# Attachment 10

# Special Notes – NYSDOT Specific Projects
# Revised 6/1/2023

# Liquid Bituminous Materials
# (2023 VPP NYSDOT Specific Projects -2nd Letting)
# (Federal & State Funds)

# IFB# 23309

# Contents

# SECTION 1: COLD RECYCLING - SPECIFIC PROJECTS

## 1.1 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.

## 1.2 Pricing Information

### 1.2.1 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.

## 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 $626.000.**

**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 1: 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:

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

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 1: 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.

### 1.3.2 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%

| | | | | |
|---|---|---|---|---|
| Price Adjustment (per gallon) | = | $\frac{(636.000 - 626.000)}{235}$ | X | 0.732 |

| | | |
|---|---|---|
| Price Adjustment (per gallon) | = | +$0.031 per gallon |

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 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 1: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)

### 1.5 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.

### 1.6 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.

### 1.7 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.

### 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 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.

### 1.10 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.

### 1.11 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.

## SECTION 1: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)

**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**.

### 1.12 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.

#### 1.12.1 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 1: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)

| Sign | Minimum Size | Location |
|---|---|---|
| ROAD WORK<br>NEXT _____<br>MILES | G20-1<br>Conventional<br>36" x 18"<br>Freeways<br>48" x 24" | On main line upstream of project in each direction. |
| END ROAD WORK | G20-2<br>Conventional<br>36" x 18"<br>Freeways<br>48" x 24" | On main line after end of project in each direction. |
| ROAD WORK AHEAD | W20-1<br>Conventional<br>36" x 36"<br>Freeways<br>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 | R4-1<br>Conventional<br>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 | W8-12<br>Conventional<br>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 | W8-9<br>Conventional<br>36" x 36"<br>Freeways<br>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 | W8-15<br>Conventional<br>36" x 36"<br>Freeways<br>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 1: 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.

### 1.12.2 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 foot 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.

### 1.12.3 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 feet 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 feet from the work site, the 40-foot 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-foot intervals to discourage traffic from driving through the closed lane. Transversely placed devices are not required where pilot cars are in use.

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

## SECTION 1: 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 as indicated elsewhere 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 404.058901 or 404.098901. 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 45ºF 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 they do 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**

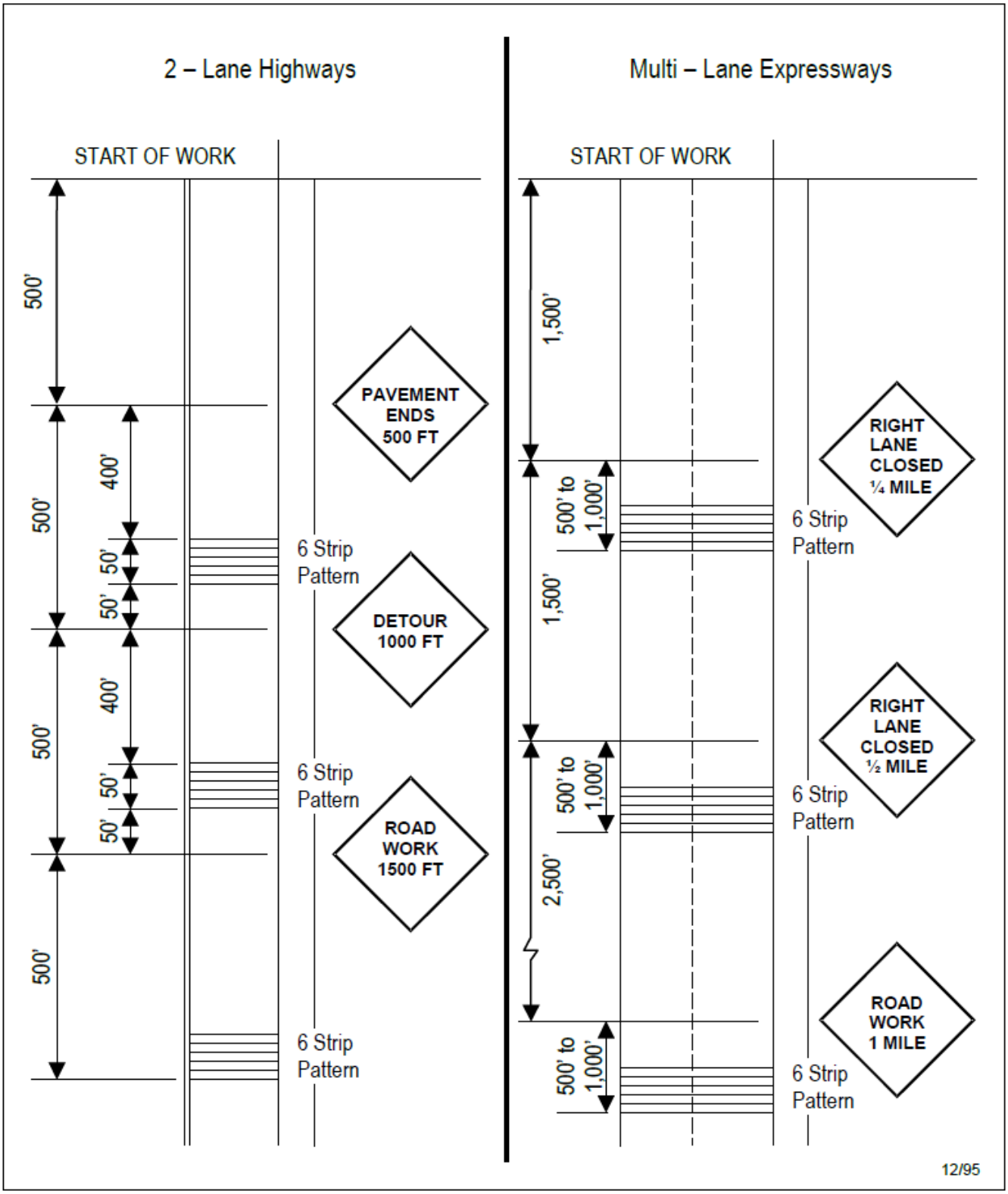
All costs for the installation, maintenance and removal of temporary rumble strips are included in the price per ton or square yard as appropriate. No separate payment shall be made.

