Rhode Island Turnpike and Bridge Authority
P.O. Box 437 | Jamestown, Rhode Island 02835-0437

May 14, 2025

ADDENDUM NO. 04
Invitation for Bids – 24-03R

Mount Hope Bridge Overlay Replacement

Prospective Proposers and all concerned are hereby notified of the following changes/comments related to the Invitation for Bids (IFB) 24-03R. These changes/comments shall be incorporated in and shall become an integral part of the IFB.

BIDDER QUESTION RESPONSES:

1. The Ultra-Thin Bonded Wearing Course Spec is calling for a minimum thickness of .625". The micro milling of the existing rubberized asphalt chip seal is expected to be between .25" and .5". Please clarify if the micro mill depth should be increased to match the minimum depth of the wearing course.
   Response: ***Micro-milling of the existing rubberized asphalt chip seal and existing concrete patch material has been revised to be a thickness of 0.625".***
2. The suggested Sequence of Construction on plan sheet 4 indicates that once micro-milling is completed to perform concrete deck overfill repairs with HMA. Since the roadway needs to be opened at the end of each shift shouldn't this work happen concurrently with the milling only advancing to a point where any deteriorated portions of the deck can be prepped and paved within the same shift prior to opening the roadway.
   Response: ***The limits of milling within a shift shall be coordinated and adjusted as necessary to account for field conditions to ensure that the limits of bridge deck milled within a shift can be patched within the same shift. This is to ensure that the bridge is not reopened to traffic with unpatched spalls/potholes. Placement of UTBWC does not need to be completed within the same shift as micro-milling and patching. Sheet 7, Note 5, has been revised to allow continuous lane closure operations from 7pm Friday to 5am Monday.***
3. Section 818.9901, part 818.03 – construction methods states "loose/deteriorated deck concrete overfill and chip seal shall be removed by hand". Noting that chipping hammers are not required can removal by hand be defined more clearly. Should the contractor anticipate using rubber mallets or other similar hand tools to ensure all loose concrete is removed? Also, at joint and scupper locations where the mill is not accessible can the contractor use chipping hammers to get to the minimum removal depth for the wearing course.
   Response: ***The loose concrete to be removed within patch areas shall be limited to concrete that is sitting loose which was set loose by the milling process. Additional removal of concrete within is not required except when concrete is loose but held in place solely by remaining chip seal. At joint and scupper locations not accessible to mill, the Contractor may use alternative means to remove existing chip seal/patch material. The chosen method shall be submitted for review through the submittal process.***

4. Spec section 819.9901 notes that spalls in the existing concrete deck overfill measuring ½" or less in depth shall not be patched can you confirm the wearing course will be placed thicker in these locations.
   Response: ***UTBWC shall be placed thicker than typical 0.625" thickness within spall areas with depth equal to or less than ½" to provide a smooth top riding surface.***
5. RIDOT standard specifications and matrix for 4.75 MM HMA require a minimum placement thickness of ¾" and a max thickness of 1.25" (see attached). To place the minimum thickness the contractor may be required to remove some sound concrete from deteriorated areas. Please advise if this RIDOT matrix does not need to be followed and any patching from 1/2'" to the top of the grid up to 3" thick can be performed using the HMA patching.
   Response: ***The RIDOT HMA matrix does not need to be followed relative to minimum thicknesses for placement of HMA within bridge deck overfill spall repair areas. HMA shall be placed to achieve a flush finish with the adjacent bridge deck surface.***
6. Section 935.9901.03.3 states to construct temp ramps using Class 4.75 or Class 9.5 HMA at locations of bridge joints. Will the ramps be measured for payment or is it considered incidental to the micro-milling item?
   Response: ***Temporary pavement ramps are not required.***
7. Bid Item 5 Bridge Deck Concrete Overfill Repairs has a quantity of 33,000 SF. Please consider revising this item to a TON measurement as the depths can vary from ½" up to 3.5" and the contractor has no way to quantify the depth of repair prior to the milling and removal of deteriorated and loose concrete.
   Response: ***Bid Item No. 5 – Bridge Deck Concrete Overfill Repairs has been changed to a unit of TON in lieu of SF. The special provision and proposal sheet has been revised accordingly.***

DRAWINGS

1. **REPLACE** Contract Drawing Sheet 7. Sheet 7 was revised to modify the weekend lane closure operation window.

