

**Attachment 10**

**Special Notes – NYSDOT Specific Projects**

**Liquid Bituminous Materials**  
**(2023 VPP NYSDOT Specific Projects)**  
**(Federal & State Funds)**

**IFB# 23293**

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**SECTION 1: CHIP SEAL - SPECIFIC PROJECTS**

**1.1 Introduction**

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.

**1.2 Pricing Information**

**1.2.1 General**

Price quoted for chip seal shall be net per square yard furnished, hauled, delivered, and applied with contractor’s equipment totally by the contractor at the locations indicated herein including the cost of labor, surface preparation, and materials, except liquid bituminous materials and cover sand. Liquid bituminous materials used for chip seal and fog seal, and the cover sand will be paid for under separate items. Price quoted per square yard of chip seal shall also include mobilization to the project site, the provision of Work Zone Traffic Control as indicated elsewhere in this Invitation for Bids, and Maintenance Materials Bond as listed in the *Maintenance Material Bonds* section in this Invitation for Bids. The price quoted per gallon of liquid bituminous materials for chip seal and fog seal shall include heating, hauling, and applying the liquid bituminous materials at the project locations indicated herein. The price quoted per square yard of cover sand shall include hauling and applying the necessary cover sand at the project locations indicated herein.

**1.3 Asphalt Price Adjustments**

**1.3.1 General**

- a. Asphalt price adjustments allowed will be based on the January 2023 average of the F.O.B. terminal price per ton of unmodified PG 64S-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 preapproved primary sources of performance graded binder in accordance with the New York State Department of Transportation Standard Specifications.

**The January 2023 average is \$626.00.**

**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 liquid bituminous materials purchased from any award based on this specification will be subject to adjustment based on the following formula:

Price Adjustment (per gallon)	=	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-bottom: 1px solid black;">New Monthly Average FOB Terminal Price</td> <td style="width: 5%; text-align: center;">-</td> <td style="width: 45%; border-bottom: 1px solid black;">Base Average Terminal Price</td> </tr> <tr> <td colspan="3" style="border-top: 1px solid black; padding-top: 5px;">235</td> </tr> </table>	New Monthly Average FOB Terminal Price	-	Base Average Terminal Price	235			X	Total Allowable Petroleum %
New Monthly Average FOB Terminal Price	-	Base Average Terminal Price								
235										

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.

**SECTION 1: CHIP SEAL - SPECIFIC PROJECTS (Cont'd)**

**New Monthly Average F.O.B. Terminal Price**

The average F.O.B. terminal price for unmodified PG 64S-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 64S-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation as of January 2023.

**Total Allowable Petroleum**

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

<b>Material Designation</b>	<b>Grade</b>	<b>Asphalt %</b>	<b>Petroleum Allowance %</b>	<b>Total Allowable Petroleum</b>
702-3101P	RS-2	63	2.7	65.7
702-3102P	HFRS-2	63	2.7	65.7
702-3301P	HFMS-2	65	8.2	73.2
702-4101P	CRS-2	65	2.7	67.7
702-XXXXT	Diluted Tack Coat	40	0.2	40.2

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 be based on the new average for the month in which the work is done applying the same base established for that 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 \$0.100 per ton/\$0.010 per gallon as applicable from the original price. In these instances, prices will revert 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 business 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 1: CHIP SEAL - SPECIFIC PROJECTS (Cont'd)**

**1.3.2 Asphalt Price Adjustment: Example**

Material Designation 702-3301P, HFMS-2  
 Base Avg. Price per Ton = \$626.000  
 New Avg. Price per Ton = \$636.000  
 Total % Asphalt Plus Petroleum Allowance = 73.2%

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per gallon)} \\ \hline \end{array} = \frac{(636.000 - 626.000)}{235} \times \begin{array}{|c|} \hline 0.732 \\ \hline \end{array}$$

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

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.

**1.4 Payment**

Payment for chip seal shall be made at contract price bid for the actual number of completed square yards of chip seal, actual numbers of gallons of bituminous materials for chip seal, actual numbers of gallons of bituminous materials for fog seal, actual number of square yards of cover sand used in the accepted portions of the work. The determination as to quantities involved in any contract shall be accepted as final and binding upon the contractor.

Payment of work zone traffic control and abrading the existing pavement markings shall be included in the payment for number of square yards of completed chip seal.

A delivery slip stating quantities of liquid bituminous materials (modified or unmodified emulsions) shall accompany each shipment. An invoice listing the quantities of surface treatment shall be sent promptly by the contractor to the resident engineer.

**1.5 Pre-Chip Seal Meeting**

The contractor shall schedule a Pre-Chip Seal Meeting with the affected Resident Engineer at least two weeks prior to the start of the work under this contract. Project level supervisors from contractor and from the state shall be present at this meeting. At this meeting contractor shall present their chip seal schedule, mix design, number and types of equipment, chip seal procedure, and Work Zone Traffic Control Plan to the state for approval. The mix design for the chip seal must show the quantity in gallons per square yard of fog seal, the quantity in pounds per square yard of cover sand, 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, quantity in pounds per square yards of fiber (if applicable), and the design curing time. All the component materials used in the mix design shall be representative of the material proposed by the contractors to be used on the project. Adjustment may be required during the construction based on field conditions and with the approval of the state.

The contractor shall also furnish the state the copies of the calibrations of the liquid bituminous materials distributor and the aggregate spreader at the same time. The contractor shall indicate the aggregate sources at this meeting. At least one week prior to the start of work under this contract, the contractor shall coordinate the details of the chip seal with the state's representative.

## SECTION 1: CHIP SEAL - SPECIFIC PROJECTS (Cont'd)

### 1.6 Bonding Requirements – Chip Seal

A Maintenance Material Bond is required for chip seal projects in this IFB. Please see sample in Attachment 11 – *Detailed Specifications – Liquid Bituminous Materials*.

Maintenance bond is to be provided to the attention of the Regional Director of Operations, or their Regional designee as determined at the Pre-Chip Seal meeting, for the corresponding Region. Each bond shall be specific to each Project Number, not contract, so that they may be released upon the completion of the terms in the contract for each corresponding Project/site.

### 1.7 Supervision

The Department of Transportation shall provide supervision for the chip seal operation, and pavement marking abrading if applicable. The Resident Engineer shall designate a Project Supervisor who shall be in charge of the operation. All orders pertaining to Work Zone Traffic Control plan from the Project 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 ENGINEER'S AUTHORITY, 105-05 VENDOR RESPONSIBILITY, 105-06 COOPERATION WITH UTILITIES AND OTHER CONTRACTORS.

### 1.8 Construction Details

The construction details shall comply with the requirements specified herein, including those appearing in the enclosed Attachment 11 - *Detailed Specifications – Liquid Bituminous Materials*. The project supervisor from the State shall have sole responsibility for determining compliance with the specifications. All orders given to the contractor regarding construction details shall be considered final.

### 1.9 Work Hours

Work shall not be permitted on Sundays and NYS Holidays. If the contractors desire to work overtime on other days, dispensation from NYS Labor Department must be obtained using Department of Labor Form PW-30 (04/21). Night work is prohibited unless agreed to by the Contractor and NYS Department of Transportation. All Overtime Dispensations requests shall be submitted to the Resident Engineer or his/her designee at the preconstruction meeting.

### 1.10 Special Note for Chip Seal

The Contractor will not be responsible for the initial conditioning of the existing pavement and shoulder surfaces as described in Section 402-3.05 of the NYSDOT Standard Specifications. Patching, joint repair, crack filling will be done by NYSDOT forces prior to the chip seal project. However, once work on the project begins, the Contractor is responsible for keeping the pavement and shoulders clean until the paving operations are completed, as per Section 633-3.01 of the NYSDOT Standard Specifications.

### 1.11 Restoration of Disturbed Areas

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

### 1.12 Damaged or Deficient Areas

Prior to acceptance and payment by the State for work under this contract, any placed pavement that ravels, delaminates, fails to properly cure, or is in any way defective shall be redone to the satisfaction of the State at the contractor's expense.

## SECTION 1: CHIP SEAL - SPECIFIC PROJECTS (Cont'd)

### 1.13 Work Zone Traffic Control

The vendor shall be responsible for work zone traffic control. Traffic shall be controlled in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and Sections 619-1 through 619-3 of the Standard Specifications 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 Meeting. For two-way roadways, NYSDOT 619 Standard Sheets 619-307, 619-308, 619-309, 619-312 and 619-314 may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way roadways, NYSDOT 619 Standard Sheets 619-302, 619-303, and 619-313 may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way Freeways or Expressways, NYSDOT 619 Standard Sheets 619-301, 619-302, 619-304, and 619-305 may be used as a basis for development of a Work Zone Traffic Control Plan. NYSDOT 619 Standard Sheets can be found at <https://webapps.dot.ny.gov/part-ii-619-standard-sheets>.

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 work operation is underway. One shall be stationed at each end of the applicable operation and one shall be stationed with the operation. For one-way roadways, a minimum of two flaggers shall be provided while the work operation is underway. One shall be stationed at the beginning of the applicable operation and one shall be stationed with the operation. 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.

All costs of Work Zone Traffic Control as prescribed by this specification including flagging, temporary pavement marking and/or delineation, and construction signs, are to be included in the unit price bid. No separate payment shall be made.

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. Signs left active at night shall be rigid and reflectorized in accordance with the Standard Specifications.

With prior permission of the State's Resident Engineer, the contractor may provide portable signs as shown in Figure 6F-2 of the MUTCD for the DO NOT PASS and NO CENTER LINE signs referenced in Section *Special Note - Temporary Pavement Markings*. 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 2' x 4" temporary yellow markings are used instead of full barrier pavement markings.

#### 1.13.1 Special Note – Permanent Construction Signs

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

(Continues on next page)

SECTION 1: CHIP SEAL - SPECIFIC PROJECTS (Cont'd)

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 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. (Place between the G20-1 and the first warning sign that states condition- i.e. W8-12, W8-9 or W8-15.)
DO NOT PASS	<u>R4-1</u> Conventional 24" x 30"	If 2' x 4" temporary yellow markings are used instead of full barrier centerline pavement markings, place the first sign at or within 100 feet of the beginning of the unmarked area, second within 1,000 feet and subsequent signs, spaced every ½ mile along project in each direction.
NO CENTER LINE	<u>W8-12</u> Conventional 36" x 36"	If 2' x 4" temporary yellow markings are used instead of full barrier centerline pavement markings, place the first sign in advance of the condition and the first "DO NOT PASS" sign: 300' urban is preferred (100' minimum), 500' rural is preferred (200' minimum). Place additional signs spaced every 2 miles on mainline in each direction and after every major intersecting road.
LOW SHOULDER	<u>W8-9</u> Conventional 36" x 36"  Freeways 48" x 48"	Place on mainline spaced every 2 miles along project in each direction and after every major intersecting road until shoulder back-up is installed (if conditions warrant use, place between the W8-12 and R4-1, maintaining a minimum of 200' between signs for rural roads and 100' on urban. The W8-12 can be moved upstream to accommodate the required spacing).
LOOSE GRAVEL	<u>W8-7</u> 36" x 36"	Place on mainline at start of the project and spaced every ½ mile along project in each direction.
30 MPH	<u>W13-1P</u> 18" x 18"	Mounted on W8-7 LOOSE GRAVEL sign.

\*\*All signs should maintain an absolute minimum spacing of 200' rural or 100' urban. 500' is preferred on rural and 300' is preferred on urban. Double stacking of any of the above signs, or combination thereof, will NOT be permitted.

## SECTION 1: CHIP SEAL - SPECIFIC PROJECTS (Cont'd)

### 1.13.2 **Special Note - Temporary Pavement Markings**

The Contractor 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 retroreflective removable pavement marking tape, paint or yellow temporary overlay markers installed on a 40 ft. cycle to delineate the centerline location.

The State 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 has completed installing the final pavement markings. The state 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 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 of chip seal.

### 1.13.3 **Special Note – Abrading Existing Pavement Markings**

The Contractor shall remove any epoxy or thermoplastic pavement markings. Other markings shall be removed as ordered by the Resident Engineer. 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. Waste material generated by the abrading operation shall be cleaned up and disposed of by the Vendor.

When the Contractor abrades the existing pavement markings, the Contractor shall place temporary pavement markings as specified elsewhere in this Invitation for Bids under Work Zone Traffic Control, unless the paving material will be placed the same day as pavement markings are abraded. The Contractor shall make every effort to expeditiously place the paving material in areas where pavement markings have been abraded and temporary pavement markings are in place. Under no circumstances will temporary pavement markings be allowed for more than five calendar days in areas where pavement markings have been abraded. In this event, the Contractor shall be required to place full pavement markings at no cost to the state. During the pavement markings abrading operation, traffic will be controlled by the Contractor in accordance with the Work Zone Traffic Control requirements included herein. The Contractor shall submit a proposed Traffic Control Plan to the Resident Engineer for approval. The plan may be based on the Work Zone Traffic Control drawings included in this Invitation for Bids.

Payment for pavement marking abrading shall be included in the price bid per square yard of chip seal. No separate payment shall be made.

## SECTION 1: CHIP SEAL - SPECIFIC PROJECTS (Cont'd)

### 1.13.4 **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 ft. shall be provided at 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 ft. from the work site, the 40-ft. spacing shall be used in the tapers as well.

Drums or vertical panels are preferred for intermediate to long-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 ft. 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 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 in this Invitation for Bids.

#### **Temporary Rumble Strips**

##### **a. Description**

This work shall consist of the installation, maintenance and subsequent removal of temporary rumble strips in paving 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.

Raised asphalt rumble strips shall be formed from asphalt mix meeting the requirements of Items 404.058904 or 404.098904. 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.

**SECTION 1: CHIP SEAL - SPECIFIC PROJECTS (Cont'd)**

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  $\pm$  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**

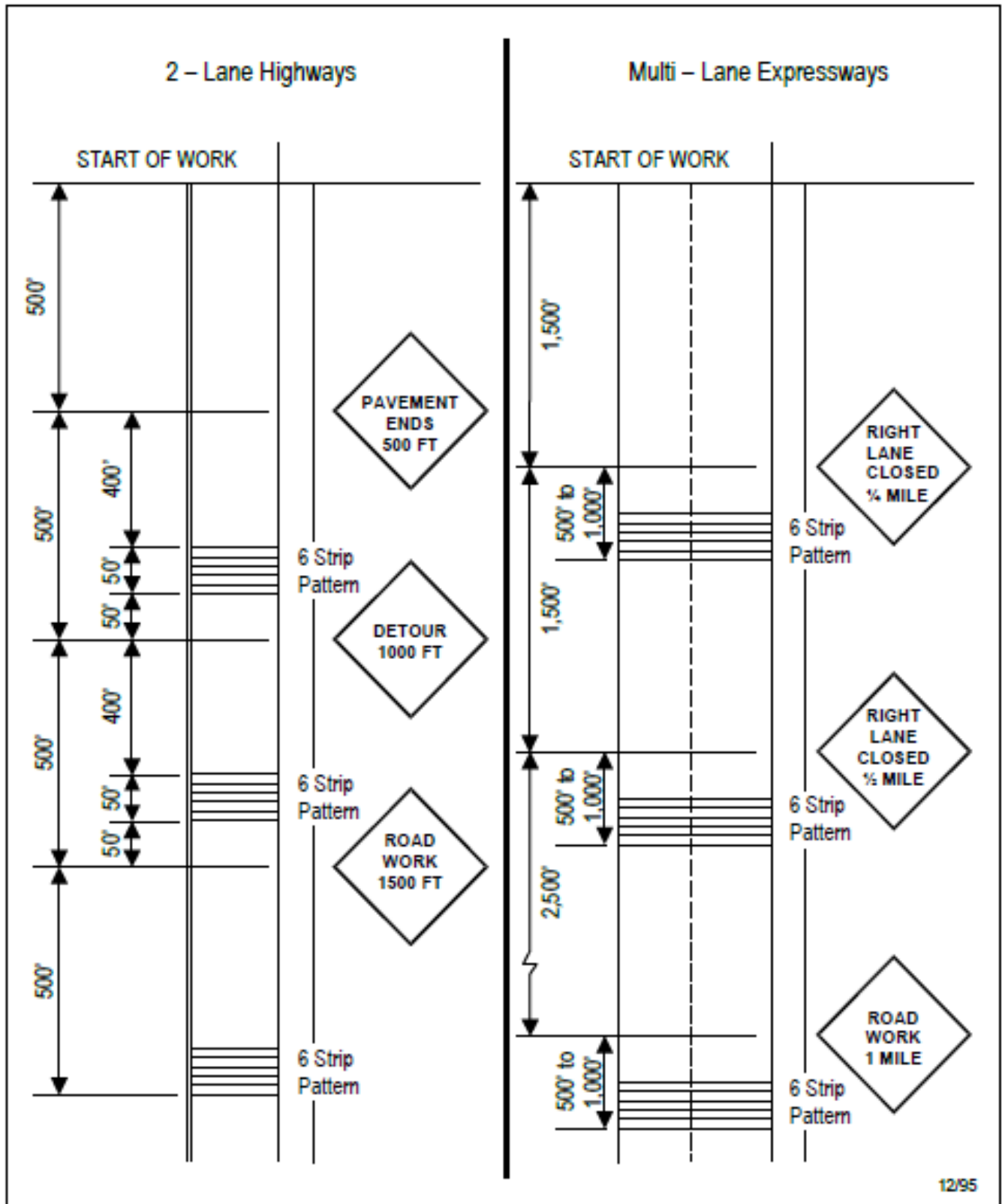
All costs for the installation, maintenance and removal of temporary rumble strips are included in the price per ton or square yard as appropriate. No separate payment shall be made.