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

See the Suggested Layout Details Drawing on the next page.

## SECTION 1: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)

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



# SECTION 1: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)

## 1.13 Special Notes – Cold Recycling

### 1.13.1 Funding Source (Cold Recycling)

Project 9HW360 will be funded by Federal Aid.
Projects 2V2312, 2V2332, 9HW320, 9HW340, 9HW370, and 9HW380 are 100% State funded.

### 1.13.2 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.

### 1.13.3 NYSDOT REGION 2 Special Notes (Cold Recycling)

**2V2312 - Route 331 – Montgomery County Line to Route 29**

1. It shall be the contractor's responsibility to inventory and document the existing pavement marking patterns prior to milling and/or resurfacing 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.
2. All Cold Recycling must be complete by 08/31/2023. The contractor will submit a schedule reflecting this requirement to the Resident Engineer upon award of the work.
3. The mix design shall be a fine gradation. No add stone will be used in the mix design.
4. Recycling operations shall progress in the opposite direction of traffic. There will be no waivers allowed.
5. The outside 3' of each side of the shoulders shall be removed to a depth of 4 inches. This material shall not be incorporated into the recycled mat. The contractor shall include the method to be used for this in their Materials Management Plan (MMP). *Payment for the shoulder milling/removal will be made under item 416.01.*
6. Any excess millings will become the property of the contractor and shall be removed from the project by the contractor.
7. The final recycled surface cross slope shall be shown in the MMP drawings.
8. The minimum cut depth shall be 4". The minimum final compacted thickness shall be 3". The contractor may adjust cut depth greater than 4" to achieve this. No additional payment will be made for any additional cut depth. Proposed milling depth shall be included in the MMP. Under no circumstances will the minimum cut depth be less than 4". The cut depth listed in the MMP shall not be adjusted without RME approval.
9. The cold recycled mat will be fog sealed at the end of each day's production. The minimum application rate shall be .05 gal/SY. Payment for the fog seal will be made using 416.30.
10. It is the responsibility of the contractor to take the pavement cores to be used in developing the CIPR mix design for this site.

## SECTION 1: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)

**2V2332 - Route 167 – RM 1070 to Route 168**

1. It shall be the contractor's responsibility to inventory and document the existing pavement marking patterns prior to milling and/or resurfacing 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.
2. All Cold Recycling must be complete by 08/31/2023. The contractor will submit a schedule reflecting this requirement to the Resident Engineer upon award of the work.
3. The mix design shall be a fine gradation. No add stone will be used in the mix design.
4. Recycling operations shall progress in the opposite direction of traffic. There will be no waivers allowed.
5. The outside 2' of each side of the shoulders shall be removed to a depth of 4 inches. This material shall not be incorporated into the recycled mat. The contractor shall include the method to be used for this in their Materials Management Plan (MMP). *Payment for the shoulder milling/removal will be made under item 416.01.*
6. Any excess millings will become the property of the contractor and shall be removed from the project by the contractor.
7. The final recycled surface cross slope shall be shown in the MMP drawings.
8. The minimum cut depth shall be 4". The minimum final compacted thickness shall be 3". The contractor may adjust cut depth greater than 4" to achieve this. No additional payment will be made for any additional cut depth. Proposed milling depth shall be included in the MMP. Under no circumstances will the minimum cut depth be less than 4". The cut depth listed in the MMP shall not be adjusted without RME approval.
9. The cold recycled mat will be fog sealed at the end of each day's production. The minimum application rate shall be .05 gal/SY. Payment for the fog seal will be made using 416.30.
10. It is the responsibility of the contractor to take the pavement cores to be used in developing the CIPR mix design for this site.

### 1.13.4 Projects 9HW320, 9HW340, 9HW360, 9HW370, and 9HW380

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 **September 30, 2023**.

## SECTION 1: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)

**Project 9HW340 – Delaware and Sullivan Counties – Region 9**

The contractor shall stop and resume recycling operations 50' before and after the following structure, BIN 1035440, this structure shall not be recycled over.

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

There are several documented timber rattlesnake (*Crotalus horridus*) denning locations within close proximity to the project area. Rattlesnakes may be encountered while working in these areas. To avoid disturbances to the protected venomous snake species and for the safety of the contractors the attached species information and species encounter plan shall be provided to, reviewed, and adhered to by all contractors and personnel involved in the project.

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

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

**EDUCATION:**

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

**AVOIDANCE:**

1. Avoid walking in tall grass and bushes.
2. When walking in woods, always look ahead of you and watch where you step.
3. Do not reach into rock piles, log piles, or into ledges without first looking the area over to ensure snakes are not present.
4. Rattlesnakes may be attracted to piles of construction material such as wood or stones, so caution must be exercised in these areas.

**Project 9HW370 – Lane Closures, Sullivan County**

On Route NY 97, in Sullivan County, no lane closures are allowed after 12pm Friday through the following Sunday. This seasonal restriction is effective on all weekends from Memorial Day weekend through Labor Day weekend.

