delivery of bids to OGS prior to the date of the bid opening. Late bids shall be rejected except as provided in Appendix B, §11 *Late Bids*. E-mail or fax bid submissions are NOT acceptable and shall not be considered.

3.12.1 Bid Envelopes and Packages

All bids must have a label on the outside of the box or package itemizing the following information:

1. BID ENCLOSED (preferably bold, large print, all capital letters)
2. Bid number (IFB #22669)
3. Bid Opening Date and Time
4. The number of boxes or packages (i.e., 1 of 2; 2 of 2)

Failure to complete all information on the bid envelope and/or packages may necessitate the premature opening of the bid and may compromise confidentiality. See Appendix B, §8 Bid Submission. Bids shall be delivered to:

State of New York Executive Department
Office of General Services
NYS Procurement
Corning Tower - 38th Floor Reception Desk
Empire State Plaza
Albany, NY 12242

3.12.2 Hand Deliveries

A Bidder must allow extra time to comply with the building access procedures in effect at the Empire State Plaza when hand delivering bids or using deliveries by independent courier services. A Bidder assumes all risks for timely, properly submitted hand deliveries.

3.13 Important Building Access Procedures

To access the Corning Tower, all visitors must check in by presenting photo identification at the information desk. A Bidder attending bid openings is encouraged to pre-register for building access by contacting the NYS Procurement Receptionist at (518) 474-6262 at least 24 hours prior to the bid opening. Visitors who are registered can check in directly with the Security Desk. Visitors who are not pre-registered will be directed to a designated phone to call the NYS Procurement Receptionist. The Receptionist will register the visitor at that time but delays may occur. Vendors who intend to deliver bids or conduct NYS Procurement business should allow extra time to comply with these procedures. Building Access procedures may change or be modified at any time.

Note: Bids not received by OGS by the time and date specified will be considered late.

3.14 Dispute Resolution Policy

It is the policy of Office of General Services' NYS Procurement to provide vendors with an opportunity to administratively resolve disputes, complaints or inquiries related to NYS Procurement bid solicitations, contract awards and contract administration. NYS Procurement encourages vendors to seek resolution of disputes through consultation with NYS Procurement staff. All such matters shall be accorded impartial and timely consideration. Interested parties may also file formal written disputes. A copy of NYS Procurement's Dispute Resolution Procedures for Vendors may be obtained by contacting the person shown on the front of this Invitation for Bids or through the OGS Web site (<http://ogs.ny.gov/BU/PC/BizInfo.asp>), (click on Dispute Resolution Procedures)

3.15 Electronic Bid Opening Results

NYS Procurement posts bid information on the OGS/NYS Procurement web page. The web page makes available information about the list of Bidders that responded to this RFP. The Bid Opening Results Page is available at: <http://www.ogs.ny.gov/purchase/bidresults/bidresults.asp>.

3.16 Debriefing

Unsuccessful Bidders shall be notified upon Notification of Award to the winning Contractor(s). A Bidder shall be accorded fair and equal treatment with respect to its opportunity for debriefing. Requests for debriefings may be made both prior to and after Contracts are awarded. For debriefings prior to Contract award, OGS shall, upon request, provide a debriefing which would be limited to review of that Bidder's proposal or bid. After Contract award, OGS shall, upon request, provide a debriefing to any unsuccessful Bidder that responded to the IFB, regarding the reason that the proposal or bid submitted by such Bidder was not selected for a Contract award. Requests for debriefings by unsuccessful Bidders must be addressed to OGS in writing. The post-award debriefing should be requested electronically to the Designated Contracts of this IFB as denoted on the cover page of the IFB within 30 days of posting of the Contract award on the OGS website.

3.17 New York State Procurement Rights

New York State reserves the right to:

- A. Reject any or all proposals received in response to the IFB;
- B. Withdraw the IFB at any time at the sole discretion of the Agency;
- C. Make an award under the IFB in whole or in part;
- D. Disqualify any Bidder whose conduct and/or proposal fails to conform to the requirements of the IFB;
- E. Seek clarifications and revisions of the IFB;
- F. Amend the IFB specifications prior to the bid opening to correct errors or oversights, or to supply additional information, as it becomes available;
- G. Direct Bidders, prior to the bid opening, to submit proposal modifications addressing subsequent IFB amendments;
- H. Change any of the schedule dates with notification through the Bidder Notification System;
- I. Eliminate any mandatory, non-material specifications that cannot be complied with by all of the prospective Bidders;
- J. Waive any requirements that are not material;
- K. Utilize any and all ideas submitted in the bids received;
- L. Adopt all or any part of a Bidder's proposal in selecting the optimum configuration;

- M. Negotiate with the Bidder responding to this IFB within the IFB requirements to serve the best interests of the State. This includes requesting clarifications of any or all Bidders' proposals;
- N. Require clarification at any time during the procurement process and/or require correction of arithmetic or other apparent errors for the purpose of assuring a full and complete understanding of a Bidder's proposal and/or to determine a Bidder's compliance with the requirements of the IFB;
- O. Select and award the Contract to other than the selected Bidder in the event of unsuccessful negotiations or, optionally, in other specified circumstances as detailed in the IFB requirements;
- P. If an incorrect reference/parameter/component/product/etc. is stated by the State or by the Bidder, the evident parameter/component/product shall prevail; the proper alternative or corrected parameter/model/code number(s) shall be considered;
- Q. Have the flexibility to consider bids with minor deviations or technicalities and to waive minor deviations or technicalities that may be consistent with the intent and scope of the IFB. This flexibility may permit a reasonable outcome in cases where the results of a fair, competitive process are clear but the award of a Contract is threatened due to a minor technicality or a minor deviation;
- R. Reject an obviously unbalanced bid as determined by the State; and
- S. Make "NO AWARD" for any item, Sub-Lot, or Lot for reasons including, but not limited to unbalanced or excessive Bidder pricing, a change in Authorized User requirements and/or product(s), or an error in the bid solicitation (i.e., use of incorrect reference, pack size, description, etc.). In such case, evaluation and ranking of bids may be made on the remaining items, Sub-Lots, or Lots unless as result of a NO AWARD Bidder fails to provide the minimum number of items required for the Sub-Lot or Lot.

For the purposes of paragraphs R and S, an unbalanced bid is one based on bid prices that are significantly understated for some items and/or significantly overstated for other items such that there is a reasonable doubt that the bid will result in the lowest overall cost to the State.

SECTION 4: METHOD OF AWARD

4.1 Method of Award

It is anticipated that award will be made to more than one bidder for each listing. However, the State is not required to make award to more than one bidder for each listing.

Only timely bids will be considered in the awarding of a contract except where it may be proven there is no NYSDOT approved source of supply within a reasonable distance and/or that it would create a hardship to require travel to secure products. Bid prices will be evaluated at the time of bid opening as specified in Section "Evaluation Process".

4.2 Evaluation Process

1. An "average price" per specification item shall be calculated based on the price of all bids submitted. The average price will be calculated to three decimal places. If a bid is ultimately rejected because it did not meet specification, pricing will not be recalculated. However, in those instances where the rejected bidder's pricing results in no awarded bidder(s) for a geographic region, the rejected bidder's pricing will be removed and not considered a part of the calculation. Any price which is inordinately low may be deleted from the calculation.
2. Any bid that exceeds the "average price" by more than 40% will be made Award Pending unless it is apparent that application of 40% would be unreasonable due to higher market prices of a geographic location. Under such circumstances at the discretion of the Commissioner bids may be considered by geographic location and an average price determined to address pricing in such geographic location.
3. A "revised average price" per specification item shall be calculated after removal of those exceeding the average price increased by 40%. Bid prices over the 40% criteria that have been given consideration due to geographic location will not be part of the "revised average price". A price which is inordinately low may be deleted from the calculation.
4. Any bid that is less than or equal to the "revised average price" increased by 20% shall receive a contract Award if they are also deemed a responsive and responsible bidder. Any bid that exceeds the "revised average price" by more than 20% will be made Award Pending.

5. Any Contractor given an "Award Pending" for a material item may become eligible for award by reducing their price(s) within the parameters of paragraph #4 above. Acceptable revised pricing for material items shall be considered up to thirty days after date issued that appears on the original Contract Award Notification. A revised award(s) with new pricing could then be published at State discretion to incorporate Contractors whose material pricing is determined to be acceptable.
6. Any Contractor given an "Award Pending" for an "optional" item may become eligible for award by reducing its price(s) within the parameters of paragraph # 4 above. Acceptable revised pricing for "optional" items will not have time restrictions and will be handled by issuance of Purchasing Memoranda.
7. The following are the optional items for each group:

Asphalt Emulsions - Optional Items:

- a. Excess Time Charge for All Items Except 702-XXXXT
- b. Hourly Charge for Material Designation 702-XXXXT Diluted & Straight, Asphalt Emulsion Tack Coat Only

Chip Seal - Optional Items:

- a. Price per Square Yard for Mobilization from Contractor's Location to Project Location
- b. Price per Gallon to Haul, Heat and Apply the Liquid Bituminous Materials from the Contractor's Storage Facility to the Project
- c. Price per Linear Foot for Abrading Existing Pavement Markings -Optional Work Zone Traffic Control Provided by Vendor
- d. Price for Additional Flaggers
- e. Price for Pickup Sweeper w/Operator

Cold Recycling - Optional Items:

- a. Asphalt emulsion with additive
- b. Price per square yard for mobilization from Contractor's location to project location.
- c. Additional cost/surcharge per square yard for small projects or projects recycled in short segments less than 15,000 square yards)
- d. Work Zone Traffic Control
- e. Price additional for rumble strips per linear foot
- f. Price additional per additional flagger per day
- g. Pilot vehicle per day per vehicle with driver
- h. Shoulder milling

Joint & Crack Filler/Sealer - Optional Items:

- a. Work Zone Traffic Control
- b. Price Additional for Additional Flaggers
- c. Price Additional for Pilot Vehicle(S) with Driver(S)
- d. Excess Time Rate

Microsurfacing & Quick Set Slurry Seal - Optional Items:

- a. Price additional per ton for optional work zone traffic control by Contractor
- b. Price additional per ton for optional work zone traffic control by Contractor within the five boroughs of New York City and Nassau, Rockland, Suffolk and Westchester counties
- c. Price additional per day for night work
- d. Price additional per day for work on weekends
- e. Price additional per ton for microsurfacing and/or quick set slurry seal within the five boroughs of New York City
- f. Price additional per day per additional flagger
- g. Price additional per optional pilot vehicle with driver
- h. Price additional per square foot for optional additional construction signs
- i. Price additional per linear foot for abrading existing pavement markings - optional work zone traffic control provided by owner agency
- j. Price additional per linear foot for abrading existing pavement markings - optional work zone traffic control provided by vendor
- k. Price additional per linear foot for milling recesses to receive pavement markings, with work zone traffic control by owner agency

- l. Price additional per linear foot for milling recesses to receive pavement markings, with work zone traffic control by vendor
- m. Price additional per ton of microsurfacing placed for longitudinal joint repair

Conventional & Rubber Modified Paver Placed Surface Treatment - Optional Items:

- a. Price per Ton for Mobilization
- b. Price per Ton for Optional Work Zone Traffic Control
- c. Price for Additional Flaggers
- d. Price per Optional Pilot Vehicle with Driver
- e. Price per Square Foot for Optional Additional Construction Signs
- f. Price per Linear Foot for Abrading Existing Pavement Markings - Optional Work Zone Traffic Control Provided by Owner Agency
- g. Price per Linear Foot for Abrading Existing Pavement Markings -Optional Work Zone Traffic Control Provided by Vendor
- h. Price per Linear Foot for Overlay Splices - Optional Work Zone Traffic Control Provided by Owner Agency
- i. Price per Linear Foot for Overlay Splices - Optional Work Zone Traffic Control Provided by Vendor

All pricing recommended for award based on the above criteria will be subject to comparison to previous years pricing and current market trends.

The State reserves the right to reject an obviously unbalanced bid or to make "NO AWARD" on individual listings or sub-items if individual bid prices are deemed to be unbalanced or excessive or if an error in the solicitation becomes evident. In such case, ranking and evaluation of bids may be made on remaining items. Award would be made on the remaining items. The determination of an unbalanced bid shall be at the sole discretion of the State. Options contained in this paragraph shall also be at the State's sole discretion.

4.3 Product Requirements

Group Specifications for each material item included in this contract are set forth in Attachment 7– *Group Specifications #927*. Bidder shall comply with the specifications set forth in Attachment 7.

SECTION 5: CONTRACT ADMINISTRATION

5.1 Contract Amendment Process

During the term of the Contract, the Contract may be amended by the mutual agreement of the parties.

5.2 Contract Administrator

Contractor must provide a dedicated Contract Administrator to support the updating and management of the Contract on a timely basis. Information regarding the Contract Administrator shall be set forth in Attachment 2 – *General Questions*. Contractor must notify OGS within five (5) Business Days if its Contract Administrator changes, and provide an interim contact person until the position is filled. Contractor may submit a Contract Administrator change by submission of a revised Contractor and Authorized Reseller Information form to the OGS Contract Administrator.

Changes to Contractor contact information, including the designation of a new Contract Administrator, shall be submitted electronically via e-mail through the submission of a revised Contractor and Authorized Reseller Information form to the OGS Contract Administrator.

SECTION 6: TERMS AND CONDITIONS

6.1 Contract Term and Extension

6.1.1 Contract Term

The Contract(s) resulting from this IFB shall commence after all necessary approvals and shall become effective upon mailing of the final Contract Award Notice by OGS (see Appendix B, §38 *Contract Creation/Execution*). The Contract(s) shall be in effect for one (1) year.

6.1.2 Contract Extension

If mutually agreed upon between OGS and the Contractor, the Contract may be extended under the same terms and conditions for up to three (3) additional periods of up to one (1) year each. Extensions may be exercised on a continuing basis such as an additional three (3) month, six (6) month or twelve (12) month period. In the event a replacement Contract has not been issued at the time of Contract expiration, any Contract let and awarded hereunder by the State, may be extended unilaterally by the State for an additional period of up to one (1) month upon notice to the Contractor with the same terms and conditions as the original Contract including, but not limited to, quantities (prorated for such one (1) month extension), pricing, and Delivery requirements. With the concurrence of the Contractor, the extension may be for a period of up to three (3) months in lieu of one (1) month. However, this extension terminates should the replacement Contract be issued in the interim.

6.2 Procurement Card

All bidders shall indicate (via Attachment 2 – General Questions) if they will accept the NYS Purchasing Card for orders not to exceed \$15,000. See Section 6.18.1 Appendix B Amendments “Procurement Card”.

6.3 Delivery

Delivery shall be made in accordance with instructions on Purchase Order from each agency. If there is a discrepancy between the purchase order and what is listed on the contract, it is the Contractor’s obligation to seek clarification from the ordering agency and, if applicable, from the Office of General Services, NYS Procurement.

It is the responsibility of the agency to ascertain quantities shipped are accurate to the delivery ticket. Each vehicle should be checked for product upon arrival and prior to departure.

6.4 Invoicing

6.4.1 Procurement Card Receipts

For all purchases executed using a New York State Procurement Card, Contractor shall provide an itemized receipt with each Delivery.

6.4.2 Invoices

Contractor invoices must include detailed line item information matching the different options outlined in the Quick Quote form to allow Authorized Users to verify that delivered pricing matches the correct price on the date of order.

6.5 Default (Failure to Furnish Material)

Clause 45 of the General Specifications is modified as follows: Failure to furnish material within ten days after receiving order or as agreed upon with authorized representative or violation of shipping instructions, shall be cause for and entitle the State (1) to damages which in its judgment have resulted, or (2) to purchase in the open market at the expense of the Contractor. At the discretion of the State, one or both of these courses of action may be followed

6.6 Lower Pricing

The State reserves the right to negotiate lower pricing, or to advertise for bids, whichever is in the State's best interest as determined by the Commissioner, in the event of a significant decrease in market price of any product listed. In addition, if the Contractor’s normal pricing to the public or to the trade in general is less than the net/contract pricing with the application of a contract discount, etc., then the normal pricing to the public or to the trade in general shall also be granted to contract participants.

6.7 Price Reductions

Contractors shall be permitted to reduce their pricing any time during the contract term. In addition, Contractors may choose to offer lower prices in specific instances or for particular projects. Vendors may do so through the agency's use of the “Quick Quote/Price Calculation” worksheet.

6.8 Report of Contract Purchases

Contractor shall furnish quarterly reports containing total sales for both State agency and authorized non-state agency contract purchases no later than forty-five (45) days after the close of each calendar quarter. If the Contract period begins or ends in a fractional portion of a reporting period, only the actual Contract sales for this fractional period should be reported in the quarterly report.

In addition to Contractor direct sales, Contractor shall submit sales information for all Authorized Resellers where such Contract sales are provided by other than the Contractor. Contractors shall specify if any Authorized Resellers are NYS Certified Minority and/or Women Owned Businesses Enterprises (MWBEs). Contractor shall verify such status through the Empire State Development directory of Minority and Women Owned Businesses at:
<http://www.esd.ny.gov/MWBE/directorySearch.html>

The report is to be submitted electronically via e-mail in Microsoft Excel to the Office of General Services, NYS Procurement, 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 5 – *Report of Contract Purchases* is the **minimum** information required. Additional related sales information, such as monthly reports, and/or detailed user purchases may be required by OGS and must be supplied upon request. Failure to submit reports on a timely basis shall be considered poor performance in accordance with Section “*Poor Performance*” and may result in Contract cancellation and designation of Contractor as non-responsible.

6.9 Appendix A

Appendix A, Standard Clauses For New York State Contracts, dated December 2012, attached hereto, is hereby expressly made a part of this Bid Document as fully as if set forth at length herein. Please retain this document for future reference and do not return to OGS as part of the Bid submission.

6.10 Appendix B

Appendix B, Office of General Services General Specifications, dated July 2006, attached hereto, is hereby expressly made a part of this Bid Document as fully as if set forth at length herein and shall govern any situations not covered by this Bid Document or Appendix A. Please retain this document for future reference and do not return to OGS as part of the Bid submission.

6.10.1 Appendix B Amendments

- a) **Section 4 (Conflict of Terms)** is deleted and replaced with the following language:

Conflict of Terms and Conditions

The following shall be incorporated into the resulting Contract. Other documents may be identified for inclusion during the course of the IFB process. Conflicts among the documents shall be resolved in the following order or precedence:

- a. Appendix A, Standard Clauses for New York State Contracts;
 - b. The resulting Contract, including Group Specification #927
 - c. Appendix B, General Specifications;
 - d. Other Appendices and attachments as deemed necessary.
- b) **Section 27 (Procurement Card)** is deleted and replaced with the following language:

Procurement Card. The State has entered into an agreement for purchasing card services. The Purchasing Card enables Authorized Users to make authorized purchases directly from a Contractor without processing a Purchase Orders or Purchase Authorizations. Purchasing Cards are issued to selected employees authorized to purchase for the Authorized User and having direct contact with Contractors. Contractor shall accept the Purchasing Card for purchases under the Contract.

The Contractor shall not process a transaction for payment through the credit card clearinghouse until the purchased products have been shipped or services performed. Unless the cardholder requests correction or replacement of a defective or faulty Product in accordance with other Contract requirements, the Contractor shall immediately credit a cardholder's account for products returned as defective or faulty.

c) **Section 62 (Contract Billings)** is deleted and replaced with the following language:

- a. Billings. Contractor and the dealers/distributors/resellers designated by the Contractor, if any, shall provide complete and accurate billing invoices to each Authorized User in order to receive payment. Billing invoices submitted to an Authorized User must contain all information required by the Contract and the State Comptroller or other appropriate fiscal officer. Submission of an invoice and payment thereof shall not preclude the Commissioner from requesting reimbursement or demanding a price adjustment in any case where the Product delivered is found to deviate from the terms and conditions of the Contract or where the billing was inaccurate.

Contractor shall provide, upon request of the Commissioner, any and all information necessary to verify the accuracy of the billings. Such information shall be provided in the format requested by the Commissioner and in a media commercially available from the Contractor. The Commissioner may direct the Contractor to provide the information to the State Comptroller or to any Authorized User of the Contract.

- b. Payment of Contract purchases made by an Authorized User when the State Comptroller is responsible for issuing such payment. The Authorized User and Contractor agree that payments for invoices submitted by the Contractor shall only be rendered electronically unless payment by paper check is expressly authorized by the Commissioner, in the Commissioner's sole discretion, due to extenuating circumstances. Such electronic payments shall be made in accordance with ordinary State procedures and practices. The Contractor shall comply with the State Comptroller's procedures to authorize electronic payments. Authorization forms are available at the State Comptroller website at <http://www.osc.state.ny.us/epay/index.htm> or by e-mail at epayments@osc.state.ny.us. Contractor acknowledges that it will not receive payment on any invoices submitted under this Contract that are payable by the State Comptroller if it does not comply with the State Comptroller's electronic payment procedures, except where the Commissioner has expressly authorized payment by paper check as set forth above. Inquiries relating to OSC's Electronic Payments program should be directed to:

NYS Office of the State Comptroller
Vendor Management Unit
110 State Street Mail Drop 10-4
Albany, NY 12236
Telephone: (855) 233-8363
E-Mail: helpdesk@sfs.ny.gov

- c. Payment of Contract purchases made by an Authorized User when the State Comptroller is not responsible for issuing such payment. The Authorized User and Contractor agree that payments for such Contract purchases shall be billed directly by Contractor on invoices/vouchers, together with complete and accurate supporting documentation as required by the Authorized User. Such payments shall be as mandated by the appropriate governing law from the receipt of a proper invoice. Such Authorized User and Contractor are strongly encouraged to establish electronic payments.

6.11 Mercury Added Consumer Products

Offerers are advised that effective January 1, 2005, Article 27, Title 21 of the Environmental Conservation Law bans the sale or distribution free of charge of fever thermometers containing mercury except by prescription written by a physician and bans the sale or distribution free of charge of elemental mercury other than for medical pre-encapsulated dental amalgam, research, or manufacturing purposes due to the hazardous waste concerns of mercury. The law further states that effective July 12, 2005, manufacturers are required to label mercury-added consumer products that are sold or offered for sale in New York State by a distributor or retailer. The label is intended to inform consumers of the presence of mercury in such products and of the proper disposal or recycling of mercury-added consumer products. Offerers are encouraged to contact the Department of Environmental Conservation, Bureau of Solid Waste, Reduction & Recycling at (518) 402-8705 or the Bureau of Hazardous Waste Regulation at 1-800-462-6553 for questions relating to the law. Offerers may also visit the Department's web site for additional information: <http://www.dec.ny.gov/chemical/8512.html>.

6.12 Diesel Emission Reduction Act of 2006

Pursuant to §19-0323 of the N.Y. Environmental Conservation Law (“the Law”) it is a requirement that heavy duty diesel vehicles in excess of 8,500 pounds use the best available retrofit technology (“BART”) and ultra low sulfur diesel fuel (“ULSD”). The requirement of the Law applies to all vehicles owned, operated by or on behalf of, or leased by State agencies and State or regional public authorities. It also requires that such vehicles owned, operated by or on behalf of, or leased by State agencies and State or regional public authorities with more than half of its governing body appointed by the Governor utilize BART.

The Law may be applicable to vehicles used by Contract vendors “on behalf of” State agencies and public authorities and require certain reports from Contract vendors. All heavy duty diesel vehicles must have BART by December 31, 2012. The Law also provides a list of exempted vehicles. Regulations set forth in 6 NYCRR Parts 248 and 249 provide further guidance. The Bidder hereby certifies and warrants that all heavy duty vehicles, as defined in NYECL §19-0323, to be used under this Contract, will comply with the specifications and provisions of NYECL §19-0323, and 6 NYCRR Parts 248 and 249.

6.13 Contractor Requirements and Procedures for Business Participation Opportunities for New York State Certified Minority and Women-Owned Business Enterprises and Equal Employment Opportunities for Minority Group Members and Women

6.13.1 New York State Law

Pursuant to New York State Executive Law Article 15-A, OGS recognizes its obligation under the law to promote opportunities for maximum feasible participation of certified minority and women-owned business enterprises and the employment of minority group members and women in the performance of OGS Contracts.

In 2006, the State of New York commissioned a disparity study to evaluate whether minority and women-owned business enterprises had a full and fair opportunity to participate in state contracting. The findings of the study were published on April 29, 2010, under the title "The State of Minority and Women-Owned Business Enterprises: Evidence from New York" (“Disparity Study”). The report found evidence of statistically significant disparities between the level of participation of minority and women-owned business enterprises in state procurement contracting versus the number of minority and women-owned business enterprises that were ready, willing and able to participate in state procurements. As a result of these findings, the Disparity Study made recommendations concerning the implementation and operation of the statewide certified minority and women-owned business enterprises program. The recommendations from the Disparity Study culminated in the enactment and the implementation of New York State Executive Law Article 15-A, which requires, among other things, that OGS establishes goals for maximum feasible participation of New York State Certified minority and women-owned business enterprises (“MWBE”) and the employment of minority groups members and women in the performance of New York State Contracts.

6.13.2 Business Participation Opportunities for MWBEs

For purposes of this procurement, OGS has conducted a comprehensive search and has determined that **the contract does not offer any opportunities for participation by MWBEs** as subcontractors, service providers and suppliers to the awarded Contractors. Contractors are, 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. To locate MWBEs, the Directory of Certified Businesses can be viewed at: <http://www.esd.ny.gov/MWBE/directorySearch.html>. Please Note: Failure to comply with the foregoing requirements may result in a finding of non-responsiveness, non-responsibility and/or a breach of the Contract, leading to the withholding of funds, suspension or termination of the Contract or such other actions or enforcement proceedings as allowed by the Contract.

6.13.3 Equal Employment Opportunity Requirements

By submission of a bid or proposal in response to this IFB, the Bidder/Contractor agrees with all of the terms and conditions of Appendix A including Clause 12 - Equal Employment Opportunities for Minorities and Women. The Contractor is required to ensure that it and any subcontractors awarded a subcontract over \$25,000 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon (the "Work") except where the Work is for the beneficial use of the Contractor, shall undertake or continue 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, equal opportunity shall apply in the areas of recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, termination, and rates of pay or other forms of

compensation. This requirement does not apply to: (i) work, goods, or services unrelated to the Contract; or (ii) employment outside New York State.

Bidder further agrees, where applicable, to submit with the bid a staffing plan on Form EEO 100 identifying the anticipated work force to be utilized on the Contract and if awarded a Contract, will, upon request, submit to OGS, a workforce utilization report identifying the workforce actually utilized on the Contract if known.

Further, pursuant to Article 15 of the Executive Law (the “Human Rights Law”), all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor and sub-contractors will 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 conviction and prior arrest.

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

6.14 New York State Vendor File Registration

Prior to being awarded a Contract pursuant to this IFB, the Bidder(s) and any Authorized Resellers who accept payment directly from the State, must be registered in the New York State Vendor File (Vendor File) administered by the Office of the State Comptroller (OSC). This is a central registry for all vendors who do business with New York State Agencies and the registration must be initiated by a State Agency. Following the initial registration, unique New York State ten-digit vendor identification numbers will be assigned to your company and to each of your Authorized Resellers (if any) for usage on all future transactions with New York State. Additionally, the Vendor File enables vendors to use the Vendor Self-Service application to manage all vendor information in one central location for all transactions related to the State of New York.

If Bidder is already registered in the New York State Vendor File, the vendor must enter the vendor’s ten-digit Vendor Id number on the first page of this bid document. Authorized Resellers already registered should list the ten-digit Vendor Id number along with the Authorized Reseller information.

If the Bidder is not currently registered in the Vendor File, the Bidder must request assignment of a Vendor Id number from OGS. Complete the OSC Substitute W-9 Form http://www.osc.state.ny.us/vendors/forms/ac3237_fe.pdf and submit the form to OGS in advance of bid submittal. Please send this document to the Designated Contact in the IFB. In addition, if an Authorized Reseller(s) is to be used that does not have a Vendor ID, an OSC Substitute W-9 form http://www.osc.state.ny.us/vendors/forms/ac3237_fe.pdf should be completed by each designated Authorized Reseller and submitted to OGS. The OGS will initiate the vendor registration process for all Bidders and their Authorized Resellers. Once the process is initiated, registrants will receive an e-mail identifying their unique ten-digit Vendor ID and instructions on how to enroll in the online Vendor Self-Service application.

For more information on the vendor file please visit the following website: http://www.osc.state.ny.us/vendor_management

6.15 New York State Vendor Responsibility Questionnaire For-Profit Business Entity

OGS conducts a review of a Bidder to provide reasonable assurances that the Bidder is responsive and responsible. A New York State Vendor Responsibility Questionnaire For-Profit Business Entity (hereinafter the “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, the 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 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 OSC’s website, 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>.

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>.

A Bidder opting to complete 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. In order to assist the State in determining the responsibility of the Bidder, the Bidder must complete and certify (or recertify) the Questionnaire no more than six (6) months prior to the bid opening 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 found by the State that the Bidder's responses to the Questionnaire were intentionally false or intentionally incomplete, on such finding, OGS may terminate the Contract. 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.

6.16 Tax Law §5-A

A Bidder is required to file the completed and notarized Form ST-220-CA with OGS certifying that the Bidder filed the ST-220-TD with NYS Department of Taxation and Finance (DTF). Note: NYS Department of Taxation and Finance receives the completed Form ST-220-TD, not OGS. OGS ONLY receives the Form ST-220-CA. Form ST-220-CA must be filed with the bid and submitted to the procuring covered Agency certifying that the Contractor filed the ST-220-TD with DTF. Failure to make either of these filings may render a Bidder non-responsive. A Bidder shall take the necessary steps to provide properly certified forms within a timely manner to ensure compliance with the law.

Website links to the Contractor certification forms and instructions are provided below. Form No. ST-220-TD must be filed with and returned directly to DTF and can be found at http://www.tax.ny.gov/pdf/current_forms/st/st220td_fill_in.pdf. Unless the information upon which the ST-220-TD is based changes, this form only needs to be filed once with DTF. If the information changes for the Contractor, its affiliate(s), or its subcontractor(s), a new Form No. ST-220-TD must be filed with DTF.

Form ST-220-CA must be submitted to OGS. This form provides the required certification that the Contractor filed the ST-220-TD with DTF. This form can be found at http://www.tax.ny.gov/pdf/current_forms/st/st220ca_fill_in.pdf.

Section 5-a of the Tax Law, as amended, effective April 26, 2006, requires certain Contractors awarded State Contracts for commodities, services and technology valued at more than \$100,000 to certify to the Department of Taxation and Finance (DTF) that they are registered to collect New York State and local sales and compensating use taxes. The law applies to Contracts where the total amount of such Contractors' sales delivered into New York State are in excess of \$300,000 for the four quarterly periods immediately preceding the quarterly period in which the certification is made, and with respect to any affiliates and subcontractors whose sales delivered into New York State exceeded \$300,000 for the four quarterly periods immediately preceding the quarterly period in which the certification is made.

This law imposes upon certain Contractors the obligation to certify whether or not the Contractor, its affiliates, and its subcontractors are required to register to collect State sales and compensating use tax and Contractors must certify to DTF that each affiliate and subcontractor exceeding such sales threshold is registered with DTF to collect New York State and local sales and compensating use taxes. The law prohibits the State Comptroller, or other approving Agency, from approving a Contract awarded to a Contractor meeting the registration requirements but who is not so registered in accordance with the law.

Vendors may call DTF at 518-485-2889 for any and all questions relating to Section 5-a of the Tax Law and relating to a company's registration status with the DTF. For additional information and frequently asked questions, please refer to the DTF website: <http://www.tax.ny.gov>.

6.17 Use of Recycled or Remanufactured Materials

New York State, as a member of the Council of Great Lakes Governors, supports and encourages vendors 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 IFB. 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 "Remanufactured, Recycled, Recyclable or Recovered Materials" in Appendix B, OGS General Specifications.

6.18 Environmental Attributes and NYS Executive Order 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) (EO4), which imposes certain requirements on state agencies, authorities, and public benefit corporations when procuring commodities, services, and technology. More information on Executive Order No. 4, including specifications for offerings covered by this Contract, may be found at <http://www.ogs.ny.gov/EO/4/Default.asp>.

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.

6.19 "OGS or Less" Guidelines Apply to This Contract

Purchases of the Products included in this IFB and related Contract Award Notification 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, and 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 (2) 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 Comptroller's Office and competitive bidding of requirements exceeding the discretionary bid limit. State agencies should refer to the New York State Procurement Guidelines "OGS or Less Purchases" for complete procedural and reporting requirements.

6.20 Non-State Agencies Participation in Centralized Contracts

New York State political subdivisions and others authorized by New York State law may participate in 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, §39 *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 OGS NYS Procurement's Customer Services at (518) 474-6717.

6.21 Extension of Use

Any Contract resulting from this IFB may be extended to additional States or governmental jurisdictions upon mutual written agreement between New York State (the lead Contracting 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.

6.22 Extension of Use Commitment

The Contractor agrees to honor all orders from State Agencies, Political Subdivisions and others authorized by law (see "Extension of Use" clause) which are in compliance with the pricing, terms, and conditions set forth in the resulting Contract document.

Any unilateral limitations/restrictions imposed by the Contractor and/or manufacturer on eligible Authorized Users will be grounds for rejection of the bid or cancellation of the Contract. If a Contract, or any portion thereof, is canceled for this reason, any additional costs incurred by the eligible purchaser will be borne by the Contractor.

6.23 Emergency Purchasing

In the event that a disaster emergency is declared by Executive Order under Section 28 of Article 2-B of the Executive Law, or that the Commissioner determines pursuant to his/her authority under Section 163(10)(b) of the State Finance Law that an emergency exists requiring the prompt and immediate delivery of products or services, the Commissioner reserves the right to obtain such products or services from any source, including but not limited to this contract, as the Commissioner in his/her sole discretion determines will meet the needs of such emergency. Contractor shall not be entitled to any claim or lost profits for products or services procured from other sources pursuant to this paragraph.

6.24 Contract Migration

State Agencies or any other authorized user holding individual contracts with Contractors under this centralized contract shall be able to migrate to this contract award with the same Contractor, effective on the contract begin date (retroactively, if applicable). Migration by an agency or any other authorized user to the centralized contract shall not operate to diminish, alter or extinguish any right that the agency or other authorized user otherwise had under the terms and conditions of their original contract.

6.25 Poor Performance

Authorized Users should notify NYS Procurement's Customer Services promptly if the Contractor fails to meet the requirements of this Contract. Performance which does not comply with requirements or is otherwise unsatisfactory to the Authorized User should also be reported to Customer Services:

Office of General Services
NYS Procurement
38th Floor Corning Tower
Empire State Plaza
Albany, NY 12242

Customer Services E-mail: customer.services@ogs.ny.gov
Telephone: (518) 474-6717 / Fax: (518) 474-2437

6.26 New York State Required Certifications

A Bidder is required to submit the signed New York State Required Certifications (Attachment 3 – *New York State Required Certifications*) with its bid. Failure to submit these documents may result in bid being considered non-responsive and may result in bid being REJECTED.

6.27 Disposition of Settlements

The Office of General Services has the right to determine the disposition of any rebates, settlements, restitution, liquidated damages, etc. which arise from the administration of this contract.

6.28 Iran Divestment Act

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, Bidder/Contractor (or any assignee) certifies that it is not on the "Entities Determined To Be Non-Responsive Bidders/Offerers Pursuant to The New York State Iran Divestment Act of 2012" list ("Prohibited Entities List") posted on the OGS website at: <http://www.ogs.ny.gov/about/regs/docs/ListofEntities.pdf> and further certifies that it will not utilize on such Contract any subcontractor that is identified on the Prohibited Entities List. Additionally, Bidder/Contractor is advised that should it seek to renew or extend a Contract awarded in response to the solicitation, it must provide the same certification at the time the Contract is renewed or extended.

During the term of the Contract, should OGS receive information that a person (as defined in State Finance Law §165-a) is in violation of the above-referenced certifications, OGS will review such information and offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment activity which is in violation of the Act within 90 days after the determination of such violation, then OGS shall take such action as may be appropriate and provided for by law, rule, or Contract, including, but not limited to, seeking compliance, recovering damages, or declaring the Contractor in default.

OGS reserves the right to reject any bid, request for assignment, renewal or extension for an entity that appears on the Prohibited Entities List prior to the award, assignment, renewal or extension of a Contract, and to pursue a responsibility review with respect to any entity that is awarded a Contract and appears on the Prohibited Entities list after Contract award.

SECTION 7: GROUP - ASPHALT EMULSIONS

7.1 Introduction

Asphalt emulsions are liquid bituminous materials (asphalt cement, water and an emulsifying agent) which are applied either separately or with crushed stone to seal the surface of highway pavements. Asphalt emulsions are also applied as tack coats in conjunction with highway pavement resurfacing with bituminous concrete materials.

7.2 Pricing Information

7.2.1 General

Clause 24B of the General Specifications has been modified to read, “Price bid with the exception of F.O.B. Storage Facility shown herein must include material cost and cost to furnish, heat, haul, deliver and apply with Contractor’s equipment.”

The price (mile and gallon range) for a specific job will be calculated at the same rate. This rate will be determined by finding the one category that applies to the total miles and gallons per job. For example, a job that is 11 miles from the plant will be calculated at the same rate per gallon for each mile (from 1 to 11) that is indicated in the 11-25 mile column herein, rather than on a cumulative basis. Similarly, a job that is 16 miles from the plant and required 4,000 gallons over a two-day period would be calculated using the 11-25 mile row and the 1,001-3,000 gallon range since it would be presumed that equal quantities would be applied each day.

Excess Time Charge for All Items except Material Designation 702-XXXXT, Diluted and Straight Tack Coat
This is the charge for each 15-minute period or portion thereof for a delay attributable to the receiving agency after scheduled delivery time. Excess time charges do not apply while Contractor is unloading and/or applying material. They only apply when Contractor is delayed by the receiving agency.

Hourly Charge for Material Designation 702- XXXXT, Diluted and Straight Tack Coat

This is the charge per hour that an Asphalt Emulsion distributor truck is on the project commencing at the scheduled start time indicated by the receiving agency and ending when the receiving agency has indicated to the distributor truck operator that no more Tack Coat is needed for the day. No deduction of time spent applying tack coat shall be made from the payment of the hourly charge. No adjustment shall be allowed for work hours longer than the standard work day. Excess Time Charge does not apply to Material Designation 702- XXXXT, Diluted and Straight Tack Coat.

It is inherent in the application of Tack Coat that the distributor applies tack coat for a very short period of time and then must wait until the emulsion breaks and the Hot Mix Asphalt is placed over the tack coat before Tack Coat may be applied at another location on the project. To fairly compensate Contractors for expenses incurred during long periods of inactivity where Tack Coat distributor trucks and operators must be in stand-by mode on the project, an hourly charge for time actually spent on the project after the scheduled starting time has been introduced. This hourly charge is for time spent on the project, both applying tack coat and waiting to apply tack coat.

7.2.2 Insurance

Price bid shall include the following insurance coverage costs. In particular, price shall include:

- Commercial General Liability Insurance with a limit of not less than \$2,000,000 each occurrence;
- Comprehensive Business Automobile Liability Insurance with a limit of not less than \$2,000,000 each accident;
- Each requirement should be reviewed carefully. (Please see Attachment 4 – Insurance Requirements for detailed insurance requirements.)

Owners and Contractors Protective Insurance Coverage (OCP) shall be a separate price and shall only be included when specifically called for by an ordering agency. Note that pricing for OCP is not required to be bid and is not a requirement for award; however, bidder understands and agrees by submitting a bid to this IFB that if any Authorized User, in particular the New York State Department of Transportation (NYSDOT), also requires Owners and Contractors Protective Insurance Coverage (OCP) in addition to the above-referenced insurance, the vendor must supply it. The request for OCP shall be indicated by the Authorized User on the Quick Quote/ Price Calculation Worksheet (see Attachment 8). All Quick Quotes submitted must state the cost for such coverage which will be included as part of the Total Cost per Project and evaluated accordingly by the Authorized User. The charge for OCP insurance will be used to determine the lowest cost for the project.

SECTION 7: GROUP - ASPHALT EMULSIONS (Cont'd)

The OCP insurance required shall be \$1,000,000 per occurrence and \$2,000,000 in the aggregate.

OCP requirements should be reviewed carefully. (Please see Attachment 4 – Insurance Requirements for detailed insurance requirements.)

7.3 Asphalt Price Adjustments

7.3.1 General

- a. Asphalt price adjustments allowed will be based on the November 1, 2012 average of the F.O.B. terminal price per ton of unmodified PG 64-22 binder without anti-stripping agent (base average F.O.B. terminal price). The new monthly average terminal price will be determined by the New York State Department of Transportation based on prices of pre-approved primary sources of performance graded binder in accordance with the New York State Department of Transportation Standard Specification.

The November 1, 2012 average is \$582.000

NOTE: The same grade of asphalt cement used in establishing the base average F.O.B. terminal price shall be used in establishing the new average F.O.B. terminal price.

In the event that one or more of the New York State Department of Transportation pre-approved sources discontinue posting a price for asphalt cement, the base average F.O.B. terminal **price shall not be recalculated.**

- b. The new average F.O.B. terminal price will be determined based on the above F.O.B. terminal prices posted on the 20th of each month, hereafter known as the “Adjustment Date”, during the contract period. However, asphalt price adjustments, in accordance with the formula below, will be effective for deliveries made on and after the first of the month following the adjustment date.
- c. The unit prices of bituminous materials purchased from any award based on this specification will be subject to adjustment based on the following formula:

Price Adjustment (per gallon)	=	$\frac{\text{New Monthly Average FOB Terminal Price} - \text{Base Average Terminal Price}}{235}$	X	Total Allowable Petroleum %
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Positive Price Adjustment number shall be added to original per gallon Bid Price.
 Negative Price Adjustment number shall be subtracted from original per gallon Bid Price.

New Monthly Average F.O.B. Terminal Price

The average F.O.B. terminal price for unmodified PG 64-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation per New York State Department of Transportation Standard Specification.

Base Average F.O.B. Terminal Price

The average F.O.B. terminal price of unmodified PG 64-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation as of November 1, 2012.

SECTION 7: GROUP - ASPHALT EMULSIONS (Cont'd)

Total Allowable Petroleum

The percentage of total allowable petroleum for each item is as follows:

Material Designation	Grade	Asphalt %	Petroleum Allowance %	Total Allowable Petroleum %
702-0700	18-60	100.0	0.2	100.2%
702-3001	RS-1	55.0	1.7	56.7%
702-3002	RS-1h	55.0	1.7	56.7%
702-3101	RS-2	63.0	2.7	65.7%
702-3102	HFRS-2	63.0	2.7	65.7%
702-3201	MS-2	65.0	8.2	73.2%
702-3301	HFMS-2	65.0	8.2	73.2%
702-3401	HFMS-2h	65.0	2.7	67.7%
702-3402	HFMS-2s	65.0	8.2	73.2%
702-3501	SS-1	57.0	0.2	57.2%
702-3601	SS-1h	57.0	0.2	57.2%
702-3101P	RS-2p	63.0	2.7	65.7%
702-3102P	HFRS-2p	63.0	2.7	65.7%
702-4001	CRS-1	60.0	2.7	62.7%
702-4002	CRS-1h	60.0	2.7	62.7%
702-4101	CRS-2	65.0	2.7	67.7%
702-4201	CMS-2	65.0	10.2	75.2%
702-4301	CMS-2h	65.0	10.2	75.2%
702-4401	CSS-1	57.0	0.2	57.2%
702-4501	CSS-1h	57.0	0.2	57.2%
702-4601	CQS-1h	62.0	0.2	62.2%
702-4001P	CRS-1p	60.0	2.7	62.7%
702-4101P	CRS-2p	65.0	2.7	67.7%
702-4601P	CQS-1p	62.0	0.2	62.2%
702-XXXXT	Diluted Tack Coat	40.0	0.2	40.2%

Note: For Material Designation 702-XXXXT Straight Tack Coat, use Total Allowable Petroleum % for appropriate emulsion grade

Asphalt Price Adjustments will not be allowed for materials which do not have an asphalt cement base.

- d. Work performed after the expiration of the contract, where no extension has been granted, resultant from purchase orders placed prior to expiration of the contract will receive the Asphalt Price Adjustments applicable in effect during the last month of the contract.

Asphalt Price Adjustments for any contracts that are extended will be based on the new average for the month in which the work is done applying the same base established for that contract.

- e. Asphalt Price Adjustments allowed by this contract shall be calculated and applied to the original prices. There will not be Asphalt Price Adjustments unless the change amounts to more than \$0.010 per gallon from the original price. In these instances, prices will revert back to the original prices.
- f. All Asphalt Price Adjustments will be computed to three decimal places.
- g. Should these provisions result in a price structure which becomes unworkable, detrimental or injurious to the State or in prices which are not truly reflective of market conditions or which are deemed by the Commissioner to be unreasonable or excessive, and no adjustment in price is mutually agreeable, the Commissioner reserves the sole right upon ten days written notice mailed to the Contractor to terminate any contract resulting from this bid opening.

SECTION 7: GROUP - ASPHALT EMULSIONS (Cont'd)

- h. All Asphalt Price Adjustments shall be published by the State and issued to all contract holders whose responsibility will be to attach the appropriate State notification (based on when the work was performed) to the payment invoice submitted to agency.

7.3.2 Asphalt Price Adjustment: Example

This example is for illustration purposes only. Actual Base Average Price, etc., may vary:

Item 702.3101

Base Average Price = \$582.000

New Average Price = \$592.000

% Total Allowable Petroleum = 65.7%

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per gallon)} \\ \hline \end{array} = \frac{(592.000 - 582.000)}{235} \times \begin{array}{|c|} \hline 0.657 \\ \hline \end{array}$$

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per gallon)} \\ \hline \end{array} = \begin{array}{|c|} \hline +\$0.028 \text{ per gallon} \\ \hline \end{array}$$

Positive Price Adjustment number shall be added to original per gallon Bid Price.

Negative Price Adjustment number shall be subtracted from original per gallon Bid Price.

7.4 Minimum Order

The absolute minimum order is 500 gallons for each Material Designation.

Note: In a case where a project requires several days to be completed, this minimum order of 500 gallons doesn't apply to the last day of work needed to complete the project.

7.5 Payment

Payment shall be made at contract price per gallon for the actual quantities of liquid bituminous material furnished to and verified by the receiving agency. This determination as to quantities involved in any contract shall be accepted as final and binding upon the Contractor. A delivery slip stating quantities shall accompany each shipment. An invoice shall be sent promptly by the Contractor to the engineer of the region or to the State Agency placing the order. Measurement shall be based on the volume of the liquid bituminous material at a temperature of 60° F. All invoices shall show an allowance for temperature above 60° F. The temperature - volume correction to obtain the correct volume at 60° F shall be 0.00025 gallons per °F for all asphalt emulsions. The method to be used for volume corrections for other petroleum products shall be the method and coefficients of expansion given in the "Standard Petroleum Tables, A.S.T.M. D1250." The price per unit for other than "Specific Projects" arrived at (mutually estimated) by the Contractor and the using agency on the Quick Quote/Price Calculation Worksheet or the price per unit resultant from the actual average daily production, whichever is less, shall be the price per unit paid to the Contractor. No additional payment shall be due to the Contractor for production rates that are not equal to the rate upon which the calculation work sheet price was based.

7.6 Detailed Specifications – Asphalt Emulsions

All Liquid Bituminous Materials furnished and/or applied, shall be in accordance with Specifications for Bituminous Materials in book entitled New York State Department of Transportation, Standard Specifications, most current version, and all current addenda

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED)

8.1 Introduction

Conventional chip seal is a pavement preventive maintenance treatment which consists of single-sized stone embedded in a liquid bituminous material. The liquid bituminous material seals cracks in the existing pavement and the stone provides a high-friction wearing surface.

Fiber reinforced chip seal is a single course bituminous surface treatment consisting of asphalt emulsion, in-place chopped fibers and coarse aggregate applied to a paved surface

8.2 Pricing Information

8.2.1 General

Clause 24B of Appendix B, the General Specifications has been modified to include the following:

Price quoted shall be FOB the Contractor's location per square yard for chip seal (conventional and fiber reinforced). Price quoted for cover sand shall be in place at the project location for cover sand. Price quoted shall be FOB the Contractor's location per gallon for the liquid bituminous material (used for chip seal (conventional and fiber reinforced) and fog sealing). The price bid per square yard for the chip seal (conventional and fiber reinforced) and for cover sand shall include the cost of work zone traffic control.

Price quoted for additional flaggers (if required) shall be net per day (to the nearest quarter day) for additional flaggers. Price quoted for optional pickup sweeper(s) (if required) shall be net per day (to the nearest quarter day) for optional pickup sweeper(s) with operator(s). Price quoted for abrading existing pavement markings with work zone traffic control by the vendor (if required) shall be net per linear foot at 4 inches wide of pavement markings to be abraded. This price shall include all costs for pavement marking abrading including all labor, materials, and equipment necessary to abrade the pavement markings and to properly control traffic.

The Contractor is to furnish all necessary labor and equipment to complete the work under this contract including work zone traffic control. Permanent pavement striping will be the responsibility of the State or political subdivision upon completion of the chip seal after the Contractor has vacated the project site.

Price quoted for Mobilization from Contractor's Location to Project Location and to Heat, Haul and Apply Bituminous Material with Contractor's Equipment

Price quoted for mobilization from Contractor's location to project location shall be net per square yard of accepted chip seal (conventional and fiber reinforced) in place performed at the locations indicated by the State's Resident Engineer or political subdivision's representative. Price quoted for heating, hauling and applying bituminous material from Contractor's location to project location shall be net per gallon of bituminous material incorporated in the completed chip seal (conventional and fiber reinforced) in place.

8.2.2 Insurance

Price bid shall include the following insurance coverage costs. In particular, price shall include:

- Commercial General Liability Insurance with a limit of not less than \$2,000,000 each occurrence;
- Comprehensive Business Automobile Liability Insurance with a limit of not less than \$2,000,000 each accident;
- Each requirement should be reviewed carefully. (Please see Attachment 4 – Insurance Requirements for detailed insurance requirements.)

Owners and Contractors Protective Insurance Coverage (OCP) shall be a separate price and shall only be included when specifically called for by an ordering agency. Note that pricing for OCP is not required to be bid and is not a requirement for award; however, bidder understands and agrees by submitting a bid to this IFB that if any Authorized User, in particular the New York State Department of Transportation (NYSDOT), also requires Owners and Contractors Protective Insurance Coverage (OCP) in addition to the above-referenced insurance, the vendor must supply it. The request for OCP shall be indicated by the Authorized User on the Quick Quote/ Price Calculation Worksheet (see Attachment 8). All Quick Quotes submitted must state the cost for such coverage which will be included as part of the Total Cost per Project and evaluated accordingly by the Authorized User. The charge for OCP insurance will be used to determine the lowest cost for the project. The OCP insurance required shall be \$1,000,000 per occurrence and \$2,000,000 in the aggregate.

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

OCP requirements should be reviewed carefully. (Please see Attachment 4 – Insurance Requirements for detailed insurance requirements.)

8.3 Asphalt Price Adjustments

8.3.1 General

- a. Asphalt price adjustments allowed will be based on the November 1, 2012 average of the F.O.B. terminal price per ton of unmodified PG 64-22 binder without anti-stripping agent (base average F.O.B. terminal price). The new monthly average terminal price will be determined by the New York State Department of Transportation based on prices of pre-approved primary sources of performance graded binder in accordance with the New York State Department of Transportation Standard Specification.

The November 1, 2012 average is \$582.000

NOTE: The same grade of asphalt cement used in establishing the base average F.O.B. terminal price shall be used in establishing the new average F.O.B. terminal price.

In the event that one or more of the New York State Department of Transportation pre-approved sources discontinue posting a price for asphalt cement, the base average F.O.B. terminal **price shall not be recalculated.**

- b. The new average F.O.B. terminal price will be determined based on the above F.O.B. terminal prices posted on the 20th of each month, hereafter known as the “Adjustment Date”, during the contract period. However, asphalt price adjustments, in accordance with the formula below, will be effective for deliveries made on and after the first of the month following the adjustment date.
- c. The unit prices of bituminous materials purchased from any award based on this specification will be subject to adjustment based on the following formula:

Price Adjustment (per gallon)	=	$\frac{\text{New Monthly Average FOB Terminal Price} - \text{Base Average Terminal Price}}{235}$	X	Total Allowable Petroleum %
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Positive Price Adjustment number shall be added to original per gallon Bid Price.
 Negative Price Adjustment number shall be subtracted from original per gallon Bid Price.

New Monthly Average F.O.B. Terminal Price

The average F.O.B. terminal price for unmodified PG 64-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation per New York State Department of Transportation Standard Specification.

Base Average F.O.B. Terminal Price

The average F.O.B. terminal price of unmodified PG 64-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation as of November 1, 2012.