**d. Suggested Layout Details Drawing-- Temporary Rumble Strips**

See the Suggested Layout Details Drawing on the **next page**.

SECTION 1: CHIP SEAL - SPECIFIC PROJECTS (Cont'd)

Suggested Layout Details – Temporary Rumble Strips





## SECTION 1: CHIP SEAL - SPECIFIC PROJECTS (Cont'd)

### 1.14 Special Notes – Chip Seal

#### 1.14.1 Funding Source (Chip Seal)

Projects 6V2312 and 9V2371 will be funded by Federal Aid.

#### 1.14.2 NYSDOT Region 6 Special Notes (Chip Seal)

##### Region 6 Specific Special Notes:

To minimize travel delays associated with major holidays, no work shall be permitted during the following periods:

- 6:00 am Friday, May 26, 2023 thru 6:00 am Tuesday, May 30, 2023 - (Memorial Day Holiday)
- 6:00 am Monday, July 3, 2023 thru 6:00 am Wednesday, July 5, 2023 - (July 4th Holiday)
- 6:00 am Friday, September 1, 2023 thru 6:00 am Tuesday, September 5, 2023 - (Labor Day Holiday)

Region 6 Chip Seal project shall be completed **no later than August 31, 2023**. A schedule reflecting this shall be submitted before start of work to the Region's Acting ARDO, Gary Shepard, for approval.

The Region requests all Preconstruction paperwork be submitted electronically as .pdf files to Gary.Shepard@dot.ny.gov prior to the preconstruction meeting, or all documentation be brought to the Preconstruction meeting electronically as .pdf files on a CD or USB "thumb" drive that will not be returned to the contractor.

In lieu of longitudinal cones full project length between open and closed lanes of traffic, the contractor may elect to substitute, when using pilot vehicles, use of cones placed transversely across the closed lane at intervals per section 619-3.02 J.2 (every 800') and at strategic locations, such as intersections and driveways.

Paint with beads is the only option permitted in Region 6 for temporary and interim pavement markings, unless approved on a case-by-case basis by the Resident Engineer. Offset the centerline temporary/interim pavement markings so that the permanent markings will cover up the temporary/interim markings, as follows: 8" centerline offset for 2 lane roads, 6" centerline offset for multi-lane roadways.

All stockpile, spoils, and clean-out sites need to be preapproved by the Regional Maintenance Environmental Coordinator, Lauren Richardson, prior to use.

#### **Project 6V2312**

Clean existing pavement and shoulder surfaces to be chip sealed, including ruts and depressions, by the use of mechanical sweepers, hand brooms, or other means until the surfaces are free of all material which might interfere with the bond between the overlay material and the existing surfaces. All cleaning equipment shall be approved by the Engineer prior to use. Remove all debris from the pavement and shoulders surfaces and dispose of in an appropriate manner. Cleaning of the existing roadway shall occur just ahead of the chip seal operation to ensure a clean roadway.

The cost of this work shall be incorporated in the cost per square yard of chip seal, no separate payment shall be made for this operation.

The sand seal shall be rolled into the fog seal with one pass of a rubber tire roller within 5 minutes of its placement to insure the sand bonds to the fog seal.

The cost of this work shall be incorporated in the cost per square yard of sand seal, no separate payment shall be made for this operation.

**SECTION 1: CHIP SEAL - SPECIFIC PROJECTS (Cont'd)**

**1.14.3 NYSDOT Region 9 Special Notes (Chip Seal)**

**Project 9V2271 – Sullivan County – Region 9**

No lane closures are permitted after 12 PM Friday through the following Sunday, on all weekends between Memorial Day and Labor Day.

The contractor shall clean existing pavement and shoulder surfaces to be chip sealed, including ruts and depressions, by the use of mechanical sweepers, hand brooms, or other means until the surfaces are free of all material which might interfere with the bond between the overlay material and the existing surfaces. All cleaning equipment shall be approved by the Engineer prior to use. Remove all debris from the pavement and shoulders surfaces and dispose of in an appropriate manner. Cleaning of the existing roadway shall occur just ahead of the chip seal operation to ensure a clean roadway. The cost of this work shall be incorporated in the cost per square yard of chip seal, no separate payment shall be made for this operation.

Temporary Road Pavement Markers (Chip Seal Markers) shall be placed every 100' along the centerline of the roadway in order to delineate centerline after chip sealing operations are complete. If the roadway has multiple travel lanes chip seal markers shall be placed along the lane lines at the same 100' interval. Marker color shall match lane line color and adhere well to the existing surface. If markers are damaged or missing prior to the chip seal passing the location of that marker replace the marker. The cost of this work shall be incorporated in the cost per square yard of chip seal, no separate payment shall be made for this operation.

The sand seal shall be rolled into the fog seal with one pass of a rubber tire roller within 5 minutes of its placement to insure the sand bonds to the fog seal. The cost of this work shall be incorporated in the cost per square yard of sand seal, no separate payment shall be made for this operation.

The Contractor shall inventory existing pavement markings and shall install permanent pavement marking in accordance with Item 640.20, Item 640.21, and NYS Standard Sheets 685-01. Permanent pavement markings shall be applied once final sweeping of the entire project is completed. The cost of all associated pavement marking work, including work zone traffic control, shall be included in the bid price of the various chip seal items.

According to the Natural Heritage Database there is an eagle's nest along Route 97 in one location, along this project's limits, as this section of road is adjacent to the Delaware River which is a nesting and wintering area for bald eagles.

Reference Marker	Nest name	Distance closest to Route 97
RM 97 9602/ 1140 - 1141	Barryville Nest A	150 feet

Work on this project shall not begin until after August 15th, 2023 to avoid affecting eagles nesting in the project vicinity.

Timber rattlesnake (*Crotalus horridus*), a state threatened species, is known to exist near the proposed project location in Sullivan County.

To mitigate disturbance to this species, no construction vehicles are permitted outside of the paved shoulder limits, except between RM 97 9602-1000 to 1060 and RM 97 9602-1084 to 1162.

## SECTION 1: CHIP SEAL - SPECIFIC PROJECTS (Cont'd)

**It is illegal to take (kill), import, transport, possess or sell an animal listed as Threatened without a license.**

### EDUCATION

- All personnel who work on the site will receive instructions on rattlesnakes and what to do in the event of a rattlesnake encounter.
- All such personnel must sign a log certifying that they have received instruction.

### ENCOUNTER

If this species is encountered within the work area, please adhere to the following protocol:

1. Stop all work immediately.
2. Evacuate the area and contact the Engineer in Charge (EIC).
3. Delay all work in the area until the snake has moved at least 250 feet from the work area. Maintain visual contact of the rattlesnake from a safe distance to track its whereabouts.
4. If the snakes do not move along on their own within two (2) hours, the EIC shall contact a qualified snake monitor licensed in New York State to handle and relocate snakes. Contact information for such monitors can be obtained from NYSDEC Region 3 Bureau of Wildlife at (845)256-3098.
5. Rattlesnake relocation or encounter must be reported within 24 hours to NYSDEC Region 3 Bureau of Wildlife at (845)256-3098.

### **1.15 Detailed Specifications – Chip Seal**

Please, see Attachment 11 – *Detailed Specifications – Liquid Bituminous Materials*.

#### **1.15.1 Project Dimensions - Chip Seal**

Information on pavement widths for projects in this Invitation for Bids is listed for informational purposes only. The dimensions listed in Attachment 12 – Project Dimensions are the best information available, but 100% accuracy is not guaranteed. Bidders should visit the project site to confirm the dimensions given and familiarize themselves with the project particulars before submitting a bid. NYS OGS/NYS DOT assumes no responsibility for erroneous information listed herein.

Please refer to Attachment 13 – *Project Dimensions* for the Project Dimensions Data.

## SECTION 2: COLD RECYCLING - SPECIFIC PROJECTS

### 2.1 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.

### 2.2 Pricing Information

#### 2.2.1 General

Price quoted for cold recycling shall be net per square yard completed with contractor's equipment totally by the contractor at the locations indicated herein. The price quoted for cold recycling per square yard shall also include mobilization to the project site and the provision of Work Zone Traffic Control as indicated elsewhere in this Invitation for Bids.

Some projects in this Invitation for Bids include an optional bid item to supply the liquid bituminous material necessary for the cold recycling. **Bidders shall either submit a bid for an emulsion or a PG binder per project, but not both.** The price quoted per gallon for **either** the asphalt emulsion or PG 64S-22 binder (liquid bituminous material) shall include heating, hauling, and applying the liquid bituminous material at the project locations indicated herein. The price quoted per ton for aggregate shall include hauling and applying the necessary aggregate as per the mix design at the project locations indicated herein.

If fog seal is applied, it will be paid under a separate item as the total volume of material used for fog seal operations. The price quoted per gallon of fog seal shall include heating, hauling, and applying the liquid bituminous material used for fog sealing operation at the project locations indicated herein.

If Portland cement is used, it will be paid under a separate item as the total tons of material used at the location. The price quoted per ton of Portland cement shall include hauling, delivery, and mixing.

### 2.3 Asphalt Price Adjustments

#### 2.3.1 General

- a. Asphalt price adjustments allowed will be based on the January 2023 average of the F.O.B. terminal price per ton of unmodified PG 64S-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 preapproved primary sources of performance graded binder in accordance with the New York State Department of Transportation Standard Specifications.

**The January 2023 average is \$626.000.**

**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 2: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)**

- c. The unit prices of liquid bituminous materials purchased from any award based on this specification will be subject to adjustment based on the following formula:

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per gallon)} \\ \hline \end{array} = \frac{\begin{array}{|c|} \hline \text{New Monthly} \\ \text{Average FOB} \\ \text{Terminal Price} \\ \hline \end{array} - \begin{array}{|c|} \hline \text{Base Average} \\ \text{Terminal} \\ \text{Price} \\ \hline \end{array}}{235} \times \begin{array}{|c|} \hline \text{Total} \\ \text{Allowable} \\ \text{Petroleum \%} \\ \hline \end{array}$$

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.

**New Monthly Average F.O.B. Terminal Price**

The average F.O.B. terminal price for unmodified PG 64S-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 64S-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation as of January 2023.

**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	8.2	73.2
702-3301	HFMS-2	65	8.2	73.2
702-3401	HFMS-2h	65	2.7	67.7
702-3402	HFMS-2s	65	8.2	73.2
702-3501	SS-1	65	0.2	65.2
702-3601	SS-1h	65	0.2	65.2
702-4201	CMS-2	65	10.2	75.2
702-4301	CMS-2h	65	10.2	75.2
702-4401	CSS-1	65	0.2	65.2
702-4501	CSS-1h	65	0.2	65.2
	PG 64S-22	100	0.2	100.2

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 be based on the new average for the month in which the work is done applying the same base established for that 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.

**SECTION 2: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)**

- 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 \$0.100 per ton/\$0.010 per gallon as applicable from the original price. In these instances, prices will revert 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 business 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.

**2.3.2 Asphalt Price Adjustment: Example**

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

Material Designation 702-3301, HFMS-2  
 Base Avg. Price per Ton = \$626.000  
 New Avg. Price per Ton = \$636.000  
 Total % Asphalt Plus Petroleum Allowance = 73.2%

$$\begin{array}{|c|} \hline \text{Price Adjustment} \\ \text{(per gallon)} \\ \hline \end{array} = \frac{(636.000 - 626.000)}{235} \times \begin{array}{|c|} \hline 0.732 \\ \hline \end{array}$$

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

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.

**2.4 Payment**

Payment for cold recycling shall be made at the contract price bid for the actual number of completed square yards of cold recycling; the actual number of tons of aggregate; the actual number of gallons of either asphalt emulsion (unmodified or modified) or PG 64S-22 binder at 60 degrees F verified by the receiving agency used in the accepted portions of the work; if used, the actual number of gallons of asphalt emulsion used for fog sealing at 60 degrees F verified by the receiving agency used in the accepted portions of the work; and if used, actual number of tons of Portland cement. 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 (unmodified or modified emulsion or PG 64S-22 binder) shall accompany each shipment. An invoice listing the quantities of cold recycling shall be sent promptly by the contractor to the engineer.

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 including sweeping by the contractor during the ten-day curing period and for an additional twenty days thereafter shall be done at the contractor's expense.

Payment for work zone traffic control shall be included in the payment for the number of square yards of completed recycling.

## SECTION 2: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)

### 2.5 Pre-Recycling Meeting

The contractor shall schedule a Pre-Recycling Meeting with the affected resident engineer 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 contractor shall be present at this meeting. At this meeting the contractor shall present Certificates of Insurance evidencing compliance with the additional insurance requirements set forth in the INSURANCE clause, their proposed recycling schedule, procedure, equipment, mix design, calibration and Work Zone Traffic Control Plan to the State for approval. Prior to the start of recycling, the contractor shall coordinate the details of the recycling with the resident engineer.

### 2.6 Supervision

The Department of Transportation shall provide supervision for the recycling operation, and pavement marking abrading if applicable. The Resident Engineer shall designate a Project Supervisor who shall be in charge of the operation. All orders pertaining to Work Zone Traffic Control plan from the Project 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 ENGINEER'S AUTHORITY, 105-05 VENDOR RESPONSIBILITY, 105-06 COOPERATION WITH UTILITIES AND OTHER CONTRACTORS.

### 2.7 Work Hours

Work shall not be permitted on Sundays and NYS Holidays. If the contractors desire to work overtime on other days, dispensation from NYS Labor Department must be obtained using Department of Labor Form PW-30 (04/21). Night work is prohibited unless agreed to by the Contractor and NYS Department of Transportation. All Overtime Dispensations requests shall be submitted to the Resident Engineer or his/her designee at the preconstruction meeting.

### 2.8 Construction Details

The construction details shall comply with the requirements specified herein, including those appearing in the enclosed Attachment 11 - *Detailed Specifications – Liquid Bituminous Materials*. The project supervisor from the State shall have sole responsibility for determining compliance with the specifications. All orders given to the contractor regarding construction details shall be considered final.

### 2.9 Restoration of Disturbed Areas

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

### 2.10 Damaged or Deficient Areas

Prior to acceptance and payment by the State for work under this contract, any placed pavement that ravels, delaminates, fails to properly cure, or is in any way defective shall be redone to the satisfaction of the State at the contractor's expense.