**Project 9HW380 – Tioga County – Region 9**

The contractor shall stop and resume recycling operations 50' before and after the following structures, BIN 1035000, C650103, C650106 and C650108. These structures shall not be recycled over.

## SECTION 1: COLD RECYCLING - SPECIFIC PROJECTS (Cont'd)

### 1.14 Detailed Specifications – Cold Recycling

Please see Attachment 11 – *Detailed Specifications.*

#### 1.14.1 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 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/NYSDOT assumes no responsibility for erroneous information listed herein.

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

# SECTION 2: HEATER SCARIFICATION - SPECIFIC PROJECTS

## 2.1 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.

## 2.2 Pricing Information

### 2.2.1 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.

## 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.

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:

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

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 2: 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 it will be to attach the appropriate State notification (based on when the work was performed) to the payment invoice submitted to the agency.

## SECTION 2: HEATER SCARIFICATION - SPECIFIC PROJECTS (Cont'd)

### 2.3.2 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%

| | | | | |
|---|---|---|---|---|
| Price Adjustment (per gallon) | = | $\frac{(636.000 - 626.000)}{235}$ | X | 0.66 |

| | | |
|---|---|---|
| Price Adjustment (per gallon) | = | +$0.028 per gallon |

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 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.

### 2.5 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.

### 2.6 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 2: HEATER SCARIFICATION - SPECIFIC PROJECTS (Cont'd)

### 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*. 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.

### 2.11 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.

#### 2.11.1 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 2: HEATER SCARIFICATION - SPECIFIC PROJECTS (Cont'd)

| Sign | Minimum Size | Location |
|---|---|---|
| ROAD WORK<br>NEXT _____<br>MILES | G20-1<br>Conventional<br>36" x 18"<br>Freeways<br>48" x 24" | On main line upstream of project in each direction. |
| END ROAD WORK | G20-2<br>Conventional<br>36" x 18"<br>Freeways<br>48" x 24" | On main line after end of project in each direction. |
| ROAD WORK AHEAD | W20-1<br>Conventional<br>36" x 36"<br>Freeways<br>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 | R4-1<br>Conventional<br>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 | W8-12<br>Conventional<br>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 | W8-9<br>Conventional<br>36" x 36"<br>Freeways<br>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 | W8-15<br>Conventional<br>36" x 36"<br>Freeways<br>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: 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.

### 2.11.2 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 foot 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.

### 2.11.3 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 feet 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 feet from the work site, the 40-foot 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-foot intervals to discourage traffic from driving through the closed lane. Transversely placed devices are not required where pilot cars are in use.

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

## SECTION 2: 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 as indicated elsewhere 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 404.058901 or 404.098901. 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 45ºF 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 they do 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**

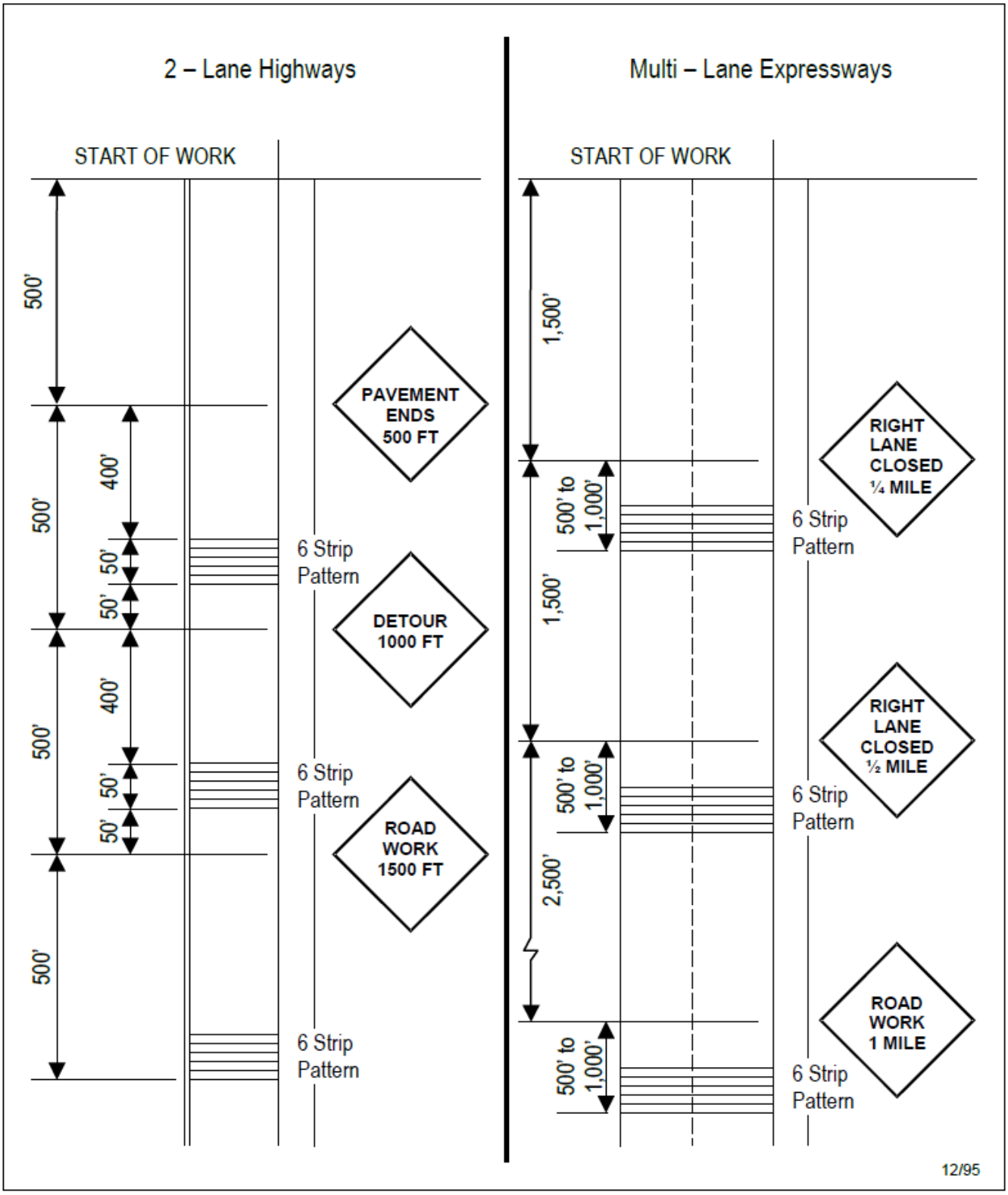
All costs for the installation, maintenance and removal of temporary rumble strips are included in the price per ton or square yard as appropriate. No separate payment shall be made.