SPECIFICATIONS

1. **REPLACE** Division II Construction Details.
   a. Proposal Form – Bid Item No. 5 revised unit from SF to TON.
   b. Section 818.9901 – Bridge Deck Concrete Overfill Overlays revised unit from SF to TON.
   c. Section 935.9901 – Micro-Milling Existing Rubberized Asphalt Chip Seal and Concrete Patches revised to specify a milling depth of 0.625".

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI		2024	7	(7)

Ⓐ


W20-1
48x48 in.

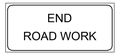
W13-1
18x18 in.

Ⓑ


W20-4
48x48 in.

Ⓒ


W20-7a
24x18 in.

Ⓓ


G20-2a
36x18 in.

Ⓔ


W5-1
36x36 in.

Ⓕ


G20-1
36x18 in.

W13-1
18x18 in.

Ⓖ


W20-1
48x48 in.

W13-1
18x18 in.

Ⓗ


CMS
CHANGEABLE MESSAGE SIGN
SEE NOTE 11

Ⓘ

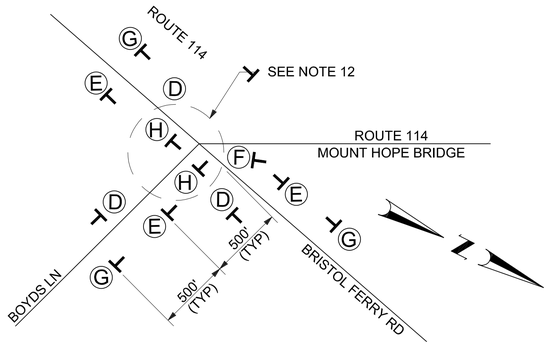

W20-4
48x48 in.