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

Total Allowable Petroleum

The percentage of total allowable petroleum for each item is as follows:

Material Designation	Grade	Asphalt %	Petroleum Allowance %	Total Allowable Petroleum %
702-0700	18-60	100.0	0.2	100.2%
702-3001	RS-1	55.0	1.7	56.7%
702-3002	RS-1h	55.0	1.7	56.7%
702-3101	RS-2	63.0	2.7	65.7%
702-3102	HFRS-2	63.0	2.7	65.7%
702-3201	MS-2	65.0	8.2	73.2%
702-3301	HFMS-2	65.0	8.2	73.2%
702-3401	HFMS-2h	65.0	2.7	67.7%
702-3402	HFMS-2s	65.0	8.2	73.2%
702-3501	SS-1	57.0	0.2	57.2%
702-3601	SS-1h	57.0	0.2	57.2%
702-3101P	RS-2p	63.0	2.7	65.7%
702-3102P	HFRS-2p	63.0	2.7	65.7%
702-4001	CRS-1	60.0	2.7	62.7%
702-4002	CRS-1h	60.0	2.7	62.7%
702-4101	CRS-2	65.0	2.7	67.7%
702-4201	CMS-2	65.0	10.2	75.2%
702-4301	CMS-2h	65.0	10.2	75.2%
702-4401	CSS-1	57.0	0.2	57.2%
702-4501	CSS-1h	57.0	0.2	57.2%
702-4601	CQS-1h	62.0	0.2	62.2%
702-4001P	CRS-1p	60.0	2.7	62.7%
702-4101P	CRS-2p	65.0	2.7	67.7%
702-4601P	CQS-1p	62.0	0.2	62.2%
702-XXXXT	Diluted Tack Coat	40.0	0.2	40.2%

Note: For Material Designation 702-XXXXT Straight Tack Coat, use Total Allowable Petroleum % for appropriate emulsion grade

Asphalt Price Adjustments will not be allowed for materials which do not have an asphalt cement base.

- d. Work performed after the expiration of the contract, where no extension has been granted, resultant from purchase orders placed prior to expiration of the contract will receive the Asphalt Price Adjustments applicable in effect during the last month of the contract.

Asphalt Price Adjustments for any contracts that are extended will be based on the new average for the month in which the work is done applying the same base established for that contract.

- e. Asphalt Price Adjustments allowed by this contract shall be calculated and applied to the original prices. There will not be Asphalt Price Adjustments unless the change amounts to more than \$0.010 per gallon from the original price. In these instances, prices will revert back to the original prices.
- f. All Asphalt Price Adjustments will be computed to three decimal places.
- g. Should these provisions result in a price structure which becomes unworkable, detrimental or injurious to the State or in prices which are not truly reflective of market conditions or which are deemed by the Commissioner to be unreasonable or excessive, and no adjustment in price is mutually agreeable, the Commissioner reserves the sole right upon ten days written notice mailed to the Contractor to terminate any contract resulting from this bid opening.

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

- h. All Asphalt Price Adjustments shall be published by the State and issued to all contract holders whose responsibility will be to attach the appropriate State notification (based on when the work was performed) to the payment invoice submitted to agency.

8.3.2 Asphalt Price Adjustment: Example

This example is for illustration purposes only. Actual Base Average Price, etc., may vary:

Item 702.3101

Base Average Price = \$582.000

New Average Price = \$592.000

% Total Allowable Petroleum = 65.7%

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per gallon)} \\ \hline \end{array} = \frac{(592.000 - 582.000)}{235} \times \begin{array}{|c|} \hline 0.657 \\ \hline \end{array}$$

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per gallon)} \\ \hline \end{array} = \begin{array}{|c|} \hline +\$0.028 \text{ per gallon} \\ \hline \end{array}$$

Positive Price Adjustment number shall be added to original per gallon Bid Price.

Negative Price Adjustment number shall be subtracted from original per gallon Bid Price.

8.4 Payment

Payment for chip seal (conventional and fiber reinforced) in place shall be made at the contract price per unit bid for the actual number of square yards of chip seal (conventional and fiber reinforced) in place including work zone traffic control, the actual number of square yards of cover sand in place (if used) at the project location including work zone traffic control, the actual number of gallons of asphalt emulsion for the chip seal (conventional and fiber reinforced) and the fog seal (if used) at 60° F verified by the State or receiving political subdivision and used in the accepted portion of the work. Payment for additional flaggers (if required) will be made based on the number of days (computed to the nearest quarter day) that additional flaggers are utilized as directed by the engineer or agency authorized individual. Payment for optional pickup sweepers (if required) will be made based on the number of days (computed to the nearest quarter day) that optional pickup sweepers are utilized as directed by the engineer or agency authorized individual. Payment for abrading existing pavement markings with work zone traffic control by the vendor (if required) will be made based on the number of linear feet at 4 inches wide of pavement markings actually abraded as directed by the engineer or agency authorized individual. The determination as to quantities involved in any contract shall be accepted as final and binding upon the Contractor.

A delivery slip stating quantities of liquid bituminous material shall accompany each shipment. An invoice listing the quantities of chip seal (conventional and fiber reinforced) and cover sand in place (if used) and liquid bituminous material used for the chip seal (conventional and fiber reinforced) and the fog seal (if used) shall be sent promptly by the Contractor to the State's resident engineer or to the political subdivision's representative placing the order. Measurement shall be based on the volume of the liquid bituminous material at a temperature of 60°F. The temperature/volume correction to obtain the correct volume at 60°F shall be 0.00025 per degree F for all asphalt emulsions.

8.5 Payment for Mobilization from Contractor's Location to Project Location and to Heat, Haul, and Apply Bituminous Material with Contractor's Equipment

Payment for mobilization from Contractor's location to project location shall be made based on the actual number of accepted square yards of chip seal (conventional and fiber reinforced) in place at the locations indicated by the State's Resident Engineer or political subdivision's representative at the contract price for mobilization from Contractor's location to project location per square yard of chip seal (conventional and fiber reinforced) for the appropriate distance and quantity range.

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

Payment for heating, hauling and applying bituminous material from Contractor's location to project location shall be made for the actual number of gallons of asphalt emulsion at 60° F at the appropriate price bid for the actual distance to the project verified by the State or receiving political subdivision and used in the accepted portion of the work.

8.6 Pre-Chip Seal Conference

The Contractor shall schedule a Pre-Chip Seal (conventional and fiber reinforced) Conference with the State or political subdivision at least two weeks prior to the start of work under this contract. Project Level supervisors for both the owner agency and the vendor will be present at this conference. At this conference the Contractor shall present their proposed chip seal (conventional and fiber reinforced) schedule, mix design, numbers and type of equipment, and chip seal (conventional and fiber reinforced) procedure and Work Zone Traffic Control Plan to the State or political subdivision for approval. The mix design must clearly show the quantity in gallons per square yard of fog seal (if used), the quantity in pounds per square yard of cover sand (if used), the quantity in gallons and the type of liquid bituminous material per square yard, the quantity in pounds per square yard of aggregate, percent of polymer used to modify the asphalt emulsion, and the design curing time. All the component materials used in the mix design shall be representative of the materials proposed by the Contractor to be used on the project. Adjustments may be required during construction based on field conditions and with the approval of the State or political subdivision.

The Contractor shall also furnish the State or political subdivision copies of the calibrations of the liquid bituminous material distributor and the aggregate spreader at this time. The Contractor shall indicate the aggregate source. At least one week prior to the start of work under this contract, the Contractor shall coordinate the details of the chip seal (conventional and fiber reinforced) with the owner's representative.

8.7 Supervision

The Contractor is solely responsible for the control and application of materials and other related operations. The State or political subdivision shall designate a chip seal (conventional and fiber reinforced) supervisor who will monitor the Contractor's operations. All orders pertaining to work zone traffic control from the chip seal (conventional and fiber reinforced) supervisor to the Contractor shall be binding on the Contractor. The following portions of Section 105 - CONTROL OF WORK of the Standard Specifications shall apply to these projects: 105-01 STOPPING WORK, 105-08 COOPERATION BY THE CONTRACTOR, 105-15 CONTRACTOR'S RESPONSIBILITY FOR WORK.

8.8 Work Hours

Work will not be permitted on Sundays and Holidays. If the Contractor desires to work overtime on other days, dispensation from the NYS Labor Department must be obtained using Department of Labor Form PW-30 (5/93).

8.9 Construction Details

The construction details shall comply with the requirements specified in the enclosed DETAILED SPECIFICATION. The Contractor shall inform the chip seal (conventional and fiber reinforced) Supervisor of significant deviations from the specifications.

8.10 Restoration of Disturbed Areas

During the course of the work the Contractor shall take reasonable care not to disturb areas outside the existing pavement. Any areas disturbed by the Contractor shall be returned to their original condition at no expense to the owner. Any and all debris generated as part of the work shall be removed by the Contractor upon completion of the project.

8.11 Damaged or Deficient Areas

Prior to acceptance and payment for the chip seal (conventional and fiber reinforced) by the State or political subdivision, any chip seal (conventional and fiber reinforced) that ravel, delaminates, fails to properly cure, or is in any way defective shall be redone to the satisfaction of the State's or political subdivision's representative at the Contractor's expense. After acceptance, the terms and conditions of the section of this Invitation for Bids entitled BONDING REQUIREMENTS, Section A, Item.1, Maintenance Material Bond shall control when the Contractor shall repair all defective chip seal (conventional and fiber reinforced).

8.12 Damage Claims

Sub-Section 107-09, Damage, of the Standard Specifications shall apply to this contract except as modified herein.

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

The Contractor’s responsibility for damage includes, but is not limited to, all claims of damages to vehicles and/or injuries to bicyclists or pedestrians traveling on the highway right of way of roads surface treated (conventional and fiber reinforced) under this contract caused by loose stone and/or excess bituminous material until final acceptance by the State or political subdivision. Final acceptance of the chip seal (conventional and fiber reinforced) project shall not occur until 72 hours after the completion of the chip seal (conventional and fiber reinforced) project. The Contractor shall supply the owner’s representative with a name and address where damage and/or injury claims should be sent.

8.13 Work Zone Traffic Control

The Contractor shall be responsible for Work Zone Traffic Control. Traffic shall be controlled in accordance with Sections 619-1 through 619-3 of the Standard Specifications, the Manual of Uniform Traffic Control Devices (MUTCD), and as described herein including modifications to the Standard Specifications. The vendor shall submit a Work Zone Traffic Control Plan for approval to the Resident Engineer at the Pre-Chip Seal Conference. For two-way roadways, Figures TAST-C1R, TAST-C2R, TAST-C3R, TAST-C4R, TAST-C5R, and TAST-C7R included in this Invitation for Bids may be used as a basis for development of a Work Zone Traffic Control Plan.

All necessary flaggers for traffic control shall be provided by the Contractor. A minimum of three flaggers shall be provided while the chip seal (conventional and fiber reinforced) operation is underway. One shall be stationed at each end of the operation and one shall be stationed with the aggregate spreader. The Contractor shall station flaggers such that communication is maintained between the flaggers. Hand signals, radios, pilot vehicles, or some other means of communication may be used subject to the approval of the owner.

The requirements for Pilot Vehicles and details about traffic opening are listed in the Detailed Specifications, CONSTRUCTION DETAILS, 410-3.01 Chip Seal, G. Opening to Traffic.

The Contractor shall provide construction signs as specified in Section 619-1 through 619-3 of the Standard Specifications and in the MUTCD. At a minimum the Contractor shall install the following permanent construction signs supplemented by temporary signs as needed:

SIGN	MINIMUM SIZE	LOCATION
ROAD WORK NEXT _____ MILES	<u>G20-1</u> 36" x 18"	On main line upstream of project in each direction
END ROAD WORK	<u>G20-2</u> 36" x 18"	On main line after end of project in each direction
ROAD WORK AHEAD	<u>W20-1</u> 36" x 36"	On main line 500 feet in advance of the affected highway segment in each direction and on major intersecting roads 300 -500 feet in advance of main line. Sign should be covered if it conflicts with temporary signing in the vicinity.
DO NOT PASS	<u>R4-1G</u> 24" x 30"	First sign within 100 feet of the beginning of the unmarked area, second within 1000 feet and subsequent signs, spaced every ½ mile along project in each direction (if 2'x 4'temporary yellow markings are used instead of full barrier pavement markings)
NO CENTER LINE	<u>W8-12</u> 36" x 36"	On mainline spaced every 2 miles along project in each direction and after every major intersecting road (if 2'x 4'temporary yellow markings are used instead of full barrier pavement markings)
LOOSE GRAVEL	<u>W8-7</u> 30" x 30"	On mainline at start of project and at 1 mile interval along project
30 MPH	<u>W13-1</u> 18" x 18"	Mounted on W8-7 LOOSE GRAVEL sign
PILOT CAR FOLLOW ME	G20-4 36" x 18"	On back of pilot

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

Major intersecting roads are defined as through State, County, Town, Village, or City roads. The Contractor may provide portable signs as shown in Figure 6F-2 of the MUTCD and meeting the requirements of Section 619 of the Standard Specifications for lane closures during work hours.

With prior permission of the State's Resident Engineer or political subdivisions representative, the Contractor may provide portable signs as shown in Figure 6F-2 of the MUTCD for the above referenced DO NOT PASS and NO CENTER LINE signs. Signs left active at night shall be rigid and reflectorized in accordance with the Standard Specifications. The vendor shall be responsible for assuring that these signs will be in their upright, visible positions twenty-four hours a day, seven days a week **while 2'x 4'temporary yellow markings are used instead of full barrier pavement markings.**

8.13.1 **Special Note - Temporary Pavement Markings**

The Vendor shall install and maintain temporary pavement markings on any paved surface without permanent pavement markings before opening it to traffic, before nightfall or before the end of the work day, whichever comes soonest except for areas that are open during the work shift with channelizing devices or flaggers. Temporary pavement markings shall meet the requirements of Section 619 of the Standard Specifications except that two-lane, two-way highways may be left without full barrier centerlines in no passing zones for a maximum of 7 calendar days provided that NO CENTER LINE (W8-12, black on orange), NO PASSING ZONE (W14-3, black on orange pennant shaped sign), and DO NOT PASS (R4-1) signs are used consistent with the MUTCD and in conjunction with yellow 2 foot by 4 inch temporary markings consisting of retro-reflective removable pavement marking tape, paint or yellow temporary overlay markers installed on a 40 ft. cycle to delineate the centerline location.

The State or political sub division is responsible for the final pavement markings unless otherwise indicated in the contract. If the vendor chooses to install NO CENTER LINE and DO NOT PASS signs and temporary yellow 2 foot by 4 inch pavement markings in lieu of full barrier centerline markings, the signs shall be left in place until the state or political subdivision has completed installing the final pavement markings. The state or political sub division will normally complete final pavement markings within 7 days of the project completion. However, if unavoidable situations delay the pavement marking installation the signs shall remain in place for 14 calendar days after the project has been completed or until the state has completed installing the final pavement markings, whichever comes first. If permanent pavement marking cannot be installed within 14 days of the project completion, state or political subdivision must install interim pavement marking including center lines, edge lines, stop bars, and simple crosswalks with no hatching before the end of 14 days after project completion.

All costs for Work Zone Traffic Control including flagging, temporary pavement markings, pilot vehicle, delineation, and construction signs are to be included in the prices bid per square yard of chip seal and cover sand (if required). No separate payment shall be made.

The work zone traffic control provisions in this section shall apply for any work performed pursuant to the Maintenance Material Bond.

8.13.2 **Additional Flaggers for Work Zone Traffic Control**

If the engineer or agency authorized individual determines that more than three flaggers are necessary to properly control traffic on two-way roadways or more than two flaggers are necessary to properly control traffic on one-way roadways, the vendor shall provide additional flaggers under the Additional Flaggers item. The price bid per flagger per day shall include all costs of providing a flagger where directed by the engineer or agency authorized individual with all the necessary safety equipment, i.e. stop/slow paddle, flag, vest, hardhat, etc. Payment shall be by the day for each flagger provided. A day shall be determined as including the time period between the commencement and completion of work on any calendar day. No extra payment shall be provided if the vendor elects to work a longer day than the standard eight-hour workday. Payment shall be made to the nearest quarter day as determined by the engineer or agency authorized individual.

8.13.3 **Abrading Existing Pavement Markings with Work Zone Traffic Control by the Vendor**

The Contractor shall remove any epoxy, thermoplastic, preformed tape or high built waterborne pavement markings. Other markings shall be removed as ordered by the Engineer. The method of abrading may include sand blasting, water blasting, grinding, or other methods approved by the engineer or agency authorized individual. Care shall be taken to avoid damage to passing traffic. All damage to passing traffic caused by the Contractor's operations shall be the Contractor's responsibility. Traffic will be controlled by the Contractor.

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

The Contractor shall place interim pavement markings as specified elsewhere in this Invitation for Bids under work zone traffic control, unless the chip seal will be placed the same day as pavement markings are abraded. During the pavement markings abrading operation, traffic will be controlled by the Contractor in accordance with the MUTCD. The Contractor shall submit a proposed Work Zone Traffic Control Plan to the engineer or agency authorized individual for approval. The plan may be based on the Work Zone Traffic Control drawings included in this Invitation for Bids as an attachment.

Payment will be made by the linear foot of pavement marking 4 inches wide. Payment for pavement markings wider than 4 inches or for pavement marking symbols will be made by the following method:

$$\frac{\text{Width of marking (inches)} \times \text{Linear Feet}}{4 \text{ inches}}$$

The price bid for pavement marking abrading shall include all labor, materials, and equipment required to abrade the existing pavement markings and to properly control traffic to the satisfaction of the engineer or agency authorized individual

8.13.4 Special Note: Work Zone Intrusion Initiative

As part of the Department of Transportation's Work Zone Intrusion Initiative, the following countermeasures shall apply to this Invitation for Bids.

Channelizing Device Spacing Reduction

A maximum channelizing device spacing of 40 feet shall be provided at stationary work sites where workers are exposed to traffic. This spacing shall be maintained a reasonable distance upstream of workers, and shall be used throughout the work zone.

Where tapers are located less than 500 feet from the work site, the 40 foot spacing shall be used in the taper as well.

Drums or vertical panels are preferred for long-term stationary and intermediate-term stationary work zones, and at any locations where the risk of intrusion is high. Traffic cones are normally adequate for work zones set up and removed on a daily basis.

In long lane or shoulder closures, at least two channelizing devices shall be placed transversely at maximum 800 foot intervals to discourage traffic from driving through the closed lane. **Transversely placed devices are not required where pilot cars are in use.**

Frequent checks shall be made to reset channelizing devices dislodged by traffic.

Flagger Station Enhanced Setups

Additional cones and a flag tree meeting section 6F.62 of the MUTCD shall be used upstream of flagger stations to provide added warning to drivers. These devices shall be used for flagger stations except those that are constantly moving or are in use at one location for no more than a few minutes. If the W20-7a Flagger sign is required, the additional cones and flag tree shall also be used.

For additional details on Flagger Station Enhanced Setups, see the NYSDOT Work Zone Traffic Control drawings included in this Invitation for Bids as an attachment.

8.14 Detailed Specifications – Chip Seal

8.14.1 General

Chip seal (conventional and fiber reinforced) shall be performed in accordance with NYSDOT's Standard Specifications dated May 1, 2008 including all current addenda, the General Specifications of the Office of General Services issued July 2006; and as amended herein

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

8.14.2 Section 410 – Chip Seal

410-1 Description

This work shall consist of the construction of a single course chip seal for pavements and/or shoulders in accordance with the Contract documents. Chip Seal Shoulders Only item to be selected only when the mainline pavement will not be chip sealed.

410-2 Materials

410-2.01 Bituminous Materials

Bituminous material shall meet the applicable requirements of §702.

A. Bituminous Material – Pavement and Shoulders

The Contractor shall ensure that the selected bituminous material is compatible with the aggregate to be used. The bituminous material shall be 702-3101P, 702-4101P, or 702-3102P.

When identified by contract documents as a high volume roadway, the bituminous material shall meet the requirements of §702, Table 702-9, High Volume Chip Seal Emulsions.

B. Bituminous Material – Shoulders Only

When specifying shoulder only items, use item 702-3301P.

C. Fog Seal

Use material meeting the requirements of §702, Table 702-7, Diluted Tack Coat, or material approved by the Director of the Materials Bureau

410-2.02 Aggregates

The aggregate shall conform to the requirements of § 703-02, Coarse Aggregates except as modified herein. The aggregate size shall be No. 1ST or No. 1A, as specified. The aggregate's flakiness index shall meet the requirements of Materials Method 410, "Chip Seal Guidelines."

A. Aggregate – Pavement

When identified by contract documents as a high volume roadway, the aggregate size shall be No. 1ST. Use aggregate meeting one of the following requirements:

1. Limestone or a blend of limestone and dolomite having an acid insoluble residue content not less than 20.0%
2. Dolomite.
3. Sandstone, granite, chert, trap rock, ore tailings, or other similar non-carbonate materials.
4. Use gravel or blend two or more of: gravel, limestone, dolomite, sandstone, granite, chert, trap rock, ore tailings, or other similar materials to meet the following requirements:
 - a. **Size 1ST Aggregate.** Produce a final blend having noncarbonate plus 1/4 inch particles comprising at least 20.0% of the total aggregate by weight with adjustments to equivalent volumes for materials of different specific gravities.
 - b. **Size 1A Aggregate.** Produce a final blend having noncarbonate plus 1/8 inch particles comprising at least 20.0% of the total aggregate by weight with adjustments to equivalent volumes for materials of different specific gravities.

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

B. Aggregate – Shoulders

Use aggregate conforming to the requirements of § 703-02, Coarse Aggregates, 1ST or 1A as indicated by the contract documents.

C. Stockpile

Build an aggregate stockpile at a location approved by the Engineer. When blending multiple aggregates, use automated proportioning and blending equipment to produce a uniformly graded stockpile.

410-2.03 Cover Sand

Cover sand shall conform to the requirements of § 703-01, Fine Aggregate or § 703-02, Coarse Aggregate except as modified herein.

Screen Size	Percent Passing
1/8	90-100
No. 200	0-3

410-2.04 Material Sampling and Testing

A. Aggregate Stockpile

1. **Contractor Testing.** The Contractor shall perform and submit the following tests to the Regional Materials Engineer:
 - a. Take three samples, according to Materials Method 5, Plant Inspector's Manual for Bituminous Concrete Mix Production. Each sample must contain material from each face of the stockpile.
 - b. Test samples in accordance with AASHTO T 11, Materials Finer than #200 Sieve in Mineral Aggregates by Washing, and AASHTO T 27, Sieve Analysis of Fine and Coarse Aggregates. Test results shall be based on the average of three tests.
 - c. When required, sample and test the aggregate in accordance with Materials Method 28, Friction Aggregate Control and Test Procedures.
 - d. Determine the aggregate's flakiness index as defined by Materials Method 410, "Chip Seal Guidelines."

2. **Department Testing and Approval.** The Department may elect to sample the stockpile prior to allowing the Contractor to work.

The Engineer will witness the sampling of the stockpile each day of production. The sample will be acquired from the portion of the pile to be used in that day's production. The sample will be taken randomly. The sample will represent the entire quantity of aggregate placed that day.

3. **Friction Testing.** Samples shall meet appropriate friction values. All chip seal previously placed with material from a stockpile rejected for non-carbonate or acid insoluble residue content will be rejected.

B. Cover Sand

Sampling and testing of cover sand shall be performed according to the requirements of 410-2.04 A.1. Copies of test results shall be furnished to the Engineer prior to applying the cover sand.

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

C. Emulsion

The Engineer will sample bituminous material shipped to the site in accordance with Materials Method 702-2, "Asphalt Emulsion – Quality Assurance."

Liquid bituminous material is subject to QA testing by the Materials Bureau. The Engineer will evaluate any material failing QA testing to determine if it will be left in place.

410-2.05 Mix Design

Complete a mix design for pavements and/or shoulders in accordance with Materials Method 410. A separate mix design for the shoulder is required when Contractors operations require the shoulder to be paved separately from the mainline. Mix designs shall be submitted to the Engineer a minimum of two weeks prior to the start of work.

410-3 Construction Details

410-3.01 Chip Seal

A. Weather and Seasonal Limitations

Bituminous material shall not be applied to a pavement surface when:

1. The surface has standing water or is saturated.
2. The surface temperature is less than 60°F.
3. The ambient temperature is less than 50°F.
4. The weather conditions would prevent proper construction of the chip seal.

Chip Seals shall be placed during the period from May 1st through September 7.

B. Equipment

All equipment shall be maintained in satisfactory working conditions at all times.

1. Sweepers

- a. **Self-propelled Rotary Power Broom.** The self-propelled rotary power broom shall be designed, equipped, maintained and operated so the pavement surface can be swept clean.
- b. **Self-propelled Pick up Broom.** The self-propelled pick up broom shall be designed, equipped, maintained and operated so that the pavement can be swept clean. Excess aggregate shall be contained in an onboard hopper and disposed of as directed by the Engineer.

2. Liquid Bituminous Material Distributor

- a. Prior to being used on a project, this equipment shall be calibrated in accordance with ASTM D 2995 Standard Practice for Estimating Application Rate of Bituminous Distributors or an equivalent calibration procedure acceptable to the Engineer. Department personnel may request to witness calibration of equipment.
- b. The distributor shall be equipped, maintained, and operated so that the bituminous material can be applied at controlled temperature and rates from 0.05 to 0.55 gallons per square yard.
- c. The distributor shall be capable of applying bituminous material on variable widths up to 15 feet.
- d. The distributor shall uniformly apply the bituminous material at the specified rate with a maximum allowable variation of 0.02 gallons per square yard.

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

- e. Distributor equipment shall include a tachometer, accurate volume measuring devices, or a calibrated tank, and a thermometer for measuring temperatures of tank contents. Distributors shall be equipped with full circulation spray bars adjustable laterally and vertically. The distributor and/or transport shall be equipped with a bituminous material sampling valve.

3. Aggregate Spreader

- a. The aggregate spreader shall be a self-propelled unit capable of uniformly spreading the aggregate at the required rate on a minimum width of 6 inches wider than the width of the lane to be treated.
- b. The spreader shall be calibrated before each project using ASTM D 5624, Standard Test Method for Determining the Transverse-Aggregate Spread Rate for Chip Seal Applications. Department personnel may request to witness calibration of equipment.

4. Pneumatic Tire Roller

- a. The pneumatic tire rollers shall be self-propelled and have oscillating wheels with smooth tread tires and will have a minimum ground contact pressure of 80 psi.
- b. The tire pressure for all wheels shall be uniform within ± 5 psi.
- c. The rollers shall be operated at a maximum speed of 5 mph.
- d. Refer to Table 410-2, Number of Rollers for the minimum number of rollers required.

C. Surface Preparation

Perform all surface preparation prior to applying the wearing course.

- 1. Thoroughly clean the entire area to be overlaid. The surface of the pavement should be free of dirt, oil, and other foreign materials. Remove all debris and standing water.
- 2. Cover all manhole covers, water boxes, catch basins, and other such utility structures within the area being treated with plastic, building felt, or other material approved by the Engineer. Remove the covers each day.
- 3. The Contractor shall remove any epoxy, thermoplastic, preformed tape or high built waterborne pavement markings. Other markings shall be removed as ordered by the Engineer.

D. Application of Bituminous Material

Bituminous material shall be applied in a uniform, continuous spread over the section to be treated and within the temperature range recommended by the manufacturer. The Contractor shall report any field changes in application rates from the originally submitted mix design to the Engineer.

Where longitudinal joints are to occur, the application of bituminous material from the initial pass shall extend 12 inches beyond the area to be covered with aggregate. Subsequent passes of the bituminous spreader shall overlap the exposed bituminous material and the edge of the initial aggregate pass.

Uncovered bituminous material shall not be exposed to traffic. All bituminous material must be covered before opening to traffic.

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

The distributor shall be moving forward at proper application speed at the time the spray bar is opened. If any skipped areas or deficiencies occur, the operation shall be immediately stopped. The bituminous material shall not be applied more than 200 feet in advance of the self-propelled aggregate spreader. The distributor, when not spreading, shall be parked so that the spray bar or mechanism will not drip bituminous material on the surface of the road.

E. Application of Cover Aggregate

Immediately following the application of the bituminous material, cover aggregate shall be spread at the rate established by the Contractor in the mix design. The quantity of aggregate spread may vary from the amount listed in the mix design. The Contractor shall report any field changes in application rates from the originally submitted mix design to the Engineer. Spreading shall be accomplished in such a manner that construction equipment or other vehicles shall not drive on the uncovered and newly applied bituminous material. Any free bituminous material on the surface caused by a deficient amount of cover aggregate shall be covered by broadcasting additional aggregate over the deficient area. Excess aggregate material shall be swept from the surface as directed by the Engineer.

Longitudinal joints shall be parallel to the centerline. Ensure that longitudinal joints will correspond with the edges of the proposed traffic lane. Where any construction joint occurs, the edges shall be broomed back and blended so there are no gaps and the elevations are the same, and free from ridges and depressions.

Initial rolling of cover aggregate shall occur within 5 minutes after the application of bituminous material. Cover aggregate shall receive a minimum of three roller passes within 30 minutes of bituminous material application. Use the following table to determine the minimum number of rollers required:

Overlay width(feet)	Number of Rollers (minimum)
< 6	1
6-9	2
9-12	3
12-15	4

Note – Assumes a contact width of 5 feet.

F. Sweeping

Before the roadway may be opened to unguided traffic, a light brooming of excess aggregate shall be performed. When identified by contract documents as a high volume roadway, or otherwise noted, Self-propelled Pick Up Brooms are required.

Excess aggregate shall be swept from the newly treated surface after the surface has cured for at least 24 hours. Additional sweeping shall be performed as directed by the Engineer during a 5-day period following placement of the chip seal.

G. Opening to Traffic

Unless otherwise specified, the highway shall be kept open to traffic at all times. Traffic shall be discontinued on the lane being chip sealed. After chip seal application, controlled traffic may be permitted at the Contractor's discretion. Traffic shall be maintained at a speed not to exceed 15 mph for a period of three hours after placement of the chip seal by the use of pilot vehicles. All pilot vehicles shall be equipped with signs meeting the requirements of Section 6F.58 of the MUTCD. Use the following table to determine the number of patrol vehicles required:

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

Table 410-3	
Lane Miles Surfaced In Previous Four Hours	Number of Patrol Vehicles
1	1
≥ 2	2

Immediately after completion of the chip seal, the section shall be posted for a speed limit of 30 mph for a period of seven days. The signs should be posted at 1/2 mile intervals and signs showing other speed limitations should be covered for this period. All construction signs shall meet the requirements of the MUTCD.

H. Application of Fog Seal

Prior to applying fog seal, the surface shall be swept. Follow the requirements of Application of Bituminous Material. The fog seal application rate is 0.05 to 0.15 gallons per square yard.

I. Application of Cover Sand

Within 5 minutes of applying the fog seal, spread the cover sand uniformly over the chip seal. The cover sand application rate is 2-5 pounds per square yard

J. Opening to Traffic After Fog Seal and Cover Sand

The Contractor shall determine when traffic may be permitted on the treated chip seal. More time may be required for areas with limited exposure to sunlight.

410-4 Method of Measurement

Chip seal shall be measured by the number of square yards of material in place, making no deductions for minor untreated areas such as catch basins and manholes. When the mainline pavement is chip sealed, shoulders area chip sealed will be included in the measurement for 410.0101 and 410.0102.

The liquid bituminous material for the chip seal shall be measured by the number of 60° F gallons actually incorporated in the work.

The liquid bituminous materials for the fog seal shall be measured by the number of 60° F gallons actually incorporated in the work.

The following formula will be used to calculate material quantity at 60° F:

$$\text{Volume @ 60° F} = \text{Volume}_D \times [1 - (\Delta T \times 0.00025)]$$

Where:

$$\Delta T = \text{Delivered Temperature (° F)} - 60$$

$$\text{Volume}_D = \text{Quantity Delivered (gallons)}$$

Cover Sand shall be measured by the number of square yards of material in place, making no deductions for minor untreated areas such as catch basins and manholes.

410-5 Basis of Payment

The unit price bid per square yard for chip seal shall include the cost of all labor, surface preparation, materials and equipment necessary to perform the work, except that:

If the QA testing aggregate exceeds the rejection limit of the specification, the Regional Materials Engineer will evaluate if the material can remain in place. Aggregate QA testing not meeting specification will be reduced as listed in the TABLE 410-4 Chip Seal Pay Table.

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

410-4 CHIP SEAL PAY TABLE			
1ST			
Test	Specification % Pass	QA Test Result % Passing / Resulting Pay Deduction	Reject Limit QA Test <input type="checkbox"/> From Specification
Sieve 1/2	100	97 - 99 / 25%	<97%
Sieve 1/4	0-15	15 - 20 / 25%	>20%
Sieve 200	0-1.0	1.5 - 2 / 25%	>2%
Flakiness Index	25	25 - 30 / 25%	>30
1A			
Test	Specification % Pass	Deduction Limit QA Test <input type="checkbox"/> From Specification	Reject Limit QA Test <input type="checkbox"/> From Specification
Sieve 1/2	100	97 - 99 / 25%	<97%
Sieve 1/4	90-100	85 - 90 / 25%	<85%
Sieve 1/8	0-15	15 - 20 / 25%	<20%
Sieve 200	0-1.0	1.5 - 2 / 25%	<2%
Flakiness Index	25	25 - 30 / 25%	>30

Liquid bituminous material used for chip seal will be paid for under a separate item as the number of 60°F gallons of material used.

Liquid bituminous material for the fog seal will be paid for under a separate item as the number of 60°F gallons of material used.

The Engineer will evaluate any bituminous material failing QA testing to determine if it will be left in place. If the material is left in place, the bituminous material will be subject to a reduction in payment according to the following table:

Table 410-5	
Number of Failing QA Test Results	Pay Reduction of Bituminous Material Item
1	15%
2	25%

Cover sand will be paid for under a separate item.

Payment will be made under:

Item No.	Item	Pay Unit
410.0101	Chip Seal Pavement and Shoulders (1A)	Square Yard
410.0102	Chip Seal Pavement and Shoulders (1ST)	Square Yard
410.0103	Chip Seal Shoulders Only (1A)	Square Yard
410.0104	Chip Seal Shoulders Only (1ST)	Square Yard
410.0105	Liquid Bituminous Material (Chip Seal)	Gallons
410.0106	Liquid Bituminous Material (Fog Seal)	Gallons
410.0107	Cover Sand	Square Yard

8.14.3 Special Notes Chip Seals

1. Fog Seal and Cover Sand are required for all NYSDOT projects. Fog and Sand application will increase aggregate retention.
2. Designate all roads as “High Volume” if AADT exceeds 2000 AADT. The designation requires work to include:
 - a. Harder base asphalt emulsion
 - b. Pickup sweeper

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

- c. Use of 1 ST aggregate on mainline. 1A aggregate chip seals have a greater risk of bleeding under high traffic demand.

Note – Shoulders are assumed to have 0 AADT.

3. 1A aggregate produces a finer, less aggressive surface. Consider use of 1A aggregate in areas of frequent bicycle/pedestrian use.
4. Consider an optional pickup sweeper for lower volume roads (<2000 AADT), where loose stones would be undesirable.

8.14.4 Special Notes Fiber Reinforced Chip Seals

All requirements of the attached detailed specification apply in addition to the following:

- a. 410-2.06 Fiber – Use class E fiber conforming to ASTM D578.
- b. 410-3.01 B 5. Fiber Distributor – Distributor shall have a number of sources for uniformly dispensing cut in place fibers, 2' in length, at controlled rates from 0.11 to 0.14 lbs./SY.
- c. 410-3.01 D 2. Fiber Application – Fiber shall be spread uniformly by distributor at the application rate established in the mix design.

8.14.5 NYSDOT Documents

Materials Methods 5, Materials Method 702-2 Asphalt Emulsions Quality Assurance, and Materials Method 410 Chip Seal Design Procedures are available both on line and by contacting the Materials Bureau.

8.14.6 Bonding Requirements

- A. Within 10 calendar days of receipt of a purchase order from the State or political subdivision, the Contractor shall provide the State agency or political subdivision the following:
 1. **Maintenance Material Bond.** A bond in the form similar to the sample included in this Invitation for Bids with sufficient sureties approved by the State's resident engineer or political subdivision representative guaranteeing replacement of deficient material in the form included in this Invitation for Bids. This bond shall remain in place for one year after final acceptance of the project by the State or political subdivision or until August 1 of the year following completion of the project whichever is later.
 2. **Amount of Bond.** The amount of the Maintenance Material Bond shall be 100% of the amount of the project's cost.
 3. **Requirements of Bonds.** All Bonds shall be issued by a surety company approved by NYSDOT and authorized to do business in the State of New York as a surety.
- B. The procedure of the Maintenance Material Bond shall be as follows:
 1. No later than June 1 of the year following the State's or the political subdivision's acceptance of work completed under this contract, the State or political subdivision will evaluate the project for aggregate retention, flushing or bleeding, aggregate embedment and bonding to the existing pavement.
 2. The Contractor agrees to repair all areas that demonstrate less than 90% aggregate retention, as determined by the State or political subdivision, on the overall project caused by improper workmanship and/or defective materials. In addition, the Contractor agrees to repair individual areas that are flushed or bleeding, as determined by the State or political subdivision, caused by improper workmanship and/or defective materials irrespective of the percent of aggregate retained. Such repairs, however, shall not include any damage resulting from any forces or circumstances beyond the control of the Contractor. The evaluation of the chip seal (conventional and fiber reinforced) shall be made by the State's resident engineer or the political subdivision's representative as appropriate. If the Contractor does not agree with the evaluation it may appeal to the State's Regional Transportation Maintenance Engineer or political subdivision representative's supervisor whose decision shall be final.

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

3. On or before June 10 in the year immediately following the State's or political subdivision's acceptance of the chip seal (conventional and fiber reinforced) project, the State or political subdivision shall notify the Contractor of any areas deemed deficient by the State or political subdivision. The Contractor will initiate and complete the remediation within 30 days of notification.
4. Prior to the performance of repairs in the field, the Contractor shall supply the State's resident engineer or political subdivision's representative with copies of all applicable insurance certificates. During the performance of any necessary repairs, the Contractor shall comply with the all provisions of the original contract including among other things the work zone traffic control provisions.

8.14.7 Maintenance Bond Example

(See the following two pages)

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

SAMPLE

MAINTENANCE BOND

KNOW ALL PEOPLE BY THESE PRESENTS, That we, (hereinafter called the "PRINCIPAL")
_____ of _____, and
_____ of _____ (hereinafter called the "SURETY") are held and
firmly bound unto the people of the State of New York in the full and just sum of
_____ Dollars (\$ _____) good and lawful money of the United
States of America, to the payment of which said sum of money, well and truly to be made and done the said PRINCIPAL binds itself,
its heirs, executors, administrators or assignees and the SURETY binds itself, its successors or assigns, jointly and severally, firmly by
these presents.

Signed dated this _____ day of _____, 20__.

WHEREAS, the PRINCIPAL has entered into a certain written contract bearing date on the _____ day of
_____, 20__, with the People of the State of New York for the improvement of _____,
in the County of _____, New York.

NOW THEREFORE, the PRINCIPAL warrants the workmanship and all materials used in the work and agrees that during the
guarantee period of one year beginning after final acceptance by the State or political subdivision or until August 1 of the year
following acceptance of work completed under the contract, whichever is later, it will, at its own expense make repairs which may
become necessary by reason of improper workmanship or defective materials as per the following procedure:

1. No later than June 1 of the year following the State's or the political subdivision's acceptance of work completed under the contract, the State or political subdivision will evaluate the project for aggregate retention, flushing or bleeding, aggregate embedment and bonding to the existing pavement.
2. The PRINCIPAL agrees to repair all areas that demonstrate less than 90% aggregate retention, as determined by the State or political subdivision, on the overall project caused by improper workmanship and/or defective materials. In addition, the PRINCIPAL agrees to repair individual areas that are flushed or bleeding, as determined by the State or political subdivision, caused by improper workmanship and/or defective materials irrespective of the percent of aggregate retained. Such repairs however, shall not include any damage resulting from any forces or circumstances beyond the control of the PRINCIPAL. The evaluation of the chip seal (conventional and fiber reinforced) shall be made by the Resident Engineer or the political subdivision representative as appropriate. If the PRINCIPAL does not agree with the evaluation it may appeal to the Regional Transportation Maintenance Engineer or political subdivision representative's supervisor whose decision shall be final.
3. On or before June 10 in the year immediately following the State's or political subdivision's acceptance of the chip seal (conventional and fiber reinforced) project, the State or political subdivision shall notify the PRINCIPAL of any areas deemed deficient by the State or political subdivision. The PRINCIPAL will initiate and complete the remediation, within 30 days of notification.
4. Prior to the performance of repairs the PRINCIPAL shall supply the Resident Engineer or political subdivision representative with copies of all acceptable insurance certificates. During the performance of any necessary repairs, the PRINCIPAL shall comply with the all provisions of the original contract including among other things the Work zone traffic control provisions.

SECTION 8: GROUP - CHIP SEAL (CONVENTIONAL & FIBER REINFORCED) (Cont'd)

SAMPLE

MAINTENANCE BOND (Cont'd)

In the event of the failure of performance by the PRINCIPAL who has failed to make repairs which may become necessary by reason of improper workmanship or defective materials, said SURETY, for value received, hereby stipulates and agrees, if requested to do so by the State or political subdivision, to commence such repairs within five (5) days of notification by the State or political subdivisions of such failure by the PRINCIPAL. Such repairs shall be performed in accordance with the provisions of the current contract which require among other provisions that the SURETY shall provide necessary Work zone traffic control as well as provide the required insurance before any work is conducted.

In the event both the SURETY and the PRINCIPAL fail to perform such repairs, the State or political subdivision shall cause the repair to be completed by others and the SURETY and PRINCIPAL shall be jointly and severally liable for such costs.

And the said SURETY thereby stipulates and agrees that no change, extension, alteration, deduction or addition in or to the terms of the said contract or the plans or specifications accompanying same, shall in any way affect the obligations of said SURETY of its bond.

PRINCIPAL _____

BY _____

SURETY _____

BY _____

SECTION 9: GROUP - COLD RECYCLING

9.1 Introduction

Cold Recycling of bituminous concrete pavements is a corrective maintenance technique. The existing pavement is milled off for a depth of 3 to 4 inches, a liquid bituminous material is added to the millings, and the resulting mixture is placed and compacted on the milled surface. A new bituminous concrete sealing layer is added later. Existing cracks are eliminated and the resulting pavement should last for many years.

9.2 Pricing Information

9.2.1 General

Clause 24B of Appendix B, the General Specifications has been modified to include the following:

Price quoted shall be to three (3) decimal places.

Price quoted shall be FOB the vendor's location per square yard for the Cold Recycling, at the project site for the additional cost for small and/or short projects and for the shoulder milling, FOB the vendor's location per gallon for the liquid bituminous material (without or with additive) for cold recycling and for fog sealing (if required) and delivered to the location specified by the State or using agency per ton for the aggregate.

Cold Recycling shall be performed in accordance with NYSDOT's Standard Specifications and as per the attached specification for Cold Recycling. Shoulder milling shall be performed as per these specifications. Cleaning and preparing the existing pavement will be the responsibility of the purchasing agency. Erecting warning signs and directing traffic will be the responsibility of the purchasing agency or the vendor using the optional work zone traffic control section at the discretion of the purchasing agency.

Price quoted for Optional Work Zone Traffic Control shall be per square yard of recycling.

Price quoted for additional flaggers (if required) shall be net per day (to the nearest quarter day) for additional flaggers.

Price quoted for rumble strips (if required) shall be net per each linear foot of rumble strips both installed and removed (i.e., one price includes both installation and removal of rumble strips) at the project locations.

Price quoted for optional pilot vehicles with drivers (if required) shall be net per day (to the nearest quarter day) for each pilot vehicle with driver.

Price quoted for mobilization from vendor's location to project location shall be net per square yard of accepted cold recycling performed at the locations indicated by the customer/purchasing agency.

Price quoted for heating, hauling and applying the asphalt emulsion (without or with additive) or PG Binder used in cold recycling and asphalt emulsion used in fog sealing (if required) from vendor's location to project location shall be net per gallon of asphalt emulsion or PG Binder used in cold recycling and fog sealing.

Price additional for small projects or projects recycled in short lengths: Price for small projects (less than 20,000 square yards) or projects where 50% of the total area must be recycled in lengths less than 1,500 feet shall be the price bid for 20,000 square yards to 50,000 square yards for the appropriate depth. An additional price for small projects or projects where 50% of the total area must be recycled in lengths less than 1,500 feet shall be quoted and added to this price.

9.2.2 Insurance

Price bid shall include the following insurance coverage costs. In particular, price shall include:

- Commercial General Liability Insurance with a limit of not less than \$2,000,000 each occurrence;
- Comprehensive Business Automobile Liability Insurance with a limit of not less than \$2,000,000 each accident;
- Each requirement should be reviewed carefully. (Please see Attachment 4 – Insurance Requirements for detailed insurance requirements.)

SECTION 9: GROUP - COLD RECYCLING (Cont'd)

Owners and Contractors Protective Insurance Coverage (OCP) shall be a separate price and shall only be included when specifically called for by an ordering agency. Note that pricing for OCP is not required to be bid and is not a requirement for award; however, bidder understands and agrees by submitting a bid to this IFB that if any Authorized User, in particular the New York State Department of Transportation (NYSDOT), also requires Owners and Contractors Protective Insurance Coverage (OCP) in addition to the above-referenced insurance, the vendor must supply it. The request for OCP shall be indicated by the Authorized User on the Quick Quote/ Price Calculation Worksheet (see Attachment 8). All Quick Quotes submitted must state the cost for such coverage which will be included as part of the Total Cost per Project and evaluated accordingly by the Authorized User. The charge for OCP insurance will be used to determine the lowest cost for the project. The OCP insurance required shall be \$1,000,000 per occurrence and \$2,000,000 in the aggregate.

OCP requirements should be reviewed carefully. (Please see Attachment 4 – Insurance Requirements for detailed insurance requirements.)

9.3 Asphalt Price Adjustments

9.3.1 General

- a. Asphalt price adjustments allowed will be based on the November 1, 2012 average of the F.O.B. terminal price per ton of unmodified PG 64-22 binder without anti-stripping agent (base average F.O.B. terminal price). The new monthly average terminal price will be determined by the New York State Department of Transportation based on prices of pre-approved primary sources of performance graded binder in accordance with the New York State Department of Transportation Standard Specification.

The November 1, 2012 average is \$582.000

NOTE: The same grade of asphalt cement used in establishing the base average F.O.B. terminal price shall be used in establishing the new average F.O.B. terminal price.

In the event that one or more of the New York State Department of Transportation pre-approved sources discontinue posting a price for asphalt cement, the base average F.O.B. terminal **price shall not be recalculated.**

- b. The new average F.O.B. terminal price will be determined based on the above F.O.B. terminal prices posted on the 20th of each month, hereafter known as the “Adjustment Date”, during the contract period. However, asphalt price adjustments, in accordance with the formula below, will be effective for deliveries made on and after the first of the month following the adjustment date.
- c. The unit prices of bituminous materials purchased from any award based on this specification will be subject to adjustment based on the following formula:

Price Adjustment (per gallon)	=	$\frac{\text{New Monthly Average FOB Terminal Price} - \text{Base Average Terminal Price}}{235}$	X	Total Allowable Petroleum %
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Positive Price Adjustment number shall be added to original per gallon Bid Price.
 Negative Price Adjustment number shall be subtracted from original per gallon Bid Price.

New Monthly Average F.O.B. Terminal Price

The average F.O.B. terminal price for unmodified PG 64-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation per New York State Department of Transportation Standard Specification.

Base Average F.O.B. Terminal Price

The average F.O.B. terminal price of unmodified PG 64-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation as of November 1, 2012.

SECTION 9: GROUP - COLD RECYCLING (Cont'd)

Total Allowable Petroleum

The percentage of total allowable petroleum for each item is as follows:

Material Designation	Grade	Asphalt %	Petroleum Allowance %	Total Allowable Petroleum %
702-3201	MS-2	65.0	8.2	73.2%
702-3301	HFMS-2	65.0	8.2	73.2%
702-3401	HFMS-2h	65.0	2.7	67.7%
702-3402	HFMS-2s	65.0	8.2	73.2%
702-3501	SS-1	57.0	0.2	57.2%
702-3601	SS-1h	57.0	0.2	57.2%
702-4201	CMS-2	65.0	10.2	75.2%
702-4301	CMS-2h	65.0	10.2	75.2%
702-4401	CSS-1	57.0	0.2	57.2%
702-4501	CSS-1h	57.0	0.2	57.2%
	PG 64-22	100.0	0.2	100.2%

Note: For Material Designation 702-XXXXT Straight Tack Coat, use Total Allowable Petroleum % for appropriate emulsion grade

Asphalt Price Adjustments will not be allowed for materials which do not have an asphalt cement base.

- d. Work performed after the expiration of the contract, where no extension has been granted, resultant from purchase orders placed prior to expiration of the contract will receive the Asphalt Price Adjustments applicable in effect during the last month of the contract.

Asphalt Price Adjustments for any contracts that are extended will be based on the new average for the month in which the work is done applying the same base established for that contract.

- e. Asphalt Price Adjustments allowed by this contract shall be calculated and applied to the original prices. There will not be Asphalt Price Adjustments unless the change amounts to more than \$0.010 per gallon from the original price. In these instances, prices will revert back to the original prices.
- f. All Asphalt Price Adjustments will be computed to three decimal places.
- g. Should these provisions result in a price structure which becomes unworkable, detrimental or injurious to the State or in prices which are not truly reflective of market conditions or which are deemed by the Commissioner to be unreasonable or excessive, and no adjustment in price is mutually agreeable, the Commissioner reserves the sole right upon ten days written notice mailed to the Contractor to terminate any contract resulting from this bid opening.
- h. All Asphalt Price Adjustments shall be published by the State and issued to all contract holders whose responsibility will be to attach the appropriate State notification (based on when the work was performed) to the payment invoice submitted to agency.

9.3.2 Asphalt Price Adjustment: Example

This example is for illustration purposes only. Actual Base Average Price, etc., may vary:

Item 702.3301

Base Average Price = \$582.000

New Average Price = \$592.000

% Total Allowable Petroleum = 73.2%

SECTION 9: GROUP - COLD RECYCLING (Cont'd)

$$\begin{array}{|c|} \hline \text{Price Adjustment} \\ \text{(per gallon)} \\ \hline \end{array} = \frac{(592.000 - 582.000)}{235} \times \begin{array}{|c|} \hline 0.732 \\ \hline \end{array}$$

$$\begin{array}{|c|} \hline \text{Price Adjustment} \\ \text{(per gallon)} \\ \hline \end{array} = \begin{array}{|c|} \hline +\$0.031 \text{ per gallon} \\ \hline \end{array}$$

Positive Price Adjustment number shall be added to original per gallon Bid Price.
Negative Price Adjustment number shall be subtracted from original per gallon Bid Price.

9.4 Minimum Project Size

The minimum project size for Cold Recycling under this contract without an extra charge shall be 20,000 square yards. This is approximately 1.7 miles of two lane highway at 20 feet wide. A quantity/price change occurs at 50,000 square yards, which is approximately 4.2 miles of a 2-lane highway at 20 feet wide.

The minimum width of shoulder milling shall be 2 feet. The minimum quantity of shoulder milling shall be 4,000 square yards. A quantity/price change occurs at 20,000 square yards.

An additional cost, bid by the vendor, shall be assessed per square yard for projects less than 20,000 square yards or on any projects where more than 50% of the total area (square yards) must be recycled in short lengths (less than 1,500 feet in length)..

9.5 Delivery Ticket

A delivery ticket shall be provided with each load of bituminous asphalt emulsions stating the following:

1. Storage facility identification
2. Ticket Number
3. Date/time
4. Item Number and Type
5. Quantity ticket printed by machine
6. Quantity in 60° F gallons for emulsions.

9.6 Payment

Payment for Cold Recycling of Asphalt Concrete shall be made at the contract price per unit bid for the actual number of square yards of recycling at 3 inches or 4 inches deep, the actual number of square yards of shoulder milling (and disposal if required) at 3 inches or 4 inches deep, the actual number of tons of aggregate, the actual number of gallons of asphalt emulsion (without or with additive) at 60°F, the actual number of gallons of PG binder and the actual number of gallons of fog seal verified by the receiving agency used in the accepted portion of the work. The determination as to quantities involved in any contract shall be accepted as final and binding upon the vendor.

If the engineer or agency authorized individual orders the vendor to spread the recycled mixture over a wider area than the milled area, the vendor shall be due extra compensation for the non-milled area. The actual number of square yards not milled but covered by recycled material shall be measured in square yards and payment for that area shall be computed at 50 percent of the bid price for recycling plus mobilization.

If the agency orders the vendor to recycle a project less than 20,000 square yards in area or a project where the total area to be recycled must be recycled in short lengths (less than 1,500 feet in length) the vendor shall be paid the amount bid per square yard for small projects and/or short projects for the actual number of square yards of accepted Cold Recycling. If the project is both small (less than 20,000 square yards) and also must be recycled in short lengths (less than 1,500 feet in length) then only one additional payment for small and/or short lengths projects shall be made. If the project is small or must be recycled in short lengths, payment for the Cold Recycling itself shall be made per square yard of accepted Cold Recycling at

SECTION 9: GROUP - COLD RECYCLING (Cont'd)

the price bid for 20,000 square yards to 50,000 square yards for the appropriate depth. Even if the project is both small and has short segments, only one surcharge per square yard shall be paid.

A delivery slip stating quantities of asphalt emulsions (with or without additive) or PG Binder for cold recycling and asphalt emulsions for fog sealing (if required) shall accompany each shipment. An invoice listing the quantities of Cold Recycling, asphalt emulsions (without or with additive) or PG Binder, fog sealing (if required), and aggregate shall be sent promptly by the vendor to the engineer or agency authorized individual.

No separate payment will be made for the use of water in the mixing process. Any work required for the maintenance and repair of the Cold Recycling by the vendor during the ten day curing period and for an additional twenty days thereafter shall be done at the vendor's expense.

Payment for optional work zone traffic control (if required) will be made based on the number of square yards of completed recycling. Payment for additional flaggers (if required) will be made based on the number of days (computed to the nearest quarter day) that additional flaggers are utilized as directed by the engineer or agency authorized individual.

Payment for rumble strips (if required) will be based on the number of linear feet of rumble strips that are actually installed and removed as per the specifications included herein.

Payment for optional pilot vehicles with drivers will be made based on the number of days (computed to the nearest quarter day) that optional pilot vehicles with drivers are utilized as directed by the engineer or agency authorized individual.