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

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

## SECTION 2: HEATER SCARIFICATION - SPECIFIC PROJECTS (Cont'd)

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



# SECTION 2: HEATER SCARIFICATION - SPECIFIC PROJECTS (Cont'd)

## 2.12 Special Notes – Heater Scarification

### 2.12.1 Funding Source (Heater Scarification)

Project 9V2350 will be funded by Federal Aid.

Projects 2V2331, 2V2351, and 7PAV59 are 100% State funded.

### 2.12.2 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 coordinate 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.

### 2.12.3 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**.

## SECTION 2: HEATER SCARIFICATION - SPECIFIC PROJECTS (Cont'd)

### 2.12.4 NYSDOT REGION 2 Special Notes (Heater Scarification)

**2V2331 - Route 5S Steele Creek to Mohawk Station**

1. It shall be the contractor's responsibility to inventory and document the existing pavement marking patterns prior to heater scarification 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.
2. All Heater Scarification must be completed by 9/15/2023. The contractor will submit a schedule reflecting this requirement to the Resident Engineer upon award of the work.
3. Any gore area epoxy pavement markings within the limits of heater scarification are to be removed prior to the Heater Scarification process. The cost of this work shall be included in the heater scarification items.
4. The paver shall be capable of placing the material with a shoulder break in the same location that it currently exists.
5. It is the responsibility of the contractor to take the pavement cores to be used in developing the HIPR mix design for this site.
6. Interchange ramps (Route 5S Eastbound to Route 51, Route 51 to Route 5S Eastbound, Route 5S Westbound to Route 51 and Route 51 to Route5S Westbound) will not require heater scarification.
7. Lane width of the heater scarification shall be 14'.

**2V2351 - Route 5S Lashers Creek To Fultonville**

1. It shall be the contractor's responsibility to inventory and document the existing pavement marking patterns prior to heater scarification 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.
2. All Heater Scarification must be completed by 9/15/2023. The contractor will submit a schedule reflecting this requirement to the Resident Engineer upon award of the work.
3. Lane width of the heater scarification shall be 14'.
4. Any gore area epoxy pavement markings within the limits of heater scarification are to be removed prior to the Heater Scarification process. The cost of this work shall be included in the heater scarification items.
5. The paver shall be capable of placing the material with a shoulder break in the same location that it currently exists.
6. It is the responsibility of the contractor to take the pavement cores to be used in developing the HIPR mix design for this site.

## SECTION 2: HEATER SCARIFICATION - SPECIFIC PROJECTS (Cont'd)

### 2.12.5 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) |
|---|---|---|---|---|
| 7PAV59 | St. Lawrence | Route 345 | 1008 – 1048 | 14' (12' Lane + 2' Shoulder) |

### 2.12.6 NYSDOT REGION 9 Special Notes (Heater Scarification)

**Project 9V2350- Delaware and Otsego Counties**

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.

This project has a buildup of epoxy striping that needs to be removed prior to heater scarification the heater scarification contractor shall remove all stripes and symbols prior to scarifying. 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 price per square yard of heater scarification. No separate payment shall be made.

This project shall be completed by **September 30, 2023**.

## 2.13 Detailed Specifications – Heater Scarification

Please see Attachment 11 – *Detailed Specifications*.

### 2.13.1 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/NYSDOT assumes no responsibility for erroneous information listed herein.

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

# SECTION 3: MICRO-SURFACING - SPECIFIC PROJECTS

## 3.1 Introduction

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

## 3.2 Pricing Information

### 3.2.1 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.

## 3.3 Asphalt Price Adjustments

### 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.**

**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 Ton) | = | (New Monthly Average F.O.B. Terminal Price | – | Base Average F.O.B. Terminal Price) | X | Total Allowable Petroleum % |

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 3: 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.

### 3.3.2 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%

| | | | | |
|---|---|---|---|---|
| Price Adjustment (per ton) | = | (636.000 - 626.000) | X | 0.092 |

| | | |
|---|---|---|
| Price Adjustment (per ton) | = | +$0.920 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 3: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

### 3.4 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.

### 3.5 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.

### 3.6 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*.

### 3.7 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 the responsible party and 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.

### 3.8 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.

### 3.9 Construction Details

The construction details shall comply with the requirements specified herein, including those appearing in the enclosed Attachment 11 - *Detailed Specifications*. 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.