Ⓙ

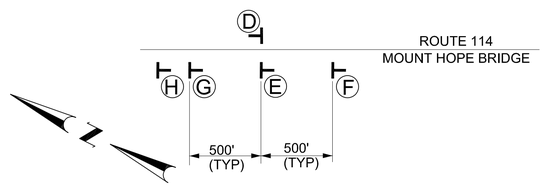

48x48 in.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

1. FOR GENERAL NOTES, SEE DWG. NO. 2; FOR ABBREVIATIONS, SEE DWG. NO. 2.
2. WORK AREA CHANGES POSITION ALONG BRIDGE AS WORK ZONE MOVES FORWARD.
3. NIGHT WORK SHALL BE PERMITTED DAILY. NIGHT TIME LANE CLOSURE OPERATIONS, INCLUDING SET UP AND PICK UP, SHALL BEGIN NO EARLIER THAN 7:00 PM AND LANES SHALL BE RESTORED BY 5:00 AM THE NEXT DAY, UNLESS AUTHORIZED BY THE RESIDENT OR ENGINEER ON A CASE-BY-CASE BASIS.
4. WORKDAY DAYTIME LANE CLOSURE OPERATIONS, INCLUDING SET UP AND PICK UP, SHALL BEGIN NO EARLIER THAN 9:00 AM AND LANES SHALL BE RESTORED BY 3:00 PM MONDAY THROUGH THURSDAY AND BY 1:00 PM ON FRIDAYS, UNLESS AUTHORIZED BY THE RESIDENT OR ENGINEER ON A CASE-BY-CASE BASIS
5. CONTINUOUS WEEKEND DAYTIME AND NIGHT TIME LANE CLOSURE OPERATIONS SHALL BE PERMITTED. WEEKEND LANE CLOSURE OPERATIONS, INCLUDING SET UP AND PICK UP SHALL BEGIN NO EARLIER THAN 7:00 PM FRIDAY AND LANES SHALL BE RESTORED BY 5:00 AM MONDAY.
6. SIGNING NORTH AND SOUTH OF THE BRIDGE SHALL REMAIN FOR THE DURATION OF THE WORK ON OR ADJACENT TO ROUTE 114.
7. FOR ADDITIONAL TRAFFIC CONTROL MEASURES SEE SUPPLEMENTARY SPECIFICATIONS.
8. ROAD WORK IS LIMITED TO ONE WORK AREA AT ANY TIME.
9. ROADWAYS BELOW THE BRIDGE SHALL REMAIN OPEN AT ALL TIMES, LANE CLOSURES OF THESE ROADWAYS WILL NOT BE PERMITTED.
10. SEE SUPPLEMENTARY SPECIFICATIONS FOR ADDITIONAL LANE CLOSURE LIMITATIONS INCLUDING LIMITATIONS BEFORE AND AFTER HOLIDAYS.
11. PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE PLACED AT EACH APPROACH FOR A PERIOD OF TWO WEEKS PRIOR TO THE START OF CONSTRUCTION. AT THE SOUTH APPROACH, THE SIGN SHALL FACE ROUTE 114 FOR THE FIRST WEEK AND SHALL FACE BOYDS LANE FOR THE SECOND WEEK.
12. THE CONTRACTOR SHALL SUBMIT A TRAFFIC PLAN PRIOR TO BEGINNING THEIR MOBILIZATION. SEE SPECIFICATION 943 OF THE SUPPLEMENTARY SPECIFICATIONS.
13. THE CONTRACTOR SHALL SUPPLY ALL FLAGPERSONS, THE SUPERINTENDENT, AND THE RESIDENT ENGINEER WITH TWO-WAY RADIOS.
14. WORKDAYS DEEMED AS MON-FRI. WEEKENDS DEEMED AS SATURDAY AND SUNDAY.
15. DEBRIS, MATERIALS, TOOLS, ETC., SHALL NOT BE LEFT ON ANY ROADWAY SURFACE WHEN LEAVING THE WORKING AREA. IN ADDITION, NO DEBRIS, ETC. SHALL INTERFERE WITH ADJACENT OPEN TRAFFIC LANES.
16. PORTABLE SIGN SUPPORTS SHALL BE WIND RESISTANT. SIGN SUPPORTS WITHIN THE LIMITS OF THE BRIDGE DECK SHALL BE MOUNTED ON THE BRIDGE SUPERSTRUCTURE STEEL WITH MEDIAN BARRIER BRACKETS. THE BRIDGE STEEL AND PAINT SHALL BE PROTECTED FROM DAMAGE.
17. WHEN THE CONTRACTOR'S OPERATIONS EFFECT TRAFFIC IN SPANS 1 THROUGH 7 OR THE INTERSECTION OF BOYDS LN AND BRISTOL FERRY RD., THE CONTRACTOR SHALL HAVE A POLICE OFFICER AT THE INTERSECTION AT THE SOUTH END OF THE BRIDGE. THE POLICE DETAIL IS IN ADDITION TO THE FLAGGERS NECESSARY TO CONTROL TRAFFIC THROUGH THE WORK ZONE.
18. LANE CLOSURES FROM THE SOUTH ABUTMENT TO PIER 7 REQUIRE A POLICE DETAIL WITH THE PORTSMOUTH POLICE DEPARTMENT. EXPECT A MINIMUM OF 2 POLICE OFFICERS FOR EACH LANE CLOSURE. THE POLICE OFFICERS ARE FOR CONTROLLING THE TRAFFIC AT THE INTERSECTION AND DECIDING WHICH WAY TRAFFIC SHOULD FLOW THROUGH THE WORK ZONE. THE CONTRACTOR'S FLAGGERS ARE RESPONSIBLE FOR KEEPING THE TRAFFIC MOVING THROUGH THE ZONE.
19. THE CONTRACTOR SHALL MONITOR THE TRAFFIC ALONG BOYDS LANE. THE CONTRACTOR SHALL SUBMIT A PROPOSED MONITORING METHOD (FOR EXAMPLE, A ROVING PATROL, VIDEO SURVEILLANCE, OR OTHER METHOD) FOR REVIEW AND ACCEPTANCE. WHENEVER TRAFFIC BACKS- UP TO ROUTE 24 THE CONTRACTOR SHALL SAFELY REMOVE THE LANE CLOSURE FROM THE BRIDGE TO ALLOW BOTH LANES ON THE BRIDGE TO BE USED. NOTWITHSTANDING THIS CRITERIA, THE CONTRACTOR SHALL REMOVE THIS LANE CLOSURE FROM THE BRIDGE WHENEVER DIRECTED BY THE AUTHORITY, THEIR REPRESENTATIVE, OR THE POLICE.