## SECTION 2: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)

### 2.11 Possible Mix Design – Cold Recycling

#### All NYSDOT Regions except Region 6

The Department may core the pavement and supply those cores to the contractor. The quantities shown on price pages are estimated and indicate the amount and type of added aggregate and the type and amount of asphalt emulsion and the amount of PG 64S-22 binder (if the option is provided) to properly recycle the pavement. The contractor shall develop their bids for square yards of cold recycling, aggregate and **either emulsion (unmodified or modified) or PG binder (if the option is provided) for each project** using the estimated quantities. After award, the contractor shall develop their own mix design as per the detailed specifications and submit it to the agency's representative for approval. The bidder shall submit a bid for cold recycling, aggregate, and either asphalt emulsion or PG 64S-22 binder (if the option is provided). **If the bidder's bid does not conform to these requirements, their bid offer will be rejected.** Core results may be obtained from respective Resident Engineer or Regional Materials Engineer.

#### Region 6

The possible mix design is shown on bid pages and indicates the amount and type of added aggregate and the type and amount of asphalt emulsion, and the amount of PG 64S-22 binder (if the option is provided) to properly recycle the pavement. The contractor shall develop their bids for square yards of cold recycling, aggregate and **either emulsion (unmodified or modified) or PG binder (if the option is provided) for each project** using the indicated possible mix design.

After award, the contractor shall take pavement cores and develop their own mix design and submit it to the agency's representative for approval. This mix design must be submitted a minimum of ten working days prior to the start of work. The bidder shall submit a bid for cold recycling, aggregate, and either asphalt emulsion or PG 64S-22 binder (if the option is provided). **If the bidder's bid does not conform to these requirements, their bid offer will be rejected.**

### 2.12 Work Zone Traffic Control

The vendor shall be responsible for work zone traffic control. Traffic shall be controlled in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and Sections 619-1 through 619-3 of the Standard Specifications 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-Cold Recycling Meeting. For two-way roadways, NYSDOT 619 Standard Sheets 619-307, 619-308, 619-309, 619-312 and 619-314 may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way roadways, NYSDOT 619 Standard Sheets 619-302, 619-303, and 619-313 may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way Freeways or Expressways, NYSDOT 619 Standard Sheets 619-301, 619-302, 619-304, and 619-305 may be used as a basis for development of a Work Zone Traffic Control Plan. NYSDOT 619 Standard Sheets can be found at <https://webapps.dot.ny.gov/part-ii-619-standard-sheets>.

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 work operation is underway. One shall be stationed at each end of the applicable operation and one shall be stationed with the operation. For one-way roadways, a minimum of two flaggers shall be provided while the work operation is underway. One shall be stationed at the beginning of the applicable operation and one shall be stationed with the operation. 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.

All costs of Work Zone Traffic Control as prescribed by this specification including flagging, temporary pavement marking and/or delineation, and construction signs, are to be included in the unit price bid. No separate payment shall be made.

#### **2.12.1 Special Note - Permanent Construction Signs**

The Contractor shall provide construction signs as specified in Section 619-1 through 619-3 of the Standard Specifications and in the MUTCD. At minimum the Contractor shall install the following permanent construction signs: (see next page).



SECTION 2: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)

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 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. (Place between the G20-1 and the first warning sign that states condition- i.e. W8-12, W8-9 or W8-15.)
DO NOT PASS	<u>R4-1</u> Conventional 24" x 30"	If 2'x 4" temporary yellow markings are used instead of full barrier centerline pavement markings, place the first sign at or within 100 feet of the beginning of the unmarked area, second within 1,000 feet and subsequent signs, spaced every ½ mile along project in each direction.
NO CENTER LINE	<u>W8-12</u> Conventional 36" x 36"	If 2'x 4" temporary yellow markings are used instead of full barrier centerline pavement markings, place the first sign in advance of the condition and the first "DO NOT PASS" sign: 300' urban is preferred (100' minimum), 500' rural is preferred (200' minimum). Place additional signs spaced every 2 miles on mainline in each direction and after every major intersecting road.
LOW SHOULDER	<u>W8-9</u> Conventional 36" x 36"  Freeways 48" x 48"	Place on mainline spaced every 2 miles along project in each direction and after every major intersecting road until shoulder back-up is installed (if conditions warrant use, place between the W8-12 and R4-1, maintaining a minimum of 200' between signs for rural roads and 100' on urban. The W8-12 can be moved upstream to accommodate the required spacing.)
GROOVED PAVEMENT	<u>W8-15</u> 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.

\*\*All signs should maintain an absolute minimum spacing of 200' rural or 100' urban. 500' is preferred on rural and 300' is preferred on urban. Double stacking of any of the above signs, or combination thereof, will NOT be permitted.

## SECTION 2: COLD RECYCLING - SPECIFIC PROJECTS (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. Signs left active at night shall be rigid and reflectorized in accordance with the Standard Specifications.

With prior permission of the State's Resident Engineer, the Vendor 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. 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 2' X 4" temporary yellow markings are used instead of full barrier pavement markings.

### 2.12.2 **Special Note – Temporary Pavement Markings**

The Contractor 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 retroreflective removable pavement marking tape, paint or yellow temporary overlay markers installed on a 40 ft. cycle to delineate the centerline location.

The State 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 has completed installing the final pavement markings. The state 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 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 or square yard as applicable.

### 2.12.3 **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 ft. shall be provided at 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 ft. from the work site, the 40-ft. spacing shall be used in the tapers as well.

Drums or vertical panels are preferred for intermediate to long-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 ft. 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 2: COLD RECYCLING - SPECIFIC PROJECTS (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 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 in this Invitation for Bids.

### **Temporary Rumble Strips**

#### **a. Description**

This work shall consist of the installation, maintenance and subsequent removal of temporary rumble strips in paving 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.

Raised asphalt rumble strips shall be formed from asphalt mix meeting the requirements of Items 404.058904 or 404.098904. 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**

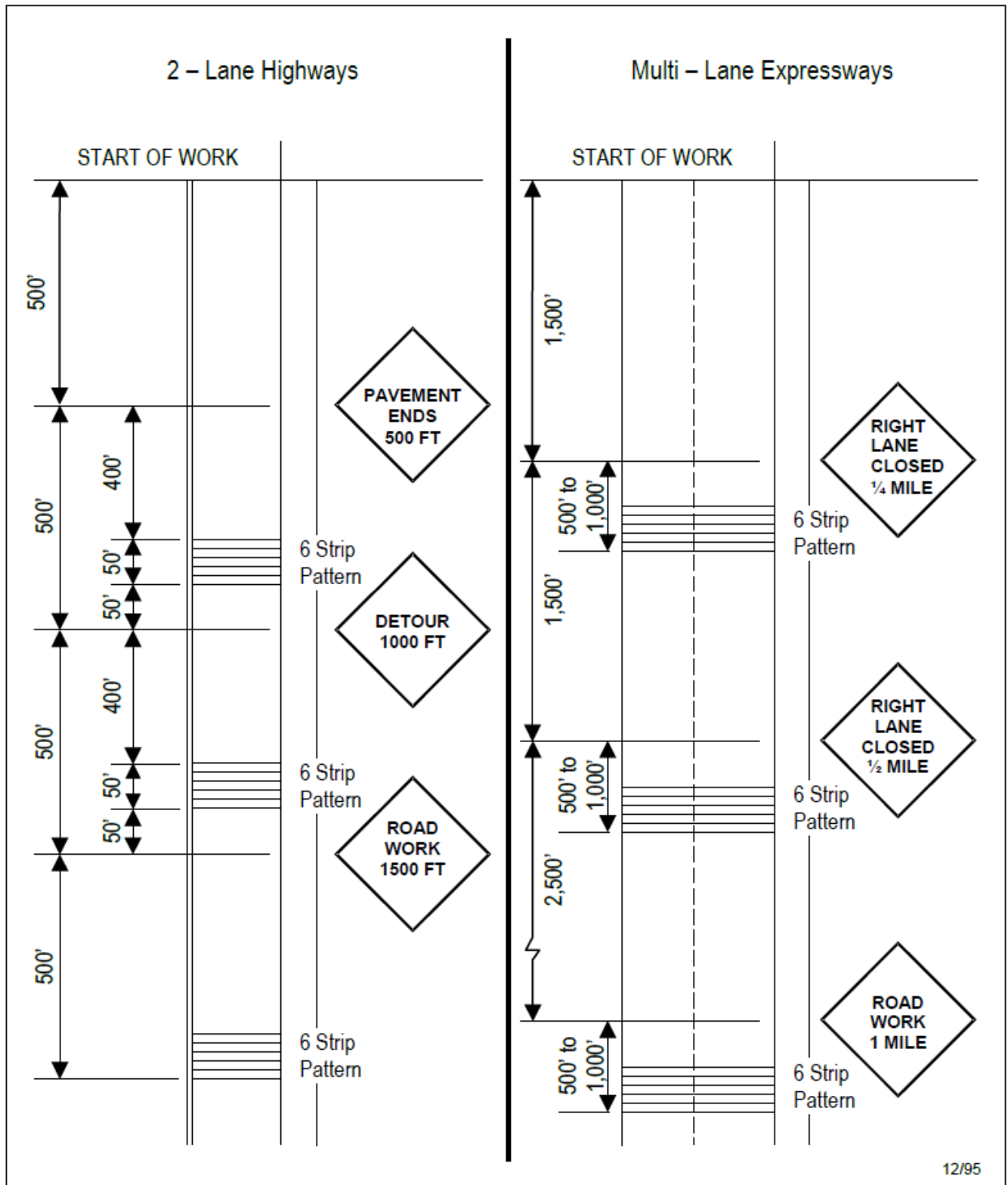
All costs for the installation, maintenance and removal of temporary rumble strips are included in the price per ton or square yard as appropriate. No separate payment shall be made.

#### **d. Suggested Layout Details Drawing-- Temporary Rumble Strips**

See the Suggested Layout Details Drawing on the next page.

SECTION 2: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)

Suggested Layout Details -- Temporary Rumble Strips



## SECTION 2: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)

### 2.13 Special Notes – Cold Recycling

#### 2.13.1 Funding Source (Cold Recycling)

Projects 9V2320, and 9V2340 will be funded by Federal Aid.

Projects 1V2311, 1V2341, and 1V2381 are 100% State funded.

#### 2.13.2 Special Note for Coordination with Other Projects (Cold Recycling)

All the projects in this Contract Award Notification involve asphalt mixture overlay to the cold recycling through separate contract(s). All projects shall require that the cold recycling contractor coordinates their work with the overlay contractor(s) to provide required curing period before placing the overlay as well as to minimize disruption to the traveling public and the time traffic is running over a recycled surface.

#### 2.13.3 NYSDOT REGION 1 Special Notes (Cold Recycling)

##### **All Region 1 Projects shall follow the following holiday restrictions:**

There shall be no temporary lane closures permitted on the following dates:

- 6:00 am Friday, May 26, 2023 thru 6:00 am Tuesday, May 30, 2023 – (Memorial Day Holiday)
- 6:00 am Friday, June 30, 2023 thru 6:00 am Wednesday, July 5, 2023 – (July 4th Holiday)
- 6:00 am Friday, September 1, 2023 thru 6:00 am Tuesday, September 5, 2023 – (Labor Day Holiday)

##### **Region 1 Projects – Pavement Markings**

It shall be the contractor's responsibility to inventory and document the existing pavement marking patterns prior to recycling and submit to the Engineer a copy of the inventory prior to beginning work. If the original markings are obliterated, the contractor shall contact the resident engineer for guidance on their location.

##### **Region 1 Recycling Operations**

Recycling operations shall progress in the opposite direction of traffic. This provision may only be waived by the Region 1 Materials Engineer.

##### **Region 1 Project Completion Date**

The recycling operations for Region 1 projects shall be completed by **August 31, 2023**. The Contractor shall submit a schedule to the Engineer prior to the start of work.

#### 2.13.4 NYSDOT REGION 9 Special Notes (Cold Recycling)

##### **Recycling Operations:**

The contractor shall mill the shoulders 4 feet wide and 4" deep and remove this material, contractor is responsible for disposing of material. It is intended to include a shoulder break for the 3' wide shoulder. The contractor shall include the method to be used for this in their MMP. Payment for the shoulder milling/removal will be made under item 416.01.

A three-roller train is required for the CIPR on this project. All MMPs that are submitted using a two-roller train with one roller acting as a finish and either a break down or intermediate roller will not be accepted.

Region 9 Materials has already cored the highway and the cores for this project are stored at the Region 9 Technical Services building. The winning bidder will need to contact Region 9 Materials to arrange core pickup to develop the project's mix design.

The completion date for cold recycling projects shall be **August 31, 2023**.

## SECTION 2: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)

### **Project 9V2320 – Pre-Recycling Milling – Chenango County – Region 9**

Prior to recycling operations, from RM 41 9202/ 1033 -280' to 1038 for a distance of approximately 2,920 feet, the contractor shall pre-mill the roadway to a two- inch depth before recycling operations in order for the profile of the pavement to not be raised after completion of the asphalt overlays. The milling shall be conducted no sooner than one week prior to recycling operations. The contractor shall provide the necessary work zones, work zone signage and clean-up effort, including sweeping of the milled surface contemporaneous with the milling operation. Clean-up effort includes milling or using other tools to remove pavement around drainage inlets, manholes, water valves and other obstructions in the roadway to facilitate paving the full depth of the proposed pavement lift against those structures. The contractor will be responsible for disposal of the milled materials. All disposal locations shall be approved by the Engineer prior to disposal. All disposal operations must be done in accordance with all Federal, State, and local rules and regulations. Material removed shall be disposed of in accordance with the provisions of section 107-10 of the Standard Specifications, or as ordered by the Engineer. The contractor shall provide temporary pavement markings on the milled surface similar to the requirements for recycling. The cost of all associated work, including any additional temporary pavement striping as well as work zone traffic control, shall be included in the bid prices of the various recycling items. No separate payment shall be made.

### **Project 9V2340 – Delaware County – Region 9**

Work on this project shall not begin prior to August 1st, 2023 to avoid affecting eagles nesting in the project vicinity.

#### **2.14 Detailed Specifications – Cold Recycling**

Please see Attachment 11 – *Detailed Specifications – Liquid Bituminous Materials*.

##### **2.14.1 Project Dimensions - Cold Recycling**

Information on pavement widths for projects in this Invitation for Bids is listed for informational purposes only. The dimensions listed in Attachment 12 – Project Dimensions are the best information available, but 100% accuracy is not guaranteed. Bidders should visit the project site to confirm the dimensions given and familiarize themselves with the project particulars before submitting a bid. NYS OGS/NYS DOT assumes no responsibility for erroneous information listed herein.

Please refer to Attachment 13 – *Project Dimensions* for the Project Dimensions Data.

**SECTION 3: JOINT AND CRACK FILLER/SEALER AND MASTIC REPAIR MATERIALS  
- SPECIFIC PROJECTS**

**3.1 Introduction**

Joint and crack filler/sealers and mastics are hot-poured liquid bituminous materials 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.

**3.2 Pricing Information**

**3.2.1 General**

Price quoted for joint & crack filler/sealer and mastic repair materials shall be net lane mile, furnished, delivered, heated, and applied by the contractor at the locations indicated herein. Price calculations, if any, will be calculated on the basis of lane miles of crack/joint sealing/filling actually furnished. Work Zone Traffic Control, cleaning of cracks/joints, and disposal of debris shall be included in the price quoted per lane mile of crack sealer or mastic filler. Cracks within shoulder area are to be sealed and included in the price bid per lane mile unless stated otherwise elsewhere in the bid document.

The contractor is to furnish all necessary labor and equipment to complete the indicated projects except that the State will supervise and control the operation. The equipment supplied to complete the crack sealing and mastic filling projects shall conform with the specifications included in this Invitation for Bids.

**3.3 Asphalt Price Adjustment**

**3.3.1 General**

- a. Asphalt price adjustments allowed will be based on the January 2023 average of the F.O.B. terminal price per ton of unmodified PG 64S-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 preapproved primary sources of performance graded binder in accordance with the New York State Department of Transportation Standard Specifications.