### 3.10 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 3: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

### 3.11 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.

### 3.12 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.

### 3.13 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 3.13.2 – *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 3: 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:

### 3.13.1 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<br>NEXT ____ MILES | G20-1<br>Conventional<br>36" x 18"<br>Freeways<br>48" x 24" | On main line upstream of project in each direction. |
| END ROAD WORK | G20-2<br>Conventional<br>36" x 18"<br>Freeways<br>48" x 24" | On main line after end of project in each direction. |
| ROAD WORK AHEAD | W20-1<br>Conventional<br>36" x 36"<br>Freeways<br>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.<br>(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 | R4-1<br>Conventional<br>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 | W8-12<br>Conventional<br>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 | W8-9<br>Conventional<br>36" x 36"<br>Freeways<br>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 3: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

### 3.13.2 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 foot 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, the 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.

### 3.13.3 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. 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 as indicated elsewhere 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.

### 3.13.4 Special Note: Work Zone Intrusion Initiative

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

**Channelizing Device Spacing Reduction**

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

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

## SECTION 3: 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-foot intervals to discourage traffic from driving through the closed lane. Transversely placed devices are not required where pilot cars are in use.

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

**Flagger Station Enhanced Setups**

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

For additional details on Flagger Station Enhanced Setups, see Work Zone Traffic Control as indicated elsewhere 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 404.058901 or 404.098901. 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 45ºF 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 "Suggested Layout Details - Temporary Rumble Strips" included below. 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 they do 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: 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**

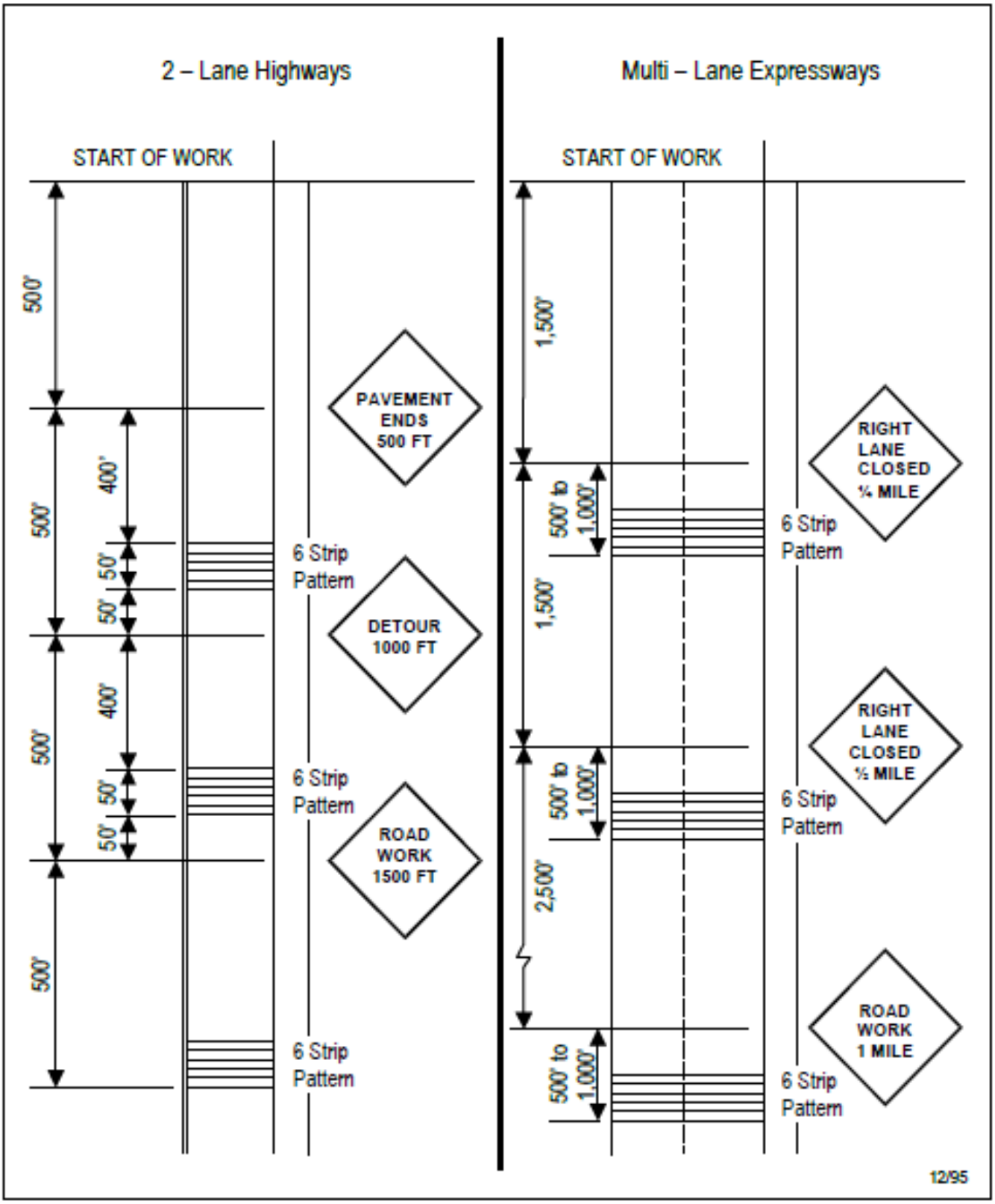
All costs for the installation, maintenance and removal of temporary rumble strips are included in the price per ton or square yard as appropriate. No separate payment shall be made.

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

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

## SECTION 3: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

**Suggested Layout Details – Temporary Rumble Strips**



## SECTION 3: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

### 3.14 Special Notes – Micro-surfacing

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

Projects 400582, 401987, and 402134 are 100% State funded.