SIGNING SOUTH OF THE BRIDGE



SIGNING NORTH OF THE BRIDGE

LEGEND

- FLASHING ARROW BOARD
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC CONE OR DRUM
- APPROXIMATE LOCATION OF FLAGPERSON.
- DENOTES PORTABLE SIGN SUPPORT (SEE NOTE 16)

NOTES:

1. FOR ADDITIONAL MAINTENANCE AND PROTECTION OF TRAFFIC DETAILS, SEE SHEET 6.
2. FOR GENERAL PLAN, SEE SHEET 3.
3. FOR STAGING PLAN, SEE SHEET 4.
4. FOR TYPICAL DETAILS, SEE SHEET 5.

REVISIONS		
NO.	DATE	BY

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY

MOUNT HOPE BRIDGE
OVERLAY REPLACEMENT
CONTRACT NO. 24-03R

MOUNT HOPE BRIDGE MAINTENANCE AND PROTECTION OF TRAFFIC 2 OF 2

WSP USA INC.
ONE PENN PLAZA
NEW YORK, NY, 10119

DESIGNED BY GTG DRAWN BY IJN
CHECKED BY SR CHECKED BY SR
SCALE N.T.S. DATE 5/13/2025 SHEET NO. 7 OF 7

PATH: C:\USERS\USTG732780\WSP 0365\RANKIN, STUART – 24-XX MOUNT HOPE CHIP SEAL PLANS\CAD\24-XX\09_MOUNT HOPE BRIDGE MAINTENANCE AND PROTECTION OF TRAFFIC

RHODE ISLAND TURNPIKE AND BRIDGE AUTHORITY

PROPOSAL

CONTRACT 24-03R (Rebid)

MOUNT HOPE BRIDGE
OVERLAY REPLACEMENT

APRIL 2, 2025

The undersigned Bidder has carefully examined the site of the work described herein; has become familiar with local conditions and the character and extent of the work; has carefully examined the Drawings, the Specifications, which consist of the Rhode Island Standard Specifications for Road and Bridge Construction, August 2024 Edition, and Special Provisions of the Rhode Island Turnpike and Bridge Authority, the Proposal form, the form of Contract Agreement, and the form of Bid Bond, which are acknowledged to be a part of this Proposal, and they thoroughly understand their stipulations, requirements, and provisions.

The undersigned Bidder has determined the quality and quantity of equipment and materials required; has investigated the location and determined the sources of supply of the materials required; has investigated labor conditions; and has arranged for the continuous prosecution of the work herein described.

The undersigned Bidder hereby agrees to be bound by the award of the Contract and, if awarded the Contract on this Proposal, to execute upon receipt of Notice of Award the required Contract Agreement, the required Performance Bond, and certificates of required insurance, of which Contract this Proposal, the Drawings for the work, and the Specifications as above indicated shall be a part.

The undersigned Bidder further agrees to provide all necessary equipment, tools, labor, incidentals, and other means of construction to do all the work, and furnish all the materials of the specified requirements that are necessary to complete the work in accordance with the Proposal, the Drawings, and the Specifications and agrees to accept therefore, as payment in full, the Contract Unit Price for the actual quantities of work described in the Specifications as set forth in this Proposal.

Any "Extra Work" or "Force Account Work" will be paid for as set forth in the Standard Specifications Subsections 104.05 and 109.04, and the undersigned Bidder hereby agrees to accept payment therefore as stated therein.

There is a Minority/Disadvantaged/Woman-Owned Business Enterprise Program for this project. The percentage goal for this project is 15% of the overall bid price (7.5% MBE and 7.5% WBE).

Item Description and Written Bid Prices	Estimated Quantity	Unit	Unit Price/Unit (Figures)	Total
1. Performance Bond _____Dollars and _____Cents Lump Sum	1	LS	$_____ Lump Sum	$_____
2. Payment Bond _____Dollars and _____Cents Lump Sum	1	LS	$_____ Lump Sum	$_____
3. Mobilization _____Dollars and _____Cents Lump Sum	1	LS	$_____ Lump Sum	$_____

SUB-TOTAL _____

Optional Work Pay Item Description and Written Bid Prices	Estimated Quantity	Unit	Unit Price/Unit (Figures)	Total
4. Ultra-Thin Bonded Wearing Course	14,574	SY	$_____ Square Yard	$_____
5. Bridge Deck Concrete Overfill Repairs	400	TON	$_____ TON	$_____
6. Bridge Deck Concrete Overfill Repairs – ALLOWANCE	1	AL	$400,000.00 Allowance	$_____
7. Micro-Milling Existing Rubberized Asphalt Chip Seal and Concrete Patches	14,574	SY	$_____ Square Yard	$_____
8. Pavement Markings	1	LS	$_____ Lump Sum	$_____

OPTIONAL WORK SUB-TOTAL _____

SUB-TOTAL FROM PREVIOUS SHEET _____

TOTAL _____

The attached Drawings and these Specifications indicate the work to be performed.