The price per unit arrived at (mutually estimated) by the vendor and the using agency on the Price Calculation Worksheet or the price per unit resultant from the quick quote process (whichever is applicable) shall be the price per unit paid to the vendor. The quantity of asphalt emulsions (without or with additive) or PG Binder per square yard for Cold Recycling and asphalt emulsions used for fog sealing shall be considered binding upon the vendor.

9.7 Pre-Recycling Conference

The vendor shall schedule a Pre-Recycling Conference with the affected resident engineer or agency authorized individual after the acceptance of the mix design by the State and at least one week prior to the start of the recycling. Project-level supervisors for both the owner agency and the vendor will be present at this conference. At this conference the vendor shall present Certificates of Insurance evidencing compliance with the additional insurance requirements, their proposed recycling schedule, procedure and Traffic Control Plan (if applicable) to the State or other agency for approval. Prior to the start of recycling, the vendor shall coordinate the details of the recycling with the resident engineer or agency authorized individual.

9.8 Supervision

The Department of Transportation or agency authorized individual shall provide supervision for the Cold Recycling operation. The resident engineer or agency authorized individual shall designate a recycling supervisor and that person shall be in responsible charge of the operation. The following portions of Section 105 - CONTROL OF WORK of the Standard Specifications shall apply to these projects: 105-01 STOPPING WORK, 105-08 COOPERATION BY THE CONTRACTOR, 105-15 CONTRACTOR'S RESPONSIBILITY FOR WORK.

9.9 Work Hours

Work will not be permitted on Sundays and Holidays. If the Contractor desires to work overtime on other days, dispensation from the NYS Labor Department must be obtained using Department of Labor Form PW-30 (5/93).

9.10 Mix Design

Cold recycling mix designs may be developed by two different methods under this contract. The first method will require that the owner agency will core the pavement and prepare the mix design. The agency will specify the amount and type of added aggregate and the vendor will be responsible for specifying the type and amount of asphalt emulsion (without or with additive) or PG Binder to properly recycle the pavement. The vendor will also specify the amount of asphalt emulsion required for fog sealing.

The second method will require that the vendor will core the pavement and complete the entire mix design.

After a vendor receives a verbal or written request for a mix design for a specific pavement section from the State, the vendor must supply a mix design for approval to the Director, Materials Bureau within 15 workdays unless additional time is granted by the resident engineer. Copies shall be sent by facsimile to the resident engineer and the Director, Materials Bureau.

SECTION 9: GROUP - COLD RECYCLING (Cont'd)

The telephone numbers for the various facsimile machines shall be supplied to the vendor by the resident engineer. Core holes drilled by the vendor to derive information for a mix design must be filled the day drilled with cold mix bituminous concrete approved by the resident engineer. Traffic control for the coring operation shall be performed by the vendor with prior approval of the lane closure scheme by the resident engineer.

After a vendor receives a verbal or written request for a mix design for a specific pavement section from an agency other than the State, the vendor must supply a mix design for approval to the agency authorized individual within 15 workdays unless additional time is granted by the agency authorized individual. Copies shall be sent by facsimile to the agency authorized individual or their designee. The telephone numbers for the various facsimile machines shall be supplied to the vendor by the agency authorized individual. Core holes drilled by the vendor to derive information for a mix design must be filled the day drilled with cold mix bituminous concrete approved by the agency authorized individual. Traffic control for the coring operation shall be performed by the vendor with prior approval of the lane closure scheme by the agency authorized individual.

9.11 Coring by the Vendor for Non NYSDOT Projects

If the vendor is responsible for the mix design this section will apply. Use 6 inch diameter cores to determine the asphalt content and aggregate gradation of the pavement to be recycled. The agency authorized representative will designate the locations from which the cores will be taken. One location will be designated for each lane mile of pavement with a minimum of six cores for each mix design. Core locations should be uniformly spaced along the length of the project and designated in alternating lanes.

If shoulders are included in the reclaimed material, take a minimum of six additional cores from the shoulders for the mix design. If the pavement or shoulder condition, such as material type or overlay history, changes at some point in the project a separate mixture design will be generated using a separate set of core locations. Follow the same coring and design procedures for each additional mixture design.

The agency authorized representative will approve the plan for work zone traffic control before any coring takes place. Take all pavement cores from the center of the lane within 10 feet of the location marked by the agency authorized representative. Take all shoulder cores within 2 feet of the outer edge of the shoulder and 10 feet of the location marked by the agency authorized representative.

Submit a completed mixture design form to the agency authorized representative for approval. In addition to the information required on the design form, provide the following information:

1. Core locations.
2. Depth of asphalt pavement at each core location.
3. Aggregate gradation and asphalt content of each core from the portion of the core representing the pavement to be recycled. List pavement cores separately from shoulder cores.
4. Average of all gradation and asphalt content results. When the design contains both pavement and shoulder cores, weight the average appropriately to reflect the proper proportion of shoulder material and pavement material to be recycled.
5. Gradation of additional aggregate.
6. The combined gradation of the average core gradation and the additional aggregate.
7. Graph showing the average core gradation, combined gradation, and the mix design control limits plotted on a graph of percent passing v. sieve size raised to the 0.45 power.
8. Completed Price Calculation Worksheet (if necessary).

SECTION 9: GROUP - COLD RECYCLING (Cont'd)

9.12 Shoulder Milling

If the engineer or agency-authorized representative orders the vendor to mill out unsuitable material from the shoulders, the vendor shall do so in compliance with this section. Material shall be removed from shoulders (a minimum of 2 feet in width) by suitable milling machines and removed from the project site by the vendor or by the state or purchasing agency. When removal and disposal by the vendor is specified, the vendor shall be required to remove and dispose of the material at their own expense. When removal and disposal by the State or purchasing agency is specified, the vendor shall load the material into State or purchasing agency trucks for disposal. Shoulder milling shall be 3 inches or 4 inches deep as specified by the engineer or agency authorized individual. The resulting surface of shoulder milling shall be in reasonably close conformity with the grades and cross slopes of the shoulder as originally constructed, except for the elevation change.

9.13 Restoration of Disturbed Areas

During the course of the work the Contractor shall take reasonable care not to disturb areas outside the existing pavement. Any areas disturbed by the Contractor shall be returned to their original condition at no expense to the owner. Any and all debris generated as part of the work shall be removed by the Contractor upon completion of the project.

9.14 Optional Work Zone Traffic Control

The vendor shall submit a per square yard price for work zone traffic control as prescribed by this specification. When requesting mix designs from the vendors, the purchasing agency may, at their option, include work zone traffic control by the vendor for the specific project anticipated.

If optional work zone traffic control is included in the mix design request, the vendor shall be responsible for traffic control. Traffic shall be controlled in accordance with Sections 619-1 through 619-3 of the Standard Specifications, the Manual of Uniform Traffic Control Devices (MUTCD), and as described herein including modifications to the Standard Specifications. The vendor shall submit a Traffic Control Plan for approval to the resident engineer or agency authorized individual at the Pre-Recycling Conference. Figures TAST-C1R, TAST-C2R, TAST-C3R, TAST-C4R, TAST-C5R, TAST-C1UL, TAST-C2UL, TAST-C3UL, and TAST-C4U (see the NYSDOT Work Zone Traffic Control Drawings included in the Invitation for Bids as an attachment) may be used as a basis for development of a Work Zone Traffic Control Plan.

All necessary flaggers for traffic control shall be provided by the vendor. A minimum of three flaggers shall be provided while the recycling operation is underway. One shall be stationed at each end of the operation and one shall be stationed with the milling machine/paver. The vendor shall station flaggers such that communication is maintained between the flaggers. Hand signals, radios, pilot vehicles, or some other means of communication may be used subject to the approval of the resident engineer or agency authorized individual.

The vendor shall provide construction signs as specified in Section 619-1 through 619-3 of the Standard Specifications and in the MUTCD. At a minimum the vendor shall install the following permanent construction signs:

SIGN	MINIMUM SIZE	LOCATION
ROAD WORK NEXT _____ MILES	<u>G20-1</u> 36" x 18"	On main line upstream of project in each direction
END ROAD WORK	<u>G20-2</u> 36" x 18"	On main line after end of project in each direction
ROAD WORK AHEAD	<u>W20-1</u> 36" x 36"	On main line 500 feet in advance of the affected highway segment in each direction and on major intersecting roads 300 -500 feet in advance of main line. Sign should be covered if it conflicts with temporary signing in the vicinity.
DO NOT PASS	<u>R4-1G</u> 24" x 30"	First sign within 100 feet of the beginning of the unmarked area, second within 1000 feet and subsequent signs, spaced every ½ mile along project in each direction (if 2'x 4'temporary yellow markings are used instead of full barrier pavement markings)
NO CENTER LINE	<u>W8-12</u> 36" x 36"	On mainline spaced every 2 miles along project in each direction and after every major intersecting road (if 2'x 4'temporary yellow markings are used instead of full barrier pavement markings)

SECTION 9: GROUP - COLD RECYCLING (Cont'd)

Major intersecting roads are defined as through State, County, Town, Village, or City roads. The vendor may provide portable signs as shown in Figure 6F-2 of the MUTCD and meeting the requirements of Section 619 of the Standard Specifications for lane closures during work hours.

With prior permission of the State's Resident Engineer or political subdivisions representative, the Contractor may provide portable signs as shown in Figure 6F-2 of the MUTCD for the above referenced DO NOT PASS and NO CENTER LINE signs. Signs left active at night shall be rigid and reflectorized in accordance with the Standard Specifications. The Contractor shall be responsible for assuring that these signs will be in their upright, visible positions twenty-four hours a day, seven days a week **while if 2'x 4'temporary yellow markings are used instead of full barrier pavement markings.**

Whenever traffic is permitted to use a travel lane and the adjacent shoulder is not brought up to grade, construction warning signs meeting the requirements of 6F.42 of the MUTCD sign shall be placed.

SIGN	MINIMUM SIZE	LOCATION
LOW SHOULDER	$\frac{W8-9}{36'' \times 36''}$	On main line spaced every 2 miles along project in each direction and after every major intersecting roads (if centerline tracks are used instead of interim pavement markings)

9.14.1 Special Note - Temporary Pavement Markings

The Vendor shall install and maintain temporary pavement markings on any paved surface without permanent pavement markings before opening it to traffic, before nightfall or before the end of the work day, whichever comes soonest except for areas that are open during the work shift with channelizing devices or flaggers. Temporary pavement markings shall meet the requirements of Section 619 of the Standard Specifications except that two-lane, two-way highways may be left without full barrier centerlines in no passing zones for a maximum of 7 calendar days provided that NO CENTER LINE (W8-12, black on orange), NO PASSING ZONE (W14-3, black on orange pennant shaped sign), and DO NOT PASS (R4-1) signs are used consistent with the MUTCD and in conjunction with yellow 2 foot by 4 inch temporary markings consisting of retro-reflective removable pavement marking tape, paint or yellow temporary overlay markers installed on a 40 ft. cycle to delineate the centerline location.

The State or political sub division is responsible for the final pavement markings unless otherwise indicated in the contract. If the vendor chooses to install NO CENTER LINE and DO NOT PASS signs and temporary yellow 2 foot by 4 inch pavement markings in lieu of full barrier centerline markings, the signs shall be left in place until the state or political subdivision has completed installing the final pavement markings. The state or political sub division will normally complete final pavement markings within 7 days of the project completion. However, if unavoidable situations delay the pavement marking installation the signs shall remain in place for 14 calendar days after the project has been completed or until the state has completed installing the final pavement markings, whichever comes first. If permanent pavement marking cannot be installed within 14 days of the project completion, state or political subdivision must install interim pavement marking including center lines, edge lines, stop bars, and simple crosswalks with no hatching before the end of 14 days after project completion.

All costs for Work Zone Traffic Control including flagging, temporary pavement markings, delineation, and construction signs are to be included in the prices bid per square yard for optional work zone traffic control. No separate payment shall be made.

9.14.2 Additional Flaggers for Work Zone Traffic Control

If the engineer or agency authorized individual determines that more than 3 flaggers are necessary to properly control traffic on two-way roadways or more than 2 flaggers are necessary to properly control traffic on one-way roadways and the vendor is responsible for Work Zone Traffic Control under this Invitation for Bids, the vendor shall provide additional flaggers under the Additional Flaggers item. The price bid per flagger per day shall include all costs of providing a flagger where directed by the engineer or agency authorized individual with all the necessary safety equipment, i.e., stop/slow paddle, flag, vest, hardhat, etc. Payment shall be by the day for each flagger provided. A day shall be determined as including the time period between the commencement and completion of work on any calendar day. No extra payment shall be provided if the vendor elects to work a longer day than the standard eight-hour workday. Payment shall be made to the nearest quarter day as determined by the engineer or agency authorized individual.

SECTION 9: GROUP - COLD RECYCLING (Cont'd)

9.14.3 Pilot Vehicles with Drivers

The vendor shall provide sufficient two-way radio equipped pilot vehicles with drivers to guide traffic around the Cold Recycling work zone at a maximum of 20 miles per hour. Payment shall be by the day for each pilot vehicle with driver provided. A day shall be determined as including the time period between the commencement and completion of work on any calendar day. No extra payment shall be provided if the vendor elects to work a longer day than the standard eight-hour workday. Payment shall be made to the nearest quarter day as determined by the engineer or agency authorized individual. The pilot vehicle(s) shall be equipped with construction signs meeting the requirements of Section 6F.58 of the MUTCD and a rotating amber beacon:

SIGN	MINIMUM SIZE	LOCATION
PILOT CAR FOLLOW ME	<u>G20-4</u> 36" X 18"	ON BACK OF PILOT VEHICLES.

The pilot vehicle shall have the name of the Contractor prominently displayed.

9.14.4 Work Zone Traffic Intrusion Initiative

(Attention - Special Note): As part of the Department of Transportation’s Work Zone Intrusion Initiative, the following countermeasures shall be applied to Cold Recycling Projects in this Invitation for Bids if the Vendor is responsible for Optional Work Zone Traffic Control:

Channelizing Device Spacing Reduction

A maximum channelizing device spacing of 40 feet shall be provided at stationary work sites where workers are exposed to traffic. This spacing shall be maintained a reasonable distance upstream of workers, and shall be used throughout the work zone.

Where tapers are located less than 500 feet from the work site the 40-foot spacing shall be used in the taper as well.

Drums or vertical panels are preferred for long-term and intermediate-term work zones, and at any locations where the risk of intrusion is high. Traffic cones are normally adequate for work zones set up and removed on a daily basis.

In long lane or shoulder closures, at least two channelizing devices shall be placed transversely at maximum 800 foot intervals to discourage traffic from driving through the closed lane. **Transversely placed devices are not required where pilot cars are in use.**

Frequent checks shall be made to reset channelizing devices dislodged by traffic.

Flagger Station Enhanced Setups

Additional cones and a flag tree meeting the requirements of Section 6F.62 of the MUTCD shall be used upstream of flagger stations to provide added warning to drivers. These devices shall be used for flagger stations except those that are constantly moving or are in use at one location for no more than a few minutes. If the W20-7a Flagger sign is used, the additional cones and flag tree shall also be used.

For additional details on Flagger Station Enhanced Setups, see Work Zone Traffic Control drawings included in this Invitation for Bids as an attachment.

Temporary Rumble Strips

a. Description

This work shall consist of the installation, maintenance and subsequent removal of temporary rumble strips in Cold Recycling work zones where indicated in the Invitation for Bids or as directed by the Engineer.

b. Materials

Rumble strips shall be either constructed in place from a raised strip of asphalt concrete or constructed in place with removable pavement marking tape. Raised removable tape rumble strips shall be formed by applying four layers of removable black non-reflectORIZED removable pavement marking tape. The tape shall be applied to a clean, dry pavement surface in accordance with the manufacturer’s recommendations. The pavement surface shall be cleaned with compressed air just prior to application of the tape

SECTION 9: GROUP - COLD RECYCLING (Cont'd)

Raised asphalt rumble strips shall be formed from asphalt concrete meeting the requirements of Hot Mix Asphalt Shim Course F9 or 9.5 F3 Top Course. Tack coat meeting the requirements of Materials Designation 702-XXXXT Asphalt Emulsion Diluted Tack Coat shall be used to adhere the rumble strip to the existing pavement. Temporary rumble strips shall be formed using a specially constructed rumble strip paver (drag box) pulled transversely across the pavement, or by hand placement between forms fixed to the pavement. If forms are used, they shall be removed prior to compaction of the asphalt mixture. Compaction shall be accomplished using a plate tamper or a static roller.

The roadway surface on which the rumble strips are to be attached shall be dry, free of surface contaminants such as dust or oil, and shall be 45°F or greater unless otherwise authorized by the Engineer. The pavement surface shall be cleaned with compressed air just prior to tack coating and subsequent installation of rumble strips.

Temporary rumble strips shall be placed in a succession of three 6 Strip Patterns according to the attached “Suggested Layout Details - Temporary Rumble Strips”. Each strip shall be placed on 10 foot centers and traversing the full width of each travel lane. On curbed roadways, rumble strips shall end a minimum of 3 feet from the curb so as to not interfere with drainage. Rumble strips shall be between 6 inches and 9 inches in width and have a final compacted thickness of 0.4 inches + 0.1 inches.

Any raised rumble strips that fail to adhere to the pavement, or become damaged or flattened such that, in the opinion of the Engineer, they are no longer performing their intended function, shall be replaced or repaired by the Contractor to the satisfaction of the Engineer. Any associated damage to the pavement shall also be repaired by the Contractor to the satisfaction of the Engineer. These replacements or repairs shall be made at no additional expense to the Purchasing Agency.

When directed by the Engineer, (e.g., prior to the start of the winter plowing season), or prior to the placement of successive pavement courses, the Contractor shall completely remove the rumble strips from the pavement. Rumble strips shall be removed upon completion of work and concurrently with the removal of other temporary traffic control signs and devices. Any pavement that is damaged in the process of removing the rumble strips shall be repaired by the Contractor to the satisfaction of the Engineer at no additional expense to the Purchasing Agency.

c. Basis of Payment

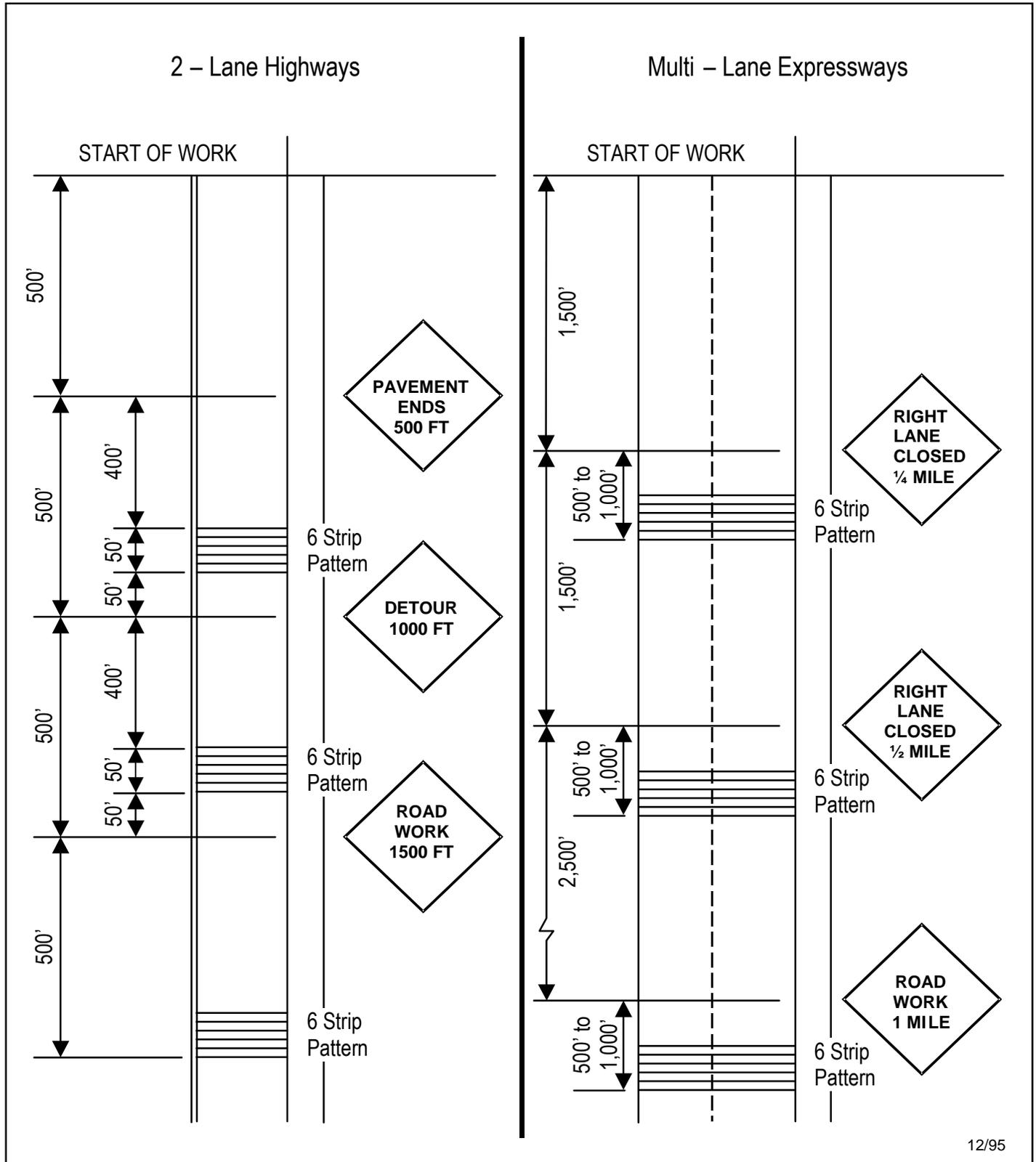
All costs for the installation, maintenance and removal of temporary rumble strips are included in the price bid per linear foot of rumble strip.

d. Suggested Layout Details Drawing-- Temporary Rumble Strips

See the Suggested Layout Details Drawing in the next page.

SECTION 9: GROUP - COLD RECYCLING (Cont'd)

Suggested Layout Details -- Temporary Rumble Strips



SECTION 9: GROUP - COLD RECYCLING (Cont'd)

9.15 Detailed Specifications – Cold Recycling Asphalt Concrete

9.15.1 Description

Cold recycling asphalt concrete consists of a continuous process of milling the existing pavement, remixing with bituminous material and aggregate, reshaping and compacting the asphalt mixture as indicated in the contract documents and as shown on the plans. Pavement locations that are milled shall have material replaced on the same day.

9.15.2 Materials

Bituminous Material

Liquid bituminous material shall be obtained from a Department approved facility

Asphalt Emulsion

Use a medium setting grade of asphalt emulsion. Slow setting grades of asphalt emulsion manufactured with a minimum of 65% asphalt residue may be used with the approval of the Director, Materials Bureau. Asphalt emulsion shall be sampled according to Materials Method 702-2, "Asphalt Emulsion – Quality Assurance."

Performance Graded Binder

Use the appropriate performance graded binder for the project location. Obtain one sample per lot of performance graded binder delivered to the project

Fog Seal

Use diluted tack coat meeting §407, Tack Coat. Fog seal shall be sampled according to Materials Method 702-2, "Asphalt Emulsion – Quality Assurance."

Additives

Additives may be combined with the bituminous material prior to construction or may be added to the mix during construction. The proportion and amounts of additive shall be determined by the Contractor and approved by the Director, Materials Bureau.

Aggregates

Additional aggregates for cold recycling of pavements shall conform to the requirements of §703-02, Coarse Aggregate. The gradation and source of the aggregates shall be specified by the Contractor and included in the proposed mix design.

Reclaimed Material

Milled asphalt pavement material that has been removed and/or processed from the pavement will be referred to as reclaimed material. The reclaimed material shall pass the 2 inch sieve size.

Mix Design Guidelines

The recycled mixture consists of reclaimed material, additional aggregate, liquid bituminous material, additives and water. The mix design shall meet the requirements of Material Method 416.

9.15.3 Equipment

Use equipment capable of:

- a. Milling the existing pavement to the appropriate depth
- b. Processing the reclaimed material to pass a 2 inch sieve
- c. Mixing the reclaimed material with bituminous material
- d. Paving and compacting the reclaimed material to the correct grade

SECTION 9: GROUP - COLD RECYCLING (Cont'd)

Calibration

Calibrate the mixing equipment prior to the start of work, in accordance with established NYSDOT calibration procedures. Submit the calibration results for approval to the Director, Materials Bureau at least 7 days prior to the start of work. The first calibration of each calendar year must be witnessed by Department personnel. Submit subsequent calibrations with written certification that proper procedures were followed and that all measurements and calculations are accurate. If the results submitted in subsequent calibrations are more than 5.0% different from the first calibration of the season, the equipment must be calibrated in the presence of Department personnel. Calibration approval is valid for 90 days from the date of calibration. Provide a copy of the calibration approval letter to the Engineer before the start of work. No cold recycling will be allowed under this contract until the calibration has been completed and approved. No payment will be made for material recycled by equipment without a valid calibration

9.15.4 Construction

Weather & Seasonal Limitations

Work will not be permitted when the existing pavement contains frost, or when the air surface temperature is below 45 °F or expected to drop below 45 °F within 24 hours. Material shall be placed between May 1 and October 7.

Satisfactory work performed after October 7 will be paid at 90% of the bid price for the recycling and bituminous material items

Testing

Prior to starting recycling operations, test two aggregate samples to verify the gradation. Supply the test results to the Engineer before the start of work.

Once continuous production has been achieved, test four samples of the recycled mixture for gradation and total asphalt content. Submit the test results to the Engineer and Regional Materials Engineer before the end of the next workday. For each subsequent day of production, take a minimum of one sample of the recycled mixture from each ½ mile, or fraction thereof, of pavement recycled. Test each sample for gradation and total asphalt content. Submit the test results from the mix samples taken from each ½ mile of pavement within two workdays. Make adjustments to the mix proportions or additional aggregate gradation based on the test results to comply with the approved mix design and construct a stable pavement layer.

If a second recycling train is brought to the project, take samples following the frequencies detailed above, including taking four samples on the first day of use.

Traffic Control

The Contractor shall provide two-way radio equipped pilot vehicles to guide traffic around recycled work. The pilot vehicle shall be equipped with signs meeting the requirements of Section 6F.58 of the MUTCD.

Milling

The milling depth called out in the contract documents will determine the depth of cut. The depth of cut will be measured at the centerline and maintain the existing slope.

The Contractor may vary the depth of cut at the center line and edge of travelled lane to correct for nonstandard features. Changes to milling depth must be approved by the Engineer.

The water added shall be metered and recorded. Changes to the water rate shall be reported to the Engineer.

Recycling

The Contractor shall follow the submitted mix design. The Contractor shall incorporate the bituminous material at a rate within 10% of the design rate. Changes to the bituminous material rate resulting in a greater than 10% difference from the design rate require the Engineer's approval. The Contractor shall record and report the amount and location of all changes from design values to the Engineer.

Spreading

The mixture shall be placed using a bituminous paver equipped with a profile reference and mechanically spread in a uniform layer so as to produce the specified thickness and surface tolerance after compaction. Excessive amounts of non-coated reclaimed material which spill onto the milled surface shall be removed, as ordered by the Engineer, prior to placing the mixture.

SECTION 9: GROUP - COLD RECYCLING (Cont'd)

Compaction

After the bituminous mixture has been spread, it shall be thoroughly and uniformly compacted when the mixture is in the proper condition and when the rolling does not cause undue displacement, cracking or shoving. All courses shall be initially rolled with the roller traveling parallel to the centerline of the pavement beginning at each edge and working toward the center. Banked curves shall be rolled starting at the low side edge and working toward the super-elevated edge. The roller drive roll or wheel shall be nearest the paver.

Establish rolling operations consistent with §402, 70 Series Compaction. Proposed changes to the roller pattern shall be approved by the Engineer. Material that cannot be properly and adequately compacted to a stable condition shall be removed and replaced, as ordered by the Engineer, at the Contractor's expense.

Rollers shall operate at a uniform speed. All turning of the compaction equipment shall be completed on material which has had a minimum of one roller pass. The Contractor may choose to use vibratory compaction equipment for initial or intermediate rolling.

A pneumatic tire roller with a minimum ground contact pressure of 80 psi will be supplied by the Contractor for compacting the cold recycled mix.

The pavement course shall be finish rolled with a steel wheel tandem roller having a minimum weight of 8 tons. The finish roller shall add a minimum of two passes. Dual vibrating drum rollers meeting the requirements of a tandem roller and operating in the static mode may be used for the finish roller.

Along forms, curbs, headers, walls and other areas not accessible to the rollers, the mixture shall be thoroughly compacted with mechanical tampers as directed by the Engineer. On depressed areas, a trench roller or a small vibratory roller approved by the Engineer may be used.

Any displacement occurring as a result of reversing the direction of the roller, or from other causes shall be corrected immediately by the use of rakes and addition of fresh mixture as required. Care shall be exercised in rolling not to displace the line and grade of the edges of the bituminous mixture. To prevent adhesion of the mixture to the rollers, the wheels shall be kept properly moistened with water or water mixed with small quantities of detergent or other approved material, but in no case shall a solvent having an adverse effect upon the bituminous pavement be used.

Longitudinal Joints

A longitudinal joint shall be located at the centerline. All other longitudinal joints should coincide with pavement lane lines whenever possible. If the Contractor proposes longitudinal joint locations that do not coincide with pavement lane lines, the following procedure shall be used:

- a. Pave recycled mat.
- b. Compact using established roller pattern.
- c. Upon next milling pass, reclaim a minimum of 6 inches of the adjoining, compacted recycled mat.

If any length of longitudinal joint is exposed at the end of the working day, construct the joint using a pneumatic tire roller to form the joint into a wedge shape and provide a smooth transition for traffic. Construct the wedge of recycled material at a slope of 1 on 8 or flatter to meet the existing pavement elevation. Do not overlap recycled material onto the existing pavement.

Tolerance

The recycled surface shall be constructed to a 3/8 inch tolerance. The elevation difference at the longitudinal joint shall be constructed to a 3/16 inch tolerance. The surface may be tested with a 15 foot straight edge or string line placed parallel to the center line of the pavement. The surface may also be tested with a 10 foot straight edge or string line placed transversely to the center line of the pavement on any portion of the pavement

Existing Pavement Cross Slopes

If the existing pavement's cross slopes meet appropriate standards, then the cross slopes of the finished cold recycling shall match the existing. Contract documents and/or the engineer will identify non standard areas at the pre-construction meeting. The Contractor shall present a plan to the Engineer that brings the cross slopes of the finished cold recycled mat into conformance with the appropriate standard. The Contractor will not be responsible for corrections to the cross slopes where sufficient material does not exist in the pavement to make such corrections.

SECTION 9: GROUP - COLD RECYCLING (Cont'd)

Brooming

The pavement and shoulders shall be broomed by the Contractor, as ordered by the Engineer, to remove loose stone or reclaimed material resulting from the recycling process.

Temporary Pavement Markings

Apply temporary pavement markings meeting the requirements of §619 at the centerline and shoulder of the recycled material before the end of each workday. Maintain the temporary markings until the recycled material is overlaid.

Curing Asphalt Emulsion

Allow the recycled material to cure for a minimum of 10 days before placing the next paving course. The provisions of the paragraphs above, Brooming and Tolerance, apply from the time of recycling until the recycled material is overlaid, not to exceed 30 days.

Curing Foamed Asphalt

Allow the recycled material to cure for a minimum of 3 days before placing the next paving course. The provisions of the paragraphs above, Brooming and Tolerance, apply from the time of recycling until the recycled material is overlaid, not to exceed 30 days.

Fog Seal

A fog seal may be used to correct an overly dry surface, or to reduce the quantity of dry stone or reclaimed material pulled out by traffic. Application of fog seal requires the Engineer's approval.

The rate of application shall not exceed 0.1 gallons/square yard. The Contractor shall be responsible for work zone traffic control for the fog seal operation. A work zone traffic control plan for the fog seal operation shall be developed by the Contractor and submitted to the Engineer for approval.

Damaged or Deficient Areas

Any mixture that ravels, becomes loose or broken, mixed with dirt, or is in anyway defective shall be reworked or removed and replaced with fresh recycled mix or fresh hot mixture and shall be compacted to conform with the surrounding area.

Any area showing an excess or deficiency of bituminous material shall be corrected to the satisfaction of the Engineer.

Variations in tolerance, including ruts, exceeding 3/8 inch shall be satisfactorily corrected at no additional cost to the Department. The repair method will be approved by the Engineer.

All repairs or remedial actions necessary to correct damaged or deficient areas of recycled pavement shall be carried out at the Contractor's expense. The Contractor shall not be responsible for damage to the recycled mix as a result of other work performed on the pavement or shoulders.

Repairs

Immediately after becoming aware of damage or deficiencies in the recycled mix, the Engineer will notify the Contractor or the Contractor's designated representative. The Contractor shall make arrangements to repair the damaged or deficient areas to the satisfaction of the Engineer.

For repairs after October 7, the Contractor shall remove the recycled mix and replace with hot mix asphalt, or overlay the recycled mix with hot mix asphalt, as directed by the Engineer.

SECTION 9: GROUP - COLD RECYCLING (Cont'd)

9.15.5 Method of Measurement

Cold recycling asphalt concrete shall be measured by the number of square yards of pavement surface recycled.

The liquid bituminous material for cold recycling asphalt concrete and fog seal shall be measured by the number of 60°F gallons actually incorporated in the work. The following formulas will be used to calculate 60°F gallons:

Asphalt Emulsion:

$$\text{Volume}_{60^{\circ}\text{F}} = \text{Volume}_{\text{D}} \times [1 - (\Delta\text{T} \times 0.00025)]$$

Where:

ΔT = Delivered Temperature (°F) – 60

Volume_{D} = Quantity Delivered (gallons)

PG Binder:

$$\text{Volume}_{60^{\circ}\text{F}} = \text{Volume}_{\text{D}} \times [1 - (\Delta\text{T} \times 0.00035)]$$

Where:

ΔT = Delivered Temperature (°F) – 60

Volume_{D} = Quantity Delivered (gallons)

Aggregate shall be measured by the number of tons incorporated in the work

9.15.6 Basis of Payment

The unit price bid per square yard for cold recycling asphalt concrete shall include the cost of all labor, materials and equipment necessary to perform the work. Bituminous material, fog seal, and aggregate will be paid for under their appropriate pay items. No separate payment will be made for the use of water in the mixing process. Any work required for the maintenance, replacement or repair of the cold recycled pavement prior to acceptance of the contract, shall be done at no additional cost to the State.

Satisfactory work performed after October 7 will be paid at 90% of the bid price for the recycling and bituminous material items.

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER

10.1 Introduction

Joint and Crack Filler/Sealers are hot-poured liquid bituminous materials (rubberized asphalt; asphalt cement and polyester fibers; asphalt filler) used to fill and/or seal cracks in the surface of highway pavements. Some products incorporate recycled materials with up to 18% recycled content and up to 18% post-consumer content.

10.2 Pricing Information

10.2.1 General

Clause 24B of Appendix B, the General Specifications has been modified to include the following:

Price quoted shall be to three (3) decimal places.

Price quoted shall be net, F.O.B. per gallon or per linear foot for each material item, per 1/4 hour for excess time, per day per additional flagger, and per day per optional pilot vehicle with driver, as indicated in the Invitation for Bids. Price adjustments, if any, will be calculated on the basis of the material actually furnished.

The price (mile and gallon range) for a specific job will be calculated at the same rate. This rate will be determined by finding the one category which applies to the total miles and gallons per job.

For example, a job which is 21 miles from the plant will be calculated at the same rate per gallon for each mile (from 1 to 21) which is indicated in the 11-25 miles column herein, rather than on a cumulative basis. Similarly, a job which is 39 miles from the plant and requires 420 gallons over a two-day period will be calculated using the 26-50 miles column and the 151-300 gallons range since it is presumed that equal quantities are to be applied each day.

Option 1: (Per Gallon)

Heat, Haul, Deliver WITH Contractor's Operator to the locations in a hot oil heated, containerized, mobile tank. Traffic control and supervision to be supplied by purchasing agency.

Option 2: (Per Gallon)

Heat, Haul, Deliver WITHOUT Contractor's Operator to the locations in a hot oil heated, containerized, mobile tank. Traffic control and supervision to be supplied by purchasing agency.

Option 3: (Per Gallon) Traditional Overband Application Method

Heat, Haul, Deliver (in hot oil-heated, containerized, mobile tanks), and APPLY WITH Contractor's Operators who will operate equipment and apply material at the locations. Cleaning joints, traffic control and supervision are to be supplied by purchasing agency.

The use of this option is restricted. This option can only be used for filling shoulder joints between PCC pavement and HMA shoulder using fiber reinforced PG binder or hot applied sealant. Political subdivisions may use this option as a filler prior to an overlay.

Joints/cracks shall be overfilled by placing the applicator wand in or directly over the recess and carefully discharging the filler/sealer. Strike off the joint using a neoprene type "V" shaped squeegee or sealing shoe that is capable of conforming to the pavement surface. Form a film of material 4 inches wide and 1/16 to 1/8 inch thick, with tapered edges, centered over the joint. The distance between the filler/sealer applicator wand and the squeegee/sealing shoe shall not exceed 2 feet. Properly filled/sealed joints shall be watertight.

A low pressure, light spray of water may be used to accelerate cooling of the filler/sealer. Blotting the filler/sealer with fine aggregate is not allowed. Remove and dispose of filler/sealer that is in excess of the specified film dimensions or that has not bonded to both sides of the joint at the Contractor's expense.

Protect filled/sealed joints until the filler/sealer has cured sufficiently. Clean filled/sealed joints that become damaged with high pressure air and refill/reseal them to meet the specified film amount at no additional cost to the State.

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

Filler or sealant that becomes damaged from traffic or from the removal of over-applied amounts shall be repaired. The areas shall have additional filler or sealant applied, to the satisfaction of the Engineer or agency representative and at the Contractor's expense. Deficient areas where sealant has sunk into the joint/crack more than 3/8 inch below the pavement surface shall have additional filler or sealant installed to the satisfaction of the agency representative, at the bid price. Cleaning of damaged or deficient areas shall not require removal of the sealant from a crack that has been sealed.

Option 4: (Per Gallon) Traditional Overband Application Method

Heat, Haul, Deliver (in hot oil-heated, containerized, mobile tanks), and APPLY WITH Contractor's Operators who will operate equipment, clean cracks (using air compressor with minimum 125 cubic feet per minute), and apply material at the locations. Traffic control and supervision are to be supplied by purchasing agency or by the vendor under the Optional Work Zone Traffic Control section of this Invitation for Bids.

The use of this option is restricted. This option can only be used for filling shoulder joints between PCC pavement and HMA shoulder using fiber reinforced PG binder or hot applied sealant. Political subdivisions may use this option as a filler prior to an overlay.

All cracks shall be thoroughly cleaned of dust, dirt, foreign material, sand and any other extraneous materials by high pressure air or a hot air lance. When using a hot air lance, care shall be taken so as not to burn, scorch or ignite the adjoining pavement. The material and debris shall be blown from the crack and pavement to prevent recontamination of the crack. The crack sides shall appear thoroughly clean and dry immediately prior to filling or sealing. Install suitable traps or devices on the compressed air equipment to prevent moisture and oil from contaminating the joint surfaces. Maintain these devices and see that they are functioning properly. The Contractor shall be ordered to reclean cracks if, in the opinion of the agency representative, adequate cleaning and drying is not evident. Any cracks not filled or sealed the same day shall be recleaned prior to filling or sealing.

Joints/cracks shall be overfilled by placing the applicator wand in or directly over the recess and carefully discharging the filler/sealer. Strike off the joint using a neoprene type "V" shaped squeegee or sealing shoe that is capable of conforming to the pavement surface. Form a film of material 4 inches wide and 1/16 to 1/8 inch thick, with tapered edges, centered over the joint. The distance between the filler/sealer applicator wand and the squeegee/sealing shoe shall not exceed 2 feet. Properly filled/sealed joints shall be watertight.

A low pressure, light spray of water may be used to accelerate cooling of the filler/sealer. Blotting the filler/sealer with fine aggregate is not allowed. Remove and dispose of filler/sealer that is in excess of the specified film dimensions or that has not bonded to both sides of the joint at the Contractor's expense.

Protect filled/sealed joints until the filler/sealer has cured sufficiently. Clean filled/sealed joints that become damaged with high pressure air and refill/reseal them to meet the specified film amount at no additional cost to the State.

Filler or sealant that becomes damaged from traffic or from the removal of over-applied amounts shall be repaired. The areas shall have additional filler or sealant applied, to the satisfaction of the Engineer or agency representative and at the Contractor's expense. Deficient areas where sealant has sunk into the joint/crack more than 3/8 inch below the pavement surface shall have additional filler or sealant installed to the satisfaction of the agency representative, at the bid price. Cleaning of damaged or deficient areas shall not require removal of the sealant from a crack that has been sealed.

Option 5: (Per Gallon) Strike-Off Flush Application Method - ASTM D6690 Type II only

Heat, Haul, Deliver (in hot oil-heated, containerized, mobile tanks), clean cracks (using air compressor with minimum 125 cubic feet per minute), and seal cracks at the locations. Contractor is to supply and operate all equipment, including that required to clean and seal cracks. Traffic control and supervision are to be supplied by purchasing agency or by the vendor under the Optional Work Zone Traffic Control section of this Invitation for Bids.

Detailed specifications can be found elsewhere in this Invitation for Bids under CLEANING AND SEALING CRACKS IN HOT MIX ASPHALT PAVEMENT.

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

Option 6: (Per Linear Foot) Rout, Clean & Seal Application Method - ASTM D6690 Type II only

Heat, Haul, Deliver (in hot oil-heated, containerized, mobile tanks), rout, clean cracks (using air compressor with minimum 125 cubic feet per minute), and seal cracks at the locations. Contractor is to supply and operate all equipment, including that required to rout, clean and seal cracks. Traffic control and supervision are to be supplied by purchasing agency or by the vendor under the Optional Work Zone Traffic Control section of this Invitation for Bids.

Detailed specifications can be found elsewhere in this Invitation for Bids under ROUTING, CLEANING AND SEALING CRACKS IN HOT MIX ASPHALT PAVEMENT USING HOT APPLIED SEALANT

Option 7: (Per Gallon)

Deliver 702-0700 Asphalt Filler in 100 pound cardboard containers. The minimum delivery quantity shall be one (1) ton.

Option 8: (Per Gallon)

Material price (Pick-up only)

Work Zone Traffic Control

Price quoted for Work Zone Traffic Control shall be net per gallon or linear foot as applicable.

Additional Flagger(s)

Price quoted for Additional Flagger(s) (if required) shall be net per day (to the nearest quarter day) for additional flagger(s).

Pilot Vehicle(s) With Driver(s)

Price quoted for Pilot Vehicle(s) with Driver(s) shall be net per day per vehicle with driver.

Time Rate

Price quoted for charge for time for each 15 minutes or portion thereof. Once work has commenced, no further time rate charge is allowed. Time Rate does not apply to material 702-0700.

Note: Price bid, with the exception of Option 8, must include material and delivery charges per options as indicated.

10.2.2 Insurance

Price bid shall include the following insurance coverage costs. In particular, price shall include:

- Commercial General Liability Insurance with a limit of not less than \$2,000,000 each occurrence;
- Comprehensive Business Automobile Liability Insurance with a limit of not less than \$2,000,000 each accident;
- Each requirement should be reviewed carefully. (Please see Attachment 4 – Insurance Requirements for detailed insurance requirements.)

Owners and Contractors Protective Insurance Coverage (OCP) shall be a separate price and shall only be included when specifically called for by an ordering agency. Note that pricing for OCP is not required to be bid and is not a requirement for award; however, bidder understands and agrees by submitting a bid to this IFB that if any Authorized User, in particular the New York State Department of Transportation (NYSDOT), also requires Owners and Contractors Protective Insurance Coverage (OCP) in addition to the above-referenced insurance, the vendor must supply it. The request for OCP shall be indicated by the Authorized User on the Quick Quote/ Price Calculation Worksheet (see Attachment 8). All Quick Quotes submitted must state the cost for such coverage which will be included as part of the Total Cost per Project and evaluated accordingly by the Authorized User. The charge for OCP insurance will be used to determine the lowest cost for the project. The OCP insurance required shall be \$1,000,000 per occurrence and \$2,000,000 in the aggregate.

OCP requirements should be reviewed carefully. (Please see Attachment 4 – Insurance Requirements for detailed insurance requirements.)

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

10.3 Asphalt Price Adjustments

10.3.1 General

- a. Asphalt price adjustments allowed will be based on the November 1, 2012 average of the F.O.B. terminal price per ton of unmodified PG 64-22 binder without anti-stripping agent (base average F.O.B. terminal price). The new monthly average terminal price will be determined by the New York State Department of Transportation based on prices of pre-approved primary sources of performance graded binder in accordance with the New York State Department of Transportation Standard Specification.

The November 1, 2012 average is \$582.000

NOTE: The same grade of asphalt cement used in establishing the base average F.O.B. terminal price shall be used in establishing the new average F.O.B. terminal price.

In the event that one or more of the New York State Department of Transportation pre-approved sources discontinue posting a price for asphalt cement, the base average F.O.B. terminal **price shall not be recalculated.**

- b. The new average F.O.B. terminal price will be determined based on the above F.O.B. terminal prices posted on the 20th of each month, hereafter known as the “Adjustment Date”, during the contract period. However, asphalt price adjustments, in accordance with the formula below, will be effective for deliveries made on and after the first of the month following the adjustment date.
- c. The unit prices of bituminous materials purchased from any award based on this specification will be subject to adjustment based on the following formula:

For Crack Sealing:

Price Adjustment (per gallon)	=	$\frac{\text{New Monthly Average FOB Terminal Price} - \text{Base Average Terminal Price}}{235}$	X	Total Allowable Petroleum %
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For Routing, Cleaning and Sealing:

Price Adjustment (per linear foot)	=	$\frac{\text{New Monthly Average FOB Terminal Price} - \text{Base Average Terminal Price}}{14,400}$	X	Total Allowable Petroleum %
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Positive Price Adjustment number shall be added to original per gallon Bid Price.
Negative Price Adjustment number shall be subtracted from original per gallon Bid Price.

New Monthly Average F.O.B. Terminal Price

The average F.O.B. terminal price for unmodified PG 64-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation per New York State Department of Transportation Standard Specification.

Base Average F.O.B. Terminal Price

The average F.O.B. terminal price of unmodified PG 64-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation as of November 1, 2012.

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

Total Allowable Petroleum

The percentage of total allowable petroleum for each item is as follows:

Material Designation	<u>Asphalt %</u>	<u>Petroleum Allowance %</u>	<u>Total Allowable Petroleum %</u>
PG 64-22 + Fiber	95.0	0.2	95.2%
702-0700	100.0	0.2	100.2%
ASTM D6690 Type II	56.0	0.2	56.2%
ASTM D6690 Type I	56.0	0.2	56.2%

Asphalt Price Adjustments will not be allowed for materials which do not have an asphalt cement base.

- d. Work performed after the expiration of the contract, where no extension has been granted, resultant from purchase orders placed prior to expiration of the contract will receive the Asphalt Price Adjustments applicable in effect during the last month of the contract.

Asphalt Price Adjustments for any contracts that are extended will be based on the new average for the month in which the work is done applying the same base established for that contract.

- e. Asphalt Price Adjustments allowed by this contract shall be calculated and applied to the original prices. There will not be Asphalt Price Adjustments unless the change amounts to more than \$0.010 per gallon or \$0.002 per linear foot from the original price. In these instances, prices will revert back to the original prices.
- f. All Asphalt Price Adjustments will be computed to three decimal places.
- g. Should these provisions result in a price structure which becomes unworkable, detrimental or injurious to the State or in prices which are not truly reflective of market conditions or which are deemed by the Commissioner to be unreasonable or excessive, and no adjustment in price is mutually agreeable, the Commissioner reserves the sole right upon ten days written notice mailed to the Contractor to terminate any contract resulting from this bid opening.
- h. All Asphalt Price Adjustments shall be published by the State and issued to all contract holders whose responsibility will be to attach the appropriate State notification (based on when the work was performed) to the payment invoice submitted to agency.

10.3.2 Asphalt Price Adjustment: Example

This example is for illustration purposes only. Actual Base Average Price, etc., may vary:

Item PG 64-22 + Fiber

Base Average Price = \$582.000

New Average Price = \$592.000

% Total Allowable Petroleum = 95.2%

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per gallon)} \\ \hline \end{array} = \frac{(592.000 - 582.000)}{235} \times \begin{array}{|c|} \hline 0.952 \\ \hline \end{array}$$

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per gallon)} \\ \hline \end{array} = \begin{array}{|c|} \hline +\$0.040 \text{ per gallon} \\ \hline \end{array}$$

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

10.4 Required Qualifications

The firm submitting the bid must meet the following conditions:

1. The crack filler/sealer shall be obtained from an approved primary source. An approved primary source is a firm that samples, tests and certifies that the materials are in conformance with the NYSDOT materials specifications. Primary sources may be refineries, terminals, line-blend plants, intermediate storage facilities or other similar plants that sample, test and certify the materials.
2. The quantity of crack filler/sealer shall be measured by volume or weight using an accurate measuring device

10.5 Minimum Order

The absolute minimum order is 100 gallons for Material Grade Options 1-5 and 1,000 linear feet per day for Option 6.

10.6 Delivery Ticket

A delivery ticket shall be provided with each load of crack filler/sealer stating the following:

1. Storage facility identification
2. Ticket Number
3. Date/time
4. Item Number and Type
5. Quantity

NOTE: Although the delivery ticket for joint filler is not required to state the quantity delivered in 60° F gallons, payment will be made for 60° F gallons.

10.7 Payment

Payment shall be made at contract price per gallon, excess time rate, or linear foot for the actual quantities of crack filler/sealer furnished to and verified by the receiving agency. This determination as to quantities involved in any contract shall be accepted as final and binding upon the Contractor. A delivery slip stating quantities shall accompany each shipment. An invoice shall be sent promptly by the Contractor to the Engineer of the Region or to the State Agency placing the order. Measurement shall be based on the volume of crack filler/sealer at a temperature of 60° F. The method to be used for volume corrections shall be the method and coefficients of expansion given in the "Standard Petroleum Tables, A.S.T.M. D1250". The price per unit for other than "Specific Projects" arrived at (mutually estimated) by the Contractor and the using agency on the Price Calculation Worksheet or the price per unit resultant from the actual average daily production, whichever is less, shall be the price per unit paid to the Contractor. No additional payment shall be due the Contractor for production rates that are not equal to the rate upon which the calculation work sheet price was based.

10.8 Work Hours

Work will not be permitted on Sundays and Holidays. If the Contractor desires to work overtime on other days, dispensation from the NYS Labor Department must be obtained using Department of Labor Form PW-30 (5/93).

10.9 Optional Work Zone Traffic Control

The Contractor shall submit per gallon or per linear foot prices for Work Zone Traffic Control for the various options and quantity ranges as indicated on the bid sheets as prescribed by this specification. When requesting price quotations from the Contractors, the purchasing agency may at their option, include Work Zone Traffic Control by the Contractor for the specific project anticipated.

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

If optional work zone traffic control is included in the project request, the Contractor shall be responsible for work zone traffic control. Traffic shall be controlled in accordance with Sections 619-1 through 619-3 of the Standard Specifications, the Manual of Uniform Traffic Control Devices (MUTCD) and as described herein including modifications to the Standard Specifications. The Contractor shall submit a Work Zone Traffic Control Plan for approval to the resident engineer or agency authorized individual. For two-way roadways, Figures TAST-C1R, TAST-C2R, TAST-C3R, TAST-C4R, TAST-C5R, TAST-C7R, TAST-C1UL, TAST-C2UL, TAST-C3UL, TAST-C4U, TAST-C7UL, TAST-C1UH, TAST-C2UH, TAST-C3UH, and TAST-C7UH (see the NYSDOT Work Zone Traffic Control Drawings included in the Invitation for Bids as an attachment) may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way roadways, Figures TAST-C5UL, TAST-C6UL, TAST-C8UL, TAST-C5UH, TAST-C6UH, and TAST-C8UH may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way Freeways or Expressways, Figures TAST-E1, TAST-E2, TAST-E3, TAST-E4, TAST-E5, TAST-E6, and TAST-E7 may be used as a basis for development of a Work Zone Traffic Control Plan.

All necessary flaggers for Work Zone Traffic Control shall be provided by the Contractor. For two-way roadways, a minimum of three flaggers shall be provided while the crack/joint sealing/filling operation is underway. One shall be stationed at each end of the operation and one shall be stationed with the crack sealant melting unit. For one-way roadways, a minimum of two flaggers shall be provided while the crack/joint sealing/filling operation is underway. One shall be stationed at the beginning of the operation and one shall be stationed with the operator. The Contractor shall station flaggers such that communication is maintained between flaggers. Hand signals, radios, pilot vehicles or some other means of communication may be used subject to the approval of the resident engineer or agency authorized individual.

The Contractor shall provide construction signs as specified in Section 619-1 through 619-3 of the Standard Specifications and in the MUTCD. At a minimum the Contractor shall install the construction signs indicated in their Work Zone Traffic Control Plan or as shown on the Work Zone Traffic Control drawings included in this Invitation for Bids as an attachment.

On major intersecting roads, the Contractor shall place ROAD WORK 500 FT. or ROAD WORK AHEAD signs (W20-1, 36" X 36") 300 to 500 feet in advance of the main line. Major intersecting roads are defined as State, County, Town, Village, or City roads. The Contractor may provide Portable signs as shown in Figure 6F-2 for lane closures during work hours.

All costs for Work Zone Traffic Control including flagging, pavement delineation, and construction signs are to be included in the prices bid per gallon or per linear foot.