#### 3.14.2 NYSDOT Region 4 Special Notes (Micro-surfacing)

**General Special Note – Region 4 Projects**

1. Local fire, police, ambulance, and school authorities shall be notified by the Contractor prior to commencing work in order to maintain sufficient emergency services and to allow school officials sufficient time to plan alternative bus routes, if necessary.
2. Prior to the start of work, the contractor shall inventory all pavement markings and provide the engineer with a copy of the inventory. As part of a pavement marking program update, the Regional Traffic and Safety group is reviewing all pavement markings within the limits of paving projects. Upon review, there may need to be adjustments to the pavement marking layout. The contractor shall be responsible for completing striping layout, including changes as indicated by the Regional Traffic and Safety Group.
3. The contractor shall remove any plowable reflective markers in the pavement, if present, prior to paving. The hole left in the existing pavement, shall then be filled with a hot/warm mix asphalt material; 9.5 mixture, or mixture approved by the Resident Engineer. Cost to be included in the bid price for the associated project.
4. Contractor shall use a Micro Milling machine for all milling operations.
5. Vibratory rollers shall not be operated in a vibratory mode within 50 feet of bridge decks, cross culverts, sanitary sewers and watermain crossings. Specific locations for non-vibratory rolling will be discussed at the pre-pave meeting.
6. All Truing and Leveling courses, if required shall be indicated in the Standard Specifications section 404-3.05 (Table 404-2) Superpave Warm Mix Asphalt Design Criteria Table.
7. Some projects may require loop detectors to be re-established prior to or once paving has been completed. This will be done by others and coordinated by the Resident Engineer.
8. The installation of temporary rumble strips at the beginning of each project work zone shall be at the discretion of the engineer.
9. Any and all debris generated as part of the work shall be removed by the contractor within five days of completion of paving operations.
10. The time restrictions listed are based on anticipated traffic volumes. If, at the time of construction, the traffic volumes appear to allow extended work hours, an adjustment to the time restrictions may be proposed. Any requests for revisions to the time restrictions shall be submitted in writing to the Resident Engineer for approval by the Regional Traffic Engineer or designee. Bidders should not assume that revisions to the stated time restrictions will be permitted.

**Temporary Lane/Shoulder Closure Restrictions for Major Holidays- Region 4**

There shall be no temporary lane/shoulder closures on roadway facilities owned and/or maintained by NYSDOT on the major holidays listed below.

Construction activities that will result in temporary lane/shoulder closures shall be suspended to minimize travel delays associated with road work for major holidays as follows:

## SECTION 3: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

| Holiday | Falls On | Temporary Lane Closures Are Not Allowed During the Following Times: |
|---|---|---|
| | Sunday or Monday | From 6am on the Friday before the holiday to 6am on the Tuesday after the holiday |
| Independence Day | Tuesday | From 6am on the Saturday before the holiday to 6am on the Friday after the holiday |
| Memorial Day<br>Labor Day | Monday | From 6am on the Friday before the holiday to 6am on the Tuesday after the holiday |

Exceptions can only be made under the following conditions:

- Emergency work.
- Work within long-term stationary lane/shoulder closures.
- Safety work that does not adversely impact traffic mobility and has been authorized by the Regional Traffic Engineer.

**Note:** The Department reserves the right to cancel any work operations, including lane closures and/or total road closures, that would create traffic delays by unforeseen events. The Contractor would be notified at least seven (7) calendar days prior to the proposed work.