All work shall comply with all Federal Wage Rates as applicable, union wage rates, and applicable regulations.

The undersigned Bidder declares that this Proposal is made without connection with any other person or persons making Proposals for the same work, and is in all respects fair and without collusion or fraud.

The undersigned Bidder submits herewith Proposal Guaranty consisting of a certified check in the amount of $_____ or a Bid Bond in the amount of $_____ and agrees and consents that the Bid Bond shall be forfeited to the Authority as liquidated damages if the required Contract Agreement and Bid Bond are not executed within seven (7) calendar days from the date of the Notice of Award.

The undersigned Bidder further agrees, if awarded the Contract on this Proposal, to begin work within three (3) calendar days after the date of receipt of Notice to Proceed unless otherwise specified under Special Provisions or permitted by the Engineer, and further agrees to complete the work as per the milestones and completion date/schedule included in the Contract.

The undersigned hereby acknowledges receipt of the following addenda:

Addenda No.	Dated

_____
Contractor

By: _____

By: _____

Address: _____

_____

Being a {corporation incorporated under the laws of the State of _____ } composed of Officers,
{partnership } partners, or
{individual } owner

_____
Title

_____
Title

_____
Title

_____
Title

DIVISION II

CONSTRUCTION DETAILS

The applicable requirements of the Standard Specifications shall apply except as modified and supplemented by the following and the Contract Drawings.

SECTION 404.9901 – ULTRA-THIN BONDED WEARING COURSE

404.9901.01 - Description

Work under this item shall include the production and placement of an Ultra-Thin Bonded Wearing Course (U-TBWC) mixture consisting of a warm polymer-modified asphalt emulsion tack coat followed immediately by an ultra-thin (0.625 inch) lift of U-TBWC. Gradation “Type B” shall be used. The “Polymer-Modified Asphalt Emulsion” will be referred to herein as “polymer-modified emulsion.” These items shall be constructed in conformance with the lines, grades, thicknesses, and typical cross sections shown on the plans or established by the Engineer.

404.9901.02 – Materials

A. Polymer-Modified Emulsion: This material shall meet the requirements of CRS-1P as shown in Table 1 – Polymer-Modified Emulsion Material Properties, shall be tested by the supplier, and shall be submitted to the Engineer with a Certified Test Report. The polymer modifier shall be milled or blended into the asphalt emulsion base or the emulsifying agent prior to the emulsification process.

Table 1 – Polymer-Modified Emulsion Material Properties

Emulsion Properties	Method	Minimum	Maximum
Polymer Content, % by Weight of Total Residue	AASHTO T 59	3.0	--
Viscosity, Saybolt Furol, 77ºF (25ºC),	AASHTO T 59	20	100
Sieve Test, %	AASHTO T 59	--	0.10
Demulsibility, %	AASHTO T 59	40	--
Storage Stability Test, 1 Day (Difference in %	AASHTO T 59	--	1.0
Classification Test	AASHTO T 59	Passes	--
Particle Charge Test	AASHTO T 59	Positive(1)	--
Residue by Distillation, %(2)	AASHTO T 59	63	--
Oil Distillate, Volume of Total Emulsion, %	AASHTO T 59	--	3

Table 1 – Polymer-Modified Emulsion Material Properties (continued)

Residue from Distillation Properties	Method	Minimum	Maximum
Penetration at 77ºF (25ºC), 100 g, 5	AASHTO T 49	60	150
Ductility at 77ºF (25ºC), 5 cm/minute (2 in./min), cm	AASHTO T 51	40	--
Solubility in Organic Solvent, %(3)	AASHTO T 44	97.0	--
Elastic Recovery at 50ºF (10ºC),	ASTM D6084	58	--
Ash Content, %	AASHTO T 111	--	1 max

Notes:

(1) If the Particle Charge Test result is inconclusive, material having a minimum pH value of 6.7 will be acceptable.