10.9.1 Additional Flaggers for Work Zone Traffic Control

If the engineer or agency authorized individual determines that more than three (3) flaggers are necessary to properly control traffic on two-way roadways or more than two (2) flaggers are necessary to properly control traffic on one-way roadways and the vendor is responsible for Work Zone Traffic Control under this Invitation for Bids, the vendor shall provide additional flaggers under the Additional Flaggers item. The price bid per flagger per day shall include all costs of providing a flagger where directed by the engineer or agency authorized individual with all the necessary safety equipment, i.e. stop/slow paddle, flag, vest, hardhat, etc. Price quoted shall be by the day for each flagger provided. A day shall be determined as including the time period between the commencement and completion of work on any calendar day (standard eight-hour day). No extra payment shall be provided if the vendor elects to work a longer day than the standard eight hour work day. Payment shall be made to the nearest quarter day as determined by the engineer or agency authorized individual.

10.9.2 Optional Pilot Vehicles with Drivers

If the vendor is responsible for Work Zone Traffic Control and required by the engineer or agency authorized individual, the vendor shall provide sufficient two-way radio equipped pilot vehicles with drivers to guide traffic around the crack sealing work zone at a maximum of 15 miles per hour. Price quoted shall be by the day for each pilot vehicle with driver provided. A day shall be determined as including the time period between the commencement and completion of work on any calendar day (standard eight-hour day). No extra payment shall be provided if the vendor elects to work a longer day than the standard eight hour work day. Payment shall be made to the nearest quarter day as determined by the engineer or agency authorized individual.

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

The pilot vehicles shall be equipped with construction signs meeting the requirements of Section 6F.58 of the MUTCD and a rotating amber beacon:

Sign	Minimum Size	Location
PILOT CAR FOLLOW ME	G20-4 Conventional 36" x 18"	On the back of the pilot vehicle.

The pilot vehicle shall have the name of the vendor prominently displayed.

10.9.3 Special Note: Work Zone Intrusion Initiative

As part of the Department of Transportation’s Work Zone Intrusion Initiative, the following countermeasures shall apply to this Invitation for Bids:

Channelizing Device Spacing Reduction

A maximum channelizing device spacing of 40 feet shall be provided at stationary work sites where workers are exposed to traffic. This spacing shall be maintained a reasonable distance upstream of workers, and shall be used throughout the work zone.

Where tapers are located less than 500 feet from the work site the 40 foot spacing shall be used in the taper as well.

Drums or vertical panels are preferred for long-term stationary and intermediate-term stationary work zones, and at any locations where the risk of intrusion is high. Traffic cones are normally adequate for work zones set up and removed on a daily basis.

In long lane or shoulder closures, at least two channelizing devices shall be placed transversely at maximum 800 foot intervals to discourage traffic from driving through the closed lane. **Transversely placed devices are not required where pilot cars are in use.**

Frequent checks shall be made to reset channelizing devices dislodged by traffic.

Flagger Station Enhanced Setups

Additional cones and a flag tree meeting section 6F.62 of the MUTCD shall be used upstream of flagger stations to provide added warning to drivers. These devices shall be used for flagger stations except those that are constantly moving or are in use at one location for no more than a few minutes. If the W20-7a Flagger sign is required, the additional cones and flag tree shall also be used.

For additional details on Flagger Station Enhanced Setups, see the NYSDOT Work Zone Traffic Control Drawings included in this Invitation for Bids as an attachment.

10.10 Detailed Specifications – Joint and Crack Filler/Sealer

10.10.1 General

All joints & crack filler/sealer furnished and/or applied, shall be in accordance with Specifications for Bituminous Materials in the NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS dated May 1, 2008 including all current addenda, the General Specifications of the Office of General Services issued July 2006; and as amended herein.

10.10.2 Crack and Joint Filling Material (PG 64-22 + Fibers)

10.10.2.1 General

This item is a hot-applied material consisting of PG 64-22 and polyester fibers.

10.10.2.2 Material Requirements

PG Binder

Use a PG binder meeting the requirements of PG 64-22 or PG 64-28 as specified in Section 702, PG Binders for Paving. Acceptance for use is contingent upon certification of compliance to these specification requirements by the primary source and subsequent suppliers.

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

Fibers

Acceptance of the fibers is based on the manufacturer certification that the fibers meet the following:

- a. Type of Fiber: Polyester
- b. Tensile Strength: 480 MPa min.
- c. Specific Gravity: 1.32-1.40
- d. Melt Temperature: 475°F min.
- e. Elongation: 33% ± 9%
- f. Length of Fiber: 1/4 inch ± 1/32 inch

Legibly mark containers with the following information:

- a. Manufacturer's Name
- b. Trade Name of Fiber
- c. Type of Fiber

Composition of PG Binder and Fiber Mixture

Mix a minimum of 5.0 %, by weight, of fibers with PG binder.

Mixing Temperatures

Mix the PG binder and fiber at the temperature recommended by the fiber manufacturer. The mixing temperature is not to exceed 325°F.

Prior to commencing work, provide the Engineer with a copy of the manufacturer's recommendations pertaining to heating and application of the filler.

10.10.3 Plastic Joint Material (ASTM D6690 Type II)

10.10.3.1 General

This item is a hot applied material conforming to the requirements of ASTM D6690 Type II.

10.10.3.2 Material Requirements

Use a sealant meeting the requirements of '705-02, Highway Joint Sealants, and ASTM D6690 Type II. Deliver the sealant in the manufacturer's original sealed container legibly marked with the following information:

- a. Manufacturer's name.
- b. Trade name of sealant.
- c. Manufacturer's batch or lot number.
- d. ASTM D6690, Type II.
- e. Minimum application temperature.
- f. Maximum (or Safe) heating temperature.

Prior to commencing work, provide the Engineer with a copy of the manufacturer's recommendations pertaining to heating and application of the sealant.

10.10.3.3 Temperature Requirements

All crack filling and sealing work done under this contract shall be performed when ambient temperatures are 40° F or higher.

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

10.10.3.4 Equipment Requirements

When the filler or sealant is required to be supplied in hot oil-heated, containerized, mobile tanks, the equipment shall consist of a double boiler type melter.

The filler or sealant shall be heated in a melter constructed either as a double boiler with the space between the inner and outer shells filled with a heat-transfer medium, or with internal tubes or coils carrying the filler or sealant through a heated oil bath and into a heated double wall hopper. Direct heating shall not be used. The melter shall be capable of maintaining the specific pouring temperature within +40° F. The melter shall be equipped with positive temperature controls, and with mechanical agitation or a re-circulation pump capable of assuring a homogeneous blend of the filler or sealant. The melter shall have separate thermometers to indicate the temperature of the heat-transfer medium, and the filler or sealant material in the hopper. Before any crack filling or sealing shall commence, the Engineer or agency representative shall inspect the melter to ascertain the presence and working conditions of the thermometers. Under no circumstances will the Engineer or agency representative permit any crack filling or sealing if the thermometers are found to be defective or missing.

The Contractor shall be responsible for a safe and efficient method by which the engineer or agency representative will be able to accurately measure the temperature of the filler or sealant as it is discharged to the applicator wand. The proposed method must be submitted to the engineer or agency representative for their approval prior to the start of crack filling or sealing operations. The Contractor shall provide the engineer or agency representative with two (18 inch stem) thermometers having a temperature range sufficient to meet this requirement.

The discharge hose shall be equipped with a thermostatically controlled heating apparatus or shall be insulated sufficiently to maintain the proper sealant or filler temperature. The application wand shall be returned to the machine if it is not thermostatically heat controlled, and material recirculated as necessary to maintain the proper sealant or filler pouring temperature between individual crack sealing or filling operations.

When compressed air equipment (125 cubic feet per minute minimum) is required to be supplied, suitable traps or devices shall be installed on this equipment to prevent moisture and oil from contaminating the crack surfaces. The Contractor shall maintain these devices and see that they are functioning properly.

10.10.4 Cleaning and Sealing Cracks in Hot Mix Asphalt Pavement

10.10.4.1 General

Clean and seal only primary cracks along their entire length at locations shown in the contract documents or where directed by the Engineer. Do not treat secondary radial cracks. The Engineer will determine which cracks are to be cleaned and sealed. In this specification, the word crack also means joint.

Primary cracks are defined as those greater than or equal to 1/8 inch and less than or equal to 1 inch wide.

10.10.4.2 Material Requirements

Crack Sealant

Use a sealant meeting the requirements of ' 705-02, Highway Joint Sealants, and ASTM D6690 Type II. Deliver the sealant in the manufacturer's original sealed container legibly marked with the following information:

- a. Manufacturer's name.
- b. Trade name of sealant.
- c. Manufacturer's batch or lot number.
- d. ASTM D6690, Type II.

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

- e. Minimum application temperature.
- f. Maximum (or Safe) heating temperature.

Prior to commencing work, provide the Engineer with a copy of the manufacturer's recommendations pertaining to heating and application of the sealant.

10.10.4.3 Construction Requirements

General

Prior to commencing work, complete all pavement repairs that border pavement cracks, as outlined in the contract documents.

Furnish all equipment that is necessary for cleaning and sealing the pavement cracks. Use equipment meeting the description and/or performance requirements described herein and approved by the Engineer. Replace pavement markings that become covered and/or obliterated with sealant over an area greater than 25% of their width at no additional cost to the State.

Crack Preparation

Prepare cracks for sealing on the same day that they are to be sealed.

Use a high pressure air lance or hot air lance to thoroughly clean and dry cracks of dust, dirt, foreign material, sand and any other extraneous materials to a minimum depth of 1/2 inch immediately prior to sealing. Do not burn, scorch or ignite the adjoining pavement when using a hot air lance.

Install suitable traps or devices on the compressed air equipment to prevent moisture and oil from contaminating the crack surfaces. Maintain these devices and see that they are functioning properly.

Protect the public from potentially objectionable and/or hazardous airborne debris.

Sealant Melting

Heat and melt the sealant in a melter constructed either as a double boiler filled with a heat-transfer medium between the inner and outer shells, or with internal tubes or coils carrying the sealant through a heated oil bath and into a heated double wall hopper. The melter will be equipped with separate thermometers to indicate the temperature of the heat transfer medium and the sealant material, positive temperature controls and a mechanical agitator or a recirculating pump to ensure a homogeneous blend of the sealant. Maintain the sealant at the pouring temperature ∇ 10EF, as indicated on the material packaging.

Check the discharge temperature of the sealant with a non-contact infrared thermometer. Discharge the sealant at a temperature between the manufacturer's recommended pouring and safe heating temperatures indicated on the material packaging. Submit an alternate method for measuring the discharge temperature to the Engineer for approval, if desired.

Sealing is not permitted if the melter and discharge temperatures do not meet the requirements described above.

Equip the discharge hose with a thermostatically controlled heating apparatus or insulate it to maintain the proper sealant pouring temperature. Holster the discharge hose to the melter if it is not thermostatically heat controlled. Circulate the sealant from the discharge hose into the melter to maintain the proper sealant pouring temperature.

Do not use sealant material heated beyond the safe heating temperature.

If the manufacturer's recommendations allow the sealant to be reheated or heated in excess of six hours, recharge the melter with fresh material amounting to at least 20 percent of the volume of the material remaining in the melter.

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

Sealing

Sealing is to be done when ambient air temperature is at or above 40EF.

Seal the crack by placing the applicator wand in or directly over the crack opening and carefully discharging the sealant. Strike-off the sealant flush with the pavement surface using a squeegee or sealing shoe pressed firmly against the pavement. Only a narrow thin film of material measuring from 1 to 2 inches wide and 1/16 inch thick is allowed on the pavement surface after sealing the crack. If the sealant sinks into the crack more than 3/8 inch below the pavement surface, clean it with high pressure air and reseal as instructed above. Properly sealed cracks shall be watertight.

A low pressure, light spray of water may be used to accelerate cooling of the sealant. Blotting the sealant with fine aggregate is not allowed. Remove and dispose of sealant that is in excess of the specified thin film dimensions or that has not bonded to both sides of the crack.

To avoid tracking, do not allow traffic on the sealed cracks until the sealant has cured sufficiently. Clean sealed cracks damaged by traffic with high pressure air and reseal them to meet the specified thin film amount at no additional cost to the State.

10.10.5 Routing, Cleaning and Sealing Cracks in Hot Mix Asphalt Pavement Using Hot Applied Sealant

10.10.5.1 General

Rout, clean and seal only primary cracks along their entire length at locations shown in the contract documents or where directed by the Engineer. Do not treat secondary radial cracks. The Engineer will determine which cracks are to be routed prior to cleaning and sealing. In this specification, the word crack also means joint.

Primary cracks are defined as those greater than or equal to 1/8 inch and less than or equal to 1 inch wide.

10.10.5.2 Material Requirements

Crack Sealant

Use a sealant meeting the requirements of '705-02, Highway Joint Sealants, and ASTM D6690 Type II. Deliver the sealant in the manufacturer's original sealed container legibly marked with the following information:

- a. Manufacturer's name.
- b. Trade name of sealant.
- c. Manufacturer's batch or lot number.
- d. ASTM D6690, Type II.
- e. Minimum application temperature.
- f. Maximum (or Safe) heating temperature.

Prior to commencing work, provide the Engineer with a copy of the manufacturer's recommendations pertaining to heating and application of the sealant.

10.10.5.3 Construction Requirements

General

Prior to commencing work, complete all pavement repairs that border pavement cracks, as outlined in the contract documents.

Furnish all equipment that is necessary for routing, cleaning, and sealing the pavement cracks. Use equipment meeting the description and/or performance requirements described herein and approved by the Engineer. Replace pavement markings that become covered and/or obliterated with sealant over an area greater than 25% of their width at no additional cost to the State.

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

Crack Preparation

Prepare cracks for sealing on the same day that they are to be sealed.

Rout all primary cracks as defined above with a router to provide at least a 5/8 inch wide by 1/2 inch deep vertical-edged reservoir with minimal spalls at its edges.

Use a high pressure air lance or hot air lance to thoroughly clean and dry routed cracks of dust, dirt, foreign material, sand and any other extraneous materials immediately prior to sealing cracks. Do not burn, scorch or ignite the adjoining pavement when using a hot air lance.

Install suitable traps or devices on the compressed air equipment to prevent moisture and oil from contaminating the crack surfaces. Maintain these devices and see that they are functioning properly.

Protect the public from potentially objectionable and/or hazardous airborne debris.

Sealant Melting

Heat and melt the sealant in a melter constructed either as a double boiler filled with a heat-transfer medium between the inner and outer shells, or with internal tubes or coils carrying the sealant through a heated oil bath and into a heated double wall hopper. The melter will be equipped with separate thermometers to indicate the temperature of the heat transfer medium and the sealant material, positive temperature controls and a mechanical agitator or a recirculating pump to ensure a homogeneous blend of the sealant. Maintain the sealant at the pouring temperature ∇ 10EF, as indicated on the material packaging.

Check the discharge temperature of the sealant with a non-contact infrared thermometer. Discharge the sealant at a temperature between the manufacturer's recommended pouring and safe heating temperatures indicated on the material packaging. Submit an alternate method for measuring the discharge temperature to the Engineer for approval, if desired.

Sealing is not permitted if the melter and discharge temperatures do not meet the requirements described above.

Equip the discharge hose with a thermostatically controlled heating apparatus or insulate it to maintain the proper sealant pouring temperature. Holster the discharge hose to the melter if it is not thermostatically heat controlled. Circulate the sealant from the discharge hose into the melter to maintain the proper sealant pouring temperature.

Do not use sealant material heated beyond the safe heating temperature.

If the manufacturer's recommendations allow the sealant to be reheated or heated in excess of six hours, recharge the melter with fresh material amounting to at least 20 percent of the volume of the material remaining in the melter.

Sealing

Sealing is to be done when ambient air temperature is at or above 40EF.

Seal the routed crack by placing the applicator wand in or directly over the recess and carefully discharging the sealant. Strike-off the sealant flush with the pavement surface using a squeegee or sealing shoe pressed firmly against the pavement. Only a narrow thin film of material measuring from 1 to 2 inches wide and 1/16 inch thick is allowed on the pavement surface after sealing the reservoir. If the sealant sinks into the reservoir more than 3/8 inch below the pavement surface, clean it with high pressure air and reseal as instructed above. Properly sealed cracks shall be watertight.

A low pressure, light spray of water may be used to accelerate cooling of the sealant. Blotting the sealant with fine aggregate is not allowed. Remove and dispose of sealant that is in excess of the specified thin film dimensions or that is not bonded to both sides of the reservoir.

To avoid tracking, do not allow traffic on the sealed reservoirs until the sealant has cured sufficiently. Clean sealed reservoirs damaged by traffic with high pressure air and reseal them to meet the specified thin film amount at no additional cost to the State.

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

10.10.6 Filling Shoulder Joints between PCC Pavement and HMA Shoulders Using Fiber Reinforced PG Binder or Hot Applied Sealant

10.10.6.1 General

Clean and fill/seal the shoulder joint between portland cement concrete (PCC) pavement and hot mix asphalt (HMA) shoulders in accordance with the contract documents and as directed by the Engineer.

10.10.6.2 Material Requirements

Use fiber reinforced PG binder or crack sealant that meets the following requirements:

Fiber Reinforced PG Binder

PG Binder

Use a PG binder meeting the requirements of PG 64-22 or PG 64-28 as specified in Section 702, PG Binders for Paving. Acceptance for use is contingent upon certification of compliance to these specification requirements by the primary source and subsequent suppliers.

Fibers

Acceptance of the fibers is based on the manufacturer certification that the fibers meet the following:

- a. Type of Fiber: Polyester
- b. Tensile Strength: 480 MPa min.
- c. Specific Gravity: 1.32-1.40
- d. Melt Temperature: 475°F min.
- e. Elongation: 33% ± 9%
- f. Length of Fiber: 1/4 inch ± 1/32 inch

Legibly mark containers with the following information:

- a. Manufacturer's Name
- b. Trade Name of Fiber
- c. Type of Fiber

Composition of PG Binder and Fiber Mixture

Mix a minimum of 5.0 %, by weight, of fibers with PG binder.

Mixing Temperatures

Mix the PG binder and fiber at the temperature recommended by the fiber manufacturer. The mixing temperature is not to exceed 325°F.

Prior to commencing work, provide the Engineer with a copy of the manufacturer's recommendations pertaining to heating and application of the filler.

Crack Sealant

Use a sealant meeting the requirements of ' 705-02, Highway Joint Sealants, and ASTM D6690 Type II. Deliver the sealant in the manufacturer's original sealed container legibly marked with the following information:

- a. Manufacturer's name.
- b. Trade name of sealant.
- c. Manufacturer's batch or lot number.
- d. ASTM D6690, Type II.

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

- e. Minimum application temperature.
- f. Maximum (or Safe) heating temperature.

Prior to commencing work, provide the Engineer with a copy of the manufacturer's recommendations pertaining to heating and application of the sealant.

10.10.6.3 Construction Requirements

Use fiber reinforced PG binder or crack sealant that meets the following requirements:

General

Prior to commencing work, complete all pavement repairs that border the pavement/shoulder joint, as outlined in the contract documents.

Furnish all equipment that is necessary for cleaning and filling/sealing the shoulder joints. Use equipment meeting the description and/or performance requirements described herein and approved by the Engineer. Replace pavement markings that become covered and/or obliterated with sealant over an area greater than 25% of their width at no additional cost to the State.

Joint Preparation

Prepare joints for filling/sealing on the same day that they are to be sealed.

Use a high pressure air lance or hot air lance to thoroughly clean and dry joints of dust, dirt, foreign material, sand and any other extraneous materials immediately prior to filling/sealing joints. Do not burn, scorch or ignite the adjoining pavement when using a hot air lance.

Install suitable traps or devices on the compressed air equipment to prevent moisture and oil from contaminating the joint surfaces. Maintain these devices and see that they are functioning properly.

Protect the public from potentially objectionable and/or hazardous airborne debris.

Filler/Sealer Melting

Heat and melt the filler/sealer in a melter constructed either as a double boiler filled with a heat-transfer medium between the inner and outer shells, or with internal tubes or coils carrying the filler/sealer through a heated oil bath and into a heated double wall hopper. The melter will be equipped with separate thermometers to indicate the temperature of the heat transfer medium and the filler/sealer material, positive temperature controls and with a mechanical agitator or a recirculating pump to ensure a homogeneous blend of the filler/sealer. Maintain the filler/sealer at the pouring temperature $\pm 10\text{EF}$, as indicated on the material packaging.

Check the discharge temperature of the filler/sealer with a non-contact infrared thermometer. Discharge the filler/sealer at a temperature between the manufacturer's recommended pouring and safe heating temperatures indicated on the material packaging. Submit an alternate method for measuring the discharge temperature to the Engineer for approval, if desired.

Filling/sealing joints is not permitted if the melter and discharge temperatures do not meet the requirements described above.

Equip the discharge hose with a thermostatically controlled heating apparatus or insulate it to maintain the proper filler/sealer pouring temperature. Holster the discharge hose to the melter if it is not thermostatically heat controlled. Circulate the filler/sealer from the discharge hose into the melter to maintain the proper filler/sealer pouring temperature.

Do not use filler/sealer material heated beyond the safe heating temperature.

If the manufacturer's recommendations allow the filler/sealer to be reheated or heated in excess of six hours, recharge the melter with fresh material amounting to at least 20 percent of the volume of the material remaining in the melter.

SECTION 10: GROUP - JOINT AND CRACK FILLER/SEALER (Cont'd)

Filling/sealing

Filling/sealing is to be done when ambient air temperature is at or above 40EF.

Overfill the joint by placing the applicator wand in or directly over the recess and carefully discharging the filler/sealer. Strike off the joint using a neoprene type “V” shaped squeegee or sealing shoe that is capable of conforming to the pavement surface. Form a film of material 4 inches wide and 1/16 to 1/8 inch thick, with tapered edges, centered over the joint. The distance between the filler/sealer applicator wand and the squeegee/sealing shoe shall not exceed 2 feet. Properly filled/sealed joints shall be watertight.

A low pressure, light spray of water may be used to accelerate cooling of the filler/sealer. Blotting the filler/sealer with fine aggregate is not allowed. Remove and dispose of filler/sealer that is in excess of the specified film dimensions or that has not bonded to both sides of the joint.

Protect filled/sealed joints until the filler/sealer has cured sufficiently. Clean filled/sealed joints that become damaged with high pressure air and refill/reseal them to meet the specified film amount at no additional cost to the State.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL

11.1 Introduction

Microsurfacing is a pavement preventive maintenance treatment which offers minor improvements to rideability and has excellent friction characteristics. Quick Set Slurry Seal is a pavement preventive maintenance treatment that offers minor improvements to rideability and has excellent friction characteristics for low volume roads.

11.2 Pricing Information

11.2.1 General

Clause 24B of Appendix B, the General Specifications has been modified to include the following:

Price quoted shall be to three (3) decimal places.

Price quoted with the exception of “Price Additionals” shall be net per ton furnished, hauled, delivered, and applied with Contractor’s equipment at the locations indicated by the resident engineer, State Agency, or individual authorized by using agency and must include material costs. Microsurfacing shall be applied in accordance with NYSDOT’s Standard Specifications and as per the attached specification for microsurfacing. Quick set slurry seal shall be applied in accordance with NYSDOT’s Standard Specifications and as per the attached material specification for quick set slurry seal. Cleaning and preparing the existing pavement will be the responsibility of the purchasing agency. Erecting warning signs and directing traffic will be the responsibility of the purchasing agency or the Contractor using the optional Work Zone Traffic Control section at the discretion of the purchasing agency.

Price Additionals:

Optional Work Zone Traffic Control Outside of New York City and Nassau, Rockland and Westchester Counties

Price quoted for additional cost per ton for optional work zone traffic control shall be net per ton of completed microsurfacing and/or quick set slurry seal placed. This price shall include all costs to properly control traffic in accordance with these specifications.

Optional Work Zone Traffic Control within New York City and Nassau, Rockland and Westchester Counties

Price quoted for additional cost per ton for optional work zone traffic control in the five boroughs of New York City and the counties of Nassau, Rockland, Westchester and Suffolk shall be net per ton of completed microsurfacing and/or quick set slurry seal placed therein. This price shall include all costs to properly control traffic in accordance with these specifications. This price is an additional price (on top of the basic price for work zone traffic control) for work zone traffic control in the five boroughs of New York City and the counties of Nassau, Rockland, Westchester and Suffolk.

Night Work

Price quoted for additional cost per day of night work shall be net cost per day when directed by the Engineer or agency authorized individual.

Weekends

Price quoted for additional cost per day for Saturday and Sunday work, when directed by the resident engineer or individual authorized by using agency, shall be net per day for Saturday or Sunday work. When requested to work on Saturday and/or Sunday by the resident engineer or agency authorized individual, the Contractor shall be paid the price bid for Saturday and/or Sunday work, as appropriate. The price bid per day shall include the cost of all premium labor charges. The Contractor shall only be due the extra payment when work on Saturday and/or Sunday is in the best interest of the State or the using agency. Work done by the Contractor on Saturday and/or Sunday for their own convenience or to make up for rain outs shall not result in extra payment for Saturday and/or Sunday work.

Microsurfacing and/or Quick Set Slurry Seal within the Five Boroughs of New York City

Price quoted for additional cost per ton for microsurfacing and/or quick set slurry seal within the five boroughs of New York City shall be net per ton of completed microsurfacing and/or quick set slurry seal placed therein. This price is an additional price (on top of the basic price per ton of microsurfacing and/or quick set slurry seal) for microsurfacing and/or quick set slurry seal placed in the five boroughs of New York City.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

Additional Flaggers

Price quoted for additional flaggers (if required) shall be net per day (to the nearest quarter day) for additional flaggers.

Pilot Vehicle with Driver

Price quoted for optional pilot vehicles with drivers (if required) shall be net per day (to the nearest quarter day) for each pilot vehicle with driver.

Additional Construction Signs

Price quoted for optional additional construction signs shall be net per square foot (including signs, sign supports, installation, and removal) of additional construction signs.

Abrading Existing Pavement Markings, Work Zone Traffic Control by Owner Agency

Price quoted for abrading the existing pavement markings by the vendor, with work zone traffic control by the owner (if required) shall be net per linear foot at 4 inches wide of pavement markings actually abraded by the vendor. This price shall include all costs for pavement marking abrading including all labor, materials, and equipment necessary to abrade the pavement markings.

Abrading Existing Pavement Markings, Work Zone Traffic Control by Vendor

Price quoted for abrading the existing pavement markings by the vendor, with work zone traffic control by the vendor (if required) shall be net per linear foot at 4 inches wide of pavement markings actually abraded by the vendor. This price shall include all costs for pavement marking abrading including all labor, materials, and equipment necessary to abrade the pavement markings and all costs to properly control traffic.

Milling Recesses to Receive Pavement Markings, Work Zone Traffic Control by Owner Agency

Price quoted for milling recesses to receive pavement markings. Price shall be net per linear foot milled.

Milling Recesses to Receive Pavement Markings, Work Zone Traffic Control by Vendor

Price quoted for milling recesses to receive pavement markings. Price shall be net per linear foot milled.

Longitudinal Joint Repair

Price quoted for additional cost per ton for longitudinal joint repair shall be net per ton of microsurfacing placed.

Notes/Additional Information

The price (mile and ton range) for a specific job will be calculated at the same rate. The rate will be determined by finding the one category which applies to the total mile(s) and tons per job. For example, a job which is 15 miles from the plant will be calculated at the same rate per ton for each mile (from 11 to 25) which is indicated in the 11-25 miles column herein, rather than on a cumulative basis.

Similarly a job that has a total requirement of 450 tons and takes 3 days to complete would be calculated using the rate for 150 tons per day which is indicated in the 101-300 tons column since it would be presumed that equal quantities would be applied each day.

Contractors who do not bid a haul, deliver and apply price are not permitted under this award to offer haul and apply prices to agencies, political subdivisions, or others authorized by law to use Subject Award.

11.2.2 Insurance

Price bid shall include the following insurance coverage costs. In particular, price shall include:

- Commercial General Liability Insurance with a limit of not less than \$2,000,000 each occurrence;
- Comprehensive Business Automobile Liability Insurance with a limit of not less than \$2,000,000 each accident;
- Each requirement should be reviewed carefully. (Please see Attachment 4 – Insurance Requirements for detailed insurance requirements.)

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

Owners and Contractors Protective Insurance Coverage (OCP) shall be a separate price and shall only be included when specifically called for by an ordering agency. Note that pricing for OCP is not required to be bid and is not a requirement for award; however, bidder understands and agrees by submitting a bid to this IFB that if any Authorized User, in particular the New York State Department of Transportation (NYSDOT), also requires Owners and Contractors Protective Insurance Coverage (OCP) in addition to the above-referenced insurance, the vendor must supply it. The request for OCP shall be indicated by the Authorized User on the Quick Quote/ Price Calculation Worksheet (see Attachment 8). All Quick Quotes submitted must state the cost for such coverage which will be included as part of the Total Cost per Project and evaluated accordingly by the Authorized User. The charge for OCP insurance will be used to determine the lowest cost for the project. The OCP insurance required shall be \$1,000,000 per occurrence and \$2,000,000 in the aggregate.

OCP requirements should be reviewed carefully. (Please see Attachment 4 – Insurance Requirements for detailed insurance requirements.)

11.3 Asphalt Price Adjustments

11.3.1 General

- a. Asphalt price adjustments allowed will be based on the November 1, 2012 average of the F.O.B. terminal price per ton of unmodified PG 64-22 binder without anti-stripping agent (base average F.O.B. terminal price). The new monthly average terminal price will be determined by the New York State Department of Transportation based on prices of pre-approved primary sources of performance graded binder in accordance with the New York State Department of Transportation Standard Specification.

The November 1, 2012 average is \$582.000

NOTE: The same grade of asphalt cement used in establishing the base average F.O.B. terminal price shall be used in establishing the new average F.O.B. terminal price.

In the event that one or more of the New York State Department of Transportation pre-approved sources discontinue posting a price for asphalt cement, the base average F.O.B. terminal **price shall not be recalculated.**

- b. The new average F.O.B. terminal price will be determined based on the above F.O.B. terminal prices posted on the 20th of each month, hereafter known as the “Adjustment Date”, during the contract period. However, asphalt price adjustments, in accordance with the formula below, will be effective for deliveries made on and after the first of the month following the adjustment date.
- c. The unit prices of bituminous materials purchased from any award based on this specification will be subject to adjustment based on the following formula:

Price Adjustment (Per Ton)	=	$\left(\begin{array}{c} \text{New Monthly Average} \\ \text{F.O.B. Terminal Price} \end{array} - \begin{array}{c} \text{Base Average F.O.B.} \\ \text{Terminal Price} \end{array} \right)$	X	Total Allowable Petroleum %
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Positive Price Adjustment number shall be added to original per gallon Bid Price.
Negative Price Adjustment number shall be subtracted from original per gallon Bid Price.

New Monthly Average F.O.B. Terminal Price

The average F.O.B. terminal price for unmodified PG 64-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation per New York State Department of Transportation Standard Specification.

Base Average F.O.B. Terminal Price

The average F.O.B. terminal price of unmodified PG 64-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation as of November 1, 2012.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

Total Allowable Petroleum

The percentage of total allowable petroleum for each item is as follows:

Item #	Material Designation	Asphalt %	Petroleum Allowance %	Total Allowable Petroleum %
18410.1011	Microsurfacing, Type II, F1	9.0	0.2	9.2
18410.1021	Microsurfacing, Type II, F2	9.0	0.2	9.2
18410.1031	Microsurfacing, Type II, F3	9.0	0.2	9.2
18410.1012	Microsurfacing, Type III, F1	7.5	0.2	7.7
18410.1022	Microsurfacing, Type III, F2	7.5	0.2	7.7
18410.1032	Microsurfacing, Type III, F3	7.5	0.2	7.7
18410.1013	Microsurfacing, Type III Rut Filling	7.5	0.2	7.7
18410.1011L	Microsurfacing Type II, F1	9.0	0.2	9.2
18410.1021L	Microsurfacing Type II, F2	9.0	0.2	9.2
18410.1031L	Microsurfacing Type II, F3	9.0	0.2	9.2
18410.1012L	Microsurfacing Type III, F1	7.5	0.2	7.7
18410.1022L	Microsurfacing Type III, F2	7.5	0.2	7.7
18410.1032L	Microsurfacing Type III, F3	7.5	0.2	7.7
18410.1013L	Microsurfacing Type III, Rut Filling	7.5	0.2	7.7
18410.2011	Quick-set Slurry, Type II	13.5	0.2	13.7
18410.2012	Quick-set Slurry, Type III	12.0	0.2	12.2

Asphalt Price Adjustments will not be allowed for materials which do not have an asphalt cement base.

- d. Work performed after the expiration of the contract, where no extension has been granted, resultant from purchase orders placed prior to expiration of the contract will receive the Asphalt Price Adjustments applicable in effect during the last month of the contract.

Asphalt Price Adjustments for any contracts that are extended will be based on the new average for the month in which the work is done applying the same base established for that contract.

- e. Asphalt Price Adjustments allowed by this contract shall be calculated and applied to the original prices. There will not be Asphalt Price Adjustments unless the change amounts to more than \$0.10 per ton from the original price. In these instances, prices will revert back to the original prices.
- f. All Asphalt Price Adjustments will be computed to three decimal places.
- g. Should these provisions result in a price structure which becomes unworkable, detrimental or injurious to the State or in prices which are not truly reflective of market conditions or which are deemed by the Commissioner to be unreasonable or excessive, and no adjustment in price is mutually agreeable, the Commissioner reserves the sole right upon ten days written notice mailed to the Contractor to terminate any contract resulting from this bid opening.
- h. All Asphalt Price Adjustments shall be published by the State and issued to all contract holders whose responsibility will be to attach the appropriate State notification (based on when the work was performed) to the payment invoice submitted to agency.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

11.3.2 Asphalt Price Adjustment: Example

This example is for illustration purposes only. Actual Base Average Price, etc., may vary:

Item 18410.1011

Base Average Price = \$582.000

New Average Price = \$592.000

% Total Allowable Petroleum = 9.2%

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per ton)} \\ \hline \end{array} = \begin{array}{|c|} \hline (592.000 - 582.000) \\ \hline \end{array} \times \begin{array}{|c|} \hline 0.092 \\ \hline \end{array}$$

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per ton)} \\ \hline \end{array} = \begin{array}{|c|} \hline +\$0.920 \text{ per ton} \\ \hline \end{array}$$

Positive Price Adjustment number shall be added to original per gallon Bid Price.
Negative Price Adjustment number shall be subtracted from original per gallon Bid Price.

11.4 Delivery Ticket

A delivery ticket shall be provided with each load of bituminous asphalt emulsions stating the following:

1. Storage facility identification
2. Ticket Number
3. Date/time
4. Item Number and Type
5. Quantity ticket printed by machine
6. Quantity in 60° F gallons for emulsions

11.5 Payment

Payment for Micro-Surfacing Types II, and III, Quick Set Slurry Seal types II and III; and Rut Filling shall be made at the contract price per ton for the actual total number of tons of aggregate, mineral filler, and asphalt emulsion verified by the receiving agency used in the accepted portion of the work. An invoice shall be sent promptly by the Contractor to the resident engineer of the region or to the State Agency or to the political subdivision's representative placing the order.

The price per unit arrived at (mutually estimated) by the Contractor and the using agency on the Price Calculation Worksheet or the price per unit resultant from the actual average daily production, whichever is less, shall be the price per unit paid to the Contractor. No additional payment shall be due to the Contractor for production rates that are not equal to the rate upon which the calculation work sheet price was based.

Payment for optional work zone traffic control (if required) will be made based on the number of tons of completed microsurfacing and/or quick set slurry seal for the applicable type of highway and quantity range. Payment for optional work zone traffic control in the five boroughs of New York City and the counties of Nassau, Rockland, Westchester and Suffolk (if required) will be made based on the number of tons of completed microsurfacing and/or quick set slurry seal for the applicable type of highway and quantity range. This payment is an additional payment (on top of the basic payment for work zone traffic control) for work zone traffic control therein.

Payment for night work will be based on the actual number of days (nights) worked at the direction of the resident engineer or agency authorized individual

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

Payment for work on Saturday and/or Sunday will be based on the actual number of days worked at the direction of the resident engineer or agency authorized individual.

Payment for microsurfacing and/or quick set slurry seal placed in the five boroughs of New York City will be made based on the actual number of tons of completed microsurfacing and/or quick set slurry seal placed therein. This payment is an additional payment (on top of the basic payment per ton of microsurfacing and/or quick set slurry seal) for microsurfacing and/or quick set slurry seal placed in the five boroughs of New York City.

Payment for additional flaggers (if required) will be made based on the number of days (computed to the nearest quarter day) that additional flaggers are utilized as directed by the engineer or agency authorized individual.

Payment for optional pilot vehicles with drivers will be made based on the number of days (computed to the nearest quarter day) that optional pilot vehicles with drivers are utilized as directed by the engineer or agency authorized individual.

Payment for optional additional construction signs will be made based on the number of square feet (computed to the nearest tenth of a square foot) of additional construction signs that are utilized as directed by the engineer or agency authorized individual.

Payment for abrading the existing pavement markings, with work zone traffic control by the owner agency (if required) will be made based on the number of linear feet at 4 inches wide of pavement markings actually abraded as directed by the engineer or agency authorized individual.

Payment for abrading the existing pavement markings, with work zone traffic control by the vendor (if required), will be made based on the number of linear feet at 4 inches wide of pavement markings actually abraded as directed by the engineer or agency authorized individual. No separate payment will be made for work zone traffic control when this item is used.

Payment for milling recesses to receive pavement markings, with work zone traffic control by the owner agency (if required), will be made based on the number of linear feet milled as directed by the engineer or agency authorized individual.

Payment for milling recesses to receive pavement markings, with work zone traffic control by the vendor (if required), will be made based on the number of linear feet milled as directed by the engineer or agency authorized individual. No separate payment will be made for work zone traffic control when this item is used.

Payment for longitudinal joint repair will be made based on the actual number of tons of microsurfacing placed for longitudinal joint repair. This payment is an additional payment on top of the basic payment for microsurfacing used for longitudinal joint repair.

11.6 Pre-Microsurfacing and/or Quick Set Slurry Seal Conference

The Contractor shall schedule a pre-microsurfacing and/or quick set slurry seal conference with the affected resident engineer or agency authorized individual after acceptance of the Contractor's quotation and at least one week prior to the start of the microsurfacing and/or quick set slurry seal. Project level supervisors for both the owner agency and the vendor should be present at this conference. At this conference, the Contractor shall present their proposed microsurfacing and/or quick set slurry seal schedule (including design curing time), procedure, and Traffic Control Plan (if applicable) to the State (or using agency) for approval along with a copy of their letter of approval for their proposed microsurfacing and/or quick set slurry seal equipment. Prior to the start of microsurfacing and/or quick set slurry seal, the Contractor shall coordinate the details of the microsurfacing and/or quick set slurry seal with the resident engineer or agency authorized individual.

11.7 Supervision

The using agency shall provide supervision for the microsurfacing and/or quick set slurry seal. The resident engineer or agency authorized individual shall designate a microsurfacing and/or quick set slurry seal supervisor and that person shall be in responsible charge of the operation. The following portions of Section 105 – CONTROL OF WORK of the Standard Specifications shall apply to these projects: 105-01 STOPPING WORK, 106-08 COOPERATION BY THE CONTRACTOR, 105-15 CONTRACTOR'S RESPONSIBILITY FOR WORK.

11.8 Work Hours

Work will not be permitted on Sundays and Holidays unless ordered by the State's or political subdivision's representative. If the Contractor desires to work overtime on other days, dispensation from the NYS Labor Department must be obtained using Department of Labor Form PW-30 (5/93).

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

11.9 Construction Details

The construction details shall comply with the requirements specified in the enclosed DETAILED SPECIFICATION. The Contractor shall inform the microsurfacing and/or quick set slurry seal Supervisor of significant deviations from the specifications.

11.10 Restoration of Disturbed Areas

During the course of the work the Contractor shall take reasonable care not to disturb areas outside the existing pavement. Any areas disturbed by the Contractor shall be returned to their original condition at no expense to the owner. Any and all debris generated as part of the work shall be removed by the Contractor upon completion of the project.

11.11 Damaged or Deficient Areas

Prior to acceptance and payment for the microsurfacing and/or quick set slurry seal by the purchasing agency, any mixture that ravel, delaminates, streaks because of oversize stone, fails to properly cure, or is in anyway defective shall be redone to the satisfaction of the resident engineer or agency authorized individual at the Contractor's expense. After acceptance, the terms and conditions of the section of this Invitation for Bids entitled BONDING REQUIREMENTS, Section A, Item 1, Maintenance Material Bond shall control when the Contractor shall repair all defective microsurfacing. Bonding requirements pertain only to microsurfacing projects and not to quick set slurry seal projects.

11.12 Optional Work Zone Traffic Control

The Contractor shall submit per ton prices for work zone traffic control for the various options and quantity ranges as prescribed by this specification. When requesting price quotations from the Contractors, the purchasing agency may at their option, include work zone traffic control by the Contractor for the specific project anticipated.

If optional work zone traffic control is included in the project request, the Contractor shall be responsible for work zone traffic control. Traffic shall be controlled in accordance with Sections 619-1 through 619-3 of the Standard Specifications, the Manual of Uniform Traffic Control Devices (MUTCD), and as described herein **including modifications to the Standard Specifications**. The Contractor shall submit a Work Zone Traffic Control Plan for approval to the resident engineer or agency authorized individual at the Pre-Micro Surfacing and/or Quick Set Slurry Seal Conference. For two-way roadways, Figures TAST-C1R, TAST-C2R, TAST-C3R, TAST-C4R, TAST-C5R, TAST-C7R, TAST-C1UL, TAST-C2UL, TAST-C3UL, TAST-C4U, TAST-C7UL, TAST-C1UH, TAST-C2UH, TAST-C3UH, AND TAST-C7UH (see the NYSDOT Work Zone Traffic Control Drawings included in this Invitation for Bids as an attachment) may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way roadways, Figures TAST-C5UL, TAST-C6UL, TAST-C8UL, TAST-C5UH, TAST-C6UH, and TAST-C8UH may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way Freeways or Expressways, Figures TAST-E1, TAST-E2, TAST-E3, TAST-E4, TAST-E5, TAST-E6, and TAST-E7 may be used as a basis for development of a Work Zone Traffic Control Plan.

All necessary flaggers for work zone traffic control shall be provided by the Contractor. For two-way roadways, a minimum of three flaggers shall be provided while the microsurfacing and/or quick set slurry seal operation is underway. One shall be stationed at each end of the operation and one shall be stationed with the microsurfacing and/or quick set slurry seal machine. For one-way roadways, a minimum of two flaggers shall be provided while the microsurfacing and/or quick set slurry seal operation is underway. One shall be stationed at the beginning of the operation and one shall be stationed with the microsurfacing and/or quick set slurry seal machine. The Contractor shall station flaggers such that communication is maintained between the flaggers. Hand signals, radios, pilot vehicles, or some other means of communication may be used subject to the approval of the resident engineer or agency authorized individual.

The Contractor shall provide construction signs as specified in Section 619-1 through 619-3 of the Standard Specifications and in the MUTCD. At a minimum the Contractor shall install the following permanent construction signs supplemented by temporary signs as needed:

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

SIGN	MINIMUM SIZE	LOCATION
ROAD WORK NEXT _____ MILES	G20-1 36" x 18"	On main line upstream of project in each direction
END ROAD WORK	G20-2 36" x 18"	On main line after end of project in each direction
ROAD WORK AHEAD	W20-1 36" x 36"	On main line 500 feet in advance of the affected highway segment in each direction and on major intersecting roads 300 -500 feet in advance of main line. Sign should be covered if it conflicts with temporary signing in the vicinity.
DO NOT PASS	R4-1G 24" x 30"	First sign within 100 feet of the beginning of the unmarked area, second within 1000 feet and subsequent signs, spaced every ½ mile along project in each direction (if 2'x 4'temporary yellow markings are used instead of full barrier pavement markings)
NO CENTER LINE	W8-12 36" x 36"	On mainline spaced every 2 miles along project in each direction and after every major intersecting road (if 2'x 4'temporary yellow markings are used instead of full barrier pavement markings)

Major intersecting roads are defined as through State, County, Town, Village, or City roads. The Contractor may provide portable signs as shown in Figure 6F-2 of the MUTCD and meeting the requirements of Section 619 of the Standard Specifications for lane closures during work hours.

With prior permission of the State's Resident Engineer or political subdivisions representative, the Contractor may provide portable signs as shown in Figure 6F-2 of the MUTCD for the above referenced DO NOT PASS and NO CENTER LINE signs. Signs left active at night shall be rigid and reflectorized in accordance with the Standard Specifications. The vendor shall be responsible for assuring that all signs will be in their upright, visible positions twenty-four hours a day, seven days a week while **2' x 4" temporary yellow markings are used instead of full barrier pavement markings.**

11.12.1 Special Note: Temporary Pavement Markings

The Vendor shall install and maintain temporary pavement markings on any paved surface without permanent pavement markings before opening it to traffic, before nightfall or before the end of the work day, whichever comes soonest except for areas that are open during the work shift with channelizing devices or flaggers. Temporary pavement markings shall meet the requirements of Section 619 of the Standard Specifications except that two-lane, two-way highways may be left without full barrier centerlines in no passing zones for a maximum of 7 calendar days provided that NO CENTER LINE (W8-12, black on orange), NO PASSING ZONE (W14-3, black on orange pennant shaped sign), and DO NOT PASS (R4-1) signs are used consistent with the MUTCD and in conjunction with yellow 2 foot by 4 inch temporary markings consisting of retro-reflective removable pavement marking tape, paint or yellow temporary overlay markers installed on a 40 ft. cycle to delineate the centerline location.

The State or political sub division is responsible for the final pavement markings unless otherwise indicated in the contract. If the vendor chooses to install NO CENTER LINE and DO NOT PASS signs and temporary yellow 2 foot by 4 inch pavement markings in lieu of full barrier centerline markings, the signs shall be left in place until the state or political subdivision has completed installing the final pavement markings. The state or political sub division will normally complete final pavement markings within 7 days of the project completion. However, if unavoidable situations delay the pavement marking installation the signs shall remain in place for 14 calendar days after the project has been completed or until the state has completed installing the final pavement markings, whichever comes first. If permanent pavement marking cannot be installed within 14 days of the project completion, state or political subdivision must install interim pavement marking including center lines, edge lines, stop bars, and simple crosswalks with no hatching before the end of 14 days after project completion.

All costs for Work Zone Traffic Control including flagging, temporary pavement markings, delineation, and construction signs are to be included in the prices bid per ton for optional work zone traffic control. No separate payment shall be made.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

11.12.2 Additional Flaggers for Work Zone Traffic Control

If the engineer or agency authorized individual determines that more than 3 flaggers are necessary to properly control traffic on two-way roadways or more than 2 flaggers are necessary to properly control traffic on one-way roadways and the vendor is responsible for work zone traffic control under this Invitation for Bids, the vendor shall provide additional flaggers under the Additional Flaggers item. The price bid per flagger per day shall include all costs of providing a flagger where directed by the engineer or agency-authorized individual with all the necessary safety equipment, i.e. stop/slow paddle, flag, vest, hardhat, etc. Payment shall be by the day for each flagger provided. A day shall be determined as including the time period between the commencement and completion of work on any calendar day. No extra payment shall be provided if the vendor elects to work a longer day than the standard eight hour work day. Payment shall be made to the nearest quarter day as determined by the engineer or agency authorized individual

11.12.3 Optional Pilot Vehicles with Drivers

If required by the engineer or agency authorized individual, the vendor shall provide sufficient two-way radio equipped pilot vehicles with drivers to guide traffic around the microsurfacing and/or quick set slurry seal work zone at a maximum of 20 miles per hour. Payment shall be by the day for each pilot vehicle with driver provided. A day shall be determined as including the time period between the commencement and completion of work on any calendar day. No extra payment shall be provided if the vendor elects to work a longer day than the standard eight hour work day. Payment shall be made to the nearest quarter day as determined by the engineer or agency authorized individual.

The pilot vehicle(s) shall be equipped with construction signs meeting the requirements of Section 6F.58 of the MUTCD and a rotating amber beacon:

Sign	Minimum Size	Location
PILOT CAR FOLLOW ME	G20-4 Conventional 36" x 18"	On the back of the pilot vehicle.

The pilot vehicle shall have the name of the vendor prominently displayed.

11.12.4 Optional Additional Construction Signs

If the engineer or agency authorized individual determines that more permanent construction signs are necessary than those called out under the Optional Work Zone Traffic Control section and the vendor is responsible for work zone traffic control under this Invitation for Bids, the vendor shall provide additional construction signs under the Optional Additional Construction Signs item. Optional Additional Construction Signs shall be as specified in Sections 619-1 through 619-3 of the Standard Specifications and/or in the MUTCD, or as specified by the engineer or agency authorized individual. The price bid per square foot shall include all costs of providing the signs as indicated by the engineer or agency authorized individual, the sign supports, installation and removal at locations ordered by the engineer or agency authorized individual. Payment shall be made by the square foot of construction sign face, computed to the nearest tenth of a square foot.

11.12.5 Abrading of Existing Pavement Markings with Work Zone Traffic Control by the Owner

If the vendor, with the concurrence of the Resident Engineer or agency authorized individual, determines that it is necessary for the performance of the microsurfacing and/or quick set slurry seal, the vendor shall abrade the existing pavement markings so that at least 75% of the glass beads in the existing pavement markings are removed. The method of abrading may include sand blasting, water blasting, grinding, or other method approved by the engineer or agency authorized individual. Care shall be taken to avoid damage to passing traffic. All damage to passing traffic caused by the vendor's operations shall be the vendor's responsibility. Traffic will be controlled by the owner.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

Payment will be made by the linear foot of pavement marking 4 inches wide. Payment for pavement markings wider than 4 inches or for pavement marking symbols will be made by the following method:

$$\frac{\text{Width of marking (inches)} \times \text{linear feet}}{4 \text{ inches}}$$

The price bid for pavement marking abrading shall include all labor, materials, and equipment required to abrade the existing pavement markings to the satisfaction of the engineer or agency authorized individual..

11.12.6 Abrading Existing Pavement Markings with Work Zone Traffic Control by the Vendor

If the vendor, with the concurrence of the Resident Engineer or agency authorized individual, determines that it is necessary for the performance of the microsurfacing and/or quick set slurry seal, the vendor shall abrade the existing pavement markings so that at least 75% of the glass beads in the existing pavement markings are removed. The method of abrading may include sand blasting, water blasting, grinding, or other methods approved by the engineer or agency authorized individual. Care shall be taken to avoid damage to passing traffic. All damage to assign traffic caused by the vendor's operations shall be the vendor's responsibility. Traffic will be controlled by the vendor.

The vendor shall place temporary pavement markings as specified elsewhere in this Invitation for Bids under optional work zone traffic control, unless the microsurfacing and/or quick set slurry seal will be placed the same day as pavement markings are abraded. During the pavement markings abrading operation, traffic will be controlled by the vendor in accordance with the MUTCD. The vendor shall submit a proposed Work Zone Traffic Control Plan to the engineer or agency authorized individual for approval. The plan may be based on the Work Zone Traffic Control drawings included in this Invitation for Bids as an attachment.

Payment will be made by the linear foot of pavement marking 4 inches wide. Payment for pavement markings wider than 4 inches or for pavement marking symbols will be made by the following method:

$$\frac{\text{Width of marking (inches)} \times \text{Linear Feet}}{4 \text{ inches}}$$

The price bid for pavement marking abrading shall include all labor, materials, and equipment required to abrade the existing pavement markings and to properly control traffic to the satisfaction of the engineer or agency authorized individual.

11.12.7 Special Note: Work Zone Intrusion Initiative

As part of the Department of Transportation's Work Zone Intrusion Initiative, the following countermeasures shall apply to this Invitation for Bids:

Channelizing Device Spacing Reduction

A maximum channelizing device spacing of 40 feet shall be provided at stationary work sites where workers are exposed to traffic. This spacing shall be maintained a reasonable distance upstream of workers, and shall be used throughout the work zone.

Where tapers are located less than 500 feet from the work site, the 40 foot spacing shall be used in the taper as well.

Drums or vertical panels are preferred for long-term stationary and intermediate-term stationary work zones, and at any locations where the risk of intrusion is high. Traffic cones are normally adequate for work zones set up and removed on a daily basis.

In long lane or shoulder closures, at least two channelizing devices shall be placed transversely at maximum 800 foot intervals to discourage traffic from driving through the closed lane. **Transversely placed devices are not required where pilot cars are in use.**

Frequent checks shall be made to reset channelizing devices dislodged by traffic.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

Flagger Station Enhanced Setups

Additional cones and a flag tree meeting Section 6F.62 of the MUTCD shall be used upstream of flagger stations to provide added warning to drivers. These devices shall be used for flagger stations except those that are constantly moving or are in use at one location for no more than a few minutes. If the W20-7a Flagger sign is required, the additional cones and flag tree shall also be used.

For additional details on Flagger Enhanced Setups, see Work Zone Traffic Control drawings included in this Invitation for Bids as an attachment.

11.13 Detailed Specifications – Microsurfacing and/or Quick Set Slurry Seal

11.13.1 Micro-Surfacing

18410.1011	Micro-Surfacing, Type II, F1
18410.1021	Micro-Surfacing, Type II, F2
18410.1031	Micro-Surfacing, Type II, F3
18410.1012	Micro-Surfacing, Type III, F1
18410.1022	Micro-Surfacing, Type III, F2
18410.1032	Micro-Surfacing, Type III, F3
18410.1013	Micro-Surfacing, Type III, Rut Filling

11.13.1.1 Description

This work shall consist of applying a proportioned mixture of polymer modified asphalt emulsion, aggregate, mineral filler, water and other additives to a paved surface.