## SECTION 3: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

**Project 400582 – Livingston County Routes 5 and 20 (within the Village of Avon)**

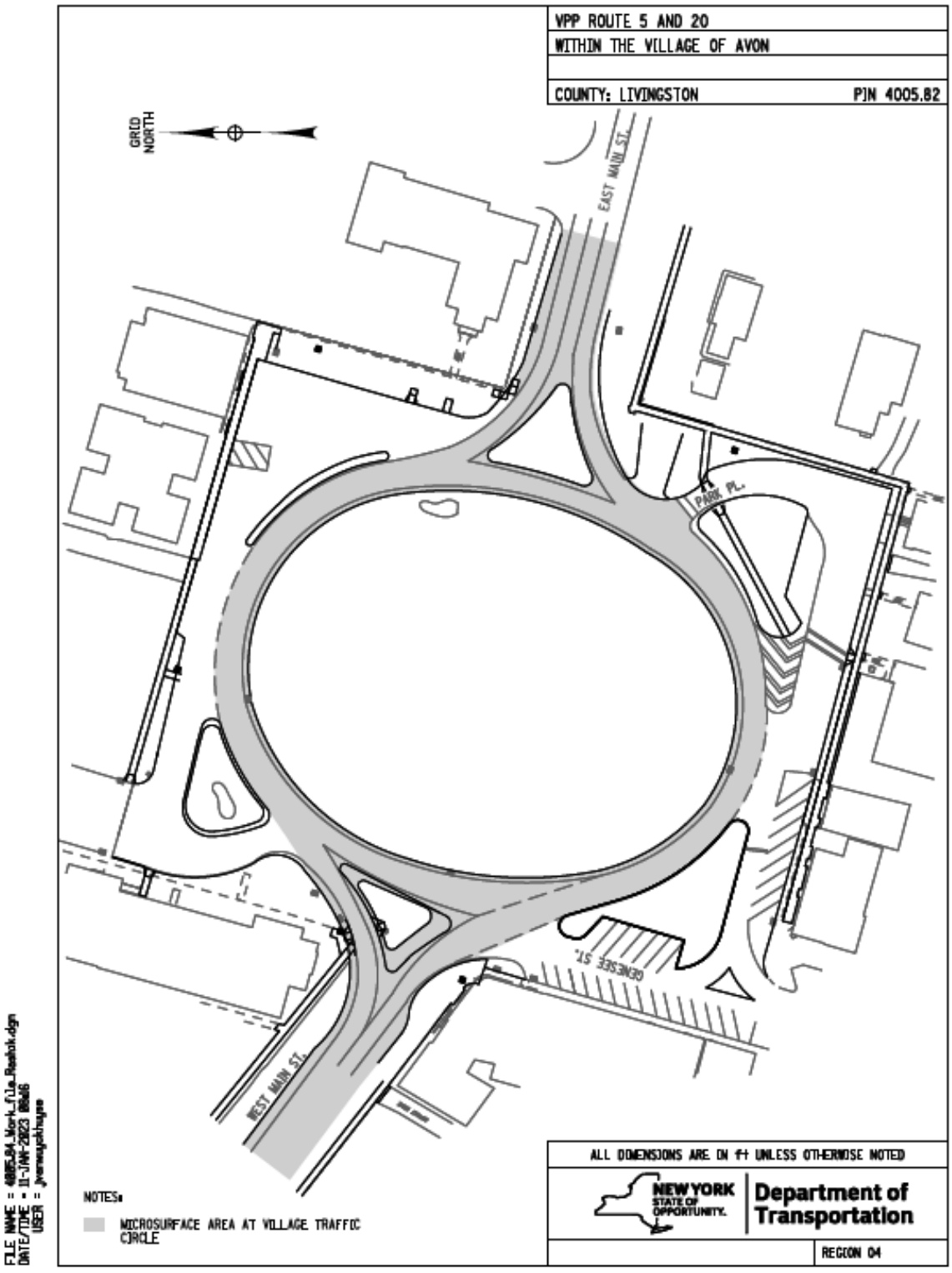
1. This project is a micro-surfacing project. The micro-surfacing will be applied to the full pavement width, from curb to curb, gutter to gutter, and or travel lanes and shoulders.
2. The Contractor will be required to clean the surface, inventory existing pavement markings, abrading existing epoxy pavement markings, production micro-surfacing, temporary and final long line (paint) pavement markings, ~~CARDs installation,~~ and associated Work Zone Traffic Control shall be included in the bid price for the micro-surfacing item. Special pavement markings will be done by others.

   The micro-surface shall be applied from the east bridge joint at the Genesee River bridge (BIN 1001800) to 45' east of Pole Bridge Road.

   Contractor shall refer to the Avon Traffic Circle Detail below for micro-surfacing limits within the Village Center.
3. Time Restrictions:
   a. Major Holiday Lane Restriction Special Note applies to this project.
   b. Routes 5 and 20 from Genesee River to NY39: No Flagging Restrictions.
   c. From NY39 to Pole Bridge Road: Flagging Prohibited 6-8am & 3-6pm
4. Weather Restrictions:

   Do not place micro-surfacing in the rain, when the dew point is above the air temperature, or if the air temperature is expected to fall below freezing within 24 hours after application. Application shall not occur unless pavement and ambient temperatures are above 50˚F and rising.
5. There is an at grade RR crossing at +/- 150' West of MM 5 4206 1099, Crossing # 266701A - Mile Post 366.23. The contractor will coordinate with the RR prior to working at this location. The RR owner is Livonia, Avon and Lakeville Railroad and their contact is Jason McGregor, (585) 519-8313.

## SECTION 3: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)



## SECTION 3: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

**Project 401987 – Wyoming County Routes 19 and 20A (Route 19 from Village of Warsaw South Village Line to Village of Wyoming North Village Line and Route 20A within the Village of Warsaw)**

1. This project is a micro-surfacing project. The micro-surfacing will be applied to the full pavement width, from curb to curb, gutter to gutter, and or travel lanes and shoulders.
2. The Contractor will be required to clean the surface, inventory existing pavement markings (including on-street parking), abrading existing epoxy pavement markings, production micro-surfacing, temporary and final long line (paint) pavement markings, CARDs installation, and associated Work Zone Traffic Control shall be included in the bid price for the micro-surfacing item. Note: for this project, on-street parking lines are defined as special paving markings. Special pavement markings will be done by others.

   Route 19 micro-surface with rut fill shall be applied from the Village of Warsaw South Line to the Village of Wyoming North Line.
3. Time Restrictions:
   a. Major Holiday Lane Restriction Special Note applies to this project.
   b. Route 19 — from RM 1161 to 1186, flagging prohibited 11am – 6pm; from RM 1186 to Northern Limit, no restrictions.
   c. Route 20A – from Center Street to Short Street flagging prohibited 11am – 6pm.
4. Weather Restrictions:

   Do not place micro-surfacing in the rain, when the dew point is above the air temperature, or if the air temperature is expected to fall below freezing within 24 hours after application. Application shall not occur unless pavement and ambient temperatures are above 50˚F and rising.
5. The Contractor is advised that approximately 3.6 miles of Centerline Audible Roadway Delineators (CARDs) exist within the proposed project limits on NYS Route 19. The Contractor is required to record the existing locations of CARDs and re-establish them, after the completion of micro-surfacing, in accordance with Item 649.11 and NYS Standard Sheet 649-03. The Contactor shall shim the existing CARDs prior to scratch course with a 2' (two foot) wide pass of Item 413.02020118, Micro-Surfacing, Type II, F2. 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 price per ton of the micro-surfacing item.
6. There is an at grade RR crossing at Route 20, West Buffalo Street +/- 78' East of RM 20A 4602 1167, Crossing # 264640E - Mile Post 375.34. The contractor will coordinate with the RR prior to working at this location. The RR owner is Norfolk Southern.
7. BIN 1015150 (NY-19 / Oatka Creek)

   At this location the contractor is directed to carry micro-surfacing across the bridge full width curb line to curb line.