(2) Perform according to AASHTO T 59 except as follows:
   a. When the lower temperature reaches approximately 275ºF (135ºC) move the ring burner approximately level with the bottom of the still.
   b. Increase the temperature to a maximum 350ºF+11ºF (177ºC + 5.5ºC), maintaining this temperature for 15 minutes.
   c. Use an ASTM 16c thermometer to monitor the temperature of the emulsion. Distillation on field samples shall show no more than trace amounts of oil.

(3) Any organic solvent used shall be demonstrated and proven to work under the above testing protocols. The type and brand of solvent used shall be recorded and submitted as part of the required testing information.

(4) Use ASTM D6084 Testing Procedure “A.” Samples shall be tested at 50ºF (10ºC).

B. U-TBWC mixture: The materials for the U-TBWC mixture, source(s) of supply, Job Mix Formula (JMF), mix tolerances, approval of JMF, and the control of the mixture shall meet the requirements of RIDOT Standard Specifications Part 400. The JMF shall also meet the requirements in Table 2 - U-TBWC Mixture Requirements (Type B) and must be submitted to the Engineer for approval at least 30 days before production. Any JMF change must be submitted to the Engineer for approval at least 24 hours in advance of manufacturing any U-TBWC mixture using the new JMF.

Table 2 – U-TBWC Mixture Requirements (Type B)

Sieve Sizes	Design Limits % Passing(1)	Production Tolerance %(1)
1/2 inch	100	
3/8 inch	85-100	+/- 5
No. 4	24-40	+/- 4
No. 8	21-32	+/- 4
No. 16	16-26	+/- 4
No. 30	12-20	+/- 3
No. 50	8-16	+/- 3
No. 100	5-10	+/- 2
No. 200	4.0-7.0	+/- 1.5
% PGB	4.8 – 5.4	
Moisture Sensitivity, AASHTO T 283(2)	80% minimum	
Film Thickness(3)	0.35 mils (9.0 mm (microns)) minimum	
Draindown, AASHTO T 305	0.1% maximum	

Notes:

(1) All aggregate percentages are based on total mass of aggregate.

(2) Specimens for AASHTO T 283 testing are to be compacted using the Superpave gyratory compactor. The mixtures shall be compacted using 100 gyrations to produce specimens approximately 3.7 inches in height. Use mixture and compaction temperatures recommended by the binder supplier. When necessary, an anti-stripping agent shall be added to provide resistance to stripping.

(3) Film thickness to be obtained using effective binder content. Surface area to be calculated according to Asphalt Institute MS-2 methodology.

a. **Asphalt Binder:** A PG 64E-22 binder shall be used meeting the requirements of RIDOT Standard Specifications Part 400, with the following additional requirement: The binder shall incorporate warm-mix technology listed on the Northeast Asphalt User-Producer Group Qualified WMA technologies list at the time of bidding, under headings A (Organic (Waxes) Additives) or B (Chemical Additives) only, available online at http://www.neaupg.uconn.edu/?attachment_id=345. The PG 64E-22 binder with warm- mix technology shall be selected to meet the recommended mix application temperature of 300 - 350ºF and the compaction cessation temperature of 200ºF, as specified in Construction Methods, (D) Application and (E) Compaction. The dosage of warm-mix additive shall be as recommended by the

binder supplier and shall be submitted to the Engineer for approval at least seven (7) days prior to commencing any U-TBWC paving under this Contract

b. **Coarse Aggregate:** Coarse aggregates that are from more than one source or of more than one type of material shall have all constituents proportioned and blended to provide a uniform mixture. Crushed stone from an approved source meeting the following requirements of (a) or (b) and Table 3 below shall be used:
    i. Sandstone, granite, chert, traprock, or other similar non-carbonate material.
    ii. Gravel, or a natural or manufactured blend of the following types of material: limestone, dolomite, gravel, sandstone, granite, chert, traprock or other similar materials meeting the following requirements:
        - 0.5 inch Nominal Maximum Size Aggregate Mixes:
            - A minimum of 20% of plus 0.375 inch particles must be non-carbonate.
        - 0.375 inch Nominal Maximum Size Aggregate Mixes
            - A minimum of 20% of plus 0.1875 inch particles must be non-carbonate.

Note: Non-carbonate particles are defined as having a minimum acid insoluble residue content of 80%.