**The January 2023 average is \$626.000 per ton.**

**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 liquid bituminous materials purchased from any award based on this specification will be subject to adjustment based on the following formula:

For Crack Sealing (ASTM D6690 Type II):

Price Adjustment (per lane mile)	=	<table style="margin: auto;"> <tr> <td style="text-align: center;">New Monthly Average FOB Terminal Price</td> <td style="text-align: center;">-</td> <td style="text-align: center;">Base Average Terminal Price</td> </tr> <tr> <td colspan="3" style="border-top: 1px solid black; text-align: center;">2.35</td> </tr> </table>	New Monthly Average FOB Terminal Price	-	Base Average Terminal Price	2.35			X	Total Allowable Petroleum %
New Monthly Average FOB Terminal Price	-	Base Average Terminal Price								
2.35										

For Mastic Materials:

Price Adjustment (per lane mile)	=	<table style="margin: auto;"> <tr> <td style="text-align: center;">New Monthly Average FOB Terminal Price</td> <td style="text-align: center;">-</td> <td style="text-align: center;">Base Average Terminal Price</td> </tr> <tr> <td colspan="3" style="border-top: 1px solid black; text-align: center;">0.44</td> </tr> </table>	New Monthly Average FOB Terminal Price	-	Base Average Terminal Price	0.44			X	Total Allowable Petroleum %
New Monthly Average FOB Terminal Price	-	Base Average Terminal Price								
0.44										

**SECTION 3: JOINT AND CRACK FILLER/SEALER AND MASTIC REPAIR MATERIALS  
 - SPECIFIC PROJECTS (Cont'd)**

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

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

**New Monthly Average F.O.B. Terminal Price**

The average F.O.B. terminal price for unmodified PG 64S-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 64S-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation as of January 2023.

**Total Allowable Petroleum**

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

Material Designation	Grade	Asphalt %	Petroleum Allowance %	Total Allowable Petroleum
ASTM D6690 Type II		56	0.2	56.2%
Mastic Materials		40	0.2	40.2%

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 be based on the new average for the month in which the work is done applying the same base established for that 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 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.  
 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 \$1.000 per lane mile. In these instances, prices will revert 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 business 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 3: JOINT AND CRACK FILLER/SEALER AND MASTIC REPAIR MATERIALS  
 - SPECIFIC PROJECTS (Cont'd)**

**3.3.2 Asphalt Price Adjustment: Example**

These examples are for illustration purposes only. Actual Base Average Price, etc., may vary:

Crack Sealing/Filling

Material ASTM D6690 Type II

Base Avg. Price per Ton = \$626.000

New Avg. Price per Ton = \$636.000

Total Allowable Petroleum = 56.2%

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per lane mile)} \\ \hline \end{array} = \frac{(636.000 - 626.000)}{2.35} \times \begin{array}{|c|} \hline 0.562 \\ \hline \end{array}$$

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per lane mile)} \\ \hline \end{array} = \begin{array}{|c|} \hline +\$ 2.391 \text{ per} \\ \text{lane mile} \\ \hline \end{array}$$

Item ASTM D6690 Type II

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

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

**Mastic Materials**

Total Allowable Petroleum = 40.2%

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per lane mile)} \\ \hline \end{array} = \frac{(636.000 - 626.000)}{0.44} \times \begin{array}{|c|} \hline 0.402 \\ \hline \end{array}$$

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per lane mile)} \\ \hline \end{array} = \begin{array}{|c|} \hline +\$ 9.136 \\ \text{per lane mile} \\ \hline \end{array}$$

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

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

**3.4 Payment**

Payment for crack filler/sealer shall be made at contract price per lane mile for the actual quantities 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. An invoice shall be sent promptly by the Contractor to the Engineer of the Region placing the order. Measurement shall be based on actual lane mile of crack filler/sealer. Cracks sealed within shoulder area is included in the price per lane mile.

**SECTION 3: JOINT AND CRACK FILLER/SEALER AND MASTIC REPAIR MATERIALS  
- SPECIFIC PROJECTS (Cont'd)**

**3.5 Pre-Crack Sealing/Mastic Filling Meeting**

The contractor shall coordinate a schedule for a Pre-Crack Sealing/Mastic Filling Meeting with the Resident Engineer (RE), Resident Operation Engineer (ROE) and his or her project quality Assurance Representative within one month after the award of the contract and at least two weeks prior to the start of the crack sealing/mastic filling. At this meeting the contractor shall present Certificates of Insurance evidencing compliance with the additional Insurance Requirements set forth in the INSURANCE clause, their proposed crack sealing schedule, equipment, and crack sealing/mastic filling procedure and Work Zone Traffic Control Plan to the State for approval. At least one week prior to the start of crack sealing/mastic filling, the contractor shall coordinate the details of the crack sealing/mastic filling with the Resident Engineer.

**3.6 Supervision**

The Department of Transportation shall provide supervision for the crack sealing operation, and pavement marking abrading if applicable. The Resident Engineer shall designate a Project Supervisor who shall be in charge of the operation. All orders pertaining to Work Zone Traffic Control plan from the Project 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 ENGINEER'S AUTHORITY, 105-05 VENDOR RESPONSIBILITY, 105-06 COOPERATION WITH UTILITIES AND OTHER CONTRACTORS.

**3.7 Work Hours**

Work shall not be permitted on Sundays and NYS Holidays. If the contractors desire to work overtime on other days, dispensation from NYS Labor Department must be obtained using Department of Labor Form PW-30 (04/21). Night work is prohibited unless agreed to by the Contractor and NYS Department of Transportation. All Overtime Dispensations requests shall be submitted to the Resident Engineer or his/her designee at the preconstruction meeting.

**3.8 Construction Details**

The construction details shall comply with the requirements specified herein, including those appearing in the enclosed Attachment 11 - *Detailed Specifications – Liquid Bituminous Materials*. The project supervisor from the State shall have sole responsibility for determining compliance with the specifications. All orders given to the contractor regarding construction details shall be considered final.

**3.9 Restoration Disturbed Areas**

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

**3.10 Damaged or Deficient Areas**

Prior to acceptance and payment by the State for work under this contract, any placed pavement that ravels, delaminates, fails to properly cure, or is in any way defective shall be redone to the satisfaction of the State at the contractor's expense.

## SECTION 3: JOINT AND CRACK FILLER/SEALER AND MASTIC REPAIR MATERIALS - SPECIFIC PROJECTS (Cont'd)

### 3.11 Work Zone Traffic Control

The vendor shall be responsible for work zone traffic control. Traffic shall be controlled in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and Sections 619-1 through 619-3 of the Standard Specifications 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-Crack Sealing Meeting. For two-way roadways, NYSDOT 619 Standard Sheets 619-307, 619-308, 619-309, 619-312 and 619-314 may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way roadways, NYSDOT 619 Standard Sheets 619-302, 619-303, and 619-313 may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way Freeways or Expressways, NYSDOT 619 Standard Sheets 619-301, 619-302, 619-304, and 619-305 may be used as a basis for development of a Work Zone Traffic Control Plan. NYSDOT 619 Standard Sheets can be found at <https://webapps.dot.ny.gov/part-ii-619-standard-sheets>.

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 work operation is underway. One shall be stationed at each end of the applicable operation and one shall be stationed with the operation. For one-way roadways, a minimum of two flaggers shall be provided while the work operation is underway. One shall be stationed at the beginning of the applicable operation and one shall be stationed with the operation. 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.

All costs of Work Zone Traffic Control as prescribed by this specification including flagging, temporary pavement marking and/or delineation, and construction signs, are to be included in the unit price bid. No separate payment shall be made.

#### 3.11.1 Special Note - Temporary Construction Signs

The vendor shall provide temporary construction signs as specified in Section 619-1 through 619-3 of the Standard Specifications and in the MUTCD. All costs for Work Zone Traffic Control including flagging, construction signs and shadow vehicles are to be included in the price per gallon. No separate payment shall be made.

#### 3.11.2 Special Note – Shadow Vehicle Requirements

The shadow vehicles shall have a gross vehicle weight of 18,000 lb. to 20,000 lb. each. The shadow vehicles shall be equipped with a combination of four (4) rotary lights and strobes, two front and two rear and four (4) flashing amber lights, two (2) front and two (2) rear. All equipment on the shadow vehicle furnished under this contract shall be in full compliance with the latest edition of the New York State Vehicle and Traffic Law, Article 9, Sections 375 and 376. The shadow vehicles shall each be equipped with a Mobile Construction Zone Impact Attenuator, as per Section 712-06 of the NYSDOT Standard Specifications, and one Type B Arrow Panel, as described in Section 294.5 of the MUTCD. Contractor shall supply all necessary operators for the shadow vehicles.

#### 3.11.3 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 ft. shall be provided at 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 ft. from the work site, the 40-ft. spacing shall be used in the tapers as well.

Drums or vertical panels are preferred for intermediate to long-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.

## SECTION 3: JOINT AND CRACK FILLER/SEALER AND MASTIC REPAIR MATERIALS - SPECIFIC PROJECTS (Cont'd)

In long lane or shoulder closures, at least two channelizing devices shall be placed transversely at maximum 800 ft. 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 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 in this Invitation for Bids.

### **Temporary Rumble Strips**

#### **a. Description**

This work shall consist of the installation, maintenance and subsequent removal of temporary rumble strips in paving 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.

Raised asphalt rumble strips shall be formed from asphalt mix meeting the requirements of Items 404.058904 or 404.098904. 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  $\pm$  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.

**SECTION 3: JOINT AND CRACK FILLER/SEALER AND MASTIC REPAIR MATERIALS  
- SPECIFIC PROJECTS (Cont'd)**

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**

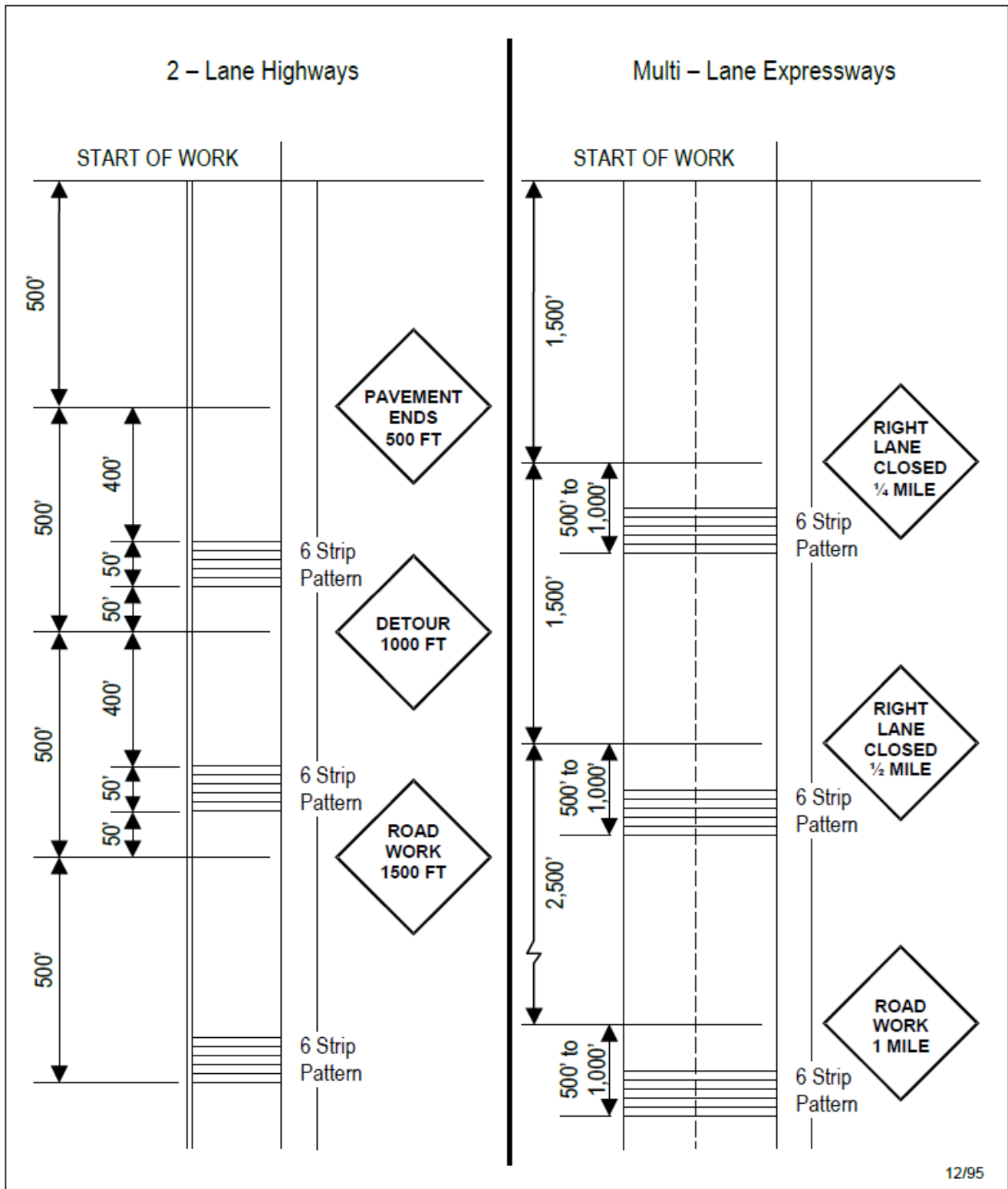
All costs for the installation, maintenance and removal of temporary rumble strips are included in the price per ton or square yard or lane mile as appropriate. No separate payment shall be made.

**d. Suggested Layout Details Drawing-- Temporary Rumble Strips**

See the Suggested Layout Details Drawing on the previous page.

**SECTION 3: JOINT AND CRACK FILLER/SEALER AND MASTIC REPAIR MATERIALS  
 - SPECIFIC PROJECTS (Cont'd)**

**Suggested Layout Details -- Temporary Rumble Strips**



12/95

**SECTION 3: JOINT AND CRACK FILLER/SEALER AND MASTIC REPAIR MATERIALS  
- SPECIFIC PROJECTS (Cont'd)**

**3.12 Special Notes – Crack Sealing/Mastic Filling**

**3.12.1 Funding Source (Crack Sealer/Mastic Filler)**

Projects 9CRS31, 9CRS32, and 9CRS33 will be funded by Federal Aid.

Projects 280642, 4T5323, 5V23CS and 6M2301 are 100% State funded.

**3.12.2 NYSDOT REGION 5 Special Notes (Crack Sealing)**

**Project 5V23CS**

All Region 5 Projects shall follow the time restrictions outlined in the “Work Zone Traffic Control - for Design/Construction on State Highways in Region 5” available on the NYSDOT website at the following link:

[https://www.dot.ny.gov/regional-offices/region5/repository/R05\\_2012\\_WZTC\\_Typicals.pdf](https://www.dot.ny.gov/regional-offices/region5/repository/R05_2012_WZTC_Typicals.pdf)

The Inspector reserves the right to modify the limits of sealing based on needs and field conditions. The Crack sealing locations include ramps where applicable.

**3.12.3 NYSDOT REGION 6 Special Notes (Crack Sealing)**

**Region 6 Specific Special Notes:**

To minimize travel delays associated with major holidays, no work shall be permitted during the following periods:

- 6:00 am Friday, May 26, 2023 thru 6:00 am Tuesday, May 30, 2023 - (Memorial Day Holiday)
- 6:00 am Monday, July 3, 2023 thru 6:00 am Wednesday, July 5, 2023 - (July 4th Holiday)
- 6:00 am Friday, September 1, 2023 thru 6:00 am Tuesday, September 5, 2023 - (Labor Day Holiday)

The Region requests all Preconstruction paperwork be submitted electronically as .pdf files to Gary.Shepard@dot.ny.gov prior to the preconstruction meeting, or all documentation be brought to the Preconstruction meeting electronically as .pdf files on a CD or USB “thumb” drive that will not be returned to the contractor.

All Region 6 Crack Seal projects shall be completed no later than **September 1, 2023**. A schedule reflecting this shall be submitted before start of work to the Region’s Acting ARDO, Gary Shepard, for approval.