11.13.1.2 Materials

Asphalt Emulsion

§702 - Bituminous Materials, use item 702-4601P.

Aggregates

Use material meeting the requirements of §703-02, Coarse Aggregate, with the following modifications.

- A. Sand Equivalency.** Minimum sand equivalency is 65%, as determined by AASHTO T 176, “Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test.” Material not meeting the minimum sand equivalent requirement may be used if it is classified as non-plastic according to AASHTO T 89, “Determining the Liquid Limit of Soils” and AASHTO T 90, “Determining the Plastic Limit and Plasticity Index of Soils.”
- B. Type F1 Conditions.** Use aggregate containing at least 95.0% acid insoluble residue in the plus and minus No. 30 size fractions.
- C. Type F2 Conditions.** Use aggregate meeting one of the following requirements:
 - 1. Limestone, dolomite, or blend of the two containing at least 20.0% acid insoluble residue in the plus and minus No. 30 size fractions.
 - 2. Gravel or blend of a natural or manufactured, limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag, or other similar materials, having at least 25.0% acid insoluble residue in the plus and minus No. 30 size fractions.
- D. Type F3 Conditions.** Use aggregate meeting one of the following requirements:
 - 1. Limestone or a blend of limestone and dolomite containing at least 20.0% acid insoluble residue in the plus and minus No. 30 size fractions.
 - 2. Dolomite.
 - 3. Gravel or blend of a natural or manufactured, limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag, or other similar materials, having at least 25.0% acid insoluble residue in the plus and minus No. 30 size fractions.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

- E. Stockpile.** Build an aggregate stockpile at a location approved by the Engineer. When blending multiple aggregates, use automated proportioning and blending equipment to produce a uniformly graded stockpile. Screen the aggregate at the stockpile, prior to delivering it to the micro-surfacing equipment.

Use aggregate meeting the gradation requirements listed in §703-02, Table 703-5, Sizes of Crushed Gravel, Stone, and Slag for Slurry with the following exceptions: the range for the No. 100 sieve on the 2MS designation is 10-22% passing; and the range for the #200 sieve on the 2MS and 3MS designation is 5-15%.

The aggregate stockpile gradation shall not deviate from the mix design gradation by more than the tolerances given in Table 1 - Maximum Stockpile Tolerance. The mix design gradation value plus the stockpile tolerance cannot exceed the mix type general gradation limits.

TABLE 1 - MAXIMUM STOCKPILE TOLERANCE

Sieve (in)	3/8	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200
Stockpile Tolerance	-	± 5.0%	± 5.0%	± 5.0%	± 5.0%	± 4.0%	± 3.0%	± 2.0%

Water

§712-01, Water.

Mineral Filler

§703-08, Mineral Filler.

Mix Design

Formulate a mix design which meets the requirements of Materials Procedure 09-01, “Micro-surfacing and Slurry Guidelines.” The mix design shall be submitted at least 14 days before the beginning of work to the Engineer in Charge, the Regional Materials Engineer and the Director of the Materials Bureau.

All materials used to develop the mixture design must be representative of the material to be used on the project. Mixture designs are valid until 3rd Saturday in September of the year in which they are submitted

Material Sampling and Testing

A. Aggregate Stockpile

- 1. Contractor Testing.** The Contractor shall perform and submit the following tests to the Regional Materials Engineer:
 - a. Take three samples, according to Materials Method 5, Plant Inspector's Manual for Bituminous Concrete Mix Production. Each sample must contain material from each face of the stockpile.
 - b. Test samples in accordance with AASHTO T 11, Materials Finer than No. 200 Sieve in Mineral Aggregates by Washing, and AASHTO T 27, Sieve Analysis of Fine and Coarse Aggregates. Test results shall be based on the average of three tests.
 - c. Sample and test the aggregate in accordance with Materials Method 28, “Friction Aggregate Control and Test Procedures,” Appendix B, Table B1 – Minimum Testing Frequencies for Slurry Surfacing Aggregates.
- 2. Department Testing and Approval.** The Regional Materials Engineer will review the Contractor's submission for specification compliance. The Regional Materials Engineer will base final approval of the stockpile on the Contractors submission or Department sampling and testing. Re-approval is required if additional material is added to the stockpile.
 - a. Gradation - Test results shall be the average of three tests. If the percent passing is outside the gradation limits for any sieve, the stockpile will be rejected.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

- b. Friction Requirements - Samples shall meet appropriate friction values. All micro-surfacing previously placed with material from a stockpile rejected for non-carbonate or acid insoluble residue content will be rejected.

B. Emulsion

Asphalt emulsion shall be sampled according to Materials Method 702-2, "Asphalt Emulsion – Quality Assurance."

11.13.1.3 Construction Details

Weather and Seasonal Limitations

The requirements of §402-3.01 Weather and Seasonal Limitations apply, except as modified herein. Do not place micro-surfacing in the rain, fog, or if the air temperature is expected to fall below freezing within 24 hours after application. Application shall not occur unless pavement and ambient temperatures are above 50°F and rising. Stop micro-surfacing if the surface or air temperature drops below 50°F. No work will be performed after the 3rd Saturday in September.

Equipment

Equipment must be designed and manufactured specifically for mixing and placing micro-surfacing. The equipment must be capable of accurately proportioning the constituent materials, thoroughly mixing those materials, and placing the micro-surfacing in conformance with this specification.

Calibrate each mixing unit according to Materials Procedure 09-01. Calibrations must be performed using the aggregate sources listed in the mix design. Calibrations are valid for 90 days. Submit a copy of the equipment calibration to the Engineer prior to the start of work.

The emulsion, aggregate and mineral filler counters must be accessible to the Engineer and inspectors. Adjust the material delivery settings on the micro-surfacing equipment to produce the mix design. Recalibrate equipment to adjust for bulking effect of aggregate reported on mix design.

A pneumatic tire roller meeting the requirements of §402, shall be used.

Surface Preparation

1. Ensure that pavement markings have been abraded in accordance with contract documents.
2. Remove all debris and standing water.
3. Cover all manhole covers, water boxes, catch basins, and other such utility structures within the area being paved with plastic, building felt, or other material approved by the Engineer. Remove the covers each day.
4. If necessary, dampen the pavement surface with water or apply a tack coat emulsion to the pavement surface before applying micro-surfacing. If prior to or during the preconstruction meeting, it is determined that the road surface requires a tack coat application, it shall be paid for in accordance with the appropriate pay item.

Mixture Consistency

Produce a homogeneous mixture, without lumps, balls, unmixed aggregate, segregation, excess water, or excess emulsion. The maximum allowable adjustment of the mineral filler is 1.0%. Report all mixture adjustments to the Engineer before they are made.

Application

Micro-surfacing is placed in multiple lifts; use at least 2 applications consisting of a scratch course and finish course for the finished product. When necessary, a rut filling course is also specified and paid for separately. Do not apply scratch course to the shoulder unless otherwise directed.

1. Scratch Course. Use a steel strike off on the spreader box in order to level the pavement surface. The scratch course surface shall be constructed to a ¼ inch tolerance. Measure the tolerance using a 10 foot straight edge or string line placed transversely to the center line of the pavement. Variations exceeding ¼ inch shall be satisfactorily corrected or resurfaced at no additional cost to the Department as ordered by the Engineer.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

2. **Finish Course.** Apply the micro-surfacing to the pavement evenly across the entire width of the spreader box to produce a smooth riding surface with no streaks, excess buildup, thin or uncovered areas. The finish course surface shall be constructed to a ¼ inch tolerance. Measure the tolerance using a 10 foot straight edge or string line placed transversely to the center line of the pavement. Variations exceeding ¼ inch shall be satisfactorily corrected or resurfaced at no additional cost to the Department as ordered by the Engineer.
3. **Rut Filling.** Use a rut box to fill wheel rutting. Allow rut filled sections to cure for a minimum of 2 hours after rolling.

Application rate limits are given in Table 2 - Application Limits. Application rates for rut filling operations are found in Table 3 - Rut Filling Application Rate.

TABLE 2 - APPLICATION LIMITS

Gradation	Course	Application Rate (lb/yd ²)
Type II	Scratch	15 maximum
	Finish	15-20
Type III	Scratch	20 maximum
	Finish	20-30

TABLE 3 - RUT FILLING APPLICATION RATE

Rut Depth	Application Rate (lbs/yd ²)
½" to ¾"	20 - 30
¾" to 1"	25 - 35
1" to 1-¼"	28 - 38

Coverage

Do not use hand tools to expand the width of application wider than the spreader box, except as described under *Hand Finishing* below.

Joints

Minimize the number of joints. Construct joints such that no gap is present between adjacent applications. Place longitudinal joints at the edges of traffic lanes, adjacent to where pavement markings will be located. Other longitudinal joint arrangements require the Engineer's approval. Measure the difference in grade across joints by laying a 10 foot straight edge centered on the joint perpendicular to the direction of the joint. Joint overlap and grade difference requirements are given in Table 4 - Joint Requirements.

TABLE 4 - JOINT REQUIREMENTS

Requirement	Minimum (in.)	Maximum (in.)
Difference in Grade	-	¼
Longitudinal Joint Overlap	2	6
Transverse Joint Overlap	2	12

Variable-Width Passes

Apply no more than one variable-width pass. Variable-width passes will not be permitted as the last pass unless approved by the Engineer.

Hand Finishing

Use hand held squeegees to finish areas which cannot be reached with the spreader box, and, when necessary, to produce straight lines along curbs, shoulders, and through intersections. Apply the same type of finish to the surface as is applied by the spreader box.

Excess Material

Remove all excess material in areas such as driveways, gutters, intersections, etc. each day.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

Rolling

The mat shall be rolled with a pneumatic tire roller. A minimum of 3 passes of the pneumatic tire roller shall be required. One pass is defined as one movement of the roller over any point of the pavement in either direction. The rolling of the surface shall not cause the stone to stick to the wheels of the roller.

Curing

Allow each coat to cure sufficiently to resist damage from the micro-surfacing equipment, before applying the next coat. Protect the micro-surfacing from traffic until the mixture has cured sufficiently to resist damage. The time required will vary based on the mix design and environmental conditions. Repair damage from micro-surfacing equipment or traffic to the Engineer’s satisfaction.

Milling for Pavement Markings

Mill recesses for pavement markings as required by contract documents.

Quality Control Reports

The Contractor shall submit a signed report daily with the following information.

Quality Control Reports	
Gradation	Daily ¹
Moisture Content Aggregate	Daily
Gate Setting	Daily ²
Area Paved	Daily
Counter Reading	Daily
Field Control (Type/Amount)	Daily ²
Filler (Type/Amount)	Daily ²
Water Rate	Daily ²
Water Content	Daily ^{1,3}
Air Temperature (AM/PM)	Daily

¹ These tests will be performed on samples that are representative of that day’s production. If control test results are not complete at the end of the day, the Contractor will be allowed to submit the data at a later date, not to exceed 7 days. The Contractor shall provide a split of their daily sample to the Engineer.

² These parameters may change throughout the day. Record the amount and location of any change on the report. Record the amount and location of any change on the report.

³ Water content will be determined by taking a sample of mixed material and drying to a constant weight.

11.13.1.4 Method of Measurement

Micro-surfacing shall be measured by the total tons of aggregate, mineral filler and asphalt emulsion used according to Materials Procedure 09-01, “Micro-surfacing and Slurry Guidelines.”

11.13.1.5 Basis of Payment

The unit price bid per ton of Micro-surfacing shall include the cost of all labor, materials and equipment necessary to perform the work. All necessary pavement cleaning, joint sealing, crack filling, pavement markings removal, milling for pavement markings and utility grade adjustments will be paid for under their appropriate items.

Payment will be made under:

Item	Description	Pay Unit
18410.1011	Micro-Surfacing, Type II, F1	Ton
18410.1021	Micro-Surfacing, Type II, F2	Ton
18410.1031	Micro-Surfacing, Type II, F3	Ton
18410.1012	Micro-Surfacing, Type III, F1	Ton
18410.1022	Micro-Surfacing, Type III, F2	Ton
18410.1032	Micro-Surfacing, Type III, F3	Ton
18410.1013	Micro-Surfacing, Type III, Rut Filling	Ton

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

11.13.1.6 Bonding Requirements

- A. Within 10 calendar days of receipt of a purchase order from the State, the Contractor shall provide the State agency the following
1. **Maintenance Material Bond.** A bond in the form similar to the sample included in this Invitation for Bids with sufficient sureties approved by the State's resident engineer guaranteeing replacement of deficient material in the form included in this Invitation for Bids. This bond shall remain in place for one year after final acceptance of the project by the State or until September 15 of the year following completion of the project, whichever is later.
 2. **Amount of Bond.** The amount of the Maintenance Material Bond shall be 100% of the amount of the project's cost.
 3. **Requirements of Bonds.** All Bonds shall be issued by a surety company approved by NYSDOT and authorized to do business in the State of New York as a surety.
- B. The procedure of the Maintenance Material Bond shall be as follows:
1. No later than August 1 of the year following the State's acceptance of work completed under this contract, the State will evaluate the project for plow damage, flushing, delamination or raveling.
 2. The Contractor agrees to repair all areas that demonstrate plow damage, flushing, delamination or raveling greater than 2.0 yd² for any single location, or greater than 5.0 yd² for any 0.1 lane mile. Such repairs, however, shall not include any damage resulting from any forces or circumstances beyond the control of the Contractor. The evaluation of the micro-surfacing shall be made by the State's resident engineer. If the Contractor does not agree with the evaluation it may appeal to the State's Regional Transportation Maintenance Engineer whose decision shall be final.

Any resultant property damage deemed by the State's Regional Transportation Maintenance Engineer caused by improper workmanship and/or defective materials shall be the responsibility of the Contractor
 3. On or before August 15, in the year immediately following the State's acceptance of the micro-surfacing project, the State shall notify the Contractor of any areas deemed deficient by the State. The Contractor will initiate and complete the remediation within 30 days of notification.

11.13.1.7 Maintenance Bond Example

(See the following two pages)

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

SAMPLE

MAINTENANCE BOND

KNOW ALL PEOPLE BY THESE PRESENTS, That we, (hereinafter called the "PRINCIPAL")
_____ of _____, and
_____ of _____ (hereinafter called the "SURETY") are held and
firmly bound unto the people of the State of New York in the full and just sum of
_____ Dollars (\$ _____) good and lawful money of the United
States of America, to the payment of which said sum of money, well and truly to be made and done the said PRINCIPAL binds itself,
its heirs, executors, administrators or assignees and the SURETY binds itself, its successors or assigns, jointly and severally, firmly by
these presents.

Signed dated this _____ day of _____, 20__.

WHEREAS, the PRINCIPAL has entered into a certain written contract bearing date on the _____ day of
_____, 20__, with the People of the State of New York for the improvement of _____,
in the County of _____, New York.

NOW THEREFORE, the PRINCIPAL warrants the workmanship and all materials used in the work and agrees that during the
guarantee period of one year beginning after final acceptance by the State or political subdivision or until August 1 of the year
following acceptance of work completed under the contract, whichever is later, it will, at its own expense make repairs which may
become necessary by reason of improper workmanship or defective materials as per the following procedure:

1. No later than June 1 of the year following the State's or the political subdivision's acceptance of work completed under the contract, the State or political subdivision will evaluate the project for aggregate retention, flushing or bleeding, aggregate embedment and bonding to the existing pavement.
2. The PRINCIPAL agrees to repair all areas that demonstrate less than 90% aggregate retention, as determined by the State or political subdivision, on the overall project caused by improper workmanship and/or defective materials. In addition, the PRINCIPAL agrees to repair individual areas that are flushed or bleeding, as determined by the State or political subdivision, caused by improper workmanship and/or defective materials irrespective of the percent of aggregate retained. Such repairs however, shall not include any damage resulting from any forces or circumstances beyond the control of the PRINCIPAL. The evaluation of the chip seal (conventional and fiber reinforced) shall be made by the Resident Engineer or the political subdivision representative as appropriate. If the PRINCIPAL does not agree with the evaluation it may appeal to the Regional Transportation Maintenance Engineer or political subdivision representative's supervisor whose decision shall be final.
3. On or before June 10 in the year immediately following the State's or political subdivision's acceptance of the chip seal (conventional and fiber reinforced) project, the State or political subdivision shall notify the PRINCIPAL of any areas deemed deficient by the State or political subdivision. The PRINCIPAL will initiate and complete the remediation, within 30 days of notification.
4. Prior to the performance of repairs the PRINCIPAL shall supply the Resident Engineer or political subdivision representative with copies of all acceptable insurance certificates. During the performance of any necessary repairs, the PRINCIPAL shall comply with the all provisions of the original contract including among other things the Work zone traffic control provisions.

(Cont'd.)

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

SAMPLE

MAINTENANCE BOND (Cont'd)

In the event of the failure of performance by the PRINCIPAL who has failed to make repairs which may become necessary by reason of improper workmanship or defective materials, said SURETY, for value received, hereby stipulates and agrees, if requested to do so by the State or political subdivision, to commence such repairs within five (5) days of notification by the State or political subdivisions of such failure by the PRINCIPAL. Such repairs shall be performed in accordance with the provisions of the current contract which require among other provisions that the SURETY shall provide necessary Work zone traffic control as well as provide the required insurance before any work is conducted.

In the event both the SURETY and the PRINCIPAL fail to perform such repairs, the State or political subdivision shall cause the repair to be completed by others and the SURETY and PRINCIPAL shall be jointly and severally liable for such costs.

And the said SURETY thereby stipulates and agrees that no change, extension, alteration, deduction or addition in or to the terms of the said contract or the plans or specifications accompanying same, shall in any way affect the obligations of said SURETY of its bond.

PRINCIPAL _____

BY _____

SURETY _____

BY _____

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

11.13.2 Micro-Surfacing (Local)

- 18410.1011L Micro-Surfacing, Type II, F1 (Local only)
- 18410.1021L Micro-Surfacing, Type II, F2 (Local only)
- 18410.1031L Micro-Surfacing, Type II, F3 (Local only)
- 18410.1012L Micro-Surfacing, Type III, F1 (Local only)
- 18410.1022L Micro-Surfacing, Type III, F2 (Local only)
- 18410.1032L Micro-Surfacing, Type III, F3 (Local only)
- 18410.1013L Micro-Surfacing, Type III, Rut Filling (Local only)

11.13.2.1 Description

This work shall consist of applying a proportioned mixture of polymer modified asphalt emulsion, aggregate, mineral filler, water and other additives to a paved surface. **These items are strictly restricted and shall not be used in any NYSDOT project irrespective of funding source. These items shall not be used in any federal funded local projects. Political subdivisions may choose these items at their discretion only for projects with their own funds.**

11.13.2.2 Materials

Asphalt Emulsion

§702 - Bituminous Materials, use item 702-4601P with following exception: the material shall have a minimum softening point of 135°F.

Aggregates

Use material meeting the requirements of §703-02, Coarse Aggregate, with the following modifications.

- A. **Sand Equivalency.** Minimum sand equivalency is 65%, as determined by AASHTO T 176, “Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test.” Material not meeting the minimum sand equivalent requirement may be used if it is classified as non-plastic according to AASHTO T 89, “Determining the Liquid Limit of Soils” and AASHTO T 90, “Determining the Plastic Limit and Plasticity Index of Soils.”
- B. **Type F1 Conditions.** Use aggregate containing at least 95.0% acid insoluble residue in the plus and minus No. 30 size fractions
- C. **Type F2 Conditions.** Use aggregate meeting one of the following requirements:
 - 1. Limestone, dolomite, or blend of the two containing at least 20.0% acid insoluble residue in the plus and minus No. 30 size fractions.
 - 2. Gravel or blend of a natural or manufactured, limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag, or other similar materials, having at least 25.0% acid insoluble residue in the plus and minus No. 30 size fractions.
- D. **Type F3 Conditions.** Use aggregate meeting one of the following requirements:
 - 1. Limestone or a blend of limestone and dolomite containing at least 20.0% acid insoluble residue in the plus and minus No. 30 size fractions.
 - 2. Dolomite.
 - 3. Gravel or blend of a natural or manufactured, limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag, or other similar materials, having at least 25.0% acid insoluble residue in the plus and minus No. 30 size fractions.
- E. **Stockpile.** Build an aggregate stockpile at a location approved by the Engineer. When blending multiple aggregates, use automated proportioning and blending equipment to produce a uniformly graded stockpile. Screen the aggregate at the stockpile, prior to delivering it to the micro-surfacing equipment.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

Use aggregate meeting the gradation requirements listed in §703-02, Table 703-5, Sizes of Crushed Gravel, Stone, and Slag for Slurry with the following exception: the range for the No. 100 sieve on the 2MS designation is 10-22% passing.

The aggregate stockpile gradation shall not deviate from the mix design gradation by more than the tolerances given in Table 1 - Maximum Stockpile Tolerance. The mix design gradation value plus the stockpile tolerance cannot exceed the mix type general gradation limits.

TABLE 1 - MAXIMUM STOCKPILE TOLERANCE

Sieve (in)	3/8	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200
Stockpile Tolerance	-	± 5.0%	± 5.0%	± 5.0%	± 5.0%	± 4.0%	± 3.0%	± 2.0%

Water

§712-01, Water.

Mineral Filler

§703-08, Mineral Filler.

Mix Design

Formulate a mix design which meets the requirements of Materials Procedure 09-01, “Micro-surfacing and Slurry Guidelines.” The mix design shall be submitted at least 14 days before the beginning of work to the Engineer in Charge, the Regional Materials Engineer and the Director of the Materials Bureau.

All materials used to develop the mixture design must be representative of the material to be used on the project. Mixture designs are valid until 3rd Saturday in September of the year in which they are submitted

Material Sampling and Testing

A. Aggregate Stockpile

1. Contractor Testing. The Contractor shall perform and submit the following tests to the Regional Materials Engineer:

- a. Take three samples, according to Materials Method 5, Plant Inspector's Manual for Bituminous Concrete Mix Production. Each sample must contain material from each face of the stockpile.
- b. Test samples in accordance with AASHTO T 11, Materials Finer than No. 200 Sieve in Mineral Aggregates by Washing, and AASHTO T 27, Sieve Analysis of Fine and Coarse Aggregates. Test results shall be based on the average of three tests.
- c. Sample and test the aggregate in accordance with Materials Method 28, “Friction Aggregate Control and Test Procedures,” Appendix B, Table B1 – Minimum Testing Frequencies for Slurry Surfacing Aggregates.

2. Department Testing and Approval. The Regional Materials Engineer will review the Contractor's submission for specification compliance. The Regional Materials Engineer will base final approval of the stockpile on the Contractors submission or Department sampling and testing. Re-approval is required if additional material is added to the stockpile.

- a. Gradation - Test results shall be the average of three tests. If the percent passing is outside the gradation limits for any sieve, the stockpile will be rejected.
- b. Friction Requirements - Samples shall meet appropriate friction values. All micro-surfacing previously placed with material from a stockpile rejected for non-carbonate or acid insoluble residue content will be rejected.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

B. Emulsion

Asphalt emulsion shall be sampled according to Materials Method 702-2, “Asphalt Emulsion – Quality Assurance.”

11.13.2.3 Construction Details

Weather and Seasonal Limitations

The requirements of §402-3.01 Weather and Seasonal Limitations apply, except as modified herein. Do not place micro-surfacing in the rain, fog, or if the air temperature is expected to fall below freezing within 24 hours after application. Application shall not occur unless pavement and ambient temperatures are above 50°F and rising. Stop micro-surfacing if the surface or air temperature drops below 50°F. No work will be performed after the 3rd Saturday in September.

Equipment

Equipment must be designed and manufactured specifically for mixing and placing micro-surfacing. The equipment must be capable of accurately proportioning the constituent materials, thoroughly mixing those materials, and placing the micro-surfacing in conformance with this specification.

Calibrate each mixing unit according to Materials Procedure 09-01. Calibrations must be performed using the aggregate sources listed in the mix design. Calibrations are valid for 90 days. Submit a copy of the equipment calibration to the Engineer prior to the start of work.

The emulsion, aggregate and mineral filler counters must be accessible to the Engineer and inspectors. Adjust the material delivery settings on the micro-surfacing equipment to produce the mix design. Recalibrate equipment to adjust for bulking effect of aggregate reported on mix design.

A pneumatic tire roller meeting the requirements of §402, shall be used.

Surface Preparation

1. Ensure that pavement markings have been abraded in accordance with contract documents.
2. Remove all debris and standing water.
3. Cover all manhole covers, water boxes, catch basins, and other such utility structures within the area being paved with plastic, building felt, or other material approved by the Engineer. Remove the covers each day.
4. If necessary, dampen the pavement surface with water or apply a tack coat emulsion to the pavement surface before applying micro-surfacing. If prior to or during the preconstruction meeting, it is determined that the road surface requires a tack coat application, it shall be paid for in accordance with the appropriate pay item.

Mixture Consistency

Produce a homogeneous mixture, without lumps, balls, unmixed aggregate, segregation, excess water, or excess emulsion. The maximum allowable adjustment of the mineral filler is 1.0%. Report all mixture adjustments to the Engineer before they are made.

Application

Micro-surfacing is placed in multiple lifts; use at least 2 applications consisting of a scratch course and finish course for the finished product. When necessary, a rut filling course is also specified and paid for separately. Do not apply scratch course to the shoulder unless otherwise directed.

1. Scratch Course. Use a rigid strike off on the spreader box in order to level the pavement surface. The scratch course surface shall be constructed to a ¼ inch tolerance. Measure the tolerance using a 10 foot straight edge or string line placed transversely to the center line of the pavement. Variations exceeding ¼ inch shall be satisfactorily corrected or resurfaced at no additional cost to the Department as ordered by the Engineer.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

2. **Finish Course.** Apply the micro-surfacing to the pavement evenly across the entire width of the spreader box to produce a smooth riding surface with no streaks, excess buildup, thin or uncovered areas. The finish course surface shall be constructed to a ¼ inch tolerance. Measure the tolerance using a 10 foot straight edge or string line placed transversely to the center line of the pavement. Variations exceeding ¼ inch shall be satisfactorily corrected or resurfaced at no additional cost to the Department as ordered by the Engineer.
3. **Rut Filling.** Use a rut box to fill wheel rutting. Allow rut filled sections to cure for a minimum of 2 hours after rolling.

Application rate limits are given in Table 2 - Application Limits. Application rates for rut filling operations are found in Table 3 - Rut Filling Application Rate.

TABLE 2 - APPLICATION LIMITS

Gradation	Course	Application Rate (lb/yd ²)
Type II	Scratch	15 maximum
	Finish	15-20
Type III	Scratch	20 maximum
	Finish	20-30

TABLE 3 - RUT FILLING APPLICATION RATE

Rut Depth	Application Rate (lbs/yd ²)
½" to ¾"	20 - 30
¾" to 1"	25 - 35
1" to 1-¼"	28 - 38

Coverage

Do not use hand tools to expand the width of application wider than the spreader box, except as described under *Hand Finishing* below.

Joints

Minimize the number of joints. Construct joints such that no gap is present between adjacent applications. Place longitudinal joints at the edges of traffic lanes, adjacent to where pavement markings will be located. Other longitudinal joint arrangements require the Engineer's approval. Measure the difference in grade across joints by laying a 10 foot straight edge centered on the joint perpendicular to the direction of the joint. Joint overlap and grade difference requirements are given in Table 4 - Joint Requirements.

TABLE 4 - JOINT REQUIREMENTS

Requirement	Minimum (in.)	Maximum (in.)
Difference in Grade	-	¼
Longitudinal Joint Overlap	2	6
Transverse Joint Overlap	2	12

Variable-Width Passes

Apply no more than one variable-width pass. Variable-width passes will not be permitted as the last pass unless approved by the Engineer.

Hand Finishing

Use hand held squeegees to finish areas which cannot be reached with the spreader box, and, when necessary, to produce straight lines along curbs, shoulders, and through intersections. Apply the same type of finish to the surface as is applied by the spreader box.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

Excess Material

Remove all excess material in areas such as driveways, gutters, intersections, etc. each day.

Rolling

The mat shall be rolled with a pneumatic tire roller. A minimum of 3 passes of the pneumatic tire roller shall be required. One pass is defined as one movement of the roller over any point of the pavement in either direction. The rolling of the surface shall not cause the stone to stick to the wheels of the roller.

Curing

Allow each coat to cure sufficiently to resist damage from the micro-surfacing equipment, before applying the next coat. Protect the micro-surfacing from traffic until the mixture has cured sufficiently to resist damage. The time required will vary based on the mix design and environmental conditions. Repair damage from micro-surfacing equipment or traffic to the Engineer's satisfaction.

Milling for Pavement Markings

Mill recesses for pavement markings as required by contract documents.

11.13.2.4 Method of Measurement

Micro-surfacing shall be measured by the total tons of aggregate, mineral filler and asphalt emulsion used according to Materials Procedure 09-01, "Micro-surfacing and Slurry Guidelines."

11.13.2.5 Basis of Payment

The unit price bid per ton of Micro-surfacing shall include the cost of all labor, materials and equipment necessary to perform the work. All necessary pavement cleaning, joint sealing, crack filling, pavement markings removal, milling for pavement markings and utility grade adjustments will be paid for under their appropriate items.

Payment will be made under:

Item	Description	Pay Unit
18410.1011L	Micro-Surfacing, Type II, F1 (Local)	Ton
18410.1021L	Micro-Surfacing, Type II, F2 (Local)	Ton
18410.1031L	Micro-Surfacing, Type II, F3 (Local only)	Ton
18410.1012L	Micro-Surfacing, Type III, F1 (Local only)	Ton
18410.1022L	Micro-Surfacing, Type III, F2 (Local only)	Ton
18410.1032L	Micro-Surfacing, Type III, F3 (Local only)	Ton
18410.1013L	Micro-Surfacing, Type III, Rut Filling (Local only)	Ton

11.13.2.6 Bonding Requirements

- A. Within 10 calendar days of receipt of a purchase order from the State, the Contractor shall provide the State agency the following
- 1. Maintenance Material Bond.** A bond in the form similar to the sample included in this Invitation for Bids with sufficient sureties approved by the State's resident engineer guaranteeing replacement of deficient material in the form included in this Invitation for Bids. This bond shall remain in place for one year after final acceptance of the project by the State or until September 15 of the year following completion of the project, whichever is later.
 - 2. Amount of Bond.** The amount of the Maintenance Material Bond shall be 100% of the amount of the project's cost.
 - 3. Requirements of Bonds.** All Bonds shall be issued by a surety company approved by NYSDOT and authorized to do business in the State of New York as a surety.
- B. The procedure of the Maintenance Material Bond shall be as follows:
1. No later than August 1 of the year following the State's acceptance of work completed under this contract, the State will evaluate the project for plow damage, flushing, delamination or raveling.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

2. The Contractor agrees to repair all areas that demonstrate plow damage, flushing, delamination or raveling greater than 2.0 yd² for any single location, or greater than 5.0 yd² for any 0.1 lane mile. Such repairs, however, shall not include any damage resulting from any forces or circumstances beyond the control of the Contractor. The evaluation of the micro-surfacing shall be made by the State's resident engineer. If the Contractor does not agree with the evaluation it may appeal to the State's Regional Transportation Maintenance Engineer whose decision shall be final.

Any resultant property damage deemed by the State's Regional Transportation Maintenance Engineer caused by improper workmanship and/or defective materials shall be the responsibility of the Contractor

3. On or before August 15, in the year immediately following the State's acceptance of the micro-surfacing project, the State shall notify the Contractor of any areas deemed deficient by the State. The Contractor will initiate and complete the remediation within 30 days of notification.

11.13.2.7 Maintenance Bond Example

(See the following two pages)

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

SAMPLE

MAINTENANCE BOND

KNOW ALL PEOPLE BY THESE PRESENTS, That we, (hereinafter called the "PRINCIPAL")
_____ of _____, and
_____ of _____ (hereinafter called the "SURETY") are held and
firmly bound unto the people of the State of New York in the full and just sum of
_____ Dollars (\$ _____) good and lawful money of the United
States of America, to the payment of which said sum of money, well and truly to be made and done the said PRINCIPAL binds itself,
its heirs, executors, administrators or assignees and the SURETY binds itself, its successors or assigns, jointly and severally, firmly by
these presents.

Signed dated this _____ day of _____, 20__.

WHEREAS, the PRINCIPAL has entered into a certain written contract bearing date on the _____ day of
_____, 20__, with the People of the State of New York for the improvement of _____,
in the County of _____, New York.

NOW THEREFORE, the PRINCIPAL warrants the workmanship and all materials used in the work and agrees that during the
guarantee period of one year beginning after final acceptance by the State or political subdivision or until August 1 of the year
following acceptance of work completed under the contract, whichever is later, it will, at its own expense make repairs which may
become necessary by reason of improper workmanship or defective materials as per the following procedure:

1. No later than June 1 of the year following the State's or the political subdivision's acceptance of work completed under the contract, the State or political subdivision will evaluate the project for aggregate retention, flushing or bleeding, aggregate embedment and bonding to the existing pavement.
2. The PRINCIPAL agrees to repair all areas that demonstrate less than 90% aggregate retention, as determined by the State or political subdivision, on the overall project caused by improper workmanship and/or defective materials. In addition, the PRINCIPAL agrees to repair individual areas that are flushed or bleeding, as determined by the State or political subdivision, caused by improper workmanship and/or defective materials irrespective of the percent of aggregate retained. Such repairs however, shall not include any damage resulting from any forces or circumstances beyond the control of the PRINCIPAL. The evaluation of the chip seal (conventional and fiber reinforced) shall be made by the Resident Engineer or the political subdivision representative as appropriate. If the PRINCIPAL does not agree with the evaluation it may appeal to the Regional Transportation Maintenance Engineer or political subdivision representative's supervisor whose decision shall be final.
3. On or before June 10 in the year immediately following the State's or political subdivision's acceptance of the chip seal (conventional and fiber reinforced) project, the State or political subdivision shall notify the PRINCIPAL of any areas deemed deficient by the State or political subdivision. The PRINCIPAL will initiate and complete the remediation, within 30 days of notification.
4. Prior to the performance of repairs the PRINCIPAL shall supply the Resident Engineer or political subdivision representative with copies of all acceptable insurance certificates. During the performance of any necessary repairs, the PRINCIPAL shall comply with the all provisions of the original contract including among other things the Work zone traffic control provisions.

(Cont'd.)

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

SAMPLE

MAINTENANCE BOND (Cont'd)

In the event of the failure of performance by the PRINCIPAL who has failed to make repairs which may become necessary by reason of improper workmanship or defective materials, said SURETY, for value received, hereby stipulates and agrees, if requested to do so by the State or political subdivision, to commence such repairs within five (5) days of notification by the State or political subdivisions of such failure by the PRINCIPAL. Such repairs shall be performed in accordance with the provisions of the current contract which require among other provisions that the SURETY shall provide necessary Work zone traffic control as well as provide the required insurance before any work is conducted.

In the event both the SURETY and the PRINCIPAL fail to perform such repairs, the State or political subdivision shall cause the repair to be completed by others and the SURETY and PRINCIPAL shall be jointly and severally liable for such costs.

And the said SURETY thereby stipulates and agrees that no change, extension, alteration, deduction or addition in or to the terms of the said contract or the plans or specifications accompanying same, shall in any way affect the obligations of said SURETY of its bond.

PRINCIPAL _____

BY _____

SURETY _____

BY _____

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

11.13.3 Quick-Set Slurry Seal

- 18410.2011 Quick-Set Slurry, Type II, F3
- 18410.2012 Quick-Set Slurry, Type III, F3

11.13.3.1 Description

This work shall consist of applying a proportioned mixture of asphalt emulsion, aggregate, mineral filler and water to a paved surface. **Use quick-set slurry only on highways with 2 or 3 lanes and design year two-way AADTs under 4000**

11.13.3.2 Materials

Asphalt Emulsion

§702 - Bituminous Materials, CQS-1h.

Aggregates

Use material meeting the requirements of §703-02, Coarse Aggregate, with the following modifications.

- A. Sand Equivalency.** Minimum sand equivalency is 45%, as determined by AASHTO T 176, “Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test.” Material not meeting the minimum sand equivalent requirement may be used if it is classified as non-plastic according to AASHTO T 89, “Determining the Liquid Limit of Soils” and AASHTO T 90, “Determining the Plastic Limit and Plasticity Index of Soils.”
- B. Friction Requirements.** Use aggregate meeting one of the following requirements:
 - 1. Limestone or a blend of limestone and dolomite containing at least 20.0% acid insoluble residue in the plus and minus No. 30 size fractions.
 - 2. Dolomite.
 - 3. Gravel or blend of a natural or manufactured, limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag, or other similar materials, having at least 25.0% acid insoluble residue in the plus and minus No. 30 size fractions.
- C. Stockpile.** Build an aggregate stockpile at a location approved by the Engineer. When blending multiple aggregates, use automated proportioning and blending equipment to produce a uniformly graded stockpile. Screen the aggregate at the stockpile, prior to delivering it to the quick-set slurry equipment.

Use aggregate meeting the gradation requirements listed in §703-02, Table 703-5, Sizes of Crushed Gravel, Stone, and Slag for Slurry with the following exception: the range for the No. 100 sieve on the 2MS designation will be 10-22% passing.

The aggregate stockpile gradation shall not deviate from the mix design gradation by more than the tolerances given in Table 1 - Maximum Stockpile Tolerance. The mix design gradation value plus the stockpile tolerance cannot exceed the mix type general gradation limits.

TABLE 1 - MAXIMUM STOCKPILE TOLERANCE

Sieve (in)	3/8	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200
Stockpile Tolerance	-	± 5.0%	± 5.0%	± 5.0%	± 5.0%	± 4.0%	± 3.0%	± 2.0%

Water

§712-01, Water.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

Mineral Filler

§703-08, Mineral Filler.

Mix Design

Employ a Department approved laboratory to develop a job mix formula, following the procedure outlined in ASTM D 3910, that meets the requirements listed in Table 2 - Mixture Design Requirements and Table 3 – Physical Requirements. All materials used to develop the mixture design must be representative of the materials to be used on the project. The mixture design must clearly list the proportions of mineral aggregate, mineral filler, water, additive(s), percent asphalt emulsion based on the dry weight of aggregate, and design set and cure times. Submit the mixture design for approval to the Director, Materials Bureau at least 14 days before the start of work. Mixture design approvals are valid until October 31, of the year in which they are approved

Constituent	Proportional Requirement
Residual Asphalt	Type II, 7.5% to 13.5%; Type III, 6.5% to 12.0% (by dry mass of aggregate)
Mineral Filler	0.0% to 2.0% by dry mass of aggregate.
Water	As required to produce proper mixture consistency.
Field Control Additive	As required to control the emulsion's set properties or increase adhesion, but must be part of the mixture design and compatible with all other components.

Property	Test Method	Requirement
Consistency	ASTM 3910	2-3 cm
Mix Time	ISSA TB 113	Controllable to 180 sec.
Set Time	ASTM 3910	1 hour, maximum
Cure Time	ASTM 3910	24 hour, maximum
Wet Track Abrasion Loss	ASTM D3910; 1 hr soak	807 g/m ² , maximum
Excess Asphalt by LWT Sand Adhesion	ISSA TB 109	538 g/m ² maximum
Wet Cohesion (quick traffic systems)	ISSA TB 139; 30 minutes ISSA TB 139; 60 minutes	12 kg-cm, minimum 20 kg-cm, minimum

Material Sampling and Testing

A. Aggregate Stockpile

1. **Contractor Testing.** The Contractor shall perform and submit the following tests to the Regional Materials Engineer:
 - a. Take three samples, according to Materials Method 5, Plant Inspector's Manual for Bituminous Concrete Mix Production. Each sample must contain material from each face of the stockpile.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

- b. Test samples in accordance with AASHTO T 11, Materials Finer than No. 200 Sieve in Mineral Aggregates by Washing, and AASHTO T 27, Sieve Analysis of Fine and Coarse Aggregates. Test results shall be based on the average of three tests.
- c. Sample and test the aggregate in accordance with Materials Method 28, “Friction Aggregate Control and Test Procedures,” Appendix B, Table B1 – Minimum Testing Frequencies for Slurry Surfacing Aggregates.

2. Department Testing and Approval. The Regional Materials Engineer will review the Contractor’s submission. If the submission meets the requirements of the specification, the Regional Materials Engineer will sample and test the stockpile. The final approval of the stockpile will be based on the results of the Department’s sampling and testing. Stockpile approval is valid until new material is added to the stockpile.

- a. Gradation - Test results shall be the average of three tests. If the percent passing is outside the gradation limits for any sieve, the stockpile will be rejected.
- b. Friction Requirements - Samples shall meet appropriate friction values. All quick-set slurry previously placed with material from a stockpile rejected for non-carbonate or acid insoluble residue content will be rejected.
- c. Additional Testing – If the Engineer believes an approved stockpile has been altered, additional samples may be tested

B. Emulsion

Asphalt emulsion shall be sampled according to Materials Method 702-2, “Asphalt Emulsion – Quality Assurance.”

11.13.3.3 Construction Details

Weather and Seasonal Limitations

The requirements of §402-3.01 Weather and Seasonal Limitations apply, except as modified herein. Do not place quick-set slurry in the rain, fog, or if the air temperature is expected to fall below freezing within 24 hours after application. Application shall not occur unless pavement and ambient temperatures are above 50°F. When applying with temperatures below 60°F, the Contractor shall use a mix design specifically designed for cold weather application. Stop the quick-set slurry application if the surface or air temperature drops below 50°F.

Equipment

Equipment must be designed and manufactured specifically for mixing and placing quick-set slurry or micro-surfacing. The equipment must be capable of accurately proportioning the constituent materials, thoroughly mixing those materials, and placing the quick-set slurry in conformance with this specification.

Calibrate each mixing unit according to Materials Procedure 09-01. Calibrations must be performed using the aggregate sources listed in the mix design. Calibrations are valid for 90 days. Submit a copy of the equipment calibration to the Engineer prior to the start of work.

The emulsion, aggregate and mineral filler counters must be accessible to the Engineer and inspectors. Adjust the material delivery settings on the quick-set slurry equipment to produce the mix design.

Surface Preparation

- 1. Ensure that pavement markings have been abraded in accordance with contract documents.
- 2. Remove all debris and standing water.
- 3. Cover all manhole covers, water boxes, catch basins, and other such utility structures within the area being paved with plastic, building felt, or other material approved by the Engineer. Remove the covers each day.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

4. If necessary, dampen the pavement surface with water or apply a tack coat emulsion to the pavement surface before applying quick-set slurry. If prior to or during the preconstruction meeting, it is determined that the road surface requires a tack coat application, it shall be paid for in accordance with the appropriate pay item.

Mixture Consistency

Produce a homogeneous mixture, without lumps, balls, unmixed aggregate, segregation, excess water, or excess emulsion. The maximum allowable adjustment of the mineral filler is 1.0%. Report all mixture adjustments to the Engineer before they are made.

Application

Apply the quick-set slurry to the pavement evenly across the entire width of the spreader box to produce a smooth riding surface with no streaks, excess buildup, thin or uncovered areas.

Application rate limits are given in Table 4 - Application Rate

TABLE 4 - APPLICATION RATE

Gradation	Application Rate (lb/yd²)
Type II	14-20
Type III	18-24

Coverage

Do not use hand tools to expand the width of application wider than the spreader box, except as described under *Hand Finishing* below.

Joints

Minimize the number of joints. Construct joints such that no gap is present between adjacent applications. Place longitudinal joints at the edges of traffic lanes, adjacent to where pavement markings will be located. Other longitudinal joint arrangements require the Engineer's approval. Measure the difference in grade across joints by laying a 10 foot straight edge centered on the joint perpendicular to the direction of the joint. Joint overlap and grade difference requirements are given in Table 5 - Joint Requirements.

TABLE 5 - JOINT REQUIREMENTS

Requirement	Minimum (in.)	Maximum (in.)
Difference in Grade	-	¼
Longitudinal Joint Overlap	2	6
Transverse Joint Overlap	2	12

Variable-Width Passes

Variable width passes will not be permitted unless approved by the Engineer.

Hand Finishing

Use hand held squeegees to finish areas which cannot be reached with the spreader box, and, when necessary, to produce straight lines along curbs, shoulders, and through intersections. Apply the same type of finish to the surface as is applied by the spreader box.

Excess Material

Remove all excess material in areas such as driveways, gutters, intersections, etc. each day.

Curing

Protect the quick-set slurry from traffic until the mixture has cured sufficiently to resist damage. The time required will vary based on the mix design and environmental conditions. Repair damage from quick-set slurry equipment or traffic to the Engineer's satisfaction.

SECTION 11: GROUP – MICROSURFACING AND/OR QUICK SET SLURRY SEAL (Cont'd)

11.13.3.4 Method of Measurement

Quick-set slurry shall be measured by the total tons of aggregate, mineral filler and asphalt emulsion used according to Materials Procedure 09-01, "Micro-surfacing and Slurry Guidelines."

11.13.3.5 Basis of Payment

The unit price bid per ton of quick-set slurry shall include the cost of all labor, materials and equipment necessary to perform the work. All necessary pavement cleaning, joint sealing, crack filling, pavement markings removal and utility grade adjustments will be paid for under their appropriate items.

Payment will be made under:

Item	Description	Pay Unit
18410.2011	Quick-set slurry, Type II, F3	Ton
18410.2012	Quick-set slurry, Type III, F3	Ton

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT

12.1 Introduction

Conventional and Rubber Modified Paver Placed Surface Treatment is a preventive maintenance treatment used to preserve highway pavements. The treatment is a surface paving system, placed by a self-priming paver, where a modified emulsion tack coat is placed directly before the application of a conventional or rubber modified hot mix asphalt wearing course.

12.2 Pricing Information

12.2.1 General

Clause 24B of Appendix B, the General Specifications has been modified to include the following:

Price quoted shall be to three (3) decimal places.

Price quoted shall be FOB the Contractor's location per ton based on average daily production for the conventional and rubber modified paver placed surface treatment.

The Contractor is to furnish all necessary labor and equipment to complete the conventional or rubber modified paver placed surface treatment work under this contract. Cleaning the existing pavement shall be the responsibility of the State or political subdivision. Permanent pavement striping will be the responsibility of the State or political subdivision upon completion of the conventional or rubber modified paver placed surface treatment after the Contractor has vacated the project site.

The price bid for optional work zone traffic control shall be per ton of conventional or rubber modified paver placed surface treatment.

Price quoted for additional flaggers (if required) shall be net per day (to the nearest quarter day) for additional flaggers.

Price quoted for optional pilot vehicles with drivers (if required) shall be net per day (to the nearest quarter day) for each pilot vehicle with driver.

Price quoted for optional additional construction signs shall be net per square foot (including signs, sign supports, installation, and removal) of additional construction signs.

Price quoted for additional cost per day for Saturday and Sunday work, when directed by the resident engineer or individual authorized by using agency, shall be net per day for Saturday or Sunday work.

Price quoted for abrading the existing pavement markings by the vendor, with work zone traffic control by the owner (if required) shall be net per linear foot at 4 inches wide of pavement markings actually abraded by the vendor. This price shall include all costs for pavement marking abrading including all labor, materials, and equipment necessary to abrade the pavement markings.

Price quoted for abrading the existing pavement markings by the vendor, with work zone traffic control by the vendor (if required) shall be net per linear foot at 4 inches wide of pavement markings actually abraded by the vendor. This price shall include all costs for pavement marking abrading including all labor, materials, and equipment necessary to abrade the pavement markings and all costs to properly maintain traffic.

Price quoted for overlay splices with work zone traffic control by the owner (if required) shall be net per linear foot at 3 feet wide of overlay splices actually constructed by the vendor. This price shall include all costs for conventional or rubber modified paver placed surface treatment overlay splices including all labor, materials, and equipment necessary to construct the overlay splices.

Price quoted for splices with work zone traffic control by the vendor (if required) shall be net per linear foot at 3 feet wide of overlay splices actually constructed by the vendor. This price shall include all costs for conventional or rubber modified paver placed surface treatment overlay splices including all labor, materials, and equipment necessary to contract the overlay splices and all costs to properly control traffic.

The equipment supplied to place the conventional or rubber modified paver placed surface treatment shall meet the appropriate requirements of the New York State Department of Transportation Standard Specifications. All necessary operators shall be supplied along with the conventional or rubber modified paver placed surface treatment spreader and the rollers. All personnel supplied for the work under this contract shall be qualified and experienced in conventional or rubber modified paver placed surface treatment placement.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

Price Additional for Mobilization from Contractor's Location to Project Location - Price additional quoted for mobilization from Contractor's location to project location shall be net **per ton** of accepted conventional or rubber modified paver placed surface treatment in place performed at the locations indicated by the State's resident engineer or political subdivision's representative. Conventional or rubber modified paver placed surface treatment shall be performed in accordance with NYSDOT's Standard Specifications and as per the attached specifications for conventional or rubber modified paver placed surface treatment. Cleaning the existing pavement will be the responsibility of the State or owner political subdivision. Erecting warning signs and directing traffic will be the responsibility of the purchasing agency or the Contractor using the optional work zone traffic control section of this Invitation for Bids at the discretion of the purchasing agency.

12.2.2 Insurance

Price bid shall include the following insurance coverage costs. In particular, price shall include:

- Commercial General Liability Insurance with a limit of not less than \$2,000,000 each occurrence;
- Comprehensive Business Automobile Liability Insurance with a limit of not less than \$2,000,000 each accident;
- Each requirement should be reviewed carefully. (Please see Attachment 4 – Insurance Requirements for detailed insurance requirements.)

Owners and Contractors Protective Insurance Coverage (OCP) shall be a separate price and shall only be included when specifically called for by an ordering agency. Note that pricing for OCP is not required to be bid and is not a requirement for award; however, bidder understands and agrees by submitting a bid to this IFB that if any Authorized User, in particular the New York State Department of Transportation (NYSDOT), also requires Owners and Contractors Protective Insurance Coverage (OCP) in addition to the above-referenced insurance, the vendor must supply it. The request for OCP shall be indicated by the Authorized User on the Quick Quote/ Price Calculation Worksheet (see Attachment 8). All Quick Quotes submitted must state the cost for such coverage which will be included as part of the Total Cost per Project and evaluated accordingly by the Authorized User. The charge for OCP insurance will be used to determine the lowest cost for the project. The OCP insurance required shall be \$1,000,000 per occurrence and \$2,000,000 in the aggregate.

OCP requirements should be reviewed carefully. (Please see Attachment 4 – Insurance Requirements for detailed insurance requirements.)

12.3 Asphalt Price Adjustments

12.3.1 General

- a. Asphalt price adjustments allowed will be based on the November 1, 2012 average of the F.O.B. terminal price per ton of unmodified PG 64-22 binder without anti-stripping agent (base average F.O.B. terminal price). The new monthly average terminal price will be determined by the New York State Department of Transportation based on prices of pre-approved primary sources of performance graded binder in accordance with the New York State Department of Transportation Standard Specification.

The November 1, 2012 average is \$582.000

NOTE: The same grade of asphalt cement used in establishing the base average F.O.B. terminal price shall be used in establishing the new average F.O.B. terminal price.

In the event that one or more of the New York State Department of Transportation pre-approved sources discontinue posting a price for asphalt cement, the base average F.O.B. terminal **price shall not be recalculated.**

- b. The new average F.O.B. terminal price will be determined based on the above F.O.B. terminal prices posted on the 20th of each month, hereafter known as the "Adjustment Date", during the contract period. However, asphalt price adjustments, in accordance with the formula below, will be effective for deliveries made on and after the first of the month following the adjustment date.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

- c. The unit prices of bituminous materials purchased from any award based on this specification will be subject to adjustment based on the following formula:

Price Adjustment (Per Ton)	=	$\left(\begin{array}{l} \text{New Monthly Average} \\ \text{F.O.B. Terminal Price} \end{array} - \begin{array}{l} \text{Base Average F.O.B.} \\ \text{Terminal Price} \end{array} \right)$	X	Total Allowable Petroleum %
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Positive Price Adjustment number shall be added to original per gallon Bid Price.
Negative Price Adjustment number shall be subtracted from original per gallon Bid Price.

New Monthly Average F.O.B. Terminal Price

The average F.O.B. terminal price for unmodified PG 64-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation per New York State Department of Transportation Standard Specification.

Base Average F.O.B. Terminal Price

The average F.O.B. terminal price of unmodified PG 64-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation as of November 1, 2012.

Total Allowable Petroleum

The percentage of total allowable petroleum for each item is as follows:

Item #	Material Designation	Grade	Asphalt %	Petroleum Allowance %	Total Allowable Petroleum %
18403.221xxx	702-PG6422 & 702-4701	PG 64-22 & CRS-1p	6.5	1.0	7.5
18403.222xxx	702-PG6422 & 702-4701	PG 64-22 & CRS-1p	6.5	1.0	7.5
18403.223xxx	702-PG6422 & 702-4701	PG 64-22 & CRS-1p	6.5	1.0	7.5

Asphalt Price Adjustments will not be allowed for materials which do not have an asphalt cement base.