Table 3 – Coarse Aggregate Properties

Property	Method	Requirement
LA Abrasion Coefficient, maximum % loss	AASHTO T 96	30
Maximum percent passing #200 sieve, %	AASHTO T 11, T 27	2
Soundness, maximum % loss	AASHTO T 104	10
Fractured particles, %	AASHTO T 335	100

Table 4 – Recommended Coarse Aggregate Gradation

Sieve Size	Type B (% Passing)
3/4 inch	100
1/2 inch	100
3/8 inch	85-100
1/4 inch	0-15
No. 4	0-3
No. 8	0

c. **Fine Aggregate:** Fine aggregate shall be 100% crushed stone having a minimum sand equivalent of 60%, as determined by AASHTO T 176, “Plastic fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test.” Table 5 shows the recommended fine aggregate gradation.

Table 5 – Fine Aggregate Gradation

Sieve Size	Percent Passing
No. 4	100
No. 8	90-100
No. 16	60-80
No. 30	45-60
No. 50	30-40
No. 100	20-30
No. 200	15-25

d. Mineral Filler: Mineral Filler shall meet the requirements of AASHTO M 17**.**

404.9901.03 - Construction Methods:

A. Equipment:

a. Paver: The self-priming spray paver must be capable of spraying the polymer-modified emulsion, applying the U-TBWC and smoothing the surface of the mat in one pass at a rate of at least 30 ft/min. The self-priming spray paver must be equipped with a receiving hopper, feed conveyor, emulsion storage tank, metered high-pressure emulsion spray bar(s) and a variable width, heated, extendable ironing-type screed. The spray bar system must be capable of applying the polymer-modified emulsion across the entire width of the screed, including the full width of the variable width screed extensions.

The paver shall be equipped with a microprocessor and controls which shall control the flow of the polymer-modified emulsion and shall vary the application rate of the emulsion to ensure a uniform application rate of the polymer-modified emulsion at the desired application rate, plus or minus 0.02 gallons/square yard based on speed and paving width. The paver must be able to apply the specified polymer-modified emulsion rate at all speeds, including all stops and starts of the paver, uniformly across the full width of the mat being placed. The screed must have the ability to produce a crown at the center both positively and negatively and be vertically adjustable and shall have horizontal extensions to accommodate the desired pavement profile.

b. **Rollers:** All rollers shall be self-propelled, ten (10) ton double drum rollers designed for compaction of U-TBWC. The Contractor shall furnish a minimum of three (3) rollers for each paving machine to properly seat the U-TBWC. The rollers shall only operate in the static mode and additional rollers may be required to meet production needs.

c. **Infrared Thermometers:** The Contractor shall supply for the Engineer's use a minimum of two (2) new, unused handheld digital infrared laser sighted thermometers for the duration of each Project. The infrared thermometers supplied shall meet the certification requirements of EN61326-1, EN61010, and EN60825-1 maintained by the European Committee for Electrotechnical Standardization (CENELEC). The thermometers shall have a minimum distance-to-spot ratio of 50:1 and shall have adjustable emissivity control. The thermometers shall have a minimum accuracy value of ± 1% of reading or ± 2ºF, whichever is greater. The thermometers shall be used in accordance with the manufacturer's written directions. All thermometers supplied must be in agreement within 5ºF of each other at all times at any temperature between 0ºF and 500ºF. If at any time any of the thermometers supplied are found to be in noncompliance with any of the above criteria, the Contractor shall dispose of them and provide the Engineer with a minimum of two (2) new unused thermometers meeting the above requirements. Immediately at the completion of the U-TBWC work, the thermometers supplied by the Contractor shall become the property of the State and shall be delivered to the Engineer, with a signed letter of transmission acknowledging the formal transfer of ownership of the infrared

thermometers to the Engineer.

d. **Material Transfer Vehicle (MTV):** An MTV shall be used when placing U-TBWC material. The MTV must be a self-propelled vehicle, specifically designed for the purpose of delivering the bituminous concrete mixture from the delivery truck to the paver. The MTV must continuously remix the bituminous concrete mixture throughout the placement process. The use of a MTV will be subject to the requirements stated in RIDOT Standard Specifications Section 105.12 – Load Restrictions, Section 110 (Fines/Charges Table), and Section 401.03.2 – Hauling Equipment. The Engineer may limit the use of the vehicle if it is determined that the use of the MTV may damage highway components, utilities, or bridges.