A map depicting the Region 6 Regional Priority Network Restricted Area is attached. No lanes closures are permitted in the restricted area Monday thru Friday, between the hours of 3:00PM and 6:00PM without the expressed written approval of the Regional Traffic Engineer, or his designee.

**3.12.4 NYSDOT REGION 9 Special Notes (Crack Sealing)**

All projects must be completed by **August 31<sup>st</sup>, 2023**.

**3.13 Detailed Specifications – Crack Sealing and Mastic Filling/Sealing**

Please, see Attachment 11 – *Detailed Specifications – Liquid Bituminous Materials*.

**SECTION 4: HEATER SCARIFICATION - SPECIFIC PROJECTS**

**4.1 Introduction**

Heater scarification is a continuous multi-step process in which the existing asphalt pavement surface is recycled using specialized equipment. The asphalt pavement surface is heated causing the asphalt to soften. The softened asphalt surface is then immediately scarified and milled to a specified depth. The reclaimed asphalt pavement is then mixed with a recycling agent that rejuvenates the asphalt. The recycled mix is then placed and compacted back onto the roadway. A new bituminous concrete sealing layer is added later. Existing cracks are eliminated, and the resulting pavement should provide a longer life.

**4.2 Pricing Information**

**4.2.1 General**

Price quoted for heater scarification shall be net per square yard completed with contractor’s equipment totally by the contractor at the locations indicated herein. The price quoted for heater scarification per square yard shall also include mobilization to the project site and the provision of Work Zone Traffic Control as indicated elsewhere in this Invitation for Bids.

The price quoted per gallon for recycling agent shall include heating, hauling, and applying the recycling agent at the project locations indicated herein.

**4.3 Asphalt Price Adjustments**

**4.3.1 General**

- a. Asphalt price adjustments allowed will be based on the January 2023 average of the F.O.B. terminal price per ton of unmodified PG 64S-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 preapproved primary sources of performance graded binder in accordance with the New York State Department of Transportation Standard Specifications.

**The January 2023 average is \$626.000.**

**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 liquid bituminous materials (recycling agent) purchased from any award based on this specification will be subject to adjustment based on the following formula:

Price Adjustment (per gallon)	=	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">New Monthly Average FOB Terminal Price</td> <td style="width: 5%; padding: 5px;">-</td> <td style="width: 45%; padding: 5px;">Base Average Terminal Price</td> </tr> <tr> <td colspan="3" style="border-top: 1px solid black; padding: 5px;">235</td> </tr> </table>	New Monthly Average FOB Terminal Price	-	Base Average Terminal Price	235			X	Total Allowable Petroleum %
New Monthly Average FOB Terminal Price	-	Base Average Terminal Price								
235										

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.



**SECTION 4: HEATER SCARIFICATION - SPECIFIC PROJECTS (Cont'd)**

**New Monthly Average F.O.B. Terminal Price**

The average F.O.B. terminal price for unmodified PG 64S-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 64S-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation as of January 2023.

**Total Allowable Petroleum**

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

Item	Grade	Asphalt %	Petroleum Allowance %	Total Allowable Petroleum %
417.0101	Recycling Agent	65.0	1.0	66.0%

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 be based on the new average for the month in which the work is done applying the same base established for that 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 \$0.100 per ton/\$0.010 per gallon as applicable from the original price. In these instances, prices will revert 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 business days written notice mailed to the Contractor to terminate any contract resulting from this bid opening.

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 4: HEATER SCARIFICATION - SPECIFIC PROJECTS (Cont'd)**

**4.3.2 Asphalt Price Adjustment: Example**

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

Item 417.0101

Base Avg. Price per Ton = \$626.000

New Avg. Price per Ton = \$636.000

Total % Asphalt Plus Petroleum Allowance = 66%

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per gallon)} \\ \hline \end{array} = \frac{(636.000 - 626.000)}{235} \times \begin{array}{|c|} \hline 0.66 \\ \hline \end{array}$$

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

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.

**4.4 Payment**

Payment for heater scarification shall be made at the contract price bid for the actual number of completed square yards of heater scarification; the actual number of gallons of recycling agent at 60 degrees F verified by the receiving agency used in the accepted portions of the work. 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 recycling agent shall accompany each shipment. An invoice listing the quantities of heater scarification and recycling agent shall be sent promptly by the contractor to the engineer.

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 heater scarification including sweeping by the contractor during the ten-day curing period and for an additional twenty days thereafter shall be done at the contractor's expense.

Payment for work zone traffic control shall be included in the payment for the number of square yards of completed heater scarification.

**4.5 Pre-Heater Scarification Meeting**

The contractor shall schedule a Pre-Heater Scarification Meeting with the affected resident engineer after the acceptance of the mix design by the State and at least one week prior to the start of the heater scarification. Project-level supervisors for both the owner agency and the contractor shall be present at this meeting. At this meeting the contractor shall present Certificates of Insurance evidencing compliance with the additional insurance requirements set forth in the INSURANCE clause, their proposed work schedule, procedure, equipment, mix design, calibration and Work Zone Traffic Control Plan to the State for approval. Prior to the start of heater scarification, the contractor shall coordinate the details of the heater scarification with the resident engineer.

**4.6 Supervision**

The Department of Transportation shall provide supervision for the heater scarification operation, and pavement marking abrading if applicable. The Resident Engineer shall designate a Project Supervisor who shall be in charge of the operation. All orders pertaining to Work Zone Traffic Control plan from the Project 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 ENGINEER'S AUTHORITY, 105-05 VENDOR RESPONSIBILITY, 105-06 COOPERATION WITH UTILITIES AND OTHER CONTRACTORS.

## SECTION 4: HEATER SCARIFICATION - SPECIFIC PROJECTS (Cont'd)

### 4.7 Work Hours

Work shall not be permitted on Sundays and NYS Holidays. If the contractors desire to work overtime on other days, dispensation from NYS Labor Department must be obtained using Department of Labor Form PW-30 (04/21). Night work is prohibited unless agreed to by the Contractor and NYS Department of Transportation. All Overtime Dispensations requests shall be submitted to the Resident Engineer or his/her designee at the preconstruction meeting.

### 4.8 Construction Details

The construction details shall comply with the requirements specified herein, including those appearing in the enclosed Attachment 10 - *Detailed Specifications – Liquid Bituminous Materials*. The project supervisor from the State shall have sole responsibility for determining compliance with the specifications. All orders given to the contractor regarding construction details shall be considered final.

### 4.9 Restoration of Disturbed Areas

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

### 4.10 Damaged or Deficient Areas

Prior to acceptance and payment by the State for work under this contract, any placed pavement that ravels, delaminates, fails to properly cure, or is in any way defective shall be redone to the satisfaction of the State at the contractor's expense.

### 4.11 Work Zone Traffic Control

The vendor shall be responsible for work zone traffic control. Traffic shall be controlled in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and Sections 619-1 through 619-3 of the Standard Specifications 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-Heater Scarification Meeting. For two-way roadways, NYSDOT 619 Standard Sheets 619-307, 619-308, 619-309, 619-312 and 619-314 may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way roadways, NYSDOT 619 Standard Sheets 619-302, 619-303, and 619-313 may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way Freeways or Expressways, NYSDOT 619 Standard Sheets 619-301, 619-302, 619-304, and 619-305 may be used as a basis for development of a Work Zone Traffic Control Plan. NYSDOT 619 Standard Sheets can be found at <https://webapps.dot.ny.gov/part-ii-619-standard-sheets>.

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 work operation is underway. One shall be stationed at each end of the applicable operation and one shall be stationed with the operation. For one-way roadways, a minimum of two flaggers shall be provided while the work operation is underway. One shall be stationed at the beginning of the applicable operation and one shall be stationed with the operation. 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.

All costs of Work Zone Traffic Control as prescribed by this specification including flagging, temporary pavement marking and/or delineation, and construction signs, are to be included in the unit price bid. No separate payment shall be made.

#### 4.11.1 Special Note - Permanent Construction Signs

The Contractor shall provide construction signs as specified in Section 619-1 through 619-3 of the Standard Specifications and in the MUTCD. At minimum the Contractor shall install the following permanent construction signs found on the next page.

SECTION 4: HEATER SCARIFICATION - SPECIFIC PROJECTS (Cont'd)

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 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. (Place between the G20-1 and the first warning sign that states condition- i.e. W8-12, W8-9 or W8-15).
DO NOT PASS	<u>R4-1</u> Conventional 24" x 30"	If 2'x 4" temporary yellow markings are used instead of full barrier centerline pavement markings, place the first sign at or within 100 feet of the beginning of the unmarked area, second within 1,000 feet and subsequent signs, spaced every ½ mile along project in each direction.
NO CENTER LINE	<u>W8-12</u> Conventional 36" x 36"	If 2'x 4" temporary yellow markings are used instead of full barrier centerline pavement markings, place the first sign in advance of the condition and the first "DO NOT PASS" sign: 300' urban is preferred (100' minimum), 500' rural is preferred (200' minimum). Place additional signs spaced every 2 miles on mainline in each direction and after every major intersecting road.
LOW SHOULDER	<u>W8-9</u> Conventional 36" x 36"  Freeways 48" x 48"	Place on mainline spaced every 2 miles along project in each direction and after every major intersecting road until shoulder back-up is installed (if conditions warrant use, place between the W8-12 and R4-1, maintaining a minimum of 200' between signs for rural roads and 100' on urban. The W8-12 can be moved upstream to accommodate the required spacing.)
GROOVED PAVEMENT	<u>W8-15</u> 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.

\*\*All signs should maintain an absolute minimum spacing of 200' rural or 100' urban. 500' is preferred on rural and 300' is preferred on urban. Double stacking of any of the above signs, or combination thereof, will NOT be permitted.

## SECTION 4: HEATER SCARIFICATION - SPECIFIC PROJECTS (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. Signs left active at night shall be rigid and reflectorized in accordance with the Standard Specifications.

With prior permission of the State's Resident Engineer, the Vendor 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. 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 2' X 4" temporary yellow markings are used instead of full barrier pavement markings.

### 4.11.2 **Special Note - Temporary Pavement Markings**

The Contractor 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 retroreflective removable pavement marking tape, paint or yellow temporary overlay markers installed on a 40 ft. cycle to delineate the centerline location.

The State 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 has completed installing the final pavement markings. The state 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 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 or square yard as applicable.

### 4.11.3 **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 ft. shall be provided at 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 ft. from the work site, the 40-ft. spacing shall be used in the tapers as well.

Drums or vertical panels are preferred for intermediate to long-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 ft. 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 4: HEATER SCARIFICATION - SPECIFIC PROJECTS (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 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 in this Invitation for Bids.

### **Temporary Rumble Strips**

#### **a. Description**

This work shall consist of the installation, maintenance and subsequent removal of temporary rumble strips in paving 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.

Raised asphalt rumble strips shall be formed from asphalt mix meeting the requirements of Items 404.058904 or 404.098904. 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  $\pm$  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**

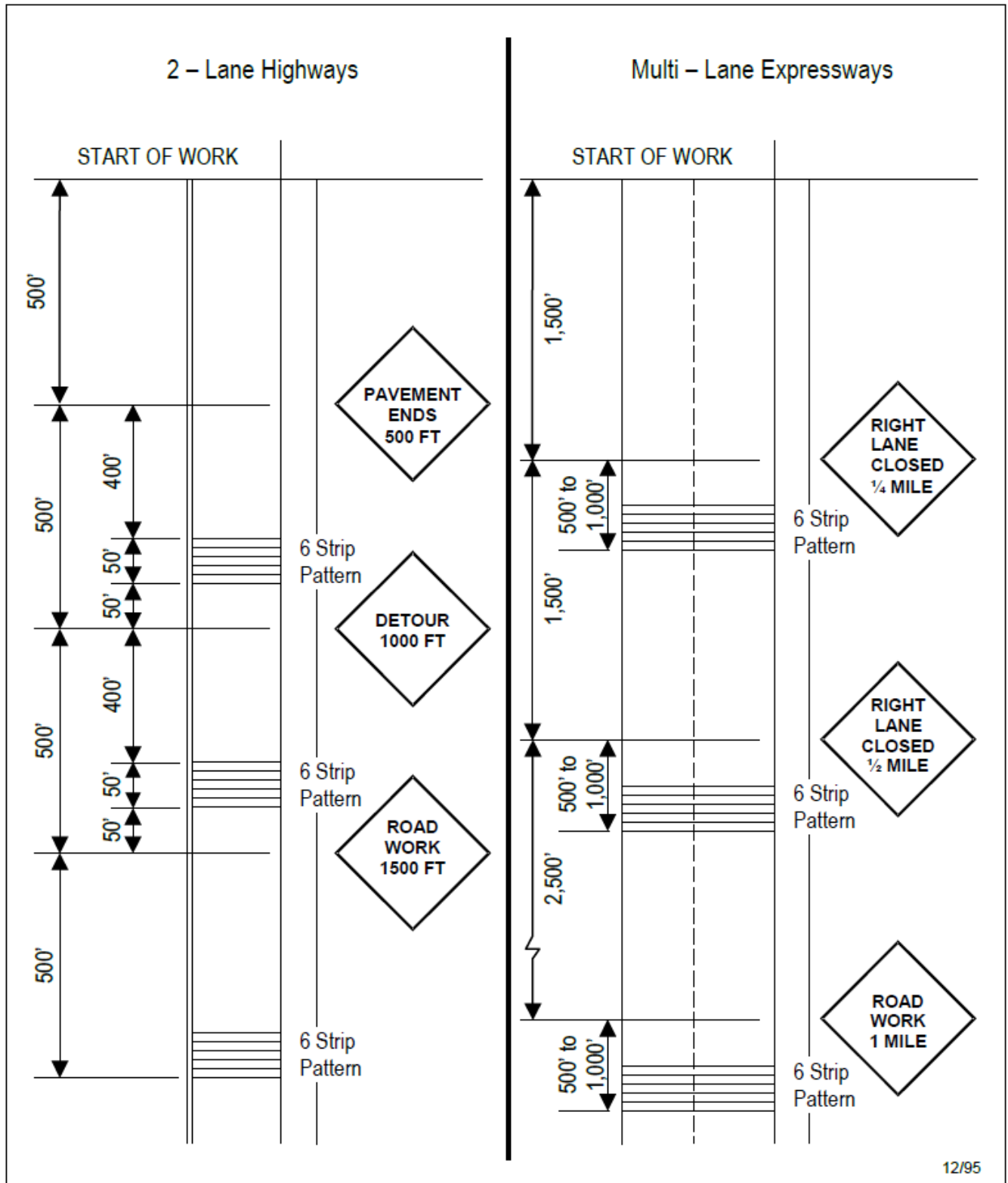
All costs for the installation, maintenance and removal of temporary rumble strips are included in the price per ton or square yard as appropriate. No separate payment shall be made.

#### **d. Suggested Layout Details Drawing-- Temporary Rumble Strips**

See the Suggested Layout Details Drawing on the **next page**.

SECTION 4: HEATER SCARIFICATION - SPECIFIC PROJECTS (Cont'd)

Suggested Layout Details -- Temporary Rumble Strips



**SECTION 4: HEATER SCARIFICATION - SPECIFIC PROJECTS (Cont'd)**

**4.12 Special Notes – Heater Scarification**

**4.12.1 Funding Source (Heater Scarification)**

Projects 7V2322 and 7V2323 are 100% State funded.

**4.12.2 Special Note for Coordination with Other Projects (Heater Scarification)**

All the projects in this Contract Award Notification involve asphalt overlay or chip seal to the heater scarification through separate contract(s). All projects shall require that the heater scarification contractor coordinates their work with the top course contractor(s) to provide the required curing period before placing the next course as well as to minimize disruption to the traveling public and the time traffic is running over a recycled surface.