   BIN 1015160 (NY-19 / Oatka Creek Tributary)

   No work is proposed at this location. Contractor shall not micro-surface over concrete bridge deck.

   BIN 1015170 (NY-19 / Oatka Creek Tributary)

   At this location the contractor is directed to carry micro-surfacing across the bridge full width curb line to curb line.

   BIN 1016160 (NY-19 / Oatka Creek)

   At this location the contractor is directed to carry micro-surfacing across the bridge full width curb line to curb line.

   BIN 1015610 (NY-19 / Murder Creek)

   At this location the contractor is directed to carry micro-surfacing across the bridge full width curb line to curb line.

## SECTION 3: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

**Project 402134 – Wayne County Routes 31 and 21 Village of Palmyra**

1. This project is a micro-surfacing project. The micro-surfacing will be applied to the full pavement width, from curb to curb, gutter to gutter, and or travel lanes and shoulders.
2. The Contractor will be required to clean the surface, inventory existing pavement markings (including on-street parking), abrading existing epoxy pavement markings, production micro-surfacing, temporary and final long line (paint) pavement markings, ~~CARDs installation~~, and associated Work Zone Traffic Control shall be included in the bid price for the micro-surfacing item. Note: for this project, on-street parking lines are defined as special paving markings. Special pavement markings will be done by others.
3. Time Restrictions:
    a. Major Holiday Lane Restriction Special Note applies to this project.
    b. NY31 From RM 1066 to RM 1081 and NY21 From RM 1011 to RM 1024: Flagging Prohibited 7-9am & 2-7pm / NY31 From RM 1081 to RM 1087: Flagging Prohibited 7-8am & 3-5pm / NY21 South of RM 1011 and North of RM 1024: No Flagging Restrictions.
4. Weather Restrictions:

    Do not place micro-surfacing in the rain, when the dew point is above the air temperature, or if the air temperature is expected to fall below freezing within 24 hours after application. Application shall not occur unless pavement and ambient temperatures are above 50˚F and rising.
5. BIN 4016480 (NY-21 / Erie Canal)

    At this location the contractor is directed to carry micro-surfacing across the bridge full width curb line to curb line.

## SECTION 3: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

### 3.15 Special Note - Railroad Involvement in 100% State Funded Projects

Bidders are advised that there may be active at grade railroad crossings within the limits of projects in this Invitation for Bids. The following at grade railroad crossings have been identified, but there may be others within the limits of these projects that have not been identified:

| Project Number | County | Route | Railroad Name | Location |
|---|---|---|---|---|
| 400582 | Livingston | 5 | Livonia, Avon and Lakeville Rail Road | +/- 150' West of RM 5 4206 1099, Crossing # 266701A - Mile Post 366.23 |
| 401989 | Wyoming | 20A | Norfolk Southern Railroad | +/- 78' East of RM 20A 4602 1167, Crossing # 264640E – Mile Post 375.34 |

At the identified at grade crossings, and any other active at grade railroad crossings encountered on the projects in this Invitation for Bids, the contractor shall coordinate with the corresponding railroad as per follows:

**Coordination with Railroad(s)**

**The Contractor shall note that this project may require close coordination with a railroad and railroad protective flagging services.**

**Description**

The Contractor shall conduct its work and handle its equipment such that no part of any material or equipment shall foul a track, catenary, electrical facility or signal facility without written permission from the chief engineer of the railroad company(s) affected. A track is fouled when any object is brought within 7.62 M (25') of the centerline of the track or the nearest point of a railroad's catenary, electrical facility or signal facility.

**Construction Details**

In the event the Contractor's work does foul a railroad facility the Contractor shall obtain a permit in order to enter railroad property and to cover the costs of the railroad's force account services.

The Contractor will not be allowed to enter onto the railroad's property to perform contract work, nor will the railroad provide services occasioned by the Contractor's operations unless the Contractor notifies the railroad and receives the railroad's prior approval. A railroad will not provide any services necessitated by the Contractor's operations until the permit is obtained.

These railroad costs will include but may not be limited to costs incurred by the railroad to provide flaggers, spotters, engineering services, administrative services, construction inspection,or other labor, material or equipment necessary to provide a safe environment for both the Contractor's and railroad's forces.

The Contractor is advised that a railroad may not be able to provide flag persons on a daily basis due to the railroad's operational necessities. The Contractor shall coordinate and schedule his construction activities with the railroad's engineer no later than two weeks prior to the start of the work, in consultation with the State's Engineer-in-Charge, so that a workable schedule can be formulated and agreed upon. In addition to the above, the Contractor shall also comply with the current Standard Specifications §105-09 WORK AFFECTING RAILROADS.

**Basis of Payment**

All costs incurred by the contractor to comply with the requirements in this Special Note shall be included in the price bid per ton of bituminous concrete. No extra payment shall be made.

## SECTION 3: MICRO-SURFACING - SPECIFIC PROJECTS (Cont'd)

### 3.16 Detailed Specifications – Microsurfacing

Please, see Attachment 11 – *Detailed Specifications*.

#### 3.16.1 Project Dimensions – Micro-surfacing

Information on pavement widths for projects in this Invitation for Bids are 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/NYSDOT assumes no responsibility for erroneous information listed herein.

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