- d. Work performed after the expiration of the contract, where no extension has been granted, resultant from purchase orders placed prior to expiration of the contract will receive the Asphalt Price Adjustments applicable in effect during the last month of the contract.
- Asphalt Price Adjustments for any contracts that are extended will be based on the new average for the month in which the work is done applying the same base established for that contract.
- e. Asphalt Price Adjustments allowed by this contract shall be calculated and applied to the original prices. There will not be Asphalt Price Adjustments unless the change amounts to more than \$0.10 per ton from the original price. In these instances, prices will revert back to the original prices.
- f. All Asphalt Price Adjustments will be computed to three decimal places.
- g. Should these provisions result in a price structure which becomes unworkable, detrimental or injurious to the State or in prices which are not truly reflective of market conditions or which are deemed by the Commissioner to be unreasonable or excessive, and no adjustment in price is mutually agreeable, the Commissioner reserves the sole right upon ten days written notice mailed to the Contractor to terminate any contract resulting from this bid opening.
- h. All Asphalt Price Adjustments shall be published by the State and issued to all contract holders whose responsibility will be to attach the appropriate State notification (based on when the work was performed) to the payment invoice submitted to agency.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

12.3.2 Asphalt Price Adjustment: Example

This example is for illustration purposes only. Actual Base Average Price, etc., may vary:

Item 18403.221101

Base Average Price = \$582.000

New Average Price = \$592.000

% Total Allowable Petroleum = 7.5%

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per ton)} \\ \hline \end{array} = \begin{array}{|c|} \hline (592.000 - 582.000) \\ \hline \end{array} \times \begin{array}{|c|} \hline 0.075 \\ \hline \end{array}$$

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per ton)} \\ \hline \end{array} = \begin{array}{|c|} \hline +\$0.750 \text{ per ton} \\ \hline \end{array}$$

Positive Price Adjustment number shall be added to original per gallon Bid Price.
Negative Price Adjustment number shall be subtracted from original per gallon Bid Price.

12.4 Minimum Quantities

The minimum project size for conventional and rubber modified paver placed surface treatment under this contract shall be **50 tons**. This is approximately 0.12 miles of two lane highway at 20 feet wide. A quantity/price change per day occurs at **150 tons**, which is approximately 0.35 miles of a 2 lane highway at 20 feet wide. A second quantity/price change per day occurs at **500 tons**, which is approximately 1.2 miles of a 2 lane highway at 20 feet wide. A third quantity/price change per day occurs at **1000 tons**, which is approximately 2.4 miles of a 2 lane highway at 20 feet wide.

12.5 Delivery Ticket

A delivery ticket shall be provided with each load of bituminous asphalt emulsions stating the following:

7. Storage facility identification
8. Ticket Number
9. Date/time
10. Item Number and Type
11. Quantity ticket printed by machine
12. Quantity in 60° F gallons for emulsions

12.6 Payment

Payment for conventional and rubber modified paver placed surface treatment in place shall be made at the contract price per unit bid for the actual number of tons of conventional or rubber modified paver placed surface treatment in place verified by the State or receiving political subdivision and used in the accepted portion of the work. The determination as to quantities involved in this contract shall be accepted as final and binding upon the Contractor.

A delivery slip stating quantities of hot mix asphalt concrete for conventional or rubber modified paver placed surface treatment shall accompany each shipment. An invoice listing the quantities of conventional or rubber modified paver placed surface treatment in place shall be sent promptly by the Contractor to the State's resident engineer or to the political subdivision's representative placing the order.

Payment for optional work zone traffic control (if required) will be made based on the average daily production in tons per day of completed conventional or rubber modified paver placed surface treatment.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

Payment for additional flaggers (if required) will be made based on the number of days (computed to the nearest quarter day) that additional flaggers are utilized as directed by the engineer or agency authorized individual.

Payment for optional pilot vehicles with drivers will be made based on the number of days (computed to the nearest quarter day) that optional pilot vehicles with drivers are utilized as directed by the engineer or agency authorized individual.

Payment for optional additional construction signs will be made on the number of square feet (computed to the nearest tenth of a square foot) of additional construction signs that are utilized as directed by the engineer or agency authorized individual.

Payment for work on Saturday and/or Sunday will be based on the actual number of days worked at the direction of the resident engineer or agency authorized individual.

Payment for abrading the existing pavement markings by the vendor, with work zone traffic control by the owner (if required) will be made based on the number of linear feet at 4 inches wide of pavement markings actually abraded as directed by the engineer or agency authorized individual.

Payment for abrading the existing pavement markings by the vendor, with work zone traffic control by the vendor (if required), will be made based on the number of linear feet at 4 inches wide of pavement markings actually abraded as directed by the engineer or agency authorized individual. No separate payment will be made for work zone traffic control when this item is used.

Payment for overlay splices with work zone traffic control by the owner (if required) will be made based on the number of linear feet of overlay splices at 3 feet wide actually constructed by the vendor as directed by the engineer or agency authorized individual.

Payment for overlay splices with work zone traffic control by the vendor (if required) will be made based on the number of linear feet of overlay splices at 3 feet wide actually constructed by the vendor as directed by the engineer or agency authorized individual. No separate payment will be made for maintenance and protection of traffic when this item is used.

The price per unit arrived at (mutually estimated) by the vendor and the using agency on the Price Calculation Worksheet or the price per unit resultant from the average daily production, whichever is less, shall be the price per unit paid to the vendor. No additional payment shall be due to the vendor for production rates that are not equal to the rate upon which the calculation work sheet price was based.

12.7 Pre-Conventional or Rubber Modified Paver Placed Surface Treatment Conference

The Contractor shall schedule a pre-conventional or rubber modified paver placed surface treatment conference with the State or political subdivision at least two weeks prior to the start of work under this contract. Project level supervisors for both the owner agency and the vendor will be present at this conference. At this conference the Contractor shall present Certificates of Insurance evidencing compliance with the additional insurance requirements, their proposed schedule, mix design, numbers and type of equipment, and Work Zone Traffic Control (if applicable) to the State or political subdivision for approval. The mix design must clearly show all the target gradations and asphalt content used in the mix design and shall be representative of the materials proposed by the Contractor to be used on the project. Adjustments may be required during construction based on field conditions and with the approval of the State or political subdivision.

The Contractor shall also furnish the State or political subdivision copies of the self-priming paver approval at this time. The Contractor shall indicate the aggregate source and the hot mix asphalt concrete source, at this conference. At least one week prior to the start of work under this contract, the Contractor shall coordinate the details of the conventional or rubber modified paver placed surface treatment with the owner's representative.

12.8 Work Hours

Work will not be permitted on Sundays and Holidays unless requested by NYSDOT. If the Contractor desires to work overtime on other days, dispensation from the NYS Labor Department must be obtained.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

12.9 Saturday and Sunday Work

When requested to work on Saturday and/or Sunday by the resident engineer or agency authorized individual, the Contractor shall be paid the price bid for Saturday and/or Sunday work, as appropriate. The price bid per day shall include the cost of all premium labor charges. The Contractor shall only be due the extra payment when work on Saturday and/or Sunday is in the best interest of the State or the using agency. Work done by the Contractor on Saturday and/or Sunday for their own convenience or to make up for rainouts shall not be due the extra payment for Saturday and/or Sunday work.

12.10 Construction Details

The construction details shall comply with the requirements specified in the enclosed DETAILED SPECIFICATIONS.

12.11 Damaged or Deficient Areas

Prior to acceptance and payment for work under this contract by the State or political subdivision, any conventional or rubber modified paver placed surface treatment that ravels, delaminates, fails to properly cure, or is in any way defective shall be redone to the satisfaction of the State's or political subdivision's representative at the Contractor's expense.

12.12 Optional Overlay Splices with Work Zone Traffic Control by the Owner

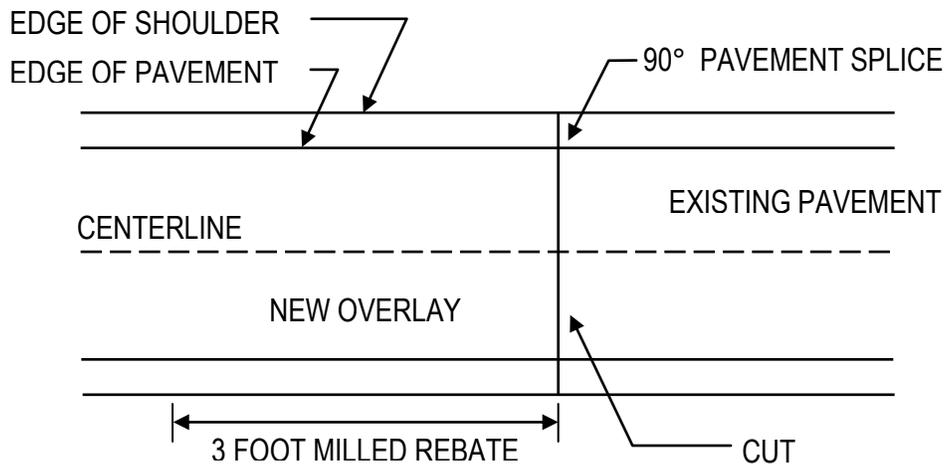
If required by the Engineer or agency authorized individual, the vendor shall construct overlay splices (commonly known as rebates) as per the detail Overlay Splices. The price bid shall include all costs to properly construct the overlay splice including the costs for cutting the existing pavement, milling overlay splices, and cleaning the pavement in the splice area. Payment shall be by the linear foot of overlay splice at 3 feet wide. Work zone traffic control shall be the responsibility of the owner.

12.13 Optional Overlay Splices with Work Zone Traffic Control by the Vendor

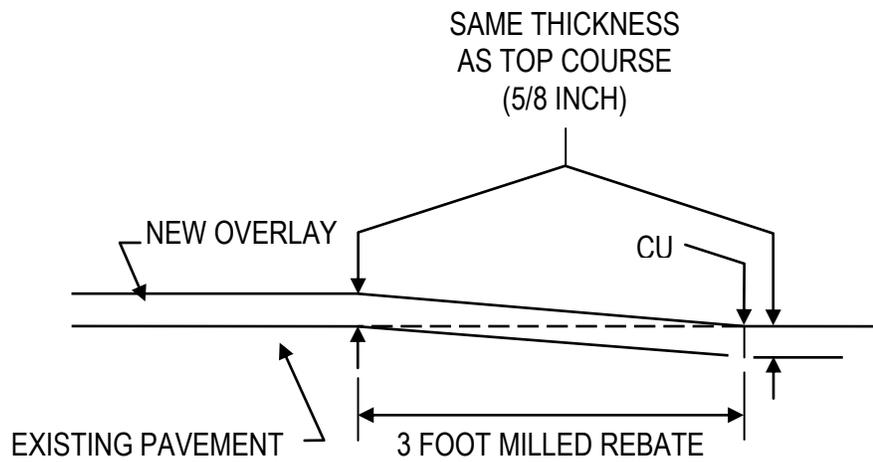
If required by the Engineer or agency authorized individual, the vendor shall construct overlay splices (commonly known as rebates) as per the detail Overlay Splices. The price bid shall include all costs to properly construct the overlay splice including the costs for cutting the existing pavement, milling overlay splices, cleaning the pavement in the splice area, and maintaining and protecting traffic. Payment shall be by the linear foot of overlay splice at 3 feet wide. Work zone traffic control shall be the responsibility of the vendor.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

OPTIONAL OVERLAY SPLICE:



PLAN



SECTION

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

12.14 Optional Work Zone Traffic Control

The Contractor shall submit a per square yard price for work zone traffic control as prescribed by this specification. When requesting price quotes from the Contractors, the purchasing agency may, at their option, include work zone traffic control by the Contractor for the specific project anticipated.

If optional work zone traffic control is included in the project request, the Contractor shall be responsible for work zone traffic control. Traffic shall be controlled in accordance with Sections 619-1 through 619-3 of the Standard Specifications, the Manual of Uniform Traffic Control Devices (MUTCD), and as described herein **including modifications to the Standard Specifications**. The Contractor shall submit a Work Zone Traffic Control Plan for approval to the resident engineer or agency authorized individual at the Pre-Conventional or Rubber Modified Paver Placed Surface Treatment Conference. For two-way roadways, Figures TAST-C1R, TASTC2R, TAST-C3R, TAST-C4R, TAST-C5R, TAST-C7R, TAST-C1UL, TAST-C2UL, TAST-C3UL, TAST-C4U, TAST-C7UL, TAST-C1UH, TAST-C2UH, TAST-C3UH, and TAST-C7UH (see the NYSDOT Work Zone Traffic Control Drawings included in this Invitation for Bids as an attachment) may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way roadways, Figures TAST-C5UL, TASTC6UL, TAST-C8UL, TAST-C5UH, TAST-C6UH, and TAST-C8UH may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way Freeways or Expressways, Figures TAST-E1, TAST-E2, TAST-E3, TAST-E4, TAST-E5, TAST-E6, and TAST-E7 may be used as a basis for development of a Work Zone Traffic Control Plan.

All necessary flaggers for work zone traffic control shall be provided by the Contractor. For two-way roadways, a minimum of three flaggers shall be provided while the conventional or rubber modified paver placed surface treatment operation is underway. One shall be stationed at each end of the operation and one shall be stationed with the paver placed surface treatment machine. For one-way roadways, a minimum of two flaggers shall be provided while the conventional or rubber modified paver placed surface treatment operation is underway. One shall be stationed at the beginning of the operation and one shall be stationed with the paver placed surface treatment machine. The Contractor shall station flaggers such that communication is maintained between the flaggers. Hand signals, radios, pilot vehicles, or some other means of communication may be used subject to the approval of the resident engineer or agency authorized individual.

Unless otherwise specified, the highway shall be kept open to traffic at all times. Traffic shall be discontinued on the lane where the conventional or rubber modified paver placed surface treatment is being placed; and as soon as the newly paved surface has been rolled, traffic may be permitted thereon.

The Contractor shall provide construction signs as specified in Section 619-1 through 619-3 of the Standard Specifications and in the MUTCD. At a minimum the Contractor shall install the following permanent construction signs:

SIGN	MINIMUM SIZE	LOCATION
ROAD WORK NEXT _____ MILES	<u>G20-1</u> Conventional 36" x 18" Freeways 48" x 24"	On main line upstream of project in each direction
END ROAD WORK	<u>G20-2</u> Conventional 36" x 18" Freeways 48" x 24"	On main line after end of project in each direction
ROAD WORK AHEAD	<u>W20-1</u> Conventional 36" x 36" Freeways 48" x 48"	On main line 500 feet in advance of the affected highway segment in each direction and on major intersecting roads 300 -500 feet in advance of main line. Sign should be covered if it conflicts with temporary signing in the vicinity.
DO NOT PASS	<u>R4-1G</u> Conventional 24" x 30"	First sign within 100 feet of the beginning of the unmarked area, second within 1000 feet and subsequent signs, spaced every ½ mile along project in each direction (if 2'x 4'temporary yellow markings are used instead of full barrier pavement markings)

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

SIGN	MINIMUM SIZE	LOCATION
NO CENTER LINE	W8-12 Conventional 36" x 36"	On mainline spaced every 2 miles along project in each direction and after every major intersecting road (if 2' x 4' temporary yellow markings are used instead of full barrier pavement markings)
LOW SHOULDER	W8-9 Conventional 36" x 36" Freeways 48" x 48"	On mainline spaced every 2 miles along project in each direction and after every major intersecting road (if 2' x 4' temporary yellow markings are used instead of full barrier pavement markings)
GROOVED PAVEMENT	W8-15 Conventional 36" x 36" Freeways 48" x 48"	On any roadway 500 feet in advance of rebates milled under this contract, but not paved. Remove or cover after paving rebate.

Major intersecting roads are defined as through State, County, Town, Village, or City roads. The Contractor may provide portable signs as shown in Figure 6F-2 of the MUTCD and meeting the requirements of the Standard Specifications for lane closures during work hours.

With prior permission of the State's Resident Engineer or political subdivision's representative, the vendor may provide portable signs as shown in Figure 6F-2 for the above referenced DO NOT PASS and NO CENTER LINE signs. Signs left active at night shall be rigid and reflectorized in accordance with the Standard Specifications. The vendor shall be responsible for assuring that all signs will be in their upright, visible positions twenty-four hours a day, **seven days a week while 2' x 4' temporary yellow markings are used instead of full barrier pavement markings.**

12.14.1 Special Note: Temporary Pavement Markings

The Vendor shall install and maintain temporary pavement markings on any paved surface without permanent pavement markings before opening it to traffic, before nightfall or before the end of the work day, whichever comes soonest except for areas that are open during the work shift with channelizing devices or flaggers. Temporary pavement markings shall meet the requirements of Section 619 of the Standard Specifications except that two-lane, two-way highways may be left without full barrier centerlines in no passing zones for a maximum of 7 calendar days provided that NO CENTER LINE (W8-12, black on orange), NO PASSING ZONE (W14-3, black on orange pennant shaped sign), and DO NOT PASS (R4-1) signs are used consistent with the MUTCD and in conjunction with yellow 2 foot by 4 inch temporary markings consisting of retro-reflective removable pavement marking tape, paint or yellow temporary overlay markers installed on a 40 ft. cycle to delineate the centerline location.

The State or political sub division is responsible for the final pavement markings unless otherwise indicated in the contract. If the vendor chooses to install NO CENTER LINE and DO NOT PASS signs and temporary yellow 2 foot by 4 inch pavement markings in lieu of full barrier centerline markings, the signs shall be left in place until the state or political subdivision has completed installing the final pavement markings. The state or political sub division will normally complete final pavement markings within 7 days of the project completion. However, if unavoidable situations delay the pavement marking installation the signs shall remain in place for 14 calendar days after the project has been completed or until the state has completed installing the final pavement markings, whichever comes first. If permanent pavement marking cannot be installed within 14 days of the project completion, state or political subdivision must install interim pavement marking including center lines, edge lines, stop bars, and simple crosswalks with no hatching before the end of 14 days after project completion.

All costs for Work Zone Traffic Control including flagging, temporary pavement markings, delineation, and construction signs are to be included in the prices bid per ton for optional work zone traffic control. No separate payment shall be made.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

12.14.2 Additional Flaggers for Work Zone Traffic Control

If the engineer or agency authorized individual determines that more than 3 flaggers are necessary to properly control traffic on two-way roadways or more than two flaggers are necessary to properly control traffic on one-way roadways and the vendor is responsible for work zone traffic control under this Invitation for Bids, the vendor shall provide additional flaggers under the Additional Flaggers item. The price bid per flagger per day shall include all costs of providing a flagger where directed by the engineer or agency authorized individual with all the necessary safety equipment, i.e. stop/slow paddle, flag, vest, hardhat, etc. Payment shall be by the day for each flagger provided. A day shall be determined as including the time period between the commencement and completion of work on any calendar day. No extra payment shall be provided if the vendor elects to work a longer day than the standard eight-hour work day. Payment shall be made to the nearest quarter day as determined by the engineer or agency authorized individual.

12.14.3 Optional Pilot Vehicle with Drivers

The vendor shall provide sufficient two-way radio equipped pilot vehicles with drivers to guide traffic around the paver placed surface treatment work zone at a maximum of 20 miles per hour. Payment shall be by the day for each pilot vehicle with driver provided. A day shall be determined as including the time period between the commencement and completion of work on any calendar day. No extra payment shall be provided if the vendor elects to work a longer day than the standard eight-hour workday. Payment shall be made to the nearest quarter day as determined by the engineer or agency authorized individual. The pilot vehicle(s) shall be equipped with construction signs meeting the requirements of Section 6F.58 of the MUTCD and a rotating amber beacon:

SIGN	MINIMUM SIZE	LOCATION
PILOT CAR FOLLOW ME	<u>G20-4</u> 36" X 18"	ON BACK OF PILOT VEHICLES.

The pilot vehicle shall have the name of the Contractor prominently displayed.

12.14.4 Optional Additional Construction Signs

If the engineer or agency authorized individual determines that more permanent construction signs are necessary than those called out under the Optional Work Zone Traffic Control section and the vendor is responsible for work zone traffic control under this Invitation for Bids, the vendor shall provide additional construction signs under the Optional Additional Construction Signs item. Optional Additional Construction Signs shall be as specified in Sections 619-1 through 619-3 of the Standard Specifications and/or in the MUTCD, or as specified by the engineer or agency authorized individual. The price bid per square foot shall include all costs of providing the signs as indicated by the engineer or agency authorized individual, the sign supports, installation and removal at locations ordered by the engineer or agency authorized individual. Payment shall be made by the square foot of construction sign face, computed to the nearest tenth of a square foot

12.14.5 Abrading Existing Pavement Markings with Work Zone Traffic Control by the Owner

If the vendor, with the concurrence of the Resident Engineer or agency authorized individual, determines that it is necessary for the performance of the conventional or rubber modified paver placed surface treatment, the vendor shall abrade the existing pavement markings so that at least 75% of the glass beads in the existing pavement markings are removed. The method of abrading may include sand blasting, water blasting, grinding, or other method approved by the engineer or agency authorized individual. Care shall be taken to avoid damage to passing traffic. All damage to passing traffic caused by the vendor's operations shall be the vendor's responsibility. Traffic will be controlled by the owner.

Payment will be made by the linear foot of pavement marking 4 inches wide. Payment for pavement markings wider than 4 inches or for pavement marking symbols will be made by the following method:

$$\frac{\text{Width of marking (inches)} \times \text{Linear Feet}}{4 \text{ inches}}$$

The price bid for pavement marking abrading shall include all labor, materials, and equipment required to abrade the existing pavement markings to the satisfaction of the engineer or agency authorized individual.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

12.14.6 Abrading Existing Pavement Markings with Work Zone Traffic Control by the Vendor

If the vendor, with the concurrence of the Resident Engineer or agency authorized individual, determines that it is necessary for the performance of the conventional or rubber modified paver placed surface treatment, the vendor shall abrade the existing pavement markings so that at least 75% of the glass beads in the existing pavement markings are removed. The method of abrading may include sand blasting, water blasting, grinding, or other methods approved by the engineer or agency authorized individual. Care shall be taken to avoid damage to passing traffic. All damage to passing traffic caused by the vendor's operations shall be the vendor's responsibility. Traffic will be controlled by the vendor.

The vendor shall place temporary pavement markings as specified elsewhere in this Invitation for Bids under optional work zone traffic control, unless the conventional or rubber modified paver placed surface treatment will be placed the same day as pavement markings are abraded. During the pavement markings abrading operation, traffic will be controlled by the vendor in accordance with the MUTCD. The vendor shall submit a proposed Traffic Control Plan to the engineer or agency authorized individual for approval. The plan may be based on the Work Zone Traffic Control drawings included in this Invitation for Bids as an attachment.

Payment will be made by the linear yard of pavement marking 4 inches wide. Payment for pavement markings wider than 4 inches or for pavement marking symbols will be made by the following method:

$$\frac{\text{Width of marking (inches)} \times \text{Linear Feet}}{4 \text{ inches}}$$

The price bid for pavement marking abrading shall include all labor, materials, and equipment required to abrade the existing pavement markings and to properly control traffic to the satisfaction of the engineer or agency authorized individual.

12.14.7 Special Note: Work Zone Intrusion Initiative

As part of the Department of Transportation's Work Zone Intrusion Initiative, the following countermeasures shall apply to this Invitation for Bids:

Channelizing Device Spacing Reduction

A maximum channelizing device spacing of 40 feet shall be provided at stationary work sites where workers are exposed to traffic. This spacing shall be maintained a reasonable distance upstream of workers, and shall be used throughout the work zone.

Where tapers are located less than 500 feet from the work site (1,000 feet for high speeds) the 40 foot spacing shall be used in the taper as well.

Drums or vertical panels are preferred for long-term and intermediate term stationary work zones, and at any locations where the risk of intrusion is high. Traffic cones are normally adequate for work zones set up and removed on a daily basis.

In long lane or shoulder closures, at least two channelizing devices shall be placed transversely at maximum 800 foot intervals to discourage traffic from driving through the closed lane. **Transversely placed devices are not required where pilot cars are in use.**

Frequent checks shall be made to reset channelizing devices dislodged by traffic.

Flagger Station Enhanced Setups

Additional cones and a flag tree meeting the requirements of Section 6F.62 of the MUTCD shall be used upstream of flagger stations to provide added warning to drivers. These devices shall be used for flagger stations except those that are constantly moving or are in use at one location or no more than a few minutes. If the W20-7a Flagger sign is used, the additional cones and flag tree shall also be used.

For additional details on Flagger Enhanced Setups, see Work Zone Traffic Control drawings included in this Invitation for Bids as an attachment.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

12.15 Detailed Specifications – Paver Placed Surface Treatment (Conventional and Rubber Modified)

12.15.1 Paver Placed Surface Treatment

18403.221102	Paver Placed Surface Treatment Type A, F1
18403.221202	Paver Placed Surface Treatment Type A, F2
18403.221302	Paver Placed Surface Treatment Type A, F3
18403.222102	Paver Placed Surface Treatment Type B, F1
18403.222202	Paver Placed Surface Treatment Type B, F2
18403.222302	Paver Placed Surface Treatment Type B, F3
18403.223102	Paver Placed Surface Treatment Type C, F1
18403.223202	Paver Placed Surface Treatment Type C, F2
18403.223302	Paver Placed Surface Treatment Type C, F3

12.15.1.1 Description

Paver Placed Surface Treatment consists of a polymer modified asphalt emulsion coat followed immediately with a thin hot mix asphalt wearing course.

12.15.1.2 Materials

Mix Designs

Formulate a job mix formula that satisfies the design limits listed in Table 1- Mixture Requirements and submit it to the Regional Materials Engineer for approval. The use of recycled asphalt pavement in these mixes is prohibited

TABLE 1 - MIXTURE REQUIREMENTS⁽¹⁾

Sieve Sizes (in)	Type A		Type B		Type C	
	Design Limits % Passing	Production Tolerance %	Design Limits % Passing	Production Tolerance %	Design Limits % Passing	Production Tolerance %
3/4					100	
1/2			100		85 - 100	± 4
3/8	100		85 - 100	± 4	60 - 90	± 4
1/4	85 - 100	± 4	30 - 55	± 4	30 - 55	± 4
No. 4	40 - 80	± 3	24 - 45	± 3	24 - 45	± 3
No. 8	21 - 45	± 3	21 - 37	± 3	21 - 37	± 3
No. 16	16 - 32	± 3	16 - 26	± 3	16 - 26	± 3
No. 30	12 - 25	± 2	12 - 20	± 2	12 - 20	± 2
No. 50	8 - 16	± 2	8 - 16	± 2	8 - 16	± 2
No.100	5 - 10	± 2	5 - 10	± 2	5 - 10	± 2
No.200	5 - 7	± 2	5 - 7	± 2	5 - 7	± 2
% PG Binder	4.9 - 5.4		4.8 - 5.2		4.8 - 5.2	

⁽¹⁾ All aggregate percentages are based on total mass of aggregate.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

Aggregate

§703-02 except as modified herein. Use coarse aggregate with a minimum coarse-aggregate angularity (CAA) of 90% one fractured face and 85% two fractured faces. The aggregate's flakiness index shall meet the requirements of Materials Method 410.

A. Coarse Aggregate Type F1 Conditions

1. Limestone, dolomite or a blend of the two, having an acid-insoluble residue content of not less than 20.0%.
2. Sandstone, granite, chert, traprock, ore tailings, slag or other similar non-carbonate materials
3. Gravel, or a natural or manufactured blend of the following types of materials: limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag, or other similar materials meeting the following requirements:

Type A Mixes – Noncarbonate plus No. 8 particles must comprise a minimum of 30.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 95.0% of plus No. 4 particles must be noncarbonate.

Type B Mixes – Noncarbonate plus 1/8 inch particles must comprise a minimum of 30.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 95.0% of plus No. 4 particles must be noncarbonate.

Type C Mixes – Noncarbonate plus 1/8 inch particles must comprise a minimum of 30.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 95.0% of plus 3/8 inch particles must be noncarbonate.

B. Coarse Aggregate Type F2 Conditions

1. Limestone, dolomite or a blend of the two, having an acid-insoluble residue content of not less than 20.0%.
2. Sandstone, granite, chert, traprock, ore tailings, slag or other similar non-carbonate materials
3. Gravel, or a natural or manufactured blend of the following types of materials: limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag, or other similar materials meeting the following requirements:

Type A Mixes – Noncarbonate plus No. 8 particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus No. 4 particles must be noncarbonate.

Type B Mixes – Noncarbonate plus 1/8 inch particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus No. 4 particles must be noncarbonate.

Type C Mixes – Noncarbonate plus 1/8 inch particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus 3/8 inch particles must be noncarbonate.

C. Coarse Aggregate Type F3 Conditions

1. Limestone, or a blend of limestone and dolomite having an acid insoluble residue content of not less than 20.0%.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

2. Dolomite
3. Sandstone, granite, chert, traprock, ore tailings, slag or other similar non-carbonate materials
4. Gravel, or a natural or manufactured blend of the following types of materials: limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag, or other similar materials, meeting the following requirements:

Type A Mixes – Noncarbonate plus No. 8 particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus No. 4 particles must be noncarbonate.

Type B Mixes – Noncarbonate plus 1/8 inch particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus No. 4 inch particles must be noncarbonate.

Type C Mixes – Noncarbonate plus 1/8 inch particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus 3/8 inch particles must be noncarbonate

D. Fine Aggregate

Use 100% screenings, free from deleterious materials and manufactured from sources of stone or slag meeting the requirements of §703-02, Coarse Aggregate, having a minimum sand equivalent of 60%, as determined by AASHTO T 176, "Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test."

Mineral Filler

§ 703-08, Mineral Filler.

Asphalt Binder

§401-2.04 Performance-Graded Binder. Use the appropriate performance graded binder for the project's location.

Polymer Modified Asphalt Emulsion

§ 702 - Bituminous Materials, 702-4001P.

Equipment

A. Paving

Use a self-priming paver capable of spraying the polymer modified asphalt emulsion, applying the hot mix asphalt overlay and smoothing the surface of the mat in one pass. The self-priming paver must be equipped with a receiving hopper, feed conveyor, emulsion storage tank, metered high-pressure emulsion spray bar, and a variable width, heated screed. The screed must have the ability to be crowned at the center both positively and negatively and have vertically adjustable extensions to accommodate the desired pavement profile

B. Compaction

Use steel wheeled double drum rollers weighing at least 10 tons, equipped with functioning water systems and scrapers to prevent material from adhering to the roller drums

C. Hauling

Use vehicles that meet § 402-3.03, Hauling Equipment, to transport the hot mix asphalt wearing course.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

12.15.1.3 Construction Details

Hot Mix Production

The requirements of §401-3, Construction Details apply with the following modifications. If a test value for any sieve varies from the target value by more than the production tolerance given in Table 1 - Mixture Requirements, the Regional Materials Engineer will evaluate the material represented by that test to determine acceptability.

A delivery ticket meeting the requirements of §401-4, Method of Measurement shall accompany each vehicle supplying hot mix asphalt.

Surface Preparation

Perform all surface preparation prior to applying the wearing course

1. Thoroughly clean the entire area to be overlaid. The surface of the area to be overlaid must be free of dirt, oil, and other foreign materials. A damp surface is acceptable if favorable weather conditions are expected during paving operations.
2. Cover all manhole covers, water boxes, catch basins, and other such utility structures within the area to be paved with plastic, building felt, or other material approved by the Engineer. Reference each for location and adjustment after paving. Remove the covers each day.
3. Ensure that pavement markings have been abraded in accordance with contract documents.

Application

The requirements of § 402-3.01, Weather and Seasonal Limitations apply

1. Apply the polymer modified asphalt emulsion at a temperature of 140 - 175°F. Provide a uniform application across the entire width to be overlaid, at a rate of 0.15 - 0.25 gallons/square yard. Continuously monitor the spray rates.
2. No equipment shall come in contact with the polymer modified asphalt emulsion before the hot mix asphalt wearing course is applied.
3. Immediately after applying the polymer modified asphalt emulsion, apply the hot mix asphalt overlay across the full width of the emulsion at a temperature of 290 - 325°F
4. . Apply the hot mix asphalt at a rate within the appropriate application range, listed in Table 2 – Wearing Course Application Ranges. The finished treatment has a minimum thickness of 1/2 inch for Type A, and 5/8 inch for Type B and Type C
5. Paver Placed Surface Treatment shall not be applied to freshly placed concrete surfaces. Concrete surfaces must cure for a minimum of 90 days before being overlaid

TABLE 2 - WEARING COURSE APPLICATION RANGES

Type	Minimum (lb/yd ²)	Maximum (lb/yd ²)
A	60	70
B	65	75
C	70	80

Compaction

Begin compaction immediately after application of the wearing course. Use a minimum of two static passes. Avoid using vibratory compaction. The roller(s) will not be allowed to stop on the freshly placed wearing course. Use an adequate number of rollers to complete compaction before the pavement temperature falls below 185°F. Protect the wearing course from traffic until the rolling operation is complete and the material has cooled sufficiently to resist damage

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

Paver and Equipment Cleaning

The requirement of § 402-3.12, Paver and Equipment Cleaning apply.

Coring

The Engineer will require four cores from each section of compacted paver placed surface treatment applied below the appropriate minimum application rate listed in Table 2. The Engineer will randomly locate the four core locations. The Engineer will determine the thickness of the paver placed surface treatment and reject sections not meeting the required minimum thickness.

The Engineer may require four cores from each section of compacted paver placed surface treatment exceeding the appropriate maximum application rate, listed in Table 2, to determine the thickness of the paver placed surface treatment. The Engineer may stop paving operations immediately if the over application of the paver placed surface treatment will create problems, such as, but not limited to, reducing overhead clearance, curb reveal or guiderail height. The Engineer and Contractor will agree upon and document a maximum application rate and maximum thickness to prevent problems created by over applying the paver placed surface treatment. The Engineer will reject any additional paver placed surface treatment sections determined to exceed the maximum agreed upon application rate and thickness.

Coring is not required for sections paved within the appropriate application range, listed in Table 2 - Wearing Course Application Ranges.

All labor, materials and equipment associated with required pavement coring, including maintenance and protection of traffic and filling core holes, will be done at the Contractor's expense.

12.15.1.4 Method of Measurement

Paver Placed Surface Treatment shall be measured by the number of tons of hot mix asphalt placed

12.15.1.5 Basis of Payment

The unit price bid per ton of Paver Placed Surface Treatment shall include the cost of all labor, materials and equipment necessary to perform the work.

Payment will be made under:

Item	Description	Pay Unit
18403.221102	Paver Placed Surface Treatment Type A, F1	Tons
18403.221202	Paver Placed Surface Treatment Type A, F2	Tons
18403.221302	Paver Placed Surface Treatment Type A, F3	Tons
18403.222102	Paver Placed Surface Treatment Type B, F1	Tons
18403.222202	Paver Placed Surface Treatment Type B, F2	Tons
18403.222302	Paver Placed Surface Treatment Type B, F3	Tons
18403.223102	Paver Placed Surface Treatment Type C, F1	Tons
18403.223202	Paver Placed Surface Treatment Type C, F2	Tons
18403.223302	Paver Placed Surface Treatment Type C, F3	Tons

12.15.2 Rubber Modified Paver Placed Surface Treatment

18403.221102R	Rubber Modified Paver Placed Surface Treatment Type A, F1
18403.221202R	Rubber Modified Paver Placed Surface Treatment Type A, F2
18403.221302R	Rubber Modified Paver Placed Surface Treatment Type A, F3
18403.222102R	Rubber Modified Paver Placed Surface Treatment Type B, F1
18403.222202R	Rubber Modified Paver Placed Surface Treatment Type B, F2
18403.222302R	Rubber Modified Paver Placed Surface Treatment Type B, F3
18403.223102R	Rubber Modified Paver Placed Surface Treatment Type C, F1
18403.223202R	Rubber Modified Paver Placed Surface Treatment Type C, F2
18403.223302R	Rubber Modified Paver Placed Surface Treatment Type C, F3

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

12.15.2.1 Description

Rubber Modified Paver Placed Surface Treatment consists of a polymer modified asphalt emulsion coat followed immediately with a rubber modified thin hot mix asphalt wearing course.

12.15.2.2 Materials

Mix Designs

Formulate a job mix formula that satisfies the design limits listed in Table 1- Mixture Requirements and submit it to the Regional Materials Engineer for approval. The use of recycled asphalt pavement in these mixes is prohibited

TABLE 1 - MIXTURE REQUIREMENTS⁽¹⁾

Sieve Sizes (in)	Type A		Type B		Type C	
	Design Limits % Passing	Production Tolerance %	Design Limits % Passing	Production Tolerance %	Design Limits % Passing	Production Tolerance %
3/4					100	
1/2			100		85 - 100	± 4
3/8	100		85 - 100	± 4	60 - 90	± 4
1/4	85 - 100				100	
No. 4	40 - 80		100		85 - 100	± 4
No. 8	21 - 45		85 - 100	± 4	60 - 90	± 4
No. 16	16 - 32	± 4	30 - 55	± 4	30 - 55	± 4
No. 30	12 - 25	± 3	24 - 45	± 3	24 - 45	± 3
No. 50	8 - 16	± 3	21 - 37	± 3	21 - 37	± 3
No.100	5 - 10	± 3	16 - 26	± 3	16 - 26	± 3
No.200	5 - 7	± 2	12 - 20	± 2	12 - 20	± 2
% PG Binder	5.8 – 6.4		5.8 – 6.4		5.8 – 6.4	

⁽¹⁾ All aggregate percentages are based on total mass of aggregate.

Aggregate

§703-02 except as modified herein. Use coarse aggregate with a minimum coarse-aggregate angularity (CAA) of 90% one fractured face and 85% two fractured faces. The aggregate’s flakiness index shall meet the requirements of Materials Method 410.

A. Coarse Aggregate Type F1 Conditions

1. Limestone, dolomite or a blend of the two, having an acid-insoluble residue content of not less than 20.0%.
2. Sandstone, granite, chert, traprock, ore tailings, slag or other similar non-carbonate materials
3. Gravel, or a natural or manufactured blend of the following types of materials: limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag, or other similar materials meeting the following requirements:

Type A Mixes – Noncarbonate plus No. 8 particles must comprise a minimum of 30.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 95.0% of plus No. 4 particles must be noncarbonate.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

Type B Mixes – Noncarbonate plus 1/8 inch particles must comprise a minimum of 30.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 95.0% of plus No. 4 particles must be noncarbonate.

Type C Mixes – Noncarbonate plus 1/8 inch particles must comprise a minimum of 30.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 95.0% of plus 3/8 inch particles must be noncarbonate.

B. Coarse Aggregate Type F2 Conditions

1. Limestone, dolomite or a blend of the two, having an acid-insoluble residue content of not less than 20.0%.
2. Sandstone, granite, chert, traprock, ore tailings, slag or other similar non-carbonate materials
3. Gravel, or a natural or manufactured blend of the following types of materials: limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag, or other similar materials meeting the following requirements:

Type A Mixes - Noncarbonate plus No. 8 particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus No. 4 particles must be noncarbonate.

Type B Mixes – Noncarbonate plus 1/8 inch particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus No. 4 particles must be noncarbonate.

Type C Mixes – Noncarbonate plus 1/8 inch particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus 3/8 inch particles must be noncarbonate

C. Coarse Aggregate Type F3 Conditions

1. Limestone, or a blend of limestone and dolomite having an acid insoluble residue content of not less than 20.0%.Dolomite
2. Dolomite
3. Sandstone, granite, chert, traprock, ore tailings, slag or other similar non-carbonate materials
4. Gravel, or a natural or manufactured blend of the following types of materials: limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag, or other similar materials, meeting the following requirements:

Type A Mixes – Noncarbonate plus No. 8 particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus No. 4 particles must be noncarbonate.

Type B Mixes – Noncarbonate plus 1/8 inch particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus No. 4 inch particles must be noncarbonate.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

Type C Mixes – Noncarbonate plus 1/8 inch particles must comprise a minimum of 10.0% of the total aggregate (by weight with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus 3/8 inch particles must be noncarbonate

D. Fine Aggregate

Use 100% screenings, free from deleterious materials and manufactured from sources of stone or slag meeting the requirements of §703-02, Coarse Aggregate, having a minimum sand equivalent of 60%, as determined by AASHTO T 176, “Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test.”

Mineral Filler

§ 703-08, Mineral Filler.

Asphalt-Rubber Binder (ARB)

The ARB shall consist of performance-graded binder and crumb rubber blended to conform to ASTM D6114, Standard Specification for Asphalt-Rubber Binder, Table 1, Type II with the following addition:

Minimum elastic recovery of 65% at 50°F using ASTM D6084, Elastic Recovery of Bituminous Material by Ductilometer, Procedure A.

1. **Performance-Graded Binder (PGB).** Use the appropriate performance graded binder for the project’s location.
2. **Crumb Rubber.** Use crumb rubber conforming to ASTM D6114, section 3.2, Ground Recycled Tire Rubber, and meeting the gradation requirements given in Table 2 – Crumb Rubber Gradation. The crumb rubber shall be accepted by certification from the rubber supplier.

TABLE 2 – CRUMB RUBBER GRADATION

Sieve Size	% Passing
No. 30	100
No. 40	45-100

3. **Anti-stripping Agent.** Contractor may add an anti-stripping agent that is heat stable into the ARB at the dosage required by the job-mix formula (up to 1.0% by weight of PGB). Add the anti-stripping agent to the PGB prior to blending with the crumb rubber

Polymer Modified Asphalt Emulsion

§ 702 - Bituminous Materials, 702-4001P.

Equipment

D. Paving

Use a self-priming paver capable of spraying the polymer modified asphalt emulsion, applying the hot mix asphalt overlay and smoothing the surface of the mat in one pass. The self-priming paver must be equipped with a receiving hopper, feed conveyor, emulsion storage tank, metered high-pressure emulsion spray bar, and a variable width, heated screed. The screed must have the ability to be crowned at the center both positively and negatively and have vertically adjustable extensions to accommodate the desired pavement profile

E. Compaction

Use steel wheeled double drum rollers weighing at least 10 tons, equipped with functioning water systems and scrapers to prevent material from adhering to the roller drums

F. Hauling

Use vehicles that meet § 402-3.03, Hauling Equipment, to transport the hot mix asphalt wearing course.

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

12.15.2.3 Construction Details

Hot Mix Production

The requirements of §401-3, Construction Details apply with the following modifications. If a test value for any sieve varies from the target value by more than the production tolerance given in Table 1 - Mixture Requirements, the Regional Materials Engineer will evaluate the material represented by that test to determine acceptability.

A delivery ticket meeting the requirements of §401-4, Method of Measurement shall accompany each vehicle supplying hot mix asphalt.

Surface Preparation

Perform all surface preparation prior to applying the wearing course

1. Thoroughly clean the entire area to be overlaid. The surface of the area to be overlaid must be free of dirt, oil, and other foreign materials. A damp surface is acceptable if favorable weather conditions are expected during paving operations.
2. Cover all manhole covers, water boxes, catch basins, and other such utility structures within the area to be paved with plastic, building felt, or other material approved by the Engineer. Reference each for location and adjustment after paving. Remove the covers each day.
3. Ensure that pavement markings have been abraded in accordance with contract documents.

Application

The requirements of § 402-3.01, Weather and Seasonal Limitations apply

1. Apply the polymer modified asphalt emulsion at a temperature of 140 - 175°F. Provide a uniform application across the entire width to be overlaid, at a rate of 0.15 - 0.25 gallons/square yard. Continuously monitor the spray rate.
2. No equipment shall come in contact with the polymer modified asphalt emulsion before the hot mix asphalt wearing course is applied.
3. Immediately after applying the polymer modified asphalt emulsion, apply the hot mix asphalt overlay across the full width of the emulsion at a temperature of 290 - 325°F
4. . Apply the hot mix asphalt at a rate within the appropriate application range, listed in Table 3 – Wearing Course Application Ranges. The finished treatment has a minimum thickness of 1/2 inch for Type A, and 5/8 inch for Type B and Type C
5. Rubber Modified Paver Placed Surface Treatment shall not be applied to freshly placed concrete surfaces. Concrete surfaces must cure for a minimum of 90 days before being overlaid

TABLE 3 - WEARING COURSE APPLICATION RANGES

Type	Minimum (lb/yd ²)	Maximum (lb/yd ²)
A	60	70
B	65	75
C	70	80

SECTION 12: GROUP – PAVER PLACED SURFACE TREATMENT (Cont'd)

Compaction

Begin compaction immediately after application of the wearing course. Use a minimum of two static passes. Avoid using vibratory compaction. The roller(s) will not be allowed to stop on the freshly placed wearing course. Use an adequate number of rollers to complete compaction before the pavement temperature falls below 185°F. Protect the wearing course from traffic until the rolling operation is complete and the material has cooled sufficiently to resist damage

Paver and Equipment Cleaning

The requirement of § 402-3.12, Paver and Equipment Cleaning apply.

Coring

The Engineer will require four cores from each section of compacted paver placed surface treatment applied below the appropriate minimum application rate listed in Table 3. The Engineer will randomly locate the four core locations. The Engineer will determine the thickness of the paver placed surface treatment and reject sections not meeting the required minimum thickness.

The Engineer may require four cores from each section of compacted paver placed surface treatment exceeding the appropriate maximum application rate, listed in Table 3, to determine the thickness of the paver placed surface treatment. The Engineer may stop paving operations immediately if the over application of the paver placed surface treatment will create problems, such as, but not limited to, reducing overhead clearance, curb reveal or guiderail height. The Engineer and Contractor will agree upon and document a maximum application rate and maximum thickness to prevent problems created by over applying the paver placed surface treatment. The Engineer will reject any additional paver placed surface treatment sections determined to exceed the maximum agreed upon application rate and thickness.

Coring is not required for sections paved within the appropriate application range, listed in Table 3 - Wearing Course Application Ranges.

All labor, materials and equipment associated with required pavement coring, including maintenance and protection of traffic and filling core holes, will be done at the Contractor's expense.

12.15.2.4 Method of Measurement

Rubber Modified Paver Placed Surface Treatment shall be measured by the number of tons of rubber modified hot mix asphalt placed.

12.15.2.5 Basis of Payment

The unit price bid per ton of Rubber Modified Paver Placed Surface Treatment shall include the cost of all labor, materials and equipment necessary to perform the work. All necessary pavement repairs, joint sealing, crack filling, pavement markings removal, milling of rebates and utility grade adjustments will be paid for under their appropriate items.

Payment will be made under:

Item	Description	Pay Unit
18403.221102R	Paver Placed Surface Treatment Type A, F1	Tons
18403.221202R	Rubber Modified Paver Placed Surface Treatment Type A, F2	Tons
18403.221302R	Rubber Modified Paver Placed Surface Treatment Type A, F3	Tons
18403.222102R	Rubber Modified Paver Placed Surface Treatment Type B, F1	Tons
18403.222202R	Rubber Modified Paver Placed Surface Treatment Type B, F2	Tons
18403.222302R	Rubber Modified Paver Placed Surface Treatment Type B, F3	Tons
18403.223102R	Rubber Modified Paver Placed Surface Treatment Type C, F1	Tons
18403.223202R	Rubber Modified Paver Placed Surface Treatment Type C, F2	Tons
18403.223302R	Rubber Modified Paver Placed Surface Treatment Type C, F3	Tons

APPENDIX A

STANDARD CLAUSES FOR NEW YORK STATE CONTRACTS

**PLEASE RETAIN THIS DOCUMENT
FOR FUTURE REFERENCE.**

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STANDARD CLAUSES FOR NYS CONTRACTS

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter, "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract (the word "Contractor" herein refers to any party other than the State, whether a contractor, licenser, licensee, lessor, lessee or any other party):

1. EXECUTORY CLAUSE. In accordance with Section 41 of the State Finance Law, the State shall have no liability under this contract to the Contractor or to anyone else beyond funds appropriated and available for this contract.

2. NON-ASSIGNMENT CLAUSE. In accordance with Section 138 of the State Finance Law, this contract may not be assigned by the Contractor or its right, title or interest therein assigned, transferred, conveyed, sublet or otherwise disposed of without the State's previous written consent, and attempts to do so are null and void. Notwithstanding the foregoing, such prior written consent of an assignment of a contract let pursuant to Article XI of the State Finance Law may be waived at the discretion of the contracting agency and with the concurrence of the State Comptroller where the original contract was subject to the State Comptroller's approval, where the assignment is due to a reorganization, merger or consolidation of the Contractor's business entity or enterprise. The State retains its right to approve an assignment and to require that any Contractor demonstrate its responsibility to do business with the State. The Contractor may, however, assign its right to receive payments without the State's prior written consent unless this contract concerns Certificates of Participation pursuant to Article 5-A of the State Finance Law.

3. COMPTROLLER'S APPROVAL. In accordance with Section 112 of the State Finance Law (or, if this contract is with the State University or City University of New York, Section 355 or Section 6218 of the Education Law), if this contract exceeds \$50,000 (or the minimum thresholds agreed to by the Office of the State Comptroller for certain S.U.N.Y. and C.U.N.Y. contracts), or if this is an amendment for any amount to a contract which, as so amended, exceeds said statutory amount, or if, by this contract, the State agrees to give something other than money when the value or reasonably estimated value of such consideration exceeds \$10,000, it shall not be valid, effective or binding upon the State until it has been approved by the State Comptroller and filed in his office. Comptroller's approval of contracts let by the Office of General Services is required when such contracts exceed \$85,000 (State Finance Law Section 163.6-a). However, such pre-approval shall not be required for any contract established as a centralized contract through the Office of General Services or for a purchase order or other transaction issued under such centralized contract.

4. WORKERS' COMPENSATION BENEFITS. In accordance with Section 142 of the State Finance Law, this

contract shall be void and of no force and effect unless the Contractor shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the provisions of the Workers' Compensation Law.

5. NON-DISCRIMINATION REQUIREMENTS. To the extent required by Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, national origin, sexual orientation, age, disability, genetic predisposition or carrier status, or marital status. Furthermore, in accordance with Section 220-e of the Labor Law, if this is a contract for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this contract shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex, or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. If this is a building service contract as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. Contractor is subject to fines of \$50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this contract and forfeiture of all moneys due hereunder for a second or subsequent violation.

6. WAGE AND HOURS PROVISIONS. If this is a public work contract covered by Article 8 of the Labor Law or a building service contract covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law. Additionally, effective April 28, 2008, if this is a public work contract covered by Article 8 of the Labor Law, the Contractor understands and agrees that the filing of payrolls in a manner consistent with Subdivision 3-a of Section 220 of the Labor Law shall be a condition precedent to payment by the State of

any State approved sums due and owing for work done upon the project.

7. NON-COLLUSIVE BIDDING CERTIFICATION. In accordance with Section 139-d of the State Finance Law, if this contract was awarded based upon the submission of bids, Contractor affirms, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further affirms that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to the State a non-collusive bidding certification on Contractor's behalf.

8. INTERNATIONAL BOYCOTT PROHIBITION. In accordance with Section 220-f of the Labor Law and Section 139-h of the State Finance Law, if this contract exceeds \$5,000, the Contractor agrees, as a material condition of the contract, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the contract's execution, such contract, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify the State Comptroller within five (5) business days of such conviction, determination or disposition of appeal (2NYCRR 105.4).

9. SET-OFF RIGHTS. The State shall have all of its common law, equitable and statutory rights of set-off. These rights shall include, but not be limited to, the State's option to withhold for the purposes of set-off any moneys due to the Contractor under this contract up to any amounts due and owing to the State with regard to this contract, any other contract with any State department or agency, including any contract for a term commencing prior to the term of this contract, plus any amounts due and owing to the State for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. The State shall exercise its set-off rights in accordance with normal State practices including, in cases of set-off pursuant to an audit, the finalization of such audit by the State agency, its representatives, or the State Comptroller.

10. RECORDS. The Contractor shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance under this contract (hereinafter, collectively, "the Records"). The Records must be kept for the balance of the calendar year in which they were made and for six (6) additional years thereafter. The State Comptroller, the Attorney General and any other person or entity authorized to conduct an examination, as well as the agency or agencies involved in this

December, 2012

contract, shall have access to the Records during normal business hours at an office of the Contractor within the State of New York or, if no such office is available, at a mutually agreeable and reasonable venue within the State, for the term specified above for the purposes of inspection, auditing and copying. The State shall take reasonable steps to protect from public disclosure any of the Records which are exempt from disclosure under Section 87 of the Public Officers Law (the "Statute") provided that: (i) the Contractor shall timely inform an appropriate State official, in writing, that said records should not be disclosed; and (ii) said records shall be sufficiently identified; and (iii) designation of said records as exempt under the Statute is reasonable. Nothing contained herein shall diminish, or in any way adversely affect, the State's right to discovery in any pending or future litigation.

11. IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION.

(a) Identification Number(s). Every invoice or New York State Claim for Payment submitted to a New York State agency by a payee, for payment for the sale of goods or services or for transactions (e.g., leases, easements, licenses, etc.) related to real or personal property must include the payee's identification number. The number is any or all of the following: (i) the payee's Federal employer identification number, (ii) the payee's Federal social security number, and/or (iii) the payee's Vendor Identification Number assigned by the Statewide Financial System. Failure to include such number or numbers may delay payment. Where the payee does not have such number or numbers, the payee, on its invoice or Claim for Payment, must give the reason or reasons why the payee does not have such number or numbers.

(b) Privacy Notification. (1) The authority to request the above personal information from a seller of goods or services or a lessor of real or personal property, and the authority to maintain such information, is found in Section 5 of the State Tax Law. Disclosure of this information by the seller or lessor to the State is mandatory. The principal purpose for which the information is collected is to enable the State to identify individuals, businesses and others who have been delinquent in filing tax returns or may have understated their tax liabilities and to generally identify persons affected by the taxes administered by the Commissioner of Taxation and Finance. The information will be used for tax administration purposes and for any other purpose authorized by law. (2) The personal information is requested by the purchasing unit of the agency contracting to purchase the goods or services or lease the real or personal property covered by this contract or lease. The information is maintained in the Statewide Financial System by the Vendor Management Unit within the Bureau of State Expenditures, Office of the State Comptroller, 110 State Street, Albany, New York 12236.

12. EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN.

In accordance with Section 312 of the Executive Law and 5 NYCRR 143, if this contract is: (i) a written agreement or purchase order instrument, providing for a total expenditure in excess of \$25,000.00,

whereby a contracting agency is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the contracting agency; or (ii) a written agreement in excess of \$100,000.00 whereby a contracting agency is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon; or (iii) a written agreement in excess of \$100,000.00 whereby the owner of a State assisted housing project is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon for such project, then the following shall apply and by signing this agreement the Contractor certifies and affirms that it is Contractor's equal employment opportunity policy that:

(a) The Contractor will not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability or marital status, shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force on State contracts and will undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal employment opportunities without discrimination. Affirmative action shall mean recruitment, employment, job assignment, promotion, upgradings, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation;

(b) at the request of the contracting agency, the Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of the Contractor's obligations herein; and

(c) the Contractor shall state, in all solicitations or advertisements for employees, that, in the performance of the State contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

Contractor will include the provisions of "a", "b", and "c" above, in every subcontract over \$25,000.00 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon (the "Work") except where the Work is for the beneficial use of the Contractor. Section 312 does not apply to: (i) work, goods or services unrelated to this contract; or (ii) employment outside New York State. The State shall consider compliance by a contractor or subcontractor with the requirements of any federal law concerning equal employment

opportunity which effectuates the purpose of this section. The contracting agency shall determine whether the imposition of the requirements of the provisions hereof duplicate or conflict with any such federal law and if such duplication or conflict exists, the contracting agency shall waive the applicability of Section 312 to the extent of such duplication or conflict. Contractor will comply with all duly promulgated and lawful rules and regulations of the Department of Economic Development's Division of Minority and Women's Business Development pertaining hereto.

13. CONFLICTING TERMS. In the event of a conflict between the terms of the contract (including any and all attachments thereto and amendments thereof) and the terms of this Appendix A, the terms of this Appendix A shall control.

14. GOVERNING LAW. This contract shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

15. LATE PAYMENT. Timeliness of payment and any interest to be paid to Contractor for late payment shall be governed by Article 11-A of the State Finance Law to the extent required by law.

16. NO ARBITRATION. Disputes involving this contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized), but must, instead, be heard in a court of competent jurisdiction of the State of New York.

17. SERVICE OF PROCESS. In addition to the methods of service allowed by the State Civil Practice Law & Rules ("CPLR"), Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon Contractor's actual receipt of process or upon the State's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Contractor must promptly notify the State, in writing, of each and every change of address to which service of process can be made. Service by the State to the last known address shall be sufficient. Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

18. PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS. The Contractor certifies and warrants that all wood products to be used under this contract award will be in accordance with, but not limited to, the specifications and provisions of Section 165 of the State Finance Law, (Use of Tropical Hardwoods) which prohibits purchase and use of tropical hardwoods, unless specifically exempted, by the State or any governmental agency or political subdivision or public benefit corporation. Qualification for an exemption under this law will be the responsibility of the contractor to establish to meet with the approval of the State.

In addition, when any portion of this contract involving the use of woods, whether supply or installation, is to be performed by any subcontractor, the prime Contractor will indicate and certify in the submitted bid proposal that the subcontractor has been informed and is in compliance with specifications and provisions regarding use of tropical hardwoods as detailed in §165 State Finance Law. Any such use must meet with the approval of the State; otherwise, the bid may not be considered responsive. Under bidder certifications, proof of qualification for exemption will be the responsibility of the Contractor to meet with the approval of the State.

19. MACBRIDE FAIR EMPLOYMENT PRINCIPLES.

In accordance with the MacBride Fair Employment Principles (Chapter 807 of the Laws of 1992), the Contractor hereby stipulates that the Contractor either (a) has no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations in Northern Ireland in accordance with the MacBride Fair Employment Principles (as described in Section 165 of the New York State Finance Law), and shall permit independent monitoring of compliance with such principles.

20. OMNIBUS PROCUREMENT ACT OF 1992. It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority and women-owned business enterprises as bidders, subcontractors and suppliers on its procurement contracts.

Information on the availability of New York State subcontractors and suppliers is available from:

NYS Department of Economic Development
Division for Small Business
Albany, New York 12245
Telephone: 518-292-5100
Fax: 518-292-5884
email: opa@esd.ny.gov

A directory of certified minority and women-owned business enterprises is available from:

NYS Department of Economic Development
Division of Minority and Women's Business Development
633 Third Avenue
New York, NY 10017
212-803-2414
email: mwbecertification@esd.ny.gov
<http://esd.ny.gov/MWBE/directorySearch.html>

The Omnibus Procurement Act of 1992 requires that by signing this bid proposal or contract, as applicable, Contractors certify that whenever the total bid amount is greater than \$1 million:

(a) The Contractor has made reasonable efforts to encourage the participation of New York State Business Enterprises as suppliers and subcontractors, including certified minority and women-owned business enterprises, on this project, and has retained the documentation of these efforts to be provided upon request to the State;

(b) The Contractor has complied with the Federal Equal Opportunity Act of 1972 (P.L. 92-261), as amended;

(c) The Contractor agrees to make reasonable efforts to provide notification to New York State residents of employment opportunities on this project through listing any such positions with the Job Service Division of the New York State Department of Labor, or providing such notification in such manner as is consistent with existing collective bargaining contracts or agreements. The Contractor agrees to document these efforts and to provide said documentation to the State upon request; and

(d) The Contractor acknowledges notice that the State may seek to obtain offset credits from foreign countries as a result of this contract and agrees to cooperate with the State in these efforts.

21. RECIPROCITY AND SANCTIONS PROVISIONS.

Bidders are hereby notified that if their principal place of business is located in a country, nation, province, state or political subdivision that penalizes New York State vendors, and if the goods or services they offer will be substantially produced or performed outside New York State, the Omnibus Procurement Act 1994 and 2000 amendments (Chapter 684 and Chapter 383, respectively) require that they be denied contracts which they would otherwise obtain. NOTE: As of May 15, 2002, the list of discriminatory jurisdictions subject to this provision includes the states of South Carolina, Alaska, West Virginia, Wyoming, Louisiana and Hawaii. Contact NYS Department of Economic Development for a current list of jurisdictions subject to this provision.

22. COMPLIANCE WITH NEW YORK STATE INFORMATION SECURITY BREACH AND NOTIFICATION ACT. Contractor shall comply with the provisions of the New York State Information Security Breach and Notification Act (General Business Law Section 899-aa; State Technology Law Section 208).

23. COMPLIANCE WITH CONSULTANT DISCLOSURE LAW. If this is a contract for consulting services, defined for purposes of this requirement to include analysis, evaluation, research, training, data processing, computer programming, engineering, environmental, health, and mental health services, accounting, auditing, paralegal, legal or similar services, then, in accordance with Section 163 (4-g) of the State Finance Law (as amended by Chapter 10 of the Laws of 2006), the Contractor shall timely, accurately and properly comply with the requirement to submit an annual employment report for the contract to the agency that awarded

the contract, the Department of Civil Service and the State Comptroller.

24. PROCUREMENT LOBBYING. To the extent this agreement is a "procurement contract" as defined by State Finance Law Sections 139-j and 139-k, by signing this agreement the contractor certifies and affirms that all disclosures made in accordance with State Finance Law Sections 139-j and 139-k are complete, true and accurate. In the event such certification is found to be intentionally false or intentionally incomplete, the State may terminate the agreement by providing written notification to the Contractor in accordance with the terms of the agreement.

25. CERTIFICATION OF REGISTRATION TO COLLECT SALES AND COMPENSATING USE TAX BY CERTAIN STATE CONTRACTORS, AFFILIATES AND SUBCONTRACTORS.

To the extent this agreement is a contract as defined by Tax Law Section 5-a, if the contractor fails to make the certification required by Tax Law Section 5-a or if during the term of the contract, the Department of Taxation and Finance or the covered agency, as defined by Tax Law 5-a, discovers that the certification, made under penalty of perjury, is false, then such failure to file or false certification shall be a material breach of this contract and this contract may be terminated, by providing written notification to the Contractor in accordance with the terms of the agreement, if the covered agency determines that such action is in the best interest of the State.

APPENDIX B
GENERAL SPECIFICATIONS

PLEASE RETAIN THIS DOCUMENT FOR FUTURE REFERENCE

GENERAL

1. **APPLICABILITY** The terms and conditions set forth in this Appendix B are expressly incorporated in and applicable to the resulting procurement contracts let by the Office of General Services Procurement Services Group, or let by any other Authorized User where incorporated by reference in its Bid Documents. Captions are intended as descriptive and are not intended to limit or otherwise restrict the terms and conditions set forth herein.

2. **GOVERNING LAW** This procurement, the resulting contract and any purchase orders issued hereunder shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise, and actions or proceedings arising from the contract shall be heard in a court of competent jurisdiction in the State of New York.

3. **ETHICS COMPLIANCE** All Bidders/Contractors and their employees must comply with the requirements of Sections 73 and 74 of the Public Officers Law, other State codes, rules, regulations and executive orders establishing ethical standards for the conduct of business with New York State. In signing the Bid, Bidder certifies full compliance with those provisions for any present or future dealings, transactions, sales, contracts, services, offers, relationships, etc., involving New York State and/or its employees. Failure to comply with those provisions may result in disqualification from the Bidding process, termination of contract, and/or other civil or criminal proceedings as required by law.

4. **CONFLICT OF TERMS** Unless otherwise set forth in the procurement or contract documents, conflicts among documents shall be resolved in the following order of precedence:

- a. **Appendix A** (Standard Clauses for NYS Contracts)
- b. **Mini-Bid Project Definition** if applicable and in accordance with the terms and conditions of the Back-Drop Contract.
- c. **Contract and other writing(s)** setting forth the final agreements, clarifications and terms between the Bid Documents and Contractor's Bid. In the latter circumstance, clarifications must specifically note in writing what was offered by the Contractor and what was accepted by the State. If not, such clarifications shall be considered last in the order of precedence under this paragraph.
- d. **Bid Documents** (Other than Appendix A).
 - i. Bid Specifications prepared by the Authorized User.
 - ii. Appendix B (General Specifications).
 - iii. Incorporated Contract Appendices, if any, following the order of precedence as stated for Contract above.
- e. **Contractor's Bid or Mini-Bid Proposal.**
- f. **Unincorporated Appendices** (if any).

5. **DEFINITIONS** Terms used in this Appendix B shall have the following meanings:

AFFILIATE Any individual or other legal entity, (including but not limited to sole proprietor, partnership, limited liability company, firm or corporation) that effectively controls another company in which (a) the Bidder owns more than 50% of the ownership; or (b) any individual or other legal entity which owns more than 50% of the ownership of the Bidder. In addition, if a Bidder owns less than 50% of the ownership of another legal entity, but directs or has the right to direct such entity's daily operations, that entity will be an Affiliate.

AGENCY OR AGENCIES The State of New York, acting by or through one or more departments, boards, commissions, offices or institutions of the State of New York.

ATTORNEY GENERAL Attorney General of the State of New York.

AUTHORIZED USER(S) Agencies, or any other entity authorized by the laws of the State of New York to participate in NYS centralized contracts (including but not limited to political subdivisions, public authorities, public benefit corporations and certain other entities set forth in law), or the State of New York acting on behalf of one or more such Agencies or other entities, provided that each such Agency or other entity shall be held solely responsible for liabilities or payments due as a result of its participation.

BID OR BID PROPOSAL An offer or proposal submitted by a Bidder to furnish a described product or a solution, perform services or means of achieving a practical end, at a stated price for the stated Contract term. As required by the Bid Documents, the Bid or proposal may be subject to modification through the solicitation by the Agency of best and final offers during the evaluation process prior to recommendation for award of the Contract.

BIDDER/OFFERER Any individual or other legal entity (including but not limited to sole proprietor, partnership, limited liability company, firm or corporation) which submits a Bid in response to a Bid Solicitation. The term Bidder shall also include the term "offeror." In the case of negotiated Contracts, "Bidder" shall refer to the "Contractor."

BID DOCUMENTS Writings by the State setting forth the scope, terms, conditions and technical specifications for a procurement of Product. Such writings typically include, but are not limited to: Invitation for Bids (IFB), Request for Quotation (RFQ), Request for Proposals (RFP), addenda or amendments thereto, and terms and conditions which are incorporated by reference, including but not limited to, Appendix A (Standard Clauses for NYS Contracts), Appendix B, (General Specifications). Where these General Specifications are incorporated in negotiated Contracts that have not been competitively Bid, the term "Bid Documents" shall be deemed to refer to the terms and conditions set forth in the negotiated Contract and associated documentation.

BID SPECIFICATION A written description drafted by the Authorized User setting forth the specific terms of the intended procurement, which may include: physical or functional characteristics, the nature of a commodity or construction item, any description of the work to be performed, Products to be provided, the necessary qualifications of the Bidder, the capacity and capability of the Bidder to successfully carry out the proposed Contract, or the process for achieving specific results and/or anticipated outcomes or any other requirement necessary to perform work. Where these General Specifications are incorporated in negotiated Contracts that have not been competitively Bid, the term "Bid Specifications" shall be deemed to refer to the terms and conditions set forth in the negotiated Contract and associated documentation.

COMMISSIONER Commissioner of OGS, or in the case of Bid Specifications issued by an Authorized User, the head of such Authorized User or their authorized representative.

COMPTROLLER Comptroller of the State of New York.

CONTRACT The writing(s) which contain the agreement of the Commissioner and the Bidder/Contractor setting forth the total legal obligation between the parties as determined by applicable rules of law, and which most typically include the following classifications of public procurements:

a. Agency Specific Contracts Contracts where the specifications for a Product or a particular scope of work are described and defined to meet the needs of one or more Authorized User(s).

b. Centralized Contracts Single or multiple award Contracts where the specifications for a Product or general scope of work are described and defined by the Office of General Services to meet the needs of Authorized Users. Centralized Contracts may be awarded through multiple awards or through adoption of another jurisdiction's contract or on a sole source, single source, emergency or competitive basis. Once established, procurements may be made from the selected Contractor(s) without further competition or Mini-Bid unless otherwise required by the Bid Specifications or Contract Award Notification.

c. Back-Drop Contracts Multiple award Centralized Contracts where the Office of General Services defines the specifications for a Product or general scope of work to meet the needs of Authorized Users. Bids may be submitted either at a date and time certain or may be accepted on a continuous or periodic recruitment basis, as set forth in the Bid Specifications. Selection of a Contractor(s) from among Back-Drop contract holders for an actual Product, project or particular scope of work may subsequently be made on a single or sole source basis, or on the basis of a Mini-Bid among qualified Back-Drop contract holders, or such other method as set forth in the Bid Document.

d. Piggyback Contract A Contract let by any department, agency or instrumentality of the United States government, or any department, agency, office, political subdivision or instrumentality of any state or state(s) which is adopted and extended for use by the OGS Commissioner in accordance with the requirements of the State Finance Law.

e. Contract Letter A letter to the successful Bidder(s) indicating acceptance of its Bid in response to a solicitation. Unless otherwise specified, the issuance of a Letter of Acceptance forms a Contract but is not an order for Product, and Contractor should not take any action with respect to actual Contract deliveries except on the basis of Purchase Orders sent from Authorized User(s).

CONTRACT AWARD NOTIFICATION An announcement to Authorized Users that a Contract has been established.

CONTRACTOR Any successful Bidder(s) to whom a Contract has been awarded by the Commissioner.

DOCUMENTATION The complete set of manuals (e.g., user, installation, instruction or diagnostic manuals) in either hard or electronic copy, which are necessary to enable an Authorized User to properly test, install, operate and enjoy full use of the Product.

EMERGENCY An urgent and unexpected requirement where health and public safety or the conservation of public resources is at risk.

ENTERPRISE The total business operations in the United States of Authorized User (s) without regard to geographic location where such operations are performed or the entity actually performing such operations on behalf of Authorized User.

ENTERPRISE LICENSE A license grant of unlimited rights to deploy, access, use and execute Product anywhere within the Enterprise up to the maximum capacity stated on the Purchase Order or in the Contract.

ERROR CORRECTIONS Machine executable software code furnished by Contractor which corrects the Product so as to conform to the applicable warranties, performance standards and/or obligations of the Contractor.

GROUP A classification of Product, services or technology which is designated by OGS.

INVITATION FOR BIDS (IFB) A type of Bid Document which is most typically used where requirements can be stated and award will be made based on lowest price to the responsive and responsible Bidder(s).

LICENSED SOFTWARE Software transferred upon the terms and conditions set forth in the Contract. "Licensed Software" includes error corrections, upgrades, enhancements or new releases, and any deliverables due under a maintenance or service contract (e.g., patches, fixes, PTFs, programs, code or data conversion, or custom programming).

LICENSEE One or more Authorized Users who acquire Product from Contractor by issuing a Purchase Order in accordance with the terms and conditions of the Contract; provided that, for purposes of compliance with an individual license, the term "Licensee" shall be deemed to refer separately to the individual Authorized User(s) who took receipt of and who is executing the Product, and who shall be solely responsible for performance and liabilities incurred. In the case of acquisitions by State Agencies, the Licensee shall be the State of New York.

LICENSE EFFECTIVE DATE The date Product is delivered to an Authorized User. Where a License involves Licensee's right to copy a previously licensed and delivered Master Copy of a Program, the license effective date for additional copies shall be deemed to be the date on which the Purchase Order is executed.

LICENSOR A Contractor who transfers rights in proprietary Product to Authorized Users in accordance with the rights and obligations specified in the Contract.

MINI-BID PROJECT DEFINITION A Bid Document containing project specific Bid Specifications developed by or for an Authorized User which solicits Bids from Contractors previously qualified under a Back-Drop Contract.

MULTIPLE AWARD A determination and award of a Contract in the discretion of the Commissioner to more than one responsive and responsible Bidder who meets the requirements of a specification, where the multiple award is made on the grounds set forth in the Bid Document in order to satisfy multiple factors and needs of Authorized Users (e.g., complexity of items, various manufacturers, differences in performance required to accomplish or produce required end results, production and distribution facilities, price, compliance with delivery requirements, geographic location or other pertinent factors).

NEW PRODUCT RELEASES (Product Revisions) Any commercially released revisions to the licensed version of a Product as may be generally offered and available to Authorized Users. New releases involve a substantial revision of functionality from a previously released version of the Product.

OGS The New York State Office of General Services.

PROCUREMENT RECORD Documentation by the Authorized User of the decisions made and approach taken during the procurement process and during the contract term.

PRODUCT A deliverable under any Bid or Contract which may include commodities, services and/or technology. The term "Product" includes Licensed Software.

PROPRIETARY Protected by secrecy, patent, copyright or trademark against commercial competition.

PURCHASE ORDER The Authorized User's fiscal form or format that is used when making a purchase (e.g., formal written Purchase Order, Procurement Card, electronic Purchase Order, or other authorized instrument).

REQUEST FOR PROPOSALS (RFP) A type of Bid Document that is used for procurements where factors in addition to cost are considered and weighted in awarding the contract and where the method of award is "best value," as defined by the State Finance Law.

REQUEST FOR QUOTATION (RFQ) A type of Bid Document that can be used when a formal Bid opening is not required (e.g., discretionary, sole source, single source or emergency purchases).

RESPONSIBLE BIDDER A Bidder that is determined to have financial and organizational capacity, legal authority, satisfactory previous performance, skill, judgment and integrity, and that is found to be competent, reliable and experienced, as determined by the Commissioner. For purposes of being deemed responsible, a Bidder must also be determined to be in compliance with Sections 139-j and 139-k of the State Finance Law relative to restrictions on contacts during the procurement process and disclosure of contacts and prior findings of non-responsibility under these statutes.

RESPONSIVE BIDDER A Bidder meeting the specifications or requirements prescribed in the Bid Document or solicitation, as determined by the OGS Commissioner.

SINGLE SOURCE A procurement where two or more Bidders can supply the required Product, and the Commissioner may award the contract to one Bidder over the other.

SITE The location (street address) where Product will be executed or services delivered.

SOLE SOURCE A procurement where only one Bidder is capable of supplying the required Product.

SOURCE CODE The programming statements or instructions written and expressed in any language understandable by a human being skilled in the art which are translated by a language compiler to produce executable machine Object Code.

STATE State of New York.

SUBCONTRACTOR Any individual or other legal entity, (including but not limited to sole proprietor, partnership, limited liability company, firm or corporation) who has entered into a contract, express or implied, for the performance of a portion of a Contract with a Contractor.

TERMS OF LICENSE The terms and conditions set forth in the Contract that are in effect and applicable to a Purchase Order at the time of order placement.

VIRUS Any computer code, whether or not written or conceived by Contractor, that disrupts, disables, harms, or otherwise impedes in any manner the operation of the Product, or any other associated software,

firmware, hardware, or computer system (such as local area or wide-area networks), including aesthetic disruptions or distortions, but does not include security keys or other such devices installed by Product manufacturer.

BID SUBMISSION

6. INTERNATIONAL BIDDING All offers (tenders), and all information and Product required by the solicitation or provided as explanation thereof, shall be submitted in English. All prices shall be expressed, and all payments shall be made, in United States Dollars (\$US). Any offers (tenders) submitted which do not meet the above criteria will be rejected.

7. BID OPENING Bids may, as applicable, be opened publicly. The Commissioner reserves the right at any time to postpone or cancel a scheduled Bid opening.

8. BID SUBMISSION All Bids are to be packaged, sealed and submitted to the location stated in the Bid Specifications. Bidders are solely responsible for timely delivery of their Bids to the location set forth in the Bid Specifications prior to the stated Bid opening date/time.

A Bid return envelope, if provided with the Bid Specifications, should be used with the Bid sealed inside. If the Bid response does not fit into the envelope, the Bid envelope should be attached to the outside of the sealed box or package with the Bid inside. If using a commercial delivery company that requires use of their shipping package or envelope, Bidder's sealed Bid, labeled as detailed below, should be placed within the shipper's sealed envelope to ensure that the Bid is not prematurely opened.

All Bids must have a label on the outside of the package or shipping container outlining the following information:

"BID ENCLOSED (bold print, all capitals)

- Group Number
- IFB or RFP Number
- Bid Submission date and time"

In the event that a Bidder fails to provide such information on the return Bid envelope or shipping material, the receiving entity reserves the right to open the shipping package or envelope to determine the proper Bid number or Product group, and the date and time of Bid opening. Bidder shall have no claim against the receiving entity arising from such opening and such opening shall not affect the validity of the Bid or the procurement.

Notwithstanding the receiving agency's right to open a Bid to ascertain the foregoing information, Bidder assumes all risk of late delivery associated with the Bid not being identified, packaged or labeled in accordance with the foregoing requirements.

All Bids must be signed by a person authorized to commit the Bidder to the terms of the Bid Documents and the content of the Bid (offer).

9. FACSIMILE SUBMISSIONS Unless specifically prohibited by the terms of the Bid Specifications, facsimile Bids may be SUBMITTED AT THE SOLE OPTION AND RISK OF THE BIDDER. Only the FAX number(s) indicated in the Bid Specifications may be used. Access to the facsimile machine(s) is on a "first come, first serve" basis, and the Commissioner bears no liability or responsibility and makes no guarantee whatsoever with respect to the Bidder's access to such equipment at any specific time. Bidders

are solely responsible for submission and receipt of the entire facsimile Bid by the Authorized User prior to Bid opening and must include on the first page of the transmission the total number of pages transmitted in the facsimile, including the cover page. Incomplete, ambiguous or unreadable transmissions in whole or in part may be rejected at the sole discretion of the Commissioner. Facsimile Bids are fully governed by all conditions outlined in the Bid Documents and must be submitted on forms or in the format required in the Bid Specifications, including the executed signature page and acknowledgment.

10. AUTHENTICATION OF FACSIMILE BIDS The act of submitting a Bid by facsimile transmission, including an executed signature page or as otherwise specified in the Bid Documents, shall be deemed a confirming act by Bidder which authenticates the signing of the Bid.

11. LATE BIDS For purposes of Bid openings held and conducted by OGS, a Bid must be received in such place as may be designated in the Bid Documents or if no place is specified in the OGS Mailroom located in the Empire State Plaza, Albany, New York 12242, at or before the date and time established in the Bid Specifications for the Bid opening. For purposes of Bid openings held and conducted by Authorized Users other than OGS, the term late Bid is defined as a Bid not received in the location established in the Bid Specifications at or before the date and time specified for the Bid opening.

Any Bid received at the specified location after the time specified will be considered a late Bid. A late Bid shall not be considered for award unless: (i) no timely Bids meeting the requirements of the Bid Documents are received or, (ii) in the case of a multiple award, an insufficient number of timely Bids were received to satisfy the multiple award; and acceptance of the late Bid is in the best interests of the Authorized Users. Bids submitted for continuous or periodic recruitment contract awards must meet the submission requirements associated with their specifications. Delays in United States mail deliveries or any other means of transmittal, including couriers or agents of the Authorized User shall not excuse late Bid submissions. Similar types of delays, including but not limited to, bad weather, or security procedures for parking and building admittance shall not excuse late Bid submissions. Determinations relative to Bid timeliness shall be at the sole discretion of the Commissioner.

12. BID CONTENTS Bids must be complete and legible. All Bids must be signed. All information required by the Bid Specifications must be supplied by the Bidder on the forms or in the format specified. No alteration, erasure or addition is to be made to the Bid Documents. Changes may be ignored by the Commissioner or may be grounds for rejection of the Bid. Changes, corrections and/or use of white-out in the Bid or Bidder's response portion of the Bid Document must be initialed by an authorized representative of the Bidder. Bidders are cautioned to verify their Bids before submission, as amendments to Bids or requests for withdrawal of Bids received by the Commissioner after the time specified for the Bid opening, may not be considered.

13. EXTRANEOUS TERMS Bids must conform to the terms set forth in the Bid Documents, as extraneous terms or material deviations (including additional, inconsistent, conflicting or alternative terms) may render the Bid non-responsive and may result in rejection of the Bid.

Extraneous term(s) submitted on standard, pre-printed forms (including but not limited to: product literature, order forms, license agreements, contracts or other documents) that are attached or referenced with submissions shall not be considered part of the Bid or resulting Contract, but shall be deemed included for informational or promotional purposes only.

Only those extraneous terms that meet all the following requirements may be considered as having been submitted as part of the Bid:

- a. Each proposed extraneous term (addition, deletion, counter-offer, deviation, or modification) must be specifically enumerated in a writing which is not part of a pre-printed form; and
- b. The writing must identify the particular specification requirement (if any) that Bidder rejects or proposes to modify by inclusion of the extraneous term; and
- c. The Bidder shall enumerate the proposed addition, counter offer, modification or deviation from the Bid Document, and the reasons therefore.

No extraneous term(s), whether or not deemed "material," shall be incorporated into a Contract or Purchase Order unless submitted in accordance with the above and the Commissioner or Authorized User expressly accepts each such term(s) in writing. Acceptance and/or processing of the Bid shall not constitute such written acceptance of Extraneous Term(s).

14. CONFIDENTIAL/TRADE SECRET MATERIALS

a. **Contractor** Confidential, trade secret or proprietary materials as defined by the laws of the State of New York must be clearly marked and identified as such upon submission by the Bidder. Marking the Bid as "confidential" or "proprietary" on its face or in the document header or footer shall not be considered by the Commissioner or Authorized User to be sufficient without specific justification as to why disclosure of particular information in the Bid would cause substantial injury to the competitive position of the Bidder. Bidders/Contractors intending to seek an exemption from disclosure of these materials under the Freedom of Information Law must request the exemption in writing, setting forth the reasons for the claimed exemption. Acceptance of the claimed materials does not constitute a determination on the exemption request, which determination will be made in accordance with statutory procedures. Properly identified information that has been designated confidential, trade secret, or proprietary by the Bidder will not be disclosed except as may be required by the Freedom of Information Law or other applicable State and federal laws.

b. **Commissioner or Authorized User** Contractor further warrants, covenants and represents that any confidential information obtained by Contractor, its agents, Subcontractors, officers, distributors, resellers or employees in the course of performing its obligations, including without limitation, security procedures, business operations information, or commercial proprietary information in the possession of the State or any Authorized User hereunder or received from another third party, will not be divulged to any third parties. Contractor shall not be required to keep confidential any such material that is publicly available through no fault of Contractor, independently developed by Contractor without reliance on confidential information of the Authorized User, or otherwise obtained under the Freedom of Information Act or other applicable New York State laws and regulations. This warranty shall survive termination of this Contract. Contractor further agrees to take appropriate steps as to its agents, Subcontractors, officers, distributors, resellers or employees regarding the obligations arising under this clause to insure such confidentiality.

15. RELEASE OF BID EVALUATION MATERIALS Requests concerning the evaluation of Bids may be submitted under the Freedom of Information Law. Information, other than statistical or factual tabulations or data such as the Bid Tabulation, shall only be released as required by law after Contract award. Bid Tabulations are

not maintained for all procurements. Names of Bidders may be disclosed after Bid opening upon request. Written requests should be directed to the Commissioner.

16. FREEDOM OF INFORMATION LAW During the evaluation process, the content of each Bid will be held in confidence and details of any Bid will not be revealed (except as may be required under the Freedom of Information Law or other State law). The Freedom of Information Law provides for an exemption from disclosure for trade secrets or information the disclosure of which would cause injury to the competitive position of commercial enterprises. This exception would be effective both during and after the evaluation process. If the Bid contains any such trade secret or other confidential or proprietary information, it must be accompanied in the Bid with a written request to the Commissioner to not disclose such information. Such request must state with particularity the reasons why the information should not be available for disclosure and must be provided at the time of submission of the Bid. Notations in the header, footer or watermark of the Bid Document will not be considered sufficient to constitute a request for non-disclosure of trade secret or other confidential or proprietary information. Where a Freedom of Information request is made for trademark or other confidential or proprietary information, the Commissioner reserves the right to determine upon written notice to the Bidder whether such information qualifies for the exemption for disclosure under the law. Notwithstanding the above, where a Bid tabulation is prepared and Bids publicly opened, such Bid tabulation shall be available upon request.

17. PREVAILING WAGE RATES - PUBLIC WORKS AND BUILDING SERVICES CONTRACTS If any portion of work being Bid is subject to the prevailing wage rate provisions of the Labor Law, the following shall apply:

a. "Public Works" and "Building Services" - Definitions

i. Public Works Labor Law Article 8 applies to contracts for public improvement in which laborers, workers or mechanics are employed on a "public works" project (distinguished from public "procurement" or "service" contracts). The State, a public benefit corporation, a municipal corporation (including a school district), or a commission appointed by law must be a party to the Contract. The wage and hours provision applies to any work performed by Contractor or Subcontractors.

ii. Building Services Labor Law Article 9 applies to Contracts for building service work over \$1,500 with a public agency, that: (i) involve the care or maintenance of an existing building, or (ii) involve the transportation of office furniture or equipment to or from such building, or (iii) involve the transportation and delivery of fossil fuel to such building, and (iv) the principal purpose of which is to furnish services through use of building service employees.

b. Prevailing Wage Rate Applicable to Bid Submissions A copy of the applicable prevailing wage rates to be paid or provided are annexed to the Bid Documents. Bidders must submit Bids which are based upon the prevailing hourly wages, and supplements in cash or equivalent benefits (i.e., fringe benefits and any cash or non-cash compensation which are not wages, as defined by law) that equal or exceed the applicable prevailing wage rate(s) for the location where the work is to be performed. Bidders may not submit Bids based upon hourly wage rates and supplements below the applicable prevailing wage rates as established by the New York State Department of Labor. Bids that fail to comply with this requirement will be disqualified.

c. Wage Rate Payments / Changes During Contract Term The wages to be paid under any resulting Contract shall not be less than the prevailing rate of wages and supplements as set forth by law. It is

required that the Contractor keep informed of all changes in the Prevailing Wage Rates during the Contract term that apply to the classes of individuals supplied by the Contractor on any projects resulting from this Contract, subject to the provisions of the Labor Law. Contractor is solely liable for and must pay such required prevailing wage adjustments during the Contract term as required by law.

d. Public Posting & Certified Payroll Records In compliance with Article 8, Section 220 of the New York State Labor Law:

i. Posting The Contractor must publicly post on the work site, in a prominent and accessible place, a legible schedule of the prevailing wage rates and supplements.

ii. Payroll Records Contractors and Subcontractors must keep original payrolls or transcripts subscribed and affirmed as true under the penalties of perjury as required by law. For public works contracts over \$25,000 where the Contractor maintains no regular place of business in New York State, such records must be kept at the work site. For building services contracts, such records must be kept at the work site while work is being performed.

iii. Submission of Certified Payroll Transcripts for Public Works Contracts Only Contractors and Subcontractors on public works projects must submit monthly payroll transcripts to the Authorized User that has prepared or directs the preparation of the plans and specifications for a public works project, as set forth in the Bid Specifications. For Mini-Bid solicitations, the payroll records must be submitted to the entity preparing the agency Mini-Bid project specification. For "agency specific" Bids, the payroll records should be submitted to the entity issuing the purchase order. For all other OGS Centralized Contracts, such records should be submitted to the individual agency issuing the purchase order(s) for the work. Upon mutual agreement of the Contractor and the Authorized User, the form of submission may be submitted in a specified disk format acceptable to the Department of Labor provided: 1) the Contractor/Subcontractor retains the original records; and, (2) an original signed letter by a duly authorized individual of the Contractor or Subcontractor attesting to the truth and accuracy of the records accompanies the disk. This provision does not apply to Article 9 of the Labor Law building services contracts.

iv. Records Retention Contractors and Subcontractors must preserve such certified transcripts for a period of three years from the date of completion of work on the awarded contract.

Day's Labor Eight hours shall constitute a legal day's work for all classes of employees in this state except those engaged in farm and domestic service unless otherwise provided by law.

No laborers, workmen or mechanics in the employ of the Contractor, Subcontractor or other person doing or contracting to do all or part of the work contemplated by the Contract shall be permitted or required to work more than eight hours in any one calendar day or more than five calendar days in any one week except in cases of extraordinary emergency including fire, flood or danger to life or property. "Extraordinary emergency" shall be deemed to include situations in which sufficient laborers, workers and mechanics cannot be employed to carry on public work expeditiously as a result of such restrictions upon the number of hours and days of labor and the immediate commencement or prosecution or completion without undue delay of the public work is necessary in the judgment of the NYS Commissioner of Labor for the preservation of the Contract site or for the protection of the life and limb of the persons using the Contract site.

18. TAXES

a. Unless otherwise specified in the Bid Specifications or Contract, the quoted Bid price includes all taxes applicable to the transaction.

b. Purchases made by the State of New York and certain non-State Authorized Users are exempt from New York State and local sales taxes and, with certain exceptions, federal excise taxes. To satisfy the requirements of the New York State Sales tax exemption, either the Purchase Order issued by a State Agency or the invoice forwarded to authorize payment for such purchases will be sufficient evidence that the sale by the Contractor was made to the State, an exempt organization under Section 1116 (a) (1) of the Tax Law. Non-State Authorized Users must offer their own proof of exemption upon request. No person, firm or corporation is, however, exempt from paying the State Truck Mileage and Unemployment Insurance or Federal Social Security taxes, which remain the sole responsibility of the Bidder/Contractor.

c. Pursuant to Revised Tax Law 5-a, Contractor will be required to furnish sales tax certification on its behalf and for its affiliates, and subcontractors for Contracts with a value greater than \$100,000 in accordance with provisions of the law.

d. Purchases by Authorized Users other than the State of New York may be subject to certain taxes which were not included in the Bid price, and in those instances the tax should be computed based on the Contract price and added to the invoice submitted to such entity for payment.

19. EXPENSES PRIOR TO CONTRACT EXECUTION The Commissioner and any Authorized User(s) are not liable for any costs incurred by a Vendor, Bidder or Contractor in the preparation and production of a Bid, Mini-Bid or best and final offers or for any work performed prior to Contract execution.

20. ADVERTISING RESULTS The prior written approval of the Commissioner is required in order for results of the Bid to be used by the Contractor as part of any commercial advertising. The Contractor shall also obtain the prior written approval of the Commissioner relative to the Bid or Contract for press or other media releases.

21. PRODUCT REFERENCES

a. **“Or Equal”** In all Bid Specifications the words “or equal” are understood to apply where a copyrighted, brand name, trade name, catalog reference, or patented Product is referenced. References to such specific Product are intended as descriptive, not restrictive, unless otherwise stated. Comparable Product will be considered if proof of compatibility is provided, including appropriate catalog excerpts, descriptive literature, specifications and test data, etc. The Commissioner’s decision as to acceptance of the Product as equal shall be final.

b. **Discrepancies in References** In the event of a discrepancy between the model number referenced in the Bid Specifications and the written description of the Products which cannot be reconciled, with respect to such discrepancy, then the written description shall prevail.

22. REMANUFACTURED, RECYCLED, RECYCLABLE OR RECOVERED MATERIALS Upon the conditions specified in the Bid Specifications and in accordance with the laws of the State of New York, Contractors are encouraged to use recycled, recyclable 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, welfare, safety requirements or in the Bid Specifications. Contractors are further encouraged to offer remanufactured Products to the maximum extent practicable without jeopardizing the performance or intended end use of the Product and unless such use is precluded due to health, welfare, safety requirements or by the Bid Specifications. Where such use is not practical, suitable, or permitted by the Bid Specifications, Contractor shall deliver new materials in accordance with the “Warranties” set forth below.

Items with recycled, recyclable, recovered, refurbished or remanufactured content must be identified in the Bid or Bidder will be deemed to be offering new Product.

23. PRODUCTS MANUFACTURED IN PUBLIC INSTITUTIONS Bids offering Products that are manufactured or produced in public institutions will be rejected.

24. PRICING

a. **Unit Pricing** If required by the Bid Specifications, the Bidder should insert the price per unit specified and the price extensions in decimals, not to exceed four places for each item unless otherwise specified, in the Bid. In the event of a discrepancy between the unit price and the extension, the unit price shall govern unless, in the sole judgment of the Commissioner, such unit pricing is obviously erroneous.

b. **Net Pricing** Unless otherwise required by the Bid Specifications, prices shall be net, including transportation, customs, tariff, delivery and other charges fully prepaid by the Contractor to the destination(s) indicated in the Bid Specifications, subject to the cash discount.

c. **“No Charge” Bid** When Bids are requested on a number of Products as a Group or Lot, a Bidder desiring to Bid “no charge” on a Product in the Group or Lot must clearly indicate such. Otherwise, such Bid may be considered incomplete and be rejected, in whole or in part, at the discretion of the Commissioner.

d. **Educational Pricing** All Products to be supplied for educational purposes that are subject to educational discounts shall be identified in the Bid and such discounts shall be made available to qualifying institutions.

e. **Third Party Financing** If Product acquisitions are financed through any third party financing, Contractor may be required as a condition of Contract Award to agree to the terms and conditions of a “Consent & Acknowledgment Agreement” in a form acceptable to the Commissioner.

f. **Best Pricing Offer** During the Contract term, if substantially the same or a smaller quantity of a Product is sold by the Contractor 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, at the discretion of the Commissioner, shall be immediately reduced to the lower price.

Price decreases shall take effect automatically during the Contract term and apply to Purchase Orders submitted on or after:

(i) **GSA Changes:** Where NYS Net Prices are based on an approved GSA Schedule, the date the approved GSA Schedule pricing decreases during the Contract term; or

(ii) **Commercial Price List Reductions:** Where NYS Net Prices are based on a discount from Contractor’s list prices, the date Contractor lowers its pricing to its customers generally or to similarly situated government customers during the Contract term; or

(iii) Special Offers/Promotions Generally: Where Contractor generally offers more advantageous special price promotions or special discount pricing to other customers during the Contract term for a similar quantity, and the maximum price or discount associated with such offer or promotion is better than the discount or Net Price otherwise available under this Contract, such better price or discount shall apply for similar quantity transactions under this Contract for the life of such general offer or promotion; and

(iv) Special Offers/Promotions to Authorized Users: Contractor may offer Authorized Users, under either this Contract or any other Contracting vehicle, competitive pricing which is lower than the NYS Net Price set forth herein at any time during the Contract term and such lower pricing shall not be applied as a global price reduction under the Contract pursuant to the foregoing paragraph (iii).

Unless otherwise specified in the Bid Specifications, Contractor may offer lower prices or better terms (see Modification of Contract Terms) on any specific Purchase Order(s) from any Authorized User without being in conflict with, or obligation to comply on a global basis, with the terms of this clause.

g. Best and Final Prices As specified in the Bid Documents and Contract, a Contractor may be solicited at the time of issuance of a Purchase Order or Mini-Bid award for best and final pricing for the Product or service to be delivered to the Authorized User. Contractors are encouraged to reduce their pricing upon receipt of such request.

25. DRAWINGS

a. Drawings Submitted With Bid When the Bid Specifications require the Bidder to furnish drawings and/or plans, such drawings and/or plans shall conform to the mandates of the Bid Documents 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, services or installation, or carrying out any other requirements of the intended scope of work.

26. SITE INSPECTION Where a site inspection is required by the Bid Specifications or Project Definition, Bidder shall be required to inspect the site, including environmental or other conditions for pre-existing deficiencies that may affect the installed Product, equipment, or environment or services to be provided and, which may affect Bidder's ability to properly deliver, install or otherwise provide the required Product. All inquiries regarding such conditions shall be made in writing. Bidder shall be deemed to have knowledge of any deficiencies or conditions which such inspection or inquiry might have disclosed. Bidder must provide a detailed explanation with its Bid if additional work is required under this clause in order to properly

complete the delivery and installation of the required Product or provide the requested service.

27. PROCUREMENT CARD The State has entered into an agreement for purchasing card services. The Purchasing Card enables Authorized Users to make authorized purchases directly from a Contractor without processing a Purchase Orders or Purchase Authorizations. Purchasing Cards are issued to selected employees authorized to purchase for the Authorized User and having direct contact with Contractors. Cardholders can make purchases directly from any Contractor that accepts the Purchasing Card.

The Contractor shall not process a transaction for payment through the credit card clearinghouse until the purchased products have been shipped or services performed. Unless the cardholder requests correction or replacement of a defective or faulty Product in accordance with other Contract requirements, the Contractor shall immediately credit a cardholder's account for products returned as defective or faulty.

28. SAMPLES

a. Standard Samples Bid Specifications may indicate that the Product to be purchased must be equal to a standard sample on display in a place designated by the Commissioner and such sample will be made available to the Bidder for examination prior to the opening date. Failure by the Bidder to examine such sample shall not entitle the Bidder to any relief from the conditions imposed by the Bid Specifications.

b. 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 in the request. Untimely submission of a sample may constitute grounds for rejection of 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 Bid or Contract reference.

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 Bidder, at the Bidder's expense and risk. Where the Bidder 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.

c. 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.

d. Conformance with Sample(s) 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 Bid Specifications. 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 Bid Specifications, the Commissioner may reject the Bid. If an award has

been made, the Commissioner may cancel the Contract at the expense of the Contractor.

e. 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 Bid Specifications, Bidder samples consumed or rendered useless by testing will not be returned to the Bidder. Testing costs for samples that fails to meet Contract requirements may be at the expense of the Contractor.

f. Requests For Samples By Authorized Users Requests for samples by Authorized Users 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.

BID EVALUATION

29. BID EVALUATION The Commissioner reserves the right to accept or reject any and all Bids, or separable portions of offers, and waive technicalities, irregularities, and omissions if the Commissioner determines the best interests of the State will be served. The Commissioner, in his/her sole discretion, may accept or reject illegible, incomplete or vague Bids and his/her decision shall be final. A conditional or revocable Bid which clearly communicates the terms or limitations of acceptance may be considered, and Contract award may be made in compliance with the Bidder's conditional or revocable terms in the offer.

30. CONDITIONAL BID Unless the Bid Specifications provides otherwise, a Bid is not rendered non-responsive if the Bidder specifies that the award will be accepted only on all or a specified group of items or Product included in the specification. It is understood that nothing herein shall be deemed to change or alter the method of award contained in the Bid Documents.

31. CLARIFICATIONS / REVISIONS Prior to award, the Commissioner reserves the right to seek clarifications, request Bid revisions, or to request any information deemed necessary for proper evaluation of Bids from all Bidders deemed to be eligible for Contract award. Failure to provide requested information may result in rejection of the Bid.

32. PROMPT PAYMENT DISCOUNTS While prompt payment discounts will not be considered in determining the low Bid, the Commissioner may consider any prompt payment discount in resolving Bids which are otherwise tied. However, any notation indicating that the price is net, (e.g., net 30 days), shall be understood to mean only that no prompt payment discount is offered by the Bidder. The imposition of service, interest, or other charges, except pursuant to the provisions of Article 11-A of the State Finance Law, which are applicable in any case, may render the Bid non-responsive and may be cause for its rejection.

33. EQUIVALENT OR IDENTICAL BIDS In the event two offers are found to be substantially equivalent, price shall be the basis for determining the award recipient. If two or more Bidders submit substantially equivalent Bids as to pricing or other factors, the decision of the Commissioner to award a Contract to one or more of such Bidders shall be final.

34. PERFORMANCE AND RESPONSIBILITY QUALIFICATIONS The Commissioner reserves the right to investigate or inspect at any time whether or not the Product, services, qualifications or facilities offered by the Bidder/Contractor meet the requirements set forth in the Bid Specifications/Contract or as set forth

during Contract negotiations. Contractor shall at all times during the Contract term remain responsible and responsive. A Bidder/Contractor must be prepared, if requested by the Commissioner, to present evidence of legal authority to do business in New York State, integrity, experience, ability, prior performance, organizational and financial capacity as well as where applicable, a statement as to supply, plant, machinery and capacity of the manufacturer or source for the production, distribution and servicing of the Product offered/Bid. If the Commissioner determines that the conditions and terms of the Bid Documents, Bid Specifications or Contract are not complied with, or that items, services or Product proposed to be furnished do not meet the specified requirements, or that the legal authority, integrity experience, ability, prior performance, organization and financial capacity or facilities are not satisfactory, the Commissioner may reject such Bid or terminate the Contract.

35. DISQUALIFICATION FOR PAST PERFORMANCE AND FINDINGS OF NON-RESPONSIBILITY Bidder may be disqualified from receiving awards if Bidder, or anyone in Bidder's employment, has previously failed to perform satisfactorily in connection with public Bidding or contracts or is deemed non-responsive.

36. QUANTITY CHANGES PRIOR TO AWARD The Commissioner reserves the right, at any time prior to the award of a specific quantity Contract, to alter in good faith the quantities listed in the Bid Specifications. In the event such right is exercised, the lowest responsible Bidder meeting Bid Specifications will be advised of the revised quantities and afforded an opportunity to extend or reduce its Bid price in relation to the changed quantities. Refusal by the low Bidder to so extend or reduce its Bid price may result in the rejection of its Bid and the award of such Contract to the lowest responsible Bidder who accepts the revised qualifications.

37. TIMEFRAME FOR OFFERS The Commissioner reserves the right to make awards within sixty (60) days after the date of the Bid opening or such other period of time as set forth in the Bid Documents, during which period, Bids must remain firm and cannot be withdrawn. Pursuant to Section 163(9)(e) of the State Finance Law and Section 2-205 of the Uniform Commercial Code when applicable, where an award is not made within the sixty (60) day period or other time specified as set forth in the Bid Documents, the Bids shall remain firm until such later time as either a Contract is awarded or the Bidder delivers to the Commissioner written notice of the withdrawal of its Bid. Any Bid which expressly states therein that acceptance must be made within a shorter specified time, may at the sole discretion of the Commissioner, be accepted or rejected.

TERMS & CONDITIONS

38. CONTRACT CREATION / EXECUTION Except for contracts governed by Article 11-B of the State Finance Law, subject to and upon receipt of all required approvals as set forth in the Bid Specifications a Contract shall be deemed executed and created with the successful Bidder(s), upon the Commissioner's mailing or electronic communication to the address on the Bid/Contract of: (i) the final Contract Award Notice; (ii) a fully executed Contract; or (iii) a Purchase Order authorized by the Commissioner.

39. PARTICIPATION IN CENTRALIZED CONTRACTS The following shall not limit or inhibit the OGS Commissioner's authority under State Finance Law, Section 163 (10) (e) (Piggybacking):

a. **Agencies** All State Agencies may utilize and purchase under any state Centralized Contract let by the Commissioner, unless the Bid Documents limit purchases to specific State Agencies.

b. **Non-State Agency Authorized Users** Authorized Users other than State Agencies are permitted to make purchases through state Centralized Contracts where permitted by law, the Contract or the Commissioner.

c. **Voluntary Extension** Purchase Orders issued against a State Centralized Contract by any Authorized User not provided for in the Bid Specifications shall be honored by the Contractor at its discretion and only with the approval of the OGS Commissioner and any other approvals required by law. Contractors are encouraged to voluntarily extend service Contracts to those additional entities authorized to utilize commodity Contracts under Section 163 (3) (iv) of the State Finance Law.

d. **Responsibility for Performance** Participation in state Centralized Contracts by Authorized Users is permitted upon the following conditions: (i) the responsibility with regard to performance of any contractual obligation, covenant, condition or term thereunder by any Authorized User other than State Agencies shall be borne and is expressly assumed by such Authorized User and not by the State; (ii) a breach of the Contract by any particular Authorized User shall neither constitute nor be deemed a breach of the Contract as a whole which shall remain in full force and effect, and shall not affect the validity of the Contract nor the obligations of the Contractor thereunder respecting non-breaching Authorized Users, whether State or otherwise; (iii) for a breach by an Authorized User other than a State Agency, the State specifically and expressly disclaims any and all liability for such breach; and (iv) each non-state agency Authorized User and Contractor guarantees to save the State, its officers, agents and employees harmless from any liability that may be or is imposed by their failure to perform in accordance with its obligations under the Contract.

e. **Contract Migration** Authorized Users holding individual Contracts with a Contractor at the time that Contractor is awarded a Centralized Contract for the same Products or services shall be permitted to migrate to that Centralized Contract effective with its commencement date. Such migration shall not operate to diminish, alter or eliminate any right that the Authorized User otherwise had under the terms and conditions of their individual Contract.

40. **MODIFICATION OF CONTRACT TERMS** The terms and conditions set forth in the Contract shall govern all transactions by Authorized User(s) under this Contract. The Contract may only be modified or amended upon mutual written agreement of the Commissioner and Contractor.

The Contractor may, however, offer Authorized User(s) more advantageous pricing, payment, or other terms and conditions than those set forth in the Contract. In such event, a copy of such terms shall be furnished to the Authorized User(s) and Commissioner by the Contractor at the time of such offer.

Other than where such terms are more advantageous for the Authorized User(s) than those set forth in the Contract, no alteration or modification of the terms of the Contract, including substitution of Product, shall be valid or binding against Authorized User(s) unless authorized by the Commissioner or specified in the Contract Award Notification. No such alteration or modification shall be made by unilaterally affixing such terms to Product upon delivery (including, but not limited to, attachment or inclusion of standard pre-printed order forms, product literature, "shrink wrap" terms accompanying

software upon delivery, or other documents) or by incorporating such terms onto order forms, purchase orders or other documents forwarded by the Contractor for payment, notwithstanding Authorized User's subsequent acceptance of Product, or that Authorized User has subsequently processed such document for approval or payment.

41. **SCOPE CHANGES** The Commissioner reserves the right, unilaterally, to require, by written order, changes by altering, adding to or deducting from the Bid Specifications, such changes to be within the general scope of the Contract. The Commissioner may make an equitable adjustment in the Contract price or delivery date if the change affects the cost or time of performance. Such equitable adjustments require the consent of the Contractor, which consent shall not be unreasonably withheld.

42. **ESTIMATED / SPECIFIC QUANTITY CONTRACTS** Estimated quantity contracts are expressly agreed and understood to be made for only the quantities, if any, actually ordered during the Contract term. No guarantee of any quantity(s) is implied or given. Purchases by Authorized Users from Contracts for services and technology are voluntary.

With respect to any specific quantity stated in the contract, the Commissioner reserves the right after award to order up to 20% more or less (rounded to the next highest whole number) than the specific quantities called for in the Contract. Notwithstanding the foregoing, the Commissioner may purchase greater or lesser percentages of Contract quantities should the Commissioner and Contractor so agree. Such agreement may include an equitable price adjustment.

43. **EMERGENCY CONTRACTS** In the event that a disaster emergency is declared by Executive Order under Section 28 of Article 2-B of the Executive Law, or the Commissioner determines pursuant to his/her authority under Section 163 (10) (b) of the State Finance Law that an emergency exists requiring the prompt and immediate delivery of Product, the Commissioner reserves the right to obtain such Product from any source, including but not limited to this Contract(s), as the Commissioner in his/her sole discretion determines will meet the needs of such emergency. Contractor shall not be entitled to any claim or lost profits for Product procured from other sources pursuant to this paragraph. The reasons underlying the finding that an emergency exists shall be included in the procurement record.

44. **PURCHASE ORDERS** Unless otherwise authorized in writing by the Commissioner, no Product is to be delivered or furnished by Contractor until transmittal of an official Purchase Order from the Authorized User. Unless terminated or cancelled pursuant to the authority vested in the Commissioner, Purchase Orders shall be effective and binding upon the Contractor when placed in the mail or electronically transmitted prior to the termination of the contract period, addressed to the Contractor at the address for receipt of orders set forth in the Contract or in the Contract Award Notification.

All Purchase Orders issued pursuant to Contracts let by the Commissioner must bear the appropriate Contract number and, if necessary, required State approvals. As deemed necessary, the Authorized User may confirm pricing and other Product information with the Contractor prior to placement of the Purchase Order. The State reserves the right to require any other information from the Contractor which the State deems necessary in order to complete any Purchase Order placed under the Contract. Unless otherwise specified, all Purchase Orders against Centralized Contracts will be placed by Authorized Users directly with the Contractor and any discrepancy between the terms stated on the vendor's order form, confirmation or acknowledgment, and the Contract terms shall be resolved in favor of the terms most favorable to the Authorized User. Should an

Authorized User add written terms and conditions to the Purchase Order that conflict with the terms and conditions of the Contract, the Contractor has the option of rejecting the Purchase Order within five business days of its receipt but shall first attempt to negotiate the additional written terms and conditions in good faith with the Authorized User, or fulfill the Purchase Order. Notwithstanding the above, the Authorized User reserves the right to dispute any discrepancies arising from the presentation of additional terms and conditions with the Contractor.