**4.12.3 Special Note for Pilot Vehicle (Heater Scarification)**

Unless otherwise specified, the highway shall be kept open to traffic at all times. Traffic shall be discontinued on the lanes where work is being performed on these projects; and as soon as heater scarification is done and rolled, controlled traffic may be permitted thereon. The Contractors shall provide sufficient two-way radio equipped pilot vehicles to guide traffic around heater scarification work at a speed not to exceed 15 mph. The pilot vehicles shall be equipped with construction signs meeting the requirements of Section 6F.58 and 6C.13 of the Manual of Uniform Traffic Control Devices and a rotating amber beacon. The delineation of the closed lane (cone placement) as required by Section 619-3.02J of the Standard Specifications shall be evaluated by the Resident Engineer based on the traffic control plan presented by the Contractor and, after consultation with the Regional Traffic Safety & Mobility Office, a determination will be made as to what will be required on the project. Daytime lane closures may be used in lieu of pilot vehicles on controlled access highways as deemed appropriate by the Resident Engineer at the time of Pre-Heater Scarification Meeting.

SIGN	MINIMUM SIZE	LOCATION
PILOT VEHICLE FOLLOW ME	G20-4 CONVENTIONAL 36"x18"	ON BACK OF PILOT VEHICLES

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

All cost for Work Zone Traffic Control including flagging, temporary pavement markings, channelizing devices, construction signs, and pilot vehicles shall be included in the prices per square yard for heater scarification. No separate payment shall be made. **The use of the pilot vehicle shall be as ordered by the Resident Engineer.**

**4.12.4 NYSDOT REGION 7 Special Notes (Heater Scarification)**

**Heater Scarification Operations:**

All heater scarification operations for Region 7 shall be completed by **September 1, 2023**. The Contractor shall submit a schedule to the Engineer, to this effect, prior to beginning operations.

**Heater Scarification Limits and Widths:**

Project	County	Route	RM (To-From)	Mainline Lane Width Shall be 14' (Lane + Shoulder)
7V2322	Franklin	Route 3	1059 – 1100	14' (12' Lane + 2' Shoulder)
7V2323	Franklin	Route 374	1055 – 1095	14' (11' Lane + 3' Shoulder)

**4.13 Detailed Specifications – Heater Scarification**

Please see Attachment 11 – *Detailed Specifications – Liquid Bituminous Materials*.

**4.13.1 Project Dimensions – Heater Scarification**

Information on pavement widths for projects in this Invitation for Bids is listed for informational purposes only. The dimensions listed in Attachment 13 – *Project Dimensions* are the best information available, but 100% accuracy is not guaranteed. Bidders should visit the project site to confirm the dimensions given and familiarize themselves with the project particulars before submitting a bid. NYS OGS/NYS DOT assumes no responsibility for erroneous information listed herein.

Please refer to Attachment 13 – *Project Dimensions* for the Project Dimensions Data.



**SECTION 5: MICRO-SURFACING - SPECIFIC PROJECTS**

**5.1 Introduction**

Micro-surfacing is a pavement preventive maintenance treatment which offers minor improvements to rideability and has excellent friction characteristics.

**5.2 Pricing Information**

**5.2.1 General**

Price quoted for micro-surfacing shall be net per ton, furnished, hauled, delivered, and applied with Contractor’s equipment totally by the Contractor at locations indicated herein. The price quoted for micro-surfacing per ton shall also include abrading the existing pavement markings, the provision of Work Zone Traffic Control as indicated elsewhere in this Invitation for Bids and Maintenance Materials Bond as listed in the *Maintenance Materials Bonds* section in this Invitation for Bids. Price calculations, if any, will be calculated on the basis of the material actually furnished.

**5.3 Asphalt Price Adjustments**

**5.3.1 General**

- a. Asphalt price adjustments allowed will be based on the January 2023 average of the F.O.B. terminal price per ton of unmodified PG 64S-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 preapproved primary sources of performance graded binder in accordance with the New York State Department of Transportation Standard Specifications.

**The January 2023 average is \$626.000.**

**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 liquid bituminous materials purchased from any award based on this specification will be subject to adjustment based on the following formula:

$\text{Price Adjustment (Per Ton)} = \left( \begin{array}{c} \text{New Monthly} \\ \text{Average F.O.B.} \\ \text{Terminal Price} \end{array} - \begin{array}{c} \text{Base Average} \\ \text{F.O.B.} \\ \text{Terminal Price} \end{array} \right) \times \begin{array}{c} \text{Total} \\ \text{Allowable} \\ \text{Petroleum} \\ \% \end{array}$
--

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

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

**New Monthly Average F.O.B. Terminal Price**

The average F.O.B. terminal price for unmodified PG 64S-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 64S-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation as of January 2023.

**SECTION 5: MICRO-SURFACING - SPECIFIC PROJECTS (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
413.02010118	Microsurfacing, Type II, F1	9.0	0.2	9.2
413.02020118	Microsurfacing, Type II, F2	9.0	0.2	9.2
413.02030118	Microsurfacing, Type II, F3	9.0	0.2	9.2
413.03010118	Microsurfacing, Type III, F1	7.5	0.2	7.7
413.03020118	Microsurfacing, Type III, F2	7.5	0.2	7.7
413.03030118	Microsurfacing, Type III, F3	7.5	0.2	7.7
413.04030118	Microsurfacing, Type III Rut	7.5	0.2	7.7

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 be based on the new average for the month in which the work is done applying the same base established for that 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 \$0.100 per ton/\$0.010 per gallon as applicable 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 business 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.

**5.3.2 Asphalt Price Adjustment: Example**

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

Item 413.02020118

Base Average Price = \$626.000

New Average Price = \$636.000

% Total Allowable Petroleum = 9.2%

$$\boxed{\begin{array}{c} \text{Price} \\ \text{Adjustment} \\ \text{(per ton)} \end{array}} = \boxed{(636.000 - 626.000)} \times \boxed{0.092}$$

$$\boxed{\begin{array}{c} \text{Price} \\ \text{Adjustment} \\ \text{(per ton)} \end{array}} = \boxed{+\$0.920 \text{ per ton}}$$

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

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

**SECTION 5: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)**

**5.4 Payment**

Payment for micro-surfacing shall be made at contract prices per net ton for the actual quantity of material placed by the Contractor and actual numbers of gallons of bituminous materials for fog seal (if used).

Payment for work zone traffic control and abrading the existing pavement markings shall be included in the payment for the number of tons of completed micro-surfacing

A delivery slip stating quantities of micro-surfacing shall accompany each shipment. An invoice listing the quantities of micro-surfacing in place shall be sent promptly by the contractor to the address indicated on the purchase order.

**5.5 Pre- Micro-Surfacing Meeting**

The contractor shall schedule a Pre-Micro-Surfacing Meeting with the affected Resident Engineer within one month after award of the Contract and at least two weeks prior to the start of the micro-surfacing. Project level supervisors for both the owner agency and the Vendor should be present at this meeting. At this meeting the contractor shall present Certificates of Insurance evidencing compliance with the additional insurance requirements set forth in the INSURANCE clause, their proposed micro-surfacing schedule, equipment, pavement marking abrading plan, mix design, calibration, micro-surfacing procedure, and Work Zone Traffic Control plan to the State for approval. At least one week prior to the start of micro-surfacing, the Vendor shall coordinate the details of the project with the Resident Engineer.

**5.6 Bonding Requirements – Micro-Surfacing**

A Maintenance Bond is required for micro-surfacing projects in this IFB. Please see sample in Attachment 11 - *Detailed Specifications – Liquid Bituminous Materials*.

**5.7 Supervision**

The Department of Transportation shall provide supervision for the micro-surfacing operation, and pavement marking abrading if applicable. The Resident Engineer shall designate a Project Supervisor who shall be in responsible charge of the operation. All orders pertaining to Work Zone Traffic Control plan from the Project 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 ENGINEER'S AUTHORITY, 105-05 VENDOR RESPONSIBILITY, 105-06 COOPERATION WITH UTILITIES AND OTHER CONTRACTORS.

**5.8 Work Hours**

Work shall not be permitted on Sundays and NYS Holidays. If the contractors desire to work overtime on other days, dispensation from NYS Labor Department must be obtained using Department of Labor Form PW-30 (04/21). Night work is prohibited unless agreed to by the Contractor and NYS Department of Transportation. All Overtime Dispensations requests shall be submitted to the Resident Engineer or his/her designee at the preconstruction meeting.

**5.9 Construction Details**

The construction details shall comply with the requirements specified herein, including those appearing in the enclosed Attachment 11 - *Detailed Specifications – Liquid Bituminous Materials*. The project supervisor from the State shall have sole responsibility for determining compliance with the specifications. All orders given to the contractor regarding construction details shall be considered final.

**5.10 Special Note for Micro-surfacing**

The Contractor will not be responsible for the initial conditioning of the existing pavement and shoulder surfaces as described in Section 402-3.05 of the NYSDOT Standard Specifications. Patching, joint repair, crack filling will be done by NYSDOT forces prior to the micro-surfacing, chip seal or paver placed surface treatment project. However, once work on the project begins, the Contractor is responsible for keeping the pavement and shoulders clean until the paving operations are completed, as per Section 633-3.01 of the NYSDOT Standard Specifications.

## SECTION 5: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

### 5.11 Restoration of Disturbed Areas

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

### 5.12 Damaged or Deficient Areas

Prior to acceptance and payment by the State for work under this contract, any placed pavement that ravels, delaminates, fails to properly cure, or is in any way defective shall be redone to the satisfaction of the State at the contractor's expense.

### 5.13 Work Zone Traffic Control

The vendor shall be responsible for work zone traffic control. Traffic shall be controlled in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and Sections 619-1 through 619-3 of the Standard Specifications 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-Micro-surfacing Meeting. For two-way roadways, NYSDOT 619 Standard Sheets 619-307, 619-308, 619-309, 619-312 and 619-314 may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way roadways, NYSDOT 619 Standard Sheets 619-302, 619-303, and 619-313 may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way Freeways or Expressways, NYSDOT 619 Standard Sheets 619-301, 619-302, 619-304, and 619-305 may be used as a basis for development of a Work Zone Traffic Control Plan. NYSDOT 619 Standard Sheets can be found at <https://webapps.dot.ny.gov/part-ii-619-standard-sheets>.

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 work operation is underway. One shall be stationed at each end of the applicable operation and one shall be stationed with the operation. For one-way roadways, a minimum of two flaggers shall be provided while the work operation is underway. One shall be stationed at the beginning of the applicable operation and one shall be stationed with the operation. 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.

All costs of Work Zone Traffic Control as prescribed by this specification including flagging, temporary pavement marking and/or delineation, and construction signs, are to be included in the unit price bid. No separate payment shall be made.

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. Signs left active at night shall be rigid and reflectorized in accordance with the Standard Specifications.

With prior permission of the State's Resident Engineer, the contractor may provide portable signs as shown in Figure 6F-2 of the MUTCD for the DO NOT PASS and NO CENTER LINE signs referenced in Section *Special Note - Temporary Pavement Markings*. 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 2' x 4" temporary yellow markings are used instead of full barrier pavement markings.

**SECTION 5: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)**

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

**5.13.1 Special Note -Permanent Construction Signs**

The Contractor shall provide construction signs as specified in Section 619-1 through 619-3 of the Standard Specifications and in the MUTCD. At 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 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. (Place between the G20-1 and the first warning sign that states condition- i.e. W8-12, W8-9 or W8-15.)
DO NOT PASS	<u>R4-1</u> Conventional 24" x 30"	If 2' x 4" temporary yellow markings are used instead of full barrier centerline pavement markings, place the first sign at or within 100 feet of the beginning of the unmarked area, second within 1,000 feet and subsequent signs, spaced every ½ mile along project in each direction.
NO CENTER LINE	<u>W8-12</u> Conventional 36" x 36"	If 2' x 4" temporary yellow markings are used instead of full barrier centerline pavement markings, place the first sign in advance of the condition and the first "DO NOT PASS" sign: 300' urban is preferred (100' minimum), 500' rural is preferred (200' minimum). Place additional signs spaced every 2 miles on mainline in each direction and after every major intersecting road.
LOW SHOULDER	<u>W8-9</u> Conventional 36" x 36"  Freeways 48" x 48"	Place on mainline spaced every 2 miles along project in each direction and after every major intersecting road until shoulder back-up is installed (if conditions warrant use, place between the W8-12 and R4-1, maintaining a minimum of 200' between signs for rural roads and 100' on urban. The W8-12 can be moved upstream to accommodate the required spacing).

\*\*All signs should maintain an absolute minimum spacing of 200' rural or 100' urban. 500' is preferred on rural and 300' is preferred on urban. Double stacking of any of the above signs, or combination thereof, will NOT be permitted.

## SECTION 5: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

### 5.13.2 **Special Note - Temporary Pavement Markings**

The Contractor 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 retroreflective removable pavement marking tape, paint or yellow temporary overlay markers installed on a 40 ft. cycle to delineate the centerline location.

The State 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 has completed installing the final pavement markings. The state 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 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 or square yard as applicable.

### 5.13.3 **Special Note – Abrading Existing Pavement Markings**

The Contractor shall remove any epoxy or thermoplastic pavement markings. Other markings shall be removed as ordered by the Resident Engineer. 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. Waste material generated by the abrading operation shall be cleaned up and disposed of by the Vendor.

When the Contractor abrades the existing pavement markings, the Contractor shall place temporary pavement markings as specified elsewhere in this Invitation for Bids under Work Zone Traffic Control, unless the paving material will be placed the same day as pavement markings are abraded. The Contractor shall make every effort to expeditiously place the paving material in areas where pavement markings have been abraded and temporary pavement markings are in place. Under no circumstances will temporary pavement markings be allowed for more than five calendar days in areas where pavement markings have been abraded. In this event, the Contractor shall be required to place full pavement markings at no cost to the state. During the pavement markings abrading operation, traffic will be controlled by the Contractor in accordance with the Work Zone Traffic Control requirements included herein. The Contractor shall submit a proposed Traffic Control Plan to the Resident Engineer for approval. The plan may be based on the Work Zone Traffic Control drawings included in this Invitation for Bids.

Payment for pavement marking abrading shall be included in the price bid per ton of micro-surfacing. No separate payment shall be made.

### 5.13.4 **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 ft. shall be provided at 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 ft. from the work site, the 40-ft. spacing shall be used in the tapers as well.

## SECTION 5: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

Drums or vertical panels are preferred for intermediate to long-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 ft. 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 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 in this Invitation for Bids.

### **Temporary Rumble Strips**

#### **a. Description**

This work shall consist of the installation, maintenance and subsequent removal of temporary rumble strips in paving 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.

Raised asphalt rumble strips shall be formed from asphalt mix meeting the requirements of Items 404.058904 or 404.098904. 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  $\pm$  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.

**SECTION 5: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)**

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 per ton or square yard as appropriate. No separate payment shall be made.

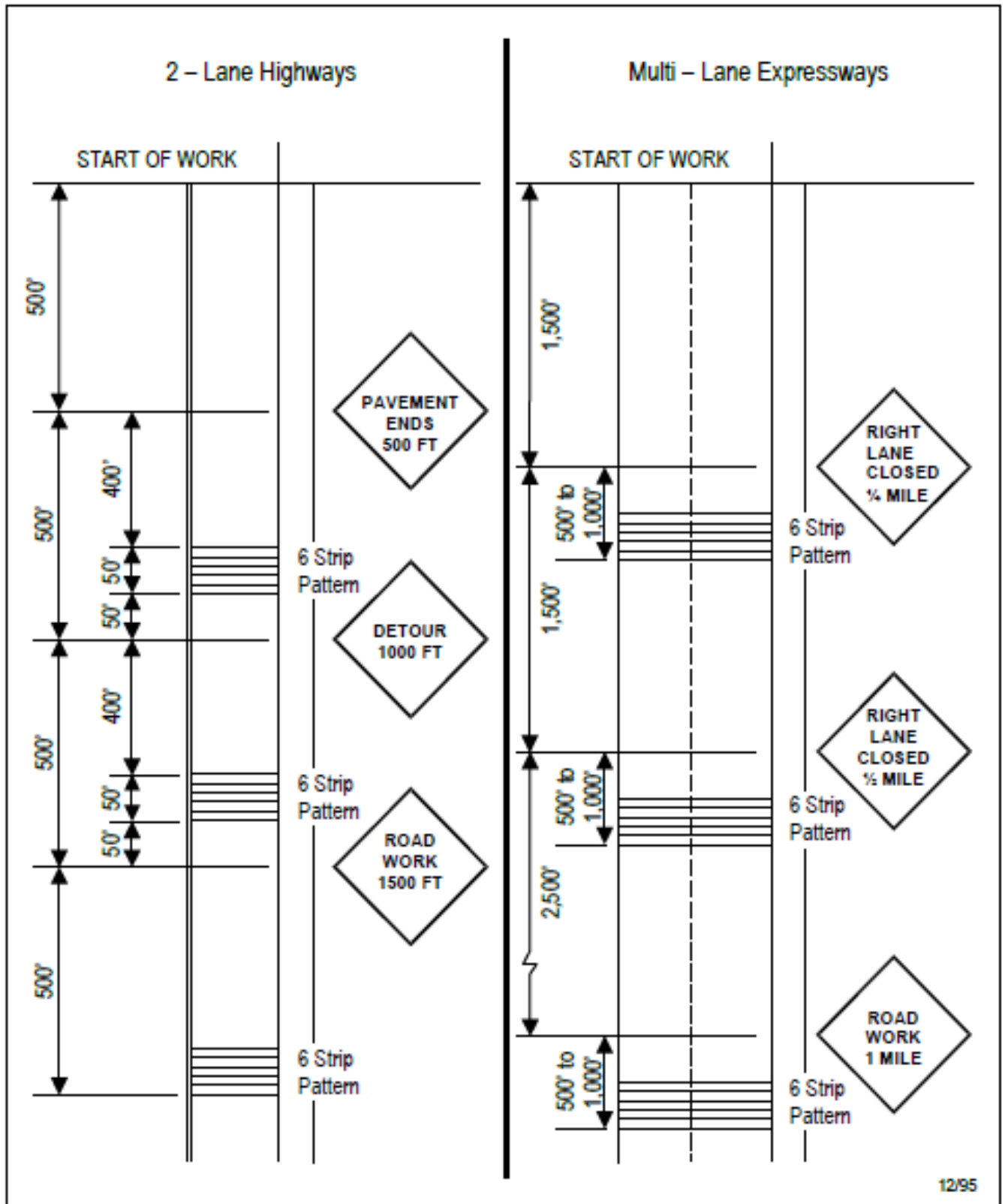
**d. Suggested Layout Details Drawing-- Temporary Rumble Strips**

See the Suggested Layout Details Drawing on the **next page**.



SECTION 5: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

Suggested Layout Details – Temporary Rumble Strips



## SECTION 5: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

### 5.14 Special Notes – Micro-surfacing

#### 5.14.1 Funding Source (Micro-surfacing)

Project 5V2323 will be funded by Federal Aid.

#### 5.14.2 NYSDOT Region 5 Special Notes (Micro-surfacing)

##### Region 5 Specific Special Notes:

All Region 5 Projects shall follow the time restrictions outlined in the “Work Zone Traffic Control - for Design/Construction on State Highways in Region 5” available on the NYSDOT website at the following link:

[https://www.dot.ny.gov/regional-offices/region5/repository/R05\\_2012\\_WZTC\\_Typicals.pdf](https://www.dot.ny.gov/regional-offices/region5/repository/R05_2012_WZTC_Typicals.pdf)

No work/shoulder closure/lane closure will be allowed from noon Friday until Tuesday 6AM on the following observed holidays:

Victoria Day – Monday May 22nd, 2023  
Memorial Day – Monday May 29th, 2023  
Juneteenth – Monday June 19th, 2023  
Canada Day – Saturday July 1st, 2023  
Labor Day – Monday September 4th, 2023  
Canada Civic Holiday – Monday August 7th, 2023  
Independence Day – Tuesday July 4th, 2023 (Noon Monday to Noon Wednesday)

#### **Project 5V2323**

The travel way, shoulders, and center median turning lanes, when present, will be micro-surfaced full width.

In addition, in the main line, there will be minor intersection radii paving at all municipal road intersections along the project corridor. All municipal road intersections on the project intersecting the main line paving shall be paved around the side road radius.

If necessary, the contractor shall abrade the existing pavement markings prior to the micro-surfacing. Price for abrading existing pavement markings shall be included in the bid price for the micro-surfacing item. No separate payment will be made.

Centerline Audible Roadway Delineators (CARDS) shall be installed from RM 5 5201 3006 to RM 5 5201 3073. As part of this contract, the contractor is required to install the CARDS in accordance with Item 649.11 and Standard Sheet 649-03. The cost of all associated work, including any additional temporary pavement striping as well as work zone traffic control, is to be included in the micro-surfacing item. No separate payment shall be made.

The Contractor shall be responsible for the installation of the final paint/preformed pavement markings in accordance with Section 640 and 688 of the New York State Standard Specifications. All work required to complete this work including Preformed ReflectORIZED Pavement Stripes for stop bars, crosswalks and hatching, Letters and Symbols shall be included in the bid price for the micro-surfacing item.

### 5.15 Detailed Specifications – Microsurfacing

Please, see Attachment 11 – *Detailed Specifications – Liquid Bituminous Materials*.

#### 5.15.1 Project Dimensions – Micro-surfacing

Information on pavement widths for projects in this Invitation for Bids is listed for informational purposes only. The dimensions listed in Attachment 12 – Project Dimensions are the best information available, but 100% accuracy is not guaranteed. Bidders should visit the project site to confirm the dimensions given and familiarize themselves with the project particulars before submitting a bid. NYS OGS/NYS DOT assumes no responsibility for erroneous information listed herein.

Please refer to Attachment 13 – *Project Dimensions* for the Project Dimensions Data.

**SECTION 6: PAVER PLACED SURFACE TREATMENT - SPECIFIC PROJECTS**

**6.1 Introduction**

Paver Placed Surface Treatment (Conventional or Modified) 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 asphalt mixture wearing course.

**6.2 Pricing Information**

**6.2.1 General**

Price quoted for Paver Placed Surface Treatment shall be net per ton, furnished, heated, delivered, and applied with contractor’s equipment totally by the contractor at locations indicated herein. The price bid per ton for the Paver Placed Surface Treatment shall also include abrading the existing pavement markings and the provision of Work Zone Traffic Control as indicated elsewhere in this Invitation for Bids.

The Contractor is to furnish all necessary labor and equipment to complete the indicated projects except that the State will supervise and control the operations. Permanent pavement marking will be the responsibility of the State upon completion of the project as indicated herein. The equipment supplied to place the material(s) shall appear on the Department’s approved list. All necessary operators shall be supplied along with the appropriate equipment.

**6.3 Asphalt Price Adjustments**

**6.3.1 General**

- a. Asphalt price adjustments allowed will be based on the January 2023 average of the F.O.B. terminal price per ton of unmodified PG 64S-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 preapproved primary sources of performance graded binder in accordance with the New York State Department of Transportation Standard Specifications.

**The January 2023 average is \$626.000.**

**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 liquid bituminous materials purchased from any award based on this specification will be subject to adjustment based on the following formula:

$\text{Price Adjustment (Per Ton)} = \left( \begin{array}{c} \text{New Monthly} \\ \text{Average F.O.B.} \\ \text{Terminal Price} \end{array} - \begin{array}{c} \text{Base Average} \\ \text{F.O.B.} \\ \text{Terminal Price} \end{array} \right) \times \begin{array}{c} \text{Total} \\ \text{Allowable} \\ \text{Petroleum} \\ \% \end{array}$
--

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

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

**SECTION 6: PAVER PLACED SURFACE TREATMENT - SPECIFIC PROJECTS (Cont'd)**

**New Monthly Average F.O.B. Terminal Price**

The average F.O.B. terminal price for unmodified PG 64S-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 64S-22 binder without anti-stripping agent is as determined by the New York State Department of Transportation as of January 2023.

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

Item #	Material Designation	Asphalt %	Petroleum Allowance %	Total Allowable Petroleum
415.0X0F0218	Paver Placed Surface Treatment – Conventional	6.5	1.0	7.5
415.1X0F0218	Paver Placed Surface Treatment – Modified	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 be based on the new average for the month in which the work is done applying the same base established for that 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 \$0.100 per ton/\$0.010 per gallon as applicable from the original price. In these instances, prices will revert 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 business 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.

**6.3.2 Asphalt Price Adjustment: Example**

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

Item 18403.12020218

Base Average Price = \$626.000

New Average Price = \$636.000

% Total Allowable Petroleum = 7.5%

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per ton)} \\ \hline \end{array} = \begin{array}{|c|} \hline (636.000 - 626.000) \\ \hline \end{array} \times \begin{array}{|c|} \hline 0.075 \\ \hline \end{array}$$

$$\begin{array}{|c|} \hline \text{Price} \\ \text{Adjustment} \\ \text{(per ton)} \\ \hline \end{array} = \begin{array}{|c|} \hline +\$0.750 \text{ per ton} \\ \hline \end{array}$$

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

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

**SECTION 6: PAVER PLACED SURFACE TREATMENT - SPECIFIC PROJECTS (Cont'd)**

**6.4 Payment**

Payment for Paver Placed Surface Treatment shall be made at contract prices per ton for the actual quantity of tons placed by the Contractor. Payment for work zone traffic control and abrading the existing pavement markings shall be included in the payment per ton for the Paver Placed Surface Treatment.

A delivery slip stating quantities of hot mix asphalt concrete for paver placed surface treatment shall accompany each shipment. An invoice listing the quantities of paver placed surface treatment in place shall be sent promptly by the contractor to the address indicated on the purchase order.

**6.5 Pre- Paver Placed Surface Treatment Meeting**

The Contractor shall schedule a Pre-Paver Placed Surface Treatment Meeting with the affected Resident Engineer within one month after award of the Contract and at least two weeks prior to the start of the Paver Placed Surface Treatment. Project level supervisors for both the state and the contractor shall be present at this meeting.

At this meeting the contractor shall present their proposed Paver Placed Surface Treatment schedule, equipment, pavement marking abrading plan, Paver Placed Surface Treatment procedure, and Work Zone Traffic Control plan to the State for approval. At least one week prior to the start of the Paver Placed Surface Treatment, the contractor shall coordinate the details of the project with the Resident Engineer.

**6.6 Supervision**

The Department of Transportation shall provide supervision for the paver placed surface treatment operation, and pavement marking abrading if applicable. The Resident Engineer shall designate a Project Supervisor who shall be in responsible charge of the operation. All orders pertaining to Work Zone Traffic Control plan from the Project 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 ENGINEER'S AUTHORITY, 105-05 VENDOR RESPONSIBILITY, 105-06 COOPERATION WITH UTILITIES AND OTHER CONTRACTORS.

**6.7 Work Hours**

Work shall not be permitted on Sundays and NYS Holidays. If the contractors desire to work overtime on other days, dispensation from NYS Labor Department must be obtained using Department of Labor Form PW-30 (04/21). Night work is prohibited unless agreed to by the Contractor and NYS Department of Transportation. All Overtime Dispensations requests shall be submitted to the Resident Engineer or his/her designee at the preconstruction meeting.

**6.8 Construction Details**

The construction details shall comply with the requirements specified herein, including those appearing in the enclosed Attachment 11 - *Detailed Specifications – Liquid Bituminous Materials*. The project supervisor from the State shall have sole responsibility for determining compliance with the specifications. All orders given to the contractor regarding construction details shall be considered final.

**6.9 Special Note for Paver Placed Surface Treatment**

The Contractor will not be responsible for the initial conditioning of the existing pavement and shoulder surfaces as described in Section 402-3.05 of the NYSDOT Standard Specifications. Patching, joint repair, crack filling will be done by NYSDOT forces prior to the paver placed surface treatment project.

However, once work on the project begins, the Contractor is responsible for keeping the pavement and shoulders clean until the paving operations are completed, as per Section 633-3.01 of the NYSDOT Standard Specifications.

**SECTION 6: PAVER PLACED SURFACE TREATMENT - SPECIFIC PROJECTS (Cont'd)**

**6.10 Restoration of Disturbed Areas**

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

**6.11 Damaged or Deficient Areas**

Prior to acceptance and payment by the State for work under this contract, any placed pavement that ravels, delaminates, fails to properly cure, or is in any way defective shall be redone to the satisfaction of the State at the contractor's expense.

**6.12 Paver Placed Surface Treatment Overlay Splices**

The contractor shall construct Paver Placed Surface Treatment Overlay Splices (commonly known as rebates) as per the enclosed detail Paver Placed Surface Treatment Overlay Splices (see below). The locations of the Overlay Splices shall be as specified in the Table of Paver Placed Surface Treatment Overlay Splices found within Attachment 13 – *Project Dimensions*. All costs to construct the Paver Placed Surface Treatment Overlay Splices, including the costs for cutting the existing pavement, milling the Overlay Splices, cleaning the pavement in the Overlay Splice area, and Controlling Traffic, shall be included in the price bid per ton for the Paver Placed Surface Treatment. No separate payment shall be made.

Note - This project involves production micro-milling by the contractor. No rebates are required.

**6.13 Work Zone Traffic Control**

The vendor shall be responsible for work zone traffic control. Traffic shall be controlled in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and Sections 619-1 through 619-3 of the Standard Specifications 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-Paver Placed Surface Treatment Meeting. For two-way roadways, NYSDOT 619 Standard Sheets 619-307, 619-308, 619-309, 619-312 and 619-314 may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way roadways, NYSDOT 619 Standard Sheets 619-302, 619-303, and 619-313 may be used as a basis for development of a Work Zone Traffic Control Plan. For one-way Freeways or Expressways, NYSDOT 619 Standard Sheets 619-301, 619-302, 619-304, and 619-305 may be used as a basis for development of a Work Zone Traffic Control Plan. NYSDOT 619 Standard Sheets can be found at <https://webapps.dot.ny.gov/part-ii-619-standard-sheets>.

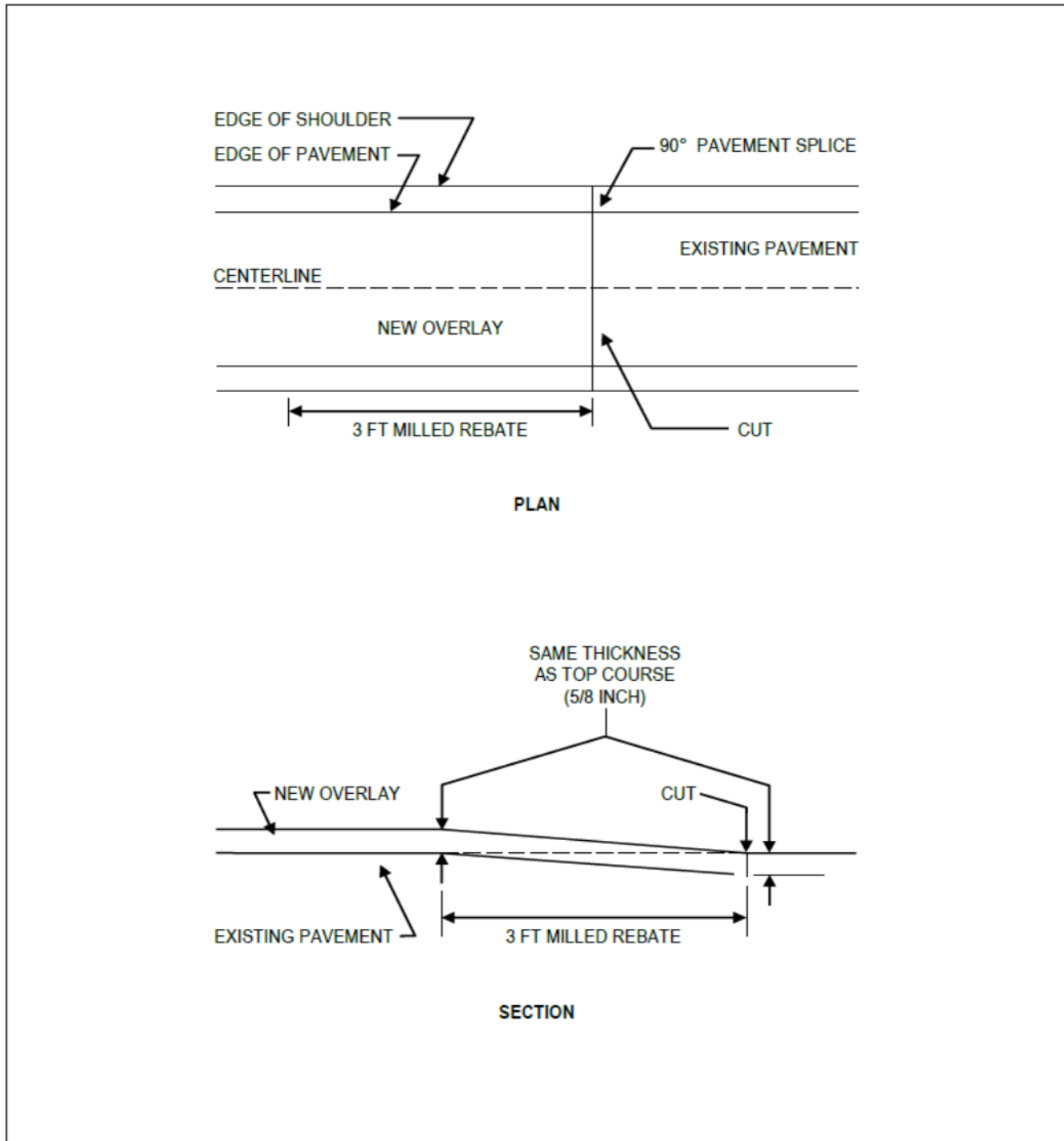
All necessary flaggers for Work Zone Traffic Control shall be provided by the Contractor. For two-way roadways, a minimum of three flaggers shall be provided while the work operation is underway. One shall be stationed at each end of the applicable operation and one shall be stationed with the operation. For one-way roadways, a minimum of two flaggers shall be provided while work operation is underway.