If, with respect to an Agency Specific Contract let by the OGS Commissioner, a Purchase Order is not received by the Contractor within two weeks after the issuance of a Contract Award Notification, it is the responsibility of the Contractor to request in writing that the appropriate Authorized User forward a Purchase Order. If, thereafter, a Purchase Order is not received within a reasonable period of time, the Contractor shall promptly notify in writing the appropriate purchasing officer in OGS. Failure to timely notify such officer may, in the discretion of the OGS Commissioner and without cost to the State, result in the cancellation of such requirement by the OGS Commissioner with a corresponding reduction in the Contract quantity and price.

45. PRODUCT DELIVERY Delivery must be made as ordered to the address specified on the Purchase Order and in accordance with the terms of the Contract or Contract Award Notice. Unless otherwise specified in the Bid Documents, delivery shall be made within thirty calendar days after receipt of a Purchase Order by the Contractor. The decision of the Commissioner as to compliance with delivery terms shall be final. The burden of proof for delay in receipt of Purchase Order shall rest with the Contractor. In all instances of a potential or actual delay in delivery, the Contractor shall immediately notify the Commissioner and the Authorized User, and confirm in writing the explanation of the delay, and take appropriate action to avoid any subsequent late deliveries. Any extension of time for delivery must be requested in writing by the Contractor and approved in writing by the Authorized User. Failure to meet such delivery time schedule may be grounds for cancellation of the order or, in the Commissioner's discretion, the Contract.

46. WEEKEND AND HOLIDAY DELIVERIES Unless otherwise specified in the Bid Specifications or by an Authorized User, deliveries will be scheduled for ordinary business hours, Monday through Friday (excluding legal holidays observed by the State of New York). Deliveries may be scheduled by mutual agreement for Saturdays, Sundays or legal holidays observed by the State of New York where the Product is for daily consumption, an emergency exists, the delivery is a replacement, delivery is late, or other reasonable circumstance in which event the convenience of the Authorized User shall govern.

47. SHIPPING/RECEIPT OF PRODUCT

a. Packaging Tangible Product shall be securely and properly packed for shipment, storage and stocking in appropriate, clearly labeled shipping containers and according to accepted commercial practice, without any extra charges for packing materials, cases or other types of containers. The container shall become and remain the property of the Authorized User unless otherwise specified in the Contract documents.

b. Shipping Charges Unless otherwise stated in the Bid Specifications, all deliveries shall be deemed to be freight on board (F.O.B.) destination tailgate delivery at the dock of the Authorized User. Unless otherwise agreed, items purchased at a price F.O.B. Shipping point plus transportation charges shall not relieve the Contractor from responsibility for safe and proper delivery

notwithstanding the Authorized User's payment of transportation charges. Contractor shall be responsible for ensuring that the Bill of Lading states "charges prepaid" for all shipments.

c. Receipt of Product The Contractor shall be solely responsible for assuring that deliveries are made to personnel authorized to accept delivery on behalf of the Authorized User. Any losses resulting from the Contractor's failure to deliver Product to authorized personnel shall be borne exclusively by the Contractor.

48. TITLE AND RISK OF LOSS Notwithstanding the form of shipment, title or other property interest, risk of loss shall not pass from the Contractor to the Authorized User until the Products have been received, inspected and accepted by the receiving entity. Acceptance shall occur within a reasonable time or in accordance with such other defined acceptance period as may be specified in the Bid Specifications or Purchase Order. Mere acknowledgment by Authorized User personnel of the delivery or receipt of goods (e.g., signed bill of lading) shall not be deemed or construed as acceptance of the Products received. Any delivery of Product that is substandard or does not comply with the Bid Specifications or Contract terms and conditions, may be rejected or accepted on an adjusted price basis, as determined by the Commissioner.

49. RE-WEIGHING PRODUCT Deliveries are subject to re-weighing at the point of destination by the Authorized User. If shrinkage occurs which exceeds that normally allowable in the trade, the Authorized User shall have the option to require delivery of the difference in quantity or to reduce the payment accordingly. Such option shall be exercised in writing by the Authorized User.

50. PRODUCT SUBSTITUTION In the event a specified manufacturer's Product listed in the Contract becomes unavailable or cannot be supplied by the Contractor for any reason (except as provided for in the Savings/Force Majeure Clause) a Product deemed in writing by the Commissioner to be equal to or better than the specified Product must be substituted by the Contractor at no additional cost or expense to the Authorized User. Unless otherwise specified, any substitution of Product prior to the Commissioner's written approval may be cause for cancellation of Contract.

51. REJECTED PRODUCT When Product is rejected, it must be removed by the Contractor from the premises of the Authorized User within ten calendar days of notification of rejection by the Authorized User. Upon notification of rejection, risk of loss of rejected or non-conforming Product shall remain with Contractor. Rejected items not removed by the Contractor within ten calendar days of notification shall be regarded as abandoned by the Contractor, and the Authorized User shall have the right to dispose of Product as its own property. The Contractor shall promptly reimburse the Authorized User for any and all costs and expenses incurred in storage or effecting removal or disposition after the ten-calendar day period.

52. INSTALLATION Where installation is required, Contractor shall be responsible for placing and installing the Product in the required locations. All materials used in the installation shall be of good quality and shall be free from any and all defects that would mar the appearance of the Product or render it structurally unsound. Installation includes the furnishing of any equipment, rigging and materials required to install or place the Product in the proper location. The Contractor shall protect the site from damage for all its work and shall repair damages or injury of any kind caused by the Contractor, its employees, officers or agents. If any alteration, dismantling or excavation, etc. is required to effect installation, the Contractor shall thereafter promptly restore the structure or site. Work shall be performed to cause the least inconvenience to the Authorized User(s)

and with proper consideration for the rights of other Contractors or workers. The Contractor shall promptly perform its work and shall coordinate its activities with those of other Contractors. The Contractor shall clean up and remove all debris and rubbish from its work as required or directed. Upon completion of the work, the building and surrounding area of work shall be left clean and in a neat, unobstructed condition, and everything in satisfactory repair and order.

53. REPAIRED OR REPLACED PARTS / COMPONENTS

Where the Contractor is required to repair, replace or substitute Product or parts or components of the Product under the Contract, the repaired, replaced or substituted Products shall be subject to all terms and conditions for new parts and components set forth in the Contract including Warranties, as set forth in the Additional Warranties Clause herein. Replaced or repaired Product or parts and components of such Product shall be new and shall, if available, be replaced by the original manufacturer's component or part. Remanufactured parts or components meeting new Product standards may be permitted by the Commissioner or Authorized User. Before installation, all proposed substitutes for the original manufacturer's installed parts or components must be approved by the Authorized User. The part or component shall be equal to or of better quality than the original part or component being replaced.

54. ON-SITE STORAGE With the written approval of the Authorized User, materials, equipment or supplies may be stored at the Authorized User's site at the Contractor's sole risk.

55. EMPLOYEES, SUBCONTRACTORS & AGENTS

All employees, Subcontractors or agents performing work under the Contract must be trained staff or technicians who meet or exceed the professional, technical and training qualifications set forth in the Bid Specifications or the Bid Documents, whichever is more restrictive, and must comply with all security and administrative requirements of the Authorized User. The Commissioner reserves the right to conduct a security background check or otherwise approve any employee, Subcontractor or agent furnished by Contractor and to refuse access to or require replacement of any personnel for cause based on, including but not limited to, professional, technical or training qualifications, quality of work or change in security status or non-compliance with Authorized User's security or other requirements. Such approval shall not relieve the Contractor of the obligation to perform all work in compliance with the Contract terms. The Commissioner reserves the right to reject and/or bar from the facility for cause any employee, Subcontractor, or agents of the Contractor.

56. ASSIGNMENT The Contractor shall not assign, transfer, convey, sublet, or otherwise dispose of the contract or its right, title or interest therein, or its power to execute such contract to any other person, company, firm or corporation in performance of the contract without the prior written consent of the Commissioner or Authorized User (as applicable). Failure to obtain consent to assignment from the Authorized User shall revoke and annul such Contract. Notwithstanding the foregoing, the State shall not hinder, prevent or affect assignment of money by a Contractor for the benefit of its creditors. Prior to a consent to assignment of monies becoming effective, the Contractor shall file a written notice of such monies assignment(s) with the Comptroller. Prior to a consent to assignment of a Contract, or portion thereof, becoming effective, the Contractor shall submit the request to assignment to the Commissioner and seek written agreement from the Commissioner which will be filed with the Comptroller. The Commissioner reserves the right to reject any proposed assignee in his/her discretion.

Upon notice to the Contractor, the Contract may be assigned without the consent of the Contractor to another State Agency or subdivision of the State pursuant to a governmental reorganization or assignment of functions under which the functions are transferred to a successor

Agency or to another Agency that assumes OGS responsibilities for the Contract.

57. SUBCONTRACTORS AND SUPPLIERS The Commissioner reserves the right to reject any proposed Subcontractor or supplier for bona fide business reasons, which may include, but are not limited to: they are on the Department of Labor's list of companies with which New York State cannot do business; the Commissioner determines that the company is not qualified; the Commissioner determines that the company is not responsible; the company has previously provided unsatisfactory work or services; the company failed to solicit minority and women's business enterprises (M/WBE) Bidders as required by prior Contracts.

58. PERFORMANCE / BID BOND The Commissioner reserves the right to require a Bidder or Contractor to furnish without additional cost, a performance, payment or Bid bond or negotiable irrevocable letter of credit or other form of security for the faithful performance of the Contract. Where required, such bond or other security shall be in the form prescribed by the Commissioner.

59. SUSPENSION OF WORK The Commissioner, in his/her sole discretion, reserves the right to suspend any or all activities under this Contract, at any time, in the best interests of the Authorized User. In the event of such suspension, the Contractor will be given a formal written notice outlining the particulars of such suspension. Examples of the reason for such suspension include, but are not limited to, a budget freeze or reduction on State spending, declaration of emergency, contract compliance issues or other such circumstances. Upon issuance of such notice, the Contractor is not to accept any Purchase Orders, and shall comply with the suspension order. Activity may resume at such time as the Commissioner issues a formal written notice authorizing a resumption of performance under the Contract.

An Authorized User may issue a formal written notice for the suspension of work for which it has engaged the Contractor for reasons specified in the above paragraph. The written notice shall set forth the reason for such suspension and a copy of the written notice shall be provided to the Commissioner.

60. TERMINATION

a. For Cause: For a material breach that remains uncured for more than thirty (30) days or other specified period after written notice to the Contractor, the Contract or Purchase Order may be terminated by the Commissioner or Authorized User at the Contractor's expense where Contractor becomes unable or incapable of performing, or meeting any requirements or qualifications set forth in the Contract, or for non-performance, or upon a determination that Contractor is non-responsible. Such termination shall be upon written notice to the Contractor. In such event, the Commissioner or Authorized User may complete the contractual requirements in any manner it may deem advisable and pursue available legal or equitable remedies for breach.

b. For Convenience: By written notice, this Contract may be terminated at any time by the State for convenience upon sixty (60) days written notice or other specified period without penalty or other early termination charges due. Such termination of the Contract shall not affect any project or Purchase Order that has been issued under the Contract prior to the date of such termination. If the Contract is terminated pursuant to this subdivision, the Authorized User shall remain liable for all accrued but unpaid charges incurred through the date of the termination. Contractor shall use due diligence and provide any outstanding deliverables.

c. For Violation of the Sections 139-j and 139-k of the State Finance Law: The Commissioner reserves the right to terminate the

Contract in the event it is found that the certification filed by the Bidder in accordance with Section 139-k of the State Finance Law was intentionally false or intentionally incomplete. Upon such finding, the Commissioner may exercise its termination right by providing written notification to the Contractor in accordance with the written notification terms of the Contract.

d. For Violation of Revised Tax Law 5a: The Commissioner reserves the right to terminate the contract in the event it is found that the certification filed by the Contractor in accordance with §5-a of the Tax Law is not timely filed during the term of the Contract or the certification furnished was intentionally false or intentionally incomplete. Upon such finding, the Commissioner may exercise its termination right by providing written notification to the Contractor.

61. SAVINGS/FORCE MAJEURE A force majeure occurrence is an event or effect that cannot be reasonably anticipated or controlled. Force majeure includes, but is not limited to, acts of God, acts of war, acts of public enemies, strikes, fires, explosions, actions of the elements, floods, or other similar causes beyond the control of the Contractor or the Commissioner in the performance of the Contract which non-performance, by exercise of reasonable diligence, cannot be prevented. Contractor shall provide the Commissioner with written notice of any force majeure occurrence as soon as the delay is known.

Neither the Contractor nor the Commissioner shall be liable to the other for any delay in or failure of performance under the Contract due to a force majeure occurrence. Any such delay in or failure of performance shall not constitute default or give rise to any liability for damages. The existence of such causes of such delay or failure shall extend the period for performance to such extent as determined by the Contractor and the Commissioner to be necessary to enable complete performance by the Contractor if reasonable diligence is exercised after the cause of delay or failure has been removed.

Notwithstanding the above, at the discretion of the Commissioner where the delay or failure will significantly impair the value of the Contract to the State or to Authorized Users, the Commissioner may:

- a. Accept allocated performance or deliveries from the Contractor. The Contractor, however, hereby agrees to grant preferential treatment to Authorized Users with respect to Product subjected to allocation; and/or
- b. Purchase from other sources (without recourse to and by the Contractor for the costs and expenses thereof) to replace all or part of the Products which are the subject of the delay, which purchases may be deducted from the Contract quantities without penalty or liability to the State; or
- c. Terminate the Contract or the portion thereof which is subject to delays, and thereby discharge any unexecuted portion of the Contract or the relative part thereof.

In addition, the Commissioner reserves the right, in his/her sole discretion, to make an equitable adjustment in the Contract terms and/or pricing should extreme and unforeseen volatility in the marketplace affect pricing or the availability of supply. "Extreme and unforeseen volatility in the marketplace" is defined as market circumstances which meet the following criteria: (i) the volatility is due to causes outside the control of Contractor; (ii) the volatility affects the marketplace or industry, not just the particular Contract source of supply; (iii) the effect on pricing or availability of supply is substantial; and (iv) the volatility so affects Contractor's performance that continued performance of the Contract would result in a substantial loss.

62. CONTRACT BILLINGS Contractor and the distributors/resellers designated by the Contractor, if any, shall provide complete and accurate billing invoices to each Authorized User in order to receive payment. Billings for Authorized Users must contain all information required by the Contract and the State Comptroller. The State Comptroller shall render payment for Authorized User purchases, and such payment shall be made in accordance with ordinary State procedures and practices. Payment of Contract purchases made by Authorized Users, other than Agencies, shall be billed directly by Contractor on invoices/vouchers, together with complete and accurate supporting documentation as required by the Authorized User.

Submission of an invoice and payment thereof shall not preclude the Commissioner from reimbursement or demanding a price adjustment in any case where the Product delivered is found to deviate from the terms and conditions of the Contract or where the billing was inaccurate.

Contractor shall provide, upon request of the Commissioner, any and all information necessary to verify the accuracy of the billings. Such information shall be provided in the format requested by the Commissioner and in a media commercially available from the Contractor. The Commissioner may direct the Contractor to provide the information to the State Comptroller or to any Authorized User of the Contract.

63. DEFAULT – AUTHORIZED USER

- a. Breach of Authorized User Not Breach of Centralized Contract. An Authorized User's breach shall not be deemed a breach of the Centralized Contract, rather it shall be deemed a breach of the Authorized User's performance under the terms and conditions of the Centralized Contract.
- b. Failure to Make Payment. In the event a participating Authorized User fails to make payment to the Contractor for Products delivered, accepted and properly invoiced, within 60 days of such delivery and acceptance, the Contractor may, upon 10 days advance written notice to both the Commissioner and the Authorized User's purchasing official, suspend additional shipments of Product or provision of services to such entity until such time as reasonable arrangements have been made and assurances given by such entity for current and future Contract payments.
- c. Notice of Breach. Notwithstanding the foregoing, the Contractor shall, at least 10 days prior to declaring a breach of Contract by any Authorized User, by certified or registered mail, notify both the Commissioner and the purchasing official of the breaching Authorized User of the specific facts, circumstances and grounds upon which a breach will be declared.
- d. It is understood, however, that if the Contractor's basis for declaring a breach is insufficient, the Contractor's declaration of breach and failure to service an Authorized User shall constitute a breach of its Contract and the Authorized User may thereafter seek any remedy available at law or equity.

64. INTEREST ON LATE PAYMENTS

a. **State Agencies** The payment of interest on certain payments due and owed by Agency may be made in accordance with Article 11-A of the State Finance Law (SFL §179-d et. Seq.) and Title 2 of the New York Code of Rules and Regulations, Part 18 (Implementation of Prompt Payment Legislation -2 NYCRR §18.1 et seq.).

b. By Non-State Agencies The terms of Article 11-A apply only to procurements by and the consequent payment obligations of Agencies. Neither expressly nor by any implication is the statute applicable to Non-State Authorized Users. Neither OGS nor the State Comptroller is responsible for payments on any purchases made by a Non-State Agency Authorized User.

c. By Contractor Should the Contractor be liable for any payments to the State hereunder, interest, late payment charges and collection fee charges will be determined and assessed pursuant to Section 18 of the State Finance Law.

65. REMEDIES FOR BREACH It is understood and agreed that all rights and remedies afforded below shall be in addition to all remedies or actions otherwise authorized or permitted by law:

a. Cover/Substitute Performance In the event of Contractor's material breach, the Commissioner may, with or without formally Bidding: (i) Purchase from other sources; or (ii) If the Commissioner is unsuccessful after making reasonable attempts, under the circumstances then existing, to timely obtain acceptable service or acquire replacement Product of equal or comparable quality, the Commissioner may acquire acceptable replacement Product of lesser or greater quality.

Such purchases may, in the discretion of the Commissioner, be deducted from the Contract quantity and payments due Contractor.

b. Withhold Payment In any case where a question of non-performance by Contractor arises, payment may be withheld in whole or in part at the discretion of the Commissioner. Should the amount withheld be finally paid, a cash discount originally offered may be taken as if no delay in payment had occurred.

c. Bankruptcy In the event that the Contractor files a petition under the U.S. Bankruptcy Code during the term of this Centralized Contract, Authorized Users may, at their discretion, make application to exercise its right to set-off against monies due the Debtor or, under the Doctrine of Recoupment, credit the Authorized User the amounts owed by the Contractor arising out of the same transactions.

d. Reimbursement of Costs Incurred The Contractor agrees to reimburse the Authorized User promptly for any and all additional costs and expenses incurred for acquiring acceptable services, and/or replacement Product. Should the cost of cover be less than the Contract price, the Contractor shall have no claim to the difference. The Contractor covenants and agrees that in the event suit is successfully prosecuted for any default on the part of the Contractor, all costs and expenses expended or incurred by the Authorized User in connection therewith, including reasonable attorney's fees, shall be paid by the Contractor.

Where the Contractor fails to timely deliver pursuant to the guaranteed delivery terms of the Contract, the ordering Authorized User may rent substitute equipment temporarily. Any sums expended for such rental shall, upon demand, be reimbursed to the Authorized User promptly by the Contractor or deducted by the Authorized User from payments due or to become due the Contractor on the same or another transaction.

e. Deduction/Credit Sums due as a result of these remedies may be deducted or offset by the Authorized User from payments due, or to become due, the Contractor on the same or another transaction. If no deduction or only a partial deduction is made in such fashion the Contractor shall pay to the Authorized User the amount of such claim or portion of the claim still outstanding, on demand. The

Commissioner reserves the right to determine the disposition of any rebates, settlements, restitution, liquidated damages, etc., which arise from the administration of the Contract.

66. ASSIGNMENT OF CLAIM Contractor hereby assigns to the State any and all its claims for overcharges associated with this Contract which may arise under the antitrust laws of the United States, 15 USC Section 1, et. seq. and the antitrust laws of the State of New York, General Business Law Section 340, et. seq.

67. TOXIC SUBSTANCES Each Contractor furnishing a toxic substance as defined by Section 875 of the Labor Law, shall provide such Authorized User with not less than two copies of a material safety data sheet, which sheet shall include for each such substance the information outlined in Section 876 of the Labor Law.

Before any chemical product is used or applied on or in any building, a copy of the product label and Material Safety Data Sheet must be provided to and approved by the Authorized User agency representative.

68. INDEPENDENT CONTRACTOR It is understood and agreed that the legal status of the Contractor, its agents, officers and employees under this Contract is that of an independent Contractor, and in no manner shall they be deemed employees of the Authorized User, and therefore are not entitled to any of the benefits associated with such employment. The Contractor agrees, during the term of this Contract, to maintain at Contractor's expense those benefits to which its employees would otherwise be entitled by law, including health benefits, and all necessary insurance for its employees, including worker's compensation, disability and unemployment insurance, and to provide the Authorized User with certification of such insurance upon request. The Contractor remains responsible for all applicable federal, state and local taxes, and all FICA contributions.

69. SECURITY Contractor warrants, covenants and represents that it will comply fully with all security procedures of the Authorized User(s) in performance of the Contract including but not limited to physical, facility, documentary and cyber security rules, procedures and protocols.

70. COOPERATION WITH THIRD PARTIES The Contractor shall be responsible for fully cooperating with any third party, including but not limited to other Contractors or Subcontractors of the Authorized User, as necessary to ensure delivery of Product or coordination of performance of services.

71. CONTRACT TERM - RENEWAL In addition to any stated renewal periods in the Contract, any Contract or unit portion thereof let by the Commissioner may be extended by the Commissioner for an additional period(s) of up to one year with the written concurrence of the Contractor and Comptroller. Such extension may be exercised on a month to month basis or in other stated periods of time during the one year extension.

72. ADDITIONAL WARRANTIES Where Contractor, product manufacturer or service provider generally offers additional or more advantageous warranties than set forth below, Contractor shall offer or pass through any such warranties to Authorized Users. Contractor hereby warrants and represents:

a. Product Performance Contractor warrants and represents that Products delivered pursuant to this Contract conform to the manufacturer's specifications, performance standards and documentation, and the documentation fully describes the proper procedure for using the Products.

b. Title and Ownership Warranty Contractor warrants, represents and conveys (i) full ownership, clear title free of all liens, or (ii) the right to transfer or deliver perpetual license rights to any Products transferred to Authorized User under this Contract. Contractor shall be solely liable for any costs of acquisition associated therewith. Contractor fully indemnifies the Authorized User for any loss, damages or actions arising from a breach of said warranty without limitation.

c. Contractor Compliance Contractor represents and warrants to pay, at its sole expense, for all applicable permits, licenses, tariffs, tolls and fees to give all notices and comply with all laws, ordinances, rules and regulations of any governmental entity in conjunction with the performance of obligations under the Contract. Prior to award and during the Contract term and any renewals thereof, Contractor must establish to the satisfaction of the Commissioner that it meets or exceeds all requirements of the Bid/Contract and any applicable laws, including but not limited to, permits, insurance coverage, licensing, proof of coverage for worker's compensation, and shall provide such proof as required by the Commissioner. Failure to do so may constitute grounds for the Commissioner to cancel or suspend this Contract, in whole or in part, or to take any other action deemed necessary by the Commissioner.

d. Product Warranty Unless recycled or recovered materials are available in accordance with the "Recycled or Recovered Materials" clause, Product offered shall be standard new equipment, current model or most recent release of regular stock product with all parts regularly used with the type of equipment offered; and no attachment or part has been substituted or applied contrary to the manufacturer's recommendations and standard practice.

Contractor further warrants and represents that components or deliverables specified and furnished by or through Contractor shall individually, and where specified and furnished as a system, be substantially uninterrupted or error-free in operation and guaranteed against faulty material and workmanship for the warranty period, or for a minimum of one (1) year from the date of acceptance, whichever is longer ("Project warranty period"). During the Project warranty period, defects in the materials or workmanship of components or deliverables specified and furnished by or through Contractor shall be repaired or replaced by Contractor at no cost or expense to the Authorized User. Contractor shall extend the Project warranty period for individual component(s), or for the System as a whole, as applicable, by the cumulative period(s) of time, after notification, during which an individual component or the System requires servicing or replacement (down time) or is in the possession of the Contractor, its agents, officers, Subcontractors, distributors, resellers or employees ("extended warranty").

Where Contractor, the Independent Software Vendor "ISV," or other third party manufacturer markets any Project Deliverable delivered by or through Contractor with a standard commercial warranty, such standard warranty shall be in addition to, and not relieve the Contractor from, Contractor's warranty obligations during the project warranty and extended warranty period(s). Where such standard commercial warranty covers all or some of the Project warranty or extended warranty period(s), Contractor shall be responsible for the coordination during the Project warranty or extended warranty period(s) with ISV or other third party manufacturer(s) for warranty repair or replacement of ISV or other third party manufacturer's Product.

Where Contractor, ISV or other third party manufacturer markets any Project Deliverable with a standard commercial warranty which goes beyond the Project warranty or extended warranty period(s),

Contractor shall notify the Authorized User and pass through the manufacturer's standard commercial warranty to Authorized User at no additional charge; provided, however, that Contractor shall not be responsible for coordinating services under the third party extended warranty after expiration of the Project warranty and extended warranty period(s).

e. Replacement Parts Warranty If during the regular or extended warranty period's faults develop, the Contractor shall promptly repair or, upon demand, replace the defective unit or component part affected. All costs for labor and material and transportation incurred to repair or replace defective Product during the warranty period shall be borne solely by the Contractor, and the State or Authorized User shall in no event be liable or responsible therefor.

Any part of component replaced by the Contractor under the Contract warranty shall be replaced at no cost to the Authorized User and guaranteed for the greater of: a) the warranty period under paragraph (d) above; or b) if a separate warranty for that part or component is generally offered by the manufacturer, the standard commercial warranty period offered by the manufacturer for the individual part or component.

f. Virus Warranty The Contractor represents and warrants that Licensed Software contains no known viruses. Contractor is not responsible for viruses introduced at Licensee's site.

g. Date/Time Warranty Contractor warrants that Product(s) furnished pursuant to this Contract shall, when used in accordance with the Product documentation, be able to accurately process date/time data (including, but not limited to, calculating, comparing, and sequencing) transitions, including leap year calculations. Where a Contractor proposes or an acquisition requires that specific Products must perform as a package or system, this warranty shall apply to the Products as a system.

Where Contractor is providing ongoing services, including but not limited to: i) consulting, integration, code or data conversion, ii) maintenance or support services, iii) data entry or processing, or iv) contract administration services (e.g., billing, invoicing, claim processing), Contractor warrants that services shall be provided in an accurate and timely manner without interruption, failure or error due to the inaccuracy of Contractor's business operations in processing date/time data (including, but not limited to, calculating, comparing, and sequencing) various date/time transitions, including leap year calculations. Contractor shall be responsible for damages resulting from any delays, errors or untimely performance resulting therefrom, including but not limited to the failure or untimely performance of such services.

This Date/Time Warranty shall survive beyond termination or expiration of this contract through: a) ninety (90) days or b) the Contractor's or Product manufacturer/developer's stated date/time warranty term, whichever is longer. Nothing in this warranty statement shall be construed to limit any rights or remedies otherwise available under this Contract for breach of warranty.

h. Workmanship Warranty Contract warrants that all components or deliverables specified and furnished by or through Contractor under the Project Definition/Work Order meet the completion criteria set forth in the Project Definition/Work Order and any subsequent statement(s) of work, and that services will be provided in a workmanlike manner in accordance with industry standards.

i. Survival of Warranties All warranties contained in this Contract shall survive the termination of this Contract.

73. LEGAL COMPLIANCE Contractor represents and warrants that it shall secure all notices and comply with all laws, ordinances, rules and regulations of any governmental entity in conjunction with the performance of obligations under the Contract. Prior to award and during the Contract term and any renewals thereof, Contractor must establish to the satisfaction of the Commissioner that it meets or exceeds all requirements of the Bid and Contract and any applicable laws, including but not limited to, permits, licensing, and shall provide such proof as required by the Commissioner. Failure to comply or failure to provide proof may constitute grounds for the Commissioner to cancel or suspend the Contract, in whole or in part, or to take any other action deemed necessary by the Commissioner. Contractor also agrees to disclose information and provide affirmations and certifications to comply with Sections 139-j and 139-k of the State Finance Law.

74. INDEMNIFICATION Contractor shall be fully liable for the actions of its agents, employees, partners or Subcontractors and shall fully indemnify and save harmless the Authorized Users from suits, actions, damages and costs of every name and description relating to personal injury and damage to real or personal tangible property caused by any intentional act or negligence of Contractor, its agents, employees, partners or Subcontractors, without limitation; provided, however, that the Contractor shall not indemnify for that portion of any claim, loss or damage arising hereunder due to the negligent act or failure to act of the Authorized Users.

75. INDEMNIFICATION RELATING TO THIRD PARTY RIGHTS The Contractor will also indemnify and hold the Authorized Users harmless from and against any and all damages, expenses (including reasonable attorneys' fees), claims, judgments, liabilities and costs that may be finally assessed against the Authorized Users in any action for infringement of a United States Letter Patent, or of any copyright, trademark, trade secret or other third party proprietary right except to the extent such claims arise from the Authorized Users gross negligence or willful misconduct, provided that the State shall give Contractor: (i) prompt written notice of any action, claim or threat of infringement suit, or other suit, (ii) the opportunity to take over, settle or defend such action, claim or suit at Contractor's sole expense, and (iii) assistance in the defense of any such action at the expense of Contractor.

If usage shall be enjoined for any reason or if Contractor believes that it may be enjoined, Contractor shall have the right, at its own expense and sole discretion to take action in the following order of precedence: (i) to procure for the Authorized User the right to continue Usage (ii) to modify the service or Product so that Usage becomes non-infringing, and is of at least equal quality and performance; or (iii) to replace said service or Product or part(s) thereof, as applicable, with non-infringing service or Product of at least equal quality and performance. If the above remedies are not available, the parties shall terminate the Contract, in whole or in part as necessary and applicable, provided the Authorized User is given a refund for any amounts paid for the period during which Usage was not feasible.

The foregoing provisions as to protection from third party rights shall not apply to any infringement occasioned by modification by the Authorized User of any Product without Contractor's approval.

In the event that an action at law or in equity is commenced against the Authorized User arising out of a claim that the Authorized User's use of the service or Product under the Contract infringes any patent, copyright or proprietary right, and Contractor is of the opinion that the allegations in such action in whole or in part are not covered by the indemnification and defense provisions set forth in the Contract, Contractor shall immediately notify the Authorized User and the

Office of the Attorney General in writing and shall specify to what extent Contractor believes it is obligated to defend and indemnify under the terms and conditions of the Contract. Contractor shall in such event protect the interests of the Authorized User and secure a continuance to permit the Authorized User to appear and defend its interests in cooperation with Contractor, as is appropriate, including any jurisdictional defenses the Authorized User may have. This constitutes the Authorized User's sole and exclusive remedy for patent infringement, or for infringement of any other third party proprietary right.

76. LIMITATION OF LIABILITY Except as otherwise set forth in the Indemnification Paragraphs above, the limit of liability shall be as follows:

a. Contractor's liability for any claim, loss or liability arising out of, or connected with the Products and services provided, and whether based upon default, or other liability such as breach of contract, warranty, negligence, misrepresentation or otherwise, shall in no case exceed direct damages in: (i) an amount equal to two (2) times the charges specified in the Purchase Order for the Products and services, or parts thereof forming the basis of the Authorized User's claim, (said amount not to exceed a total of twelve (12) months charges payable under the applicable Purchase Order) or (ii) one million dollars (\$1,000,000), whichever is greater.

b. The Authorized User may retain such monies from any amount due Contractor as may be necessary to satisfy any claim for damages, costs and the like asserted against the Authorized User unless Contractor at the time of the presentation of claim shall demonstrate to the Authorized User's satisfaction that sufficient monies are set aside by the Contractor in the form of a bond or through insurance coverage to cover associated damages and other costs.

c. Notwithstanding the above, neither the Contractor nor the Authorized User shall be liable for any consequential, indirect or special damages of any kind which may result directly or indirectly from such performance, including, without limitation, damages resulting from loss of use or loss of profit by the Authorized User, the Contractor, or by others.

77. INSURANCE Contractor shall secure and maintain insurance coverage as specified in the Bid Documents and shall promptly provide documentation of specified coverages to the Authorized User. If specified, the Contractor may be required to add the Authorized User as an additional insured.

THE FOLLOWING CLAUSES PERTAIN TO TECHNOLOGY & NEGOTIATED CONTRACTS

78. SOFTWARE LICENSE GRANT Where Product is acquired on a licensed basis the following shall constitute the license grant:

a. **License Scope** Licensee is granted a non-exclusive, perpetual license to use, execute, reproduce, display, perform, or merge the Product within its business enterprise in the United States up to the maximum licensed capacity stated on the Purchase Order. Product may be accessed, used, executed, reproduced, displayed or performed up to the capacity measured by the applicable licensing unit stated on the Purchase Order (i.e., payroll size, number of employees, CPU, MIPS, MSU, concurrent user, workstation). Licensee shall have the right to use and distribute modifications or customizations of the Product to and for use by any Authorized Users otherwise licensed to use the Product, provided that any modifications, however extensive, shall not diminish Licensor's proprietary title or interest. No license, right or

interest in any trademark, trade name, or service mark is granted hereunder.

b. License Term The license term shall commence upon the License Effective Date, provided, however, that where an acceptance or trial period applies to the Product, the License Term shall be extended by the time period for testing, acceptance or trial.

c. Licensed Documentation If commercially available, Licensee shall have the option to require the Contractor to deliver, at Contractor's expense: (i) one (1) hard copy and one (1) master electronic copy of the Documentation in a mutually agreeable format; (ii) based on hard copy instructions for access by downloading from the Internet (iii) hard copies of the Product Documentation by type of license in the following amounts, unless otherwise mutually agreed:

- Individual/Named User License - one (1) copy per License
- Concurrent Users - 10 copies per site
- Processing Capacity - 10 copies per site

Software media must be in a format specified by the Authorized User, without requiring any type of conversion.

Contractor hereby grants to Licensee a perpetual license right to make, reproduce (including downloading electronic copies of the Product) and distribute, either electronically or otherwise, copies of Product Documentation as necessary to enjoy full use of the Product in accordance with the terms of license.

d. Product Technical Support & Maintenance Licensee shall have the option of electing the Product technical support and maintenance ("maintenance") set forth in the Contract by giving written notice to Contractor any time during the Centralized Contract term. Maintenance term(s) and any renewal(s) thereof are independent of the expiration of the Centralized Contract term and will not automatically renew.

Maintenance shall include, at a minimum, (i) the provision of error corrections, updates, revisions, fixes, upgrade and new releases to Licensee, and (ii) Help Desk assistance with locally accessible "800" or toll free, local telephone service, or alternatively on-line Help Desk accessibility. Contractor shall maintain the Products so as to provide Licensee with the ability to utilize the Products in accordance with the Product documentation without significant functional downtime to its ongoing business operations during the maintenance term.

Authorized User shall not be required to purchase maintenance for use of Product, and may discontinue maintenance at the end of any current maintenance term upon notice to Contractor. In the event that Authorized User does not initially acquire or discontinues maintenance of licensed Product, it may, at any time thereafter, reinstate maintenance for Product without any additional penalties or other charges, by paying Contractor the amount which would have been due under the Contract for the period of time that such maintenance had lapsed, at then current NYS net maintenance rates.

e. Permitted License Transfers As Licensee's business operations may be altered, expanded or diminished, licenses granted hereunder may be transferred or combined for use at an alternative or consolidated site not originally specified in the license, including transfers between Agencies ("permitted license transfers"). Licensee(s) do not have to obtain the approval of Contractor for permitted license transfers, but must give thirty (30) days prior written notice to Contractor of such move(s) and certify in writing that the Product is not in use at the prior site. There shall be no additional license or other transfer fees due Contractor, provided that: i) the

maximum capacity of the consolidated machine is equal to the combined individual license capacity of all licenses running at the consolidated or transferred site (e.g., named users, seats, or MIPS); or ii) if the maximum capacity of the consolidated machine is greater than the individual license capacity being transferred, a logical or physical partition or other means of restricting access will be maintained within the computer system so as to restrict use and access to the Product to that unit of licensed capacity solely dedicated to beneficial use for Licensee. In the event that the maximum capacity of the consolidated machine is greater than the combined individual license capacity of all licenses running at the consolidated or transferred site, and a logical or physical partition or other means of restricting use is not available, the fees due Contractor shall not exceed the fees otherwise payable for a single license for the upgrade capacity.

f. Restricted Use By Outsourcers / Facilities Management, Service Bureaus / or Other Third Parties Outsourcers, facilities management or service bureaus retained by Licensee shall have the right to use the Product to maintain Licensee's business operations, including data processing, for the time period that they are engaged in such activities, provided that: 1) Licensee gives notice to Contractor of such party, site of intended use of the Product, and means of access; and 2) such party has executed, or agrees to execute, the Product manufacturer's standard nondisclosure or restricted use agreement which executed agreement shall be accepted by the Contractor ("Non-Disclosure Agreement"); and 3) if such party is engaged in the business of facility management, outsourcing, service bureau or other services, such third party will maintain a logical or physical partition within its computer system so as to restrict use and access to the program to that portion solely dedicated to beneficial use for Licensee. In no event shall Licensee assume any liability for third party's compliance with the terms of the Non-Disclosure Agreement, nor shall the Non-Disclosure Agreement create or impose any liabilities on the State or Licensee.

Any third party with whom a Licensee has a relationship for a state function or business operation, shall have the temporary right to use Product (e.g., JAVA Applets), provided that such use shall be limited to the time period during which the third party is using the Product for the function or business activity.

g. Archival Back-Up and Disaster Recovery Licensee may use and copy the Product and related Documentation in connection with: i) reproducing a reasonable number of copies of the Product for archival backup and disaster recovery procedures in the event of destruction or corruption of the Product or disasters or emergencies which require Licensee to restore backup(s) or to initiate disaster recovery procedures for its platform or operating systems; ii) reproducing a reasonable number of copies of the Product and related Documentation for cold site storage. "Cold Site" storage shall be defined as a restorable back-up copy of the Product not to be installed until and after the declaration by the Licensee of a disaster; iii) reproducing a back-up copy of the Product to run for a reasonable period of time in conjunction with a documented consolidation or transfer otherwise allowed herein. "Disaster Recovery" shall be defined as the installation and storage of Product in ready-to-execute, back-up computer systems prior to disaster or breakdown which is not used for active production or development.

h. Confidentiality Restrictions The Product is a trade secret, copyrighted and proprietary product. Licensee and its employees will keep the Product strictly confidential, and Licensee will not disclose or otherwise distribute or reproduce any Product to anyone other than as authorized under the terms of Contract. Licensee will not remove or destroy any proprietary markings of Contractor.

i. Restricted Use by Licensee Except as expressly authorized by the terms of license, Licensee shall not:

- (i) Copy the Product;
- (ii) Cause or permit reverse compilation or reverse assembly of all or any portion of the Product;
- (iii) Export the Licensed Software in violation of any U.S. Department of Commerce export administration regulations.

79. PRODUCT ACCEPTANCE Unless otherwise provided by mutual agreement of the Authorized User and the Contractor, Authorized User(s) shall have thirty (30) days from the date of delivery to accept hardware products and sixty (60) days from the date of delivery to accept all other Product. Where the Contractor is responsible for installation, acceptance shall be from completion of installation. Failure to provide notice of acceptance or rejection or a deficiency statement to the Contractor by the end of the period provided for under this clause constitutes acceptance by the Authorized User(s) as of the expiration of that period. The License Term shall be extended by the time periods allowed for trial use, testing and acceptance unless the Commissioner or Authorized User agrees to accept the Product at completion of trial use.

Unless otherwise provided by mutual agreement of the Authorized User and the Contractor, Authorized User shall have the option to run testing on the Product prior to acceptance, such tests and data sets to be specified by User. Where using its own data or tests, Authorized User must have the tests or representative set of data available upon delivery. This demonstration will take the form of a documented installation test, capable of observation by the Authorized User, and shall be made part of the Contractor's standard documentation. The test data shall remain accessible to the Authorized User after completion of the test.

In the event that the documented installation test cannot be completed successfully within the specified acceptance period, and the Contractor or Product is responsible for the delay, Authorized User shall have the option to cancel the order in whole or in part, or to extend the testing period for an additional thirty (30) day increment. Authorized User shall notify Contractor of acceptance upon successful completion of the documented installation test. Such cancellation shall not give rise to any cause of action against the Authorized User for damages, loss of profits, expenses, or other remuneration of any kind.

If the Authorized User elects to provide a deficiency statement specifying how the Product fails to meet the specifications within the testing period, Contractor shall have thirty (30) days to correct the deficiency, and the Authorized User shall have an additional sixty (60) days to evaluate the Product as provided herein. If the Product does not meet the specifications at the end of the extended testing period, Authorized User, upon prior written notice to Contractor, may then reject the Product and return all defective Product to Contractor, and Contractor shall refund any monies paid by the Authorized User to Contractor therefor. Costs and liabilities associated with a failure of the Product to perform in accordance with the functionality tests or product specifications during the acceptance period shall be borne fully by Contractor to the extent that said costs or liabilities shall not have been caused by negligent or willful acts or omissions of the Authorized User's agents or employees. Said costs shall be limited to the amounts set forth in the Limitation of Liability Clause for any liability for costs incurred at the direction or recommendation of Contractor.

80. AUDIT OF LICENSED PRODUCT USAGE Contractor shall have the right to periodically audit, no more than annually, at Contractor's expense, use of licensed Product at any site where a copy

of the Product resides provided that: (i) Contractor gives Licensee(s) at least thirty (30) days advance written notice, (ii) such audit is conducted during such party's normal business hours, (iii) the audit is conducted by an independent auditor chosen on mutual agreement of the parties. Contractor shall recommend a minimum of three (3) auditing/accounting firms from which the Licensee will select one (1). In no case shall the Business Software Alliance (BSA), Software Publishers Association (SPA), Software and Industry Information Association (SIIA) or Federation Against Software Theft (FAST) be used directly or indirectly to conduct audits, or be recommended by Contractor; (iv) Contractor and Licensee are each entitled to designate a representative who shall be entitled to participate, and who shall mutually agree on audit format, and simultaneously review all information obtained by the audit. Such representatives also shall be entitled to copies of all reports, data or information obtained from the audit; and (v) if the audit shows that such party is not in compliance, Licensee shall be required to purchase additional licenses or capacities necessary to bring it into compliance and shall pay for the unlicensed capacity at the NYS Net Price in effect at time of audit, or if none, then at the Contractor's U.S. Commercial list price. Once such additional licenses or capacities are purchased, Licensee shall be deemed to have been in compliance retroactively, and Licensee shall have no further liability of any kind for the unauthorized use of the software.

81. OWNERSHIP/TITLE TO PROJECT DELIVERABLES

a. Definitions

(i) For purposes of this paragraph, "Products." A deliverable furnished under this Contract by or through Contractor, including existing and custom Products, including, but not limited to: a) components of the hardware environment, b) printed materials (including but not limited to training manuals, system and user documentation, reports, drawings), whether printed in hard copy or maintained on diskette, CD, DVD or other electronic media c) third party software, d) modifications, customizations, custom programs, program listings, programming tools, data, modules, components, and e) any properties embodied therein, whether in tangible or intangible form (including but not limited to utilities, interfaces, templates, subroutines, algorithms, formulas, source code, object code).

(ii) For purposes of this paragraph, "Existing Products." Tangible Products and intangible licensed Products that exist prior to the commencement of work under the Contract. Contractor bears the burden of proving that a particular product was in existence prior to the commencement of the Project.

(iii) For purposes of this paragraph, "Custom Products." Products, preliminary, final or otherwise, which are created or developed by Contractor, its Subcontractors, partners, employees or agents for Authorized User under the Contract.

b. Title to Project Deliverables Contractor acknowledges that it is commissioned by the Authorized User to perform the services detailed in the Purchase Order. Unless otherwise specified in writing in the Bid or Purchase Order, the Authorized User shall have ownership and license rights as follows:

(i) Existing Products:

1. Hardware - Title and ownership of Existing Hardware Product shall pass to Authorized User upon Acceptance.

2. Software - Title and ownership to Existing Software Product(s) delivered by Contractor under the Contract that is normally commercially distributed on a license basis by the Contractor or other independent software vendor proprietary owner ("Existing Licensed Product"), whether or not embedded in, delivered or operating in conjunction with hardware or Custom Products, shall remain with Contractor or the proprietary owner of other independent software

vendor(s) (ISV). Effective upon acceptance, such Product shall be licensed to Authorized User in accordance with the Contractor or ISV owner's standard license agreement, provided, however, that such standard license, must, at a minimum: (a) grant Authorized User a non-exclusive, perpetual license to use, execute, reproduce, display, perform, adapt (unless Contractor advises Authorized User as part of Contractor's proposal that adaptation will violate existing agreements or statutes and Contractor demonstrates such to the Authorized User's satisfaction) and distribute Existing Licensed Product to the Authorized User up to the license capacity stated in the Purchase Order or work order with all license rights necessary to fully effect the general business purpose(s) stated in the Bid or Authorized User's Purchase Order or work order, including the financing assignment rights set forth in paragraph (c) below; and (b) recognize the State of New York as the licensee where the Authorized User is a state agency, department, board, commission, office or institution. Where these rights are not otherwise covered by the ISV's owner's standard license agreement, the Contractor shall be responsible for obtaining these rights at its sole cost and expense. The Authorized User shall reproduce all copyright notices and any other legend of ownership on any copies authorized under this paragraph.

(ii.) **Custom Products:** Effective upon creation of Custom Products, Contractor hereby conveys, assigns and transfers to Authorized User the sole and exclusive rights, title and interest in Custom Product(s), whether preliminary, final or otherwise, including all trademark and copyrights. Contractor hereby agrees to take all necessary and appropriate steps to ensure that the Custom Products are protected against unauthorized copying, reproduction and marketing by or through Contractor, its agents, employees, or Subcontractors. Nothing herein shall preclude the Contractor from otherwise using the related or underlying general knowledge, skills, ideas, concepts, techniques and experience developed under a Purchase Order, project definition or work order in the course of Contractor's business. Authorized User may, by providing written notice thereof to the Contractor, elect in the alternative to take a non-exclusive perpetual license to Custom Products in lieu of Authorized User taking exclusive ownership and title to such Products. In such case, Licensee on behalf of all Authorized Users shall be granted a non-exclusive perpetual license to use, execute, reproduce, display, perform, adapt and distribute Custom Product as necessary to fully effect the general business purpose(s) as stated in paragraph (b)(i)(2), above.

c. Transfers or Assignments to a Third Party Financing Agent It is understood and agreed by the parties that a condition precedent to the consummation of the purchase (s) under the Contract may be the obtaining of acceptable third party financing by the Authorized User. The Authorized User shall make the sole determination of the acceptability of any financing proposal. The Authorized User will make all reasonable efforts to obtain such financing, but makes no representation that such financing has been obtained as of the date of Bid receipt. Where financing is used, Authorized User may assign or transfer its rights in Licensed Products (existing or custom) to a third party financing entity or trustee ("Trustee") as collateral where required by the terms of the financing agreement. Trustee's sole rights with respect to transferability or use of Licensed Products shall be to exclusively sublicense to Authorized User all of its Licensee's rights under the terms and conditions of the License Agreement; provided, further, however, in the event of any termination or expiration of such sublicense by reason of payment in full, all of Trustee's rights in such Licensed Product shall terminate immediately and Authorized User's prior rights to such Existing Licensed Product shall be revived.

d. Sale or License of Custom Products Involving Tax-Exempt Financing (i.e., Certificates of Participation - COPS) The Authorized User's sale or other transfer of Custom Products which were acquired by

the Authorized User using third party, tax-exempt financing may not occur until such Custom Products are, or become, useable. In the event that the Contractor wishes to obtain ownership rights to Custom Product(s), the sale or other transfer shall be at fair market value determined at the time of such sale or other transfer, and must be pursuant to a separate written agreement in a form acceptable to the Authorized User which complies with the terms of this paragraph.

e. Contractor's Obligation with Regard to ISV (Third Party) Product Where Contractor furnishes Existing Licensed Product(s) as a Project Deliverable, and sufficient rights necessary to effect the purposes of this section are not otherwise provided in the Contractor or ISV's standard license agreement, Contractor shall be responsible for obtaining from the ISV third party proprietary owner/developer the rights set forth herein to the benefit of the Authorized User at Contractor's sole cost and expense.

82. PROOF OF LICENSE The Contractor must provide to each Licensee who places a Purchase Order either: (i) the Product developer's certified License Confirmation Certificates in the name of such Licensee; or (ii) a written confirmation from the Proprietary owner accepting Product invoice as proof of license. Contractor shall submit a sample certificate, or alternatively such written confirmation from the proprietary developer. Such certificates must be in a form acceptable to the Licensee.

83. PRODUCT VERSION Purchase Orders shall be deemed to reference Manufacturer's most recently released model or version of the Product at time of order, unless an earlier model or version is specifically requested in writing by Authorized User and Contractor is willing to provide such version.

84. CHANGES TO PRODUCT OR SERVICE OFFERINGS

a. Product or Service Discontinuance Where Contractor is the Product Manufacturer/Developer, and Contractor publicly announces to all U.S. customers ("date of notice") that a Product is being withdrawn from the U.S. market or that maintenance service or technical support provided by Contractor ("withdrawn support") is no longer going to be offered, Contractor shall be required to: (i) notify the Commissioner, each Licensee and each Authorized User then under contract for maintenance or technical support in writing of the intended discontinuance; and (ii) continue to offer Product or withdrawn support upon the Contract terms previously offered for the greater of: a) the best terms offered by Contractor to any other customer, or b) not less than twelve (12) months from the date of notice; and (iii) at Authorized User's option, provided that the Authorized User is under contract for maintenance on the date of notice, either: provide the Authorized User with a Product replacement or migration path with at least equivalent functionality at no additional charge to enable Authorized User to continue use and maintenance of the Product.

In the event that the Contractor is not the Product Manufacturer, Contractor shall be required to: (i) provide the notice required under the paragraph above, to the entities described within five (5) business days of Contractor receiving notice from the Product Manufacturer, and (ii) include in such notice the period of time from the date of notice that the Product Manufacturer will continue to provide Product or withdraw support.

The provisions of this subdivision (a) shall not apply or eliminate Contractor's obligations where withdrawn support is being provided by an independent Subcontractor. In the event that such Subcontractor ceases to provide service, Contractor shall be responsible for subcontracting such service, subject to state approval, to an alternate Subcontractor.

b. **Product or Service Re-Bundling** In the event that Contractor is the Product manufacturer and publicly announces to all U.S. customers (“date of notice”) that a Product or maintenance or technical support offering is being re-bundled in a different manner from the structure or licensing model of the prior U.S. commercial offering, Contractor shall be required to: (i) notify the State and each Authorized User in writing of the intended change; (ii) continue to provide Product or withdrawn support upon the same terms and conditions as previously offered on the then-current NYS Contract for the greater of: a) the best terms offered by Contractor to any other customer, or b) not less than twelve (12) months from the date of notice; and (iii) shall submit the proposed rebundling change to the Commissioner for approval prior to its becoming effective for the remainder of the Contract term. The provisions of this section do not apply if the Contractor is not the Product manufacturer.

85. NO HARDSTOP/PASSIVE LICENSE MONITORING

Unless an Authorized User is otherwise specifically advised to the contrary in writing at the time of order and prior to purchase, Contractor hereby warrants and represents that the Product and all Upgrades do not and will not contain any computer code that would disable the Product or Upgrades or impair in any way its operation based on the elapsing of a period of time, exceeding an authorized number of copies, advancement to a particular date or other numeral, or other similar self-destruct mechanisms (sometimes referred to as “time bombs,” “time locks,” or “drop dead” devices) or that would permit Contractor to access the Product to cause such disablement or impairment (sometimes referred to as a “trap door” device). Contractor agrees that in the event of a breach or alleged breach of this provision that Authorized User shall not have an adequate remedy at law, including monetary damages, and that Authorized User shall consequently be entitled to seek a temporary restraining order, injunction, or other form of equitable relief against the continuance of such breach, in addition to any and all remedies to which Authorized User shall be entitled.

86. SOURCE CODE ESCROW FOR LICENSED PRODUCT

If Source Code or Source Code escrow is offered by either Contractor or Product manufacturer or developer to any other commercial customers, Contractor shall either: (i) provide Licensee with the Source Code for the Product; or (ii) place the Source Code in a third party escrow arrangement with a designated escrow agent who shall be named and identified to the State, and who shall be directed to release the deposited Source Code in accordance with a standard escrow agreement acceptable to the State; or (iii) will certify to the State that the Product manufacturer/developer has named the State, acting by and through the Authorized User, and the Licensee, as a named beneficiary of an established escrow arrangement with its designated escrow agent who shall be named and identified to the State and Licensee, and who shall be directed to release the deposited Source Code in accordance with the terms of escrow. Source Code, as well as any corrections or enhancements to such source code, shall be updated for each new release of the Product in the same manner as provided above and such updating of escrow shall be certified to the State in writing. Contractor shall identify the escrow agent upon commencement of the Contract term and shall certify annually that the escrow remains in effect in compliance with the terms of this paragraph.

The State may release the Source Code to Licensees under this Contract who have licensed Product or obtained services, who may use such copy of the Source Code to maintain the Product.

FOR NEGOTIATED CONTRACTS THE FOLLOWING CLAUSES ARE RESERVED BECAUSE BIDDING DOES NOT APPLY:

Clauses: 7, 8, 9, 10, 11, 12, 13, 16, 15, 21, 25, 26, 28, 29, 30, 31, 32, 33, 36, 49, 50, 52, 54 and 37

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