One shall be stationed at the beginning of the applicable operation and one shall be stationed with the operation. 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.

All costs of Work Zone Traffic Control as prescribed by this specification including flagging, temporary pavement marking and/or delineation, and construction signs, are to be included in the unit price bid. No separate payment shall be made.

SECTION 6: PAVER PLACED SURFACE TREATMENT - SPECIFIC PROJECTS (Cont'd)

Paver Placed Surface Treatment Overlay Splice:



**SECTION 6: PAVER PLACED SURFACE TREATMENT - SPECIFIC PROJECTS (Cont'd)**

**6.13.1 Special Note - Permanent Construction Signs**

The Contractor shall provide construction signs as specified in Section 619-1 through 619-3 of the Standard Specifications and in the MUTCD. At 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 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. (Place between the G20-1 and the first warning sign that states condition- i.e. W8-12, W8-9 or W8-15)
DO NOT PASS	<u>R4-1</u> Conventional 24" x 30"	If 2' x 4" temporary yellow markings are used instead of full barrier centerline pavement markings, place the first sign at or within 100 feet of the beginning of the unmarked area, second within 1,000 feet and subsequent signs, spaced every ½ mile along project in each direction
NO CENTER LINE	<u>W8-12</u> Conventional 36" x 36"	If 2' x 4" temporary yellow markings are used instead of full barrier centerline pavement markings, place the first sign in advance of the condition and the first "DO NOT PASS" sign: 300' urban is preferred (100' minimum), 500' rural is preferred (200' minimum). Place additional signs spaced every 2 miles on mainline in each direction and after every major intersecting road.
LOW SHOULDER	<u>W8-9</u> Conventional 36" x 36" Freeways 48" x 48"	Place on mainline spaced every 2 miles along project in each direction and after every major intersecting road until shoulder back-up is installed (if conditions warrant use, place between the W8-12 and R4-1, maintaining a minimum of 200' between signs for rural roads and 100' on urban. The W8-12 can be moved upstream to accommodate the required spacing.)
GROOVED PAVEMENT	<u>W8-15</u> 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.

\*\*All signs should maintain an absolute minimum spacing of 200' rural or 100' urban. 500' is preferred on rural and 300' is preferred on urban. Double stacking of any of the above signs, or combination thereof, will NOT be permitted.



**SECTION 6: PAVER PLACED SURFACE TREATMENT - SPECIFIC PROJECTS (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. Signs left active at night shall be rigid and reflectorized in accordance with the Standard Specifications.

With prior permission of the State's Resident Engineer, the Vendor 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. 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 2' X 4" temporary yellow markings are used instead of full barrier pavement markings.

**6.13.2 Special Note – Temporary Pavement Markings**

The Contractor 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 retroreflective removable pavement marking tape, paint or yellow temporary overlay markers installed on a 40 ft. cycle to delineate the centerline location.

The State 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 has completed installing the final pavement markings. The state 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 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 of paver placed surface treatment. No separate payment shall be made.

**6.13.3 Special Note – Abrading Existing Pavement Markings**

The Contractor shall remove any epoxy or thermoplastic pavement markings. Other markings shall be removed as ordered by the Resident Engineer. 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. Waste material generated by the abrading operation shall be cleaned up and disposed of by the Vendor.

When the Contractor abrades the existing pavement markings, the Contractor shall place temporary pavement markings as specified elsewhere in this Invitation for Bids under Work Zone Traffic Control, unless the paving material will be placed the same day as pavement markings are abraded. The Contractor shall make every effort to expeditiously place the paving material in areas where pavement markings have been abraded and temporary pavement markings are in place. Under no circumstances will temporary pavement markings be allowed for more than five calendar days in areas where pavement markings have been abraded. In this event, the Contractor shall be required to place full pavement markings at no cost to the state. During the pavement markings abrading operation, traffic will be controlled by the Contractor in accordance with the Work Zone Traffic Control requirements included herein. The Contractor shall submit a proposed Traffic Control Plan to the Resident Engineer for approval. The plan may be based on the Work Zone Traffic Control drawings included in this Invitation for Bids.

Payment for pavement marking abrading shall be included in the price bid per ton of paver placed surface treatment. No separate payment shall be made.

**SECTION 6: PAVER PLACED SURFACE TREATMENT - SPECIFIC PROJECTS (Cont'd)**

**6.13.4 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 ft. shall be provided at 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 ft. from the work site, the 40-ft. spacing shall be used in the tapers as well.

Drums or vertical panels are preferred for intermediate to long-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 ft. intervals to discourage traffic from driving through the closed lane. Transversely placed devices are not required where pilot car 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 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 in this Invitation for Bids.

**Temporary Rumble Strips**

**a. Description**

This work shall consist of the installation, maintenance and subsequent removal of temporary rumble strips in paving 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.

Raised asphalt rumble strips shall be formed from hot mix asphalt meeting the requirements of Items 404.058904 or 404.098904. 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.

**SECTION 6: PAVER PLACED SURFACE TREATMENT - SPECIFIC PROJECTS (Cont'd)**

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  $\pm$  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**

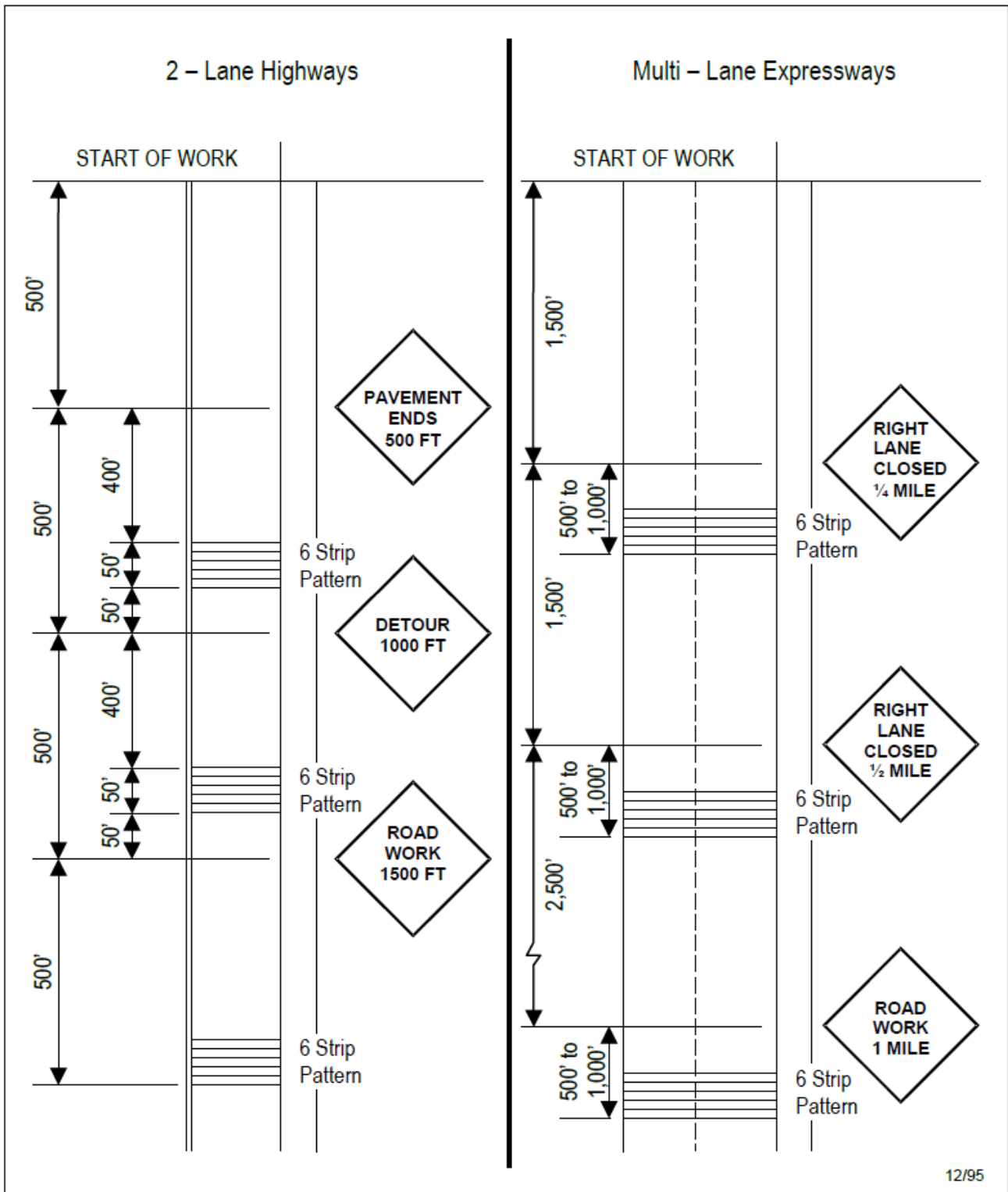
All costs for the installation, maintenance and removal of temporary rumble strips are included in the price per ton or square yard as appropriate. No separate payment shall be made.

**d. Suggested Layout Details Drawing-- Temporary Rumble Strips**

See the Suggested Layout Details Drawing in the **next page**.

SECTION 6: PAVER PLACED SURFACE TREATMENT - SPECIFIC PROJECTS (Cont'd)

Suggested Layout Details -- Temporary Rumble Strips



**SECTION 6: PAVER PLACED SURFACE TREATMENT - SPECIFIC PROJECTS (Cont'd)**

**6.14 Special Notes – Paver Placed Surface Treatment**

**6.14.1 Funding Source (Paver Placed Surface Treatment)**

Projects 6V2311 will be funded by Federal Aid.

**6.14.2 NYSDOT REGION 6 General Special Notes (Paver Placed Surface Treatment)**

To minimize travel delays associated with major holidays, no work shall be permitted during the following periods:

6:00 am Friday, May 26, 2023 thru 6:00 am Tuesday, May 30, 2023 - (Memorial Day Holiday)

6:00 am Monday, July 3, 2023 thru 6:00 am, Wednesday, July 5, 2023 - (July 4th Holiday)

6:00 am Friday, September 1, 2023 thru 6:00 am Tuesday, September 5, 2023 - (Labor Day Holiday)

Region 6 Liquid Paver Placed Surface Treatment project shall be completed **no later than September 1, 2023**. A schedule reflecting this shall be submitted before start of work to the Region's ARDO Gary Shepard, for approval.

The Region requests all Preconstruction paperwork be submitted electronically as .pdf files to [Gary.Shepard@dot.ny.gov](mailto:Gary.Shepard@dot.ny.gov) prior to the preconstruction meeting, or all documentation be brought to the Preconstruction meeting electronically as .pdf files on a CD or USB "thumb" drive that will not be returned to the contractor.

In lieu of longitudinal cones full project length between open and closed lanes of traffic, the contractor may elect to substitute, when using pilot vehicles, use of cones placed transversely across the closed lane at intervals per section 619-3.02 J.2 (every 800') and at strategic locations, such as intersections and driveways. All work zone signs will be at a minimum of 5' tall from the bottom of sign panel.

Paint with beads is the only option permitted in Region 6 for temporary and interim pavement markings, unless approved on a case-by-case basis by the Resident Engineer. Offset the centerline temporary/interim pavement markings so that the permanent markings will cover up the temporary/interim markings, as follows: 8" centerline offset for 2 lane roads, 6" centerline offset for multi-lane roadways.

All stockpile, spoils, and clean-out sites need to be preapproved by the Regional Maintenance Environmental Coordinator, Lauren Richardson, prior to use.

*Project Specific Special Notes:*

**6V2311-** This project is a micro-mill and fill (lane only) with a Paver Placed Surface Treatment inlay.

The project begins at BIN 1016300 (RM 1088) in the Town of Alfred and ends at BIN 1016310 (RM 1121) in the Village of Almond.

The contractor is responsible for approximately 47,000 square yards of production cold micro-milling within the project limits. The production micro-milling includes travel lanes only. The production micro-milling will be 24' wide and ¾" deep. Prior to paving, the contractor is required to mill transverse drainage weeps into the existing roadway shoulders. These weeps will be paved back in with the same paver placed surface treatment as the mainline paving.

The transverse weeps shall be placed every 500 feet or as directed by the Engineer. The weeps shall be 24" wide. The depth of cut will match the ¾" depth of cut of the travel lanes and extend to daylight at the edge of pavement. Necessary care shall be taken to ensure positive drainage at each transverse weep location. Prior to paving, NYSDOT will mark out the transverse weep locations.

## SECTION 6: PAVER PLACED SURFACE TREATMENT - SPECIFIC PROJECTS (Cont'd)

The contractor will be responsible to clean the milled area and keep the milled surface clean until paving. The contractor shall provide the necessary work zones, work zone signage and clean-up effort, including sweeping of the milled surface during the milling operation. The contractor will be responsible for trucking and disposal of the milled materials. All disposal locations shall be approved by the Engineer prior to disposal. All disposal operations must be done in accordance with all Federal, State, and local rules and regulations. Material removed shall be disposed of in accordance with the provisions of section 107-10 of the Standard Specifications, or as ordered by the Engineer. The contractor shall provide temporary pavement markings on the milled surface in accordance with the requirements of Section 619 of the Standard Specifications.

Payment shall be included in the price bid per ton for the Paver Placed Surface Treatment. No separate payment shall be made.

Any, and all, debris generated as part of the work shall be removed by the contractor within five days of completion of paving operations.

### 6.15 Detailed Specifications – Paver Placed Surface Treatment

Please, see Attachment 11 – *Detailed Specifications – Liquid Bituminous Materials*.

#### 6.15.1 Project Dimensions – Paver Placed Surface Treatment

Information on pavement widths for projects in this Invitation for Bids is listed for informational purposes only. The dimensions listed in Attachment 13 – *Project Dimensions* are the best information available, but 100% accuracy is not guaranteed. Bidders should visit the project site to confirm the dimensions given and familiarize themselves with the project particulars before submitting a bid. NYS OGS/NYS DOT assumes no responsibility for erroneous information listed herein.

Please refer to Attachment 13 – *Project Dimensions* for the Project Dimensions Data.

#### 6.15.2 Rebates – Paver Placed Surface Treatment

There is no rebate requirement for this project.