   The Contractor shall submit to the Engineer at pre-construction the following information:

   i. The make and model of the MTV to be used.
   ii. The individual axle weights and axle spacing for each separate piece of paving equipment (haul vehicle, MTV and paver).
   iii. A working drawing showing the axle spacing in combination with all three (3) pieces of equipment that will comprise the paving echelon.

e. **Power Broom/Sweeper:** A motorized broom or sweeper shall be provided that is capable of cleaning the road surface prior to application of polymer-modified emulsion.

B. Surface Preparation: The work to remove pavement markings, micro-milling, and patch areas of distress shall have been completed (under other items) prior to application of polymer-modified emulsion and U-TBWC. Immediately prior to the application of polymer-modified emulsion and U-TBWC, the roadway surface shall be cleaned by the Contractor using a motorized sweeper and any other equipment or means necessary to remove all foreign debris and material (leaves, branches, dirt, sand, garbage, etc.) from the pavement surface. All foreign debris and material shall be removed and disposed of by the Contractor.

The pavement surface shall be dry immediately prior to the application of the emulsion.

The Contractor shall protect all scupper and expansion joints, which shall be removed upon completion of the paving operation.

C. **Temperature Determinations and Requirements:** The infrared thermometers provided by the Contractor shall be used to determine all specified temperature requirements. Only one (1) thermometer shall be used to determine and record a temperature. If there is any question about the accuracy of any recorded temperature, an additional Contractor-supplied infrared thermometer shall be used to confirm the temperature. As long as two (2) or more thermometers are in agreement within 5ºF, the first temperature shall be officially recorded by the Engineer. This temperature will be used, as necessary, to enforce any and all specified temperature requirements, including rejection of materials and halting or shutdown of the work as stated herein.

Note: A probe type thermometer may be used only at the U-TBWC manufacturing facility to test the U-TBWC during production and plant testing. If a probe type thermometer is used at an U-TBWC manufacturing facility, it shall comply with applicable requirements in the RIDOT Standard Specifications Part 400. Probe type thermometers shall not be used in the field once the U-TBWC product is delivered to the Site.

D. **Application:** The pavement surface temperature for application of the polymer-modified emulsion and placement of the U-TBWC shall be at least 50°F. The ambient temperature shall be at least 50ºF and rising. Artificial heating of the pavement surface is not allowed. The finished in-place U-TBWC shall be a minimum thickness of 0.625 inches and a maximum thickness of 0.875 inches. In no case shall the U-TBWC be placed in a permanent condition creating a “drop-off” or vertical deviation in the direction of travel. If required, transition requirements of RIDOT Standard Specifications Section 401.03.11 - Drop-Offs shall apply to areas in the direction of travel. In no case shall the U-TBWC exceed the minimum thickness of 0.625 inches along the longitudinal edge of the treatment at the shoulders.

The application temperature of the polymer-modified emulsion shall be 130°F – 190°F and a uniform application across the entire width to be overlaid shall be at a rate of 0.15 to 0.25 gal./s.y. The polymer-modified emulsion shall extend one (1) to two (2) inches beyond the longitudinal edge of the U-TBWC. The Contractor shall submit in writing the Project-specific rate(s) of application to the Engineer for approval prior to commencement of the work under this item. The submittal shall include backup details for the proposed polymer-modified emulsion rates for each distinct surface type such as, but not limited to, milled vs. unmilled surfaces, new vs. aged or raveling pavement. A “distinct area” shall have a minimum length of 100 feet and minimum width of eight (8) feet. The

Engineer may direct the Contractor to pre-apply additional emulsion to any area that requires a higher emulsion application rate within a paver pass so that the proper emulsion application rate for each surface texture type can be achieved in a single paving pass. The Contractor shall continuously monitor the spray rate.

The U-TBWC material shall be placed on the polymer-modified emulsion as soon as possible to ensure that the U-TBWC is placed on the polymer-modified emulsion before it breaks or migrates (runs) along the pavement surface. Prolonged stops of the paver are not allowed. If a prolonged stop results in improper application or breaking of the polymer-modified emulsion, or the inability to meet the compaction requirements stated herein, the Engineer shall stop the operation until the Contractor can demonstrate that all emulsion application and mix compaction requirements can, and are, being met.

Note: The emulsion target application rate will depend on the macro texture of the surface on which the emulsion will be placed. Projects where the emulsion will be placed on milled or high (open) texture existing pavements will require emulsion application rates toward the high end of the 0.15 to 0.25 gal./s.y. range, while applications over pavements with a particularly tight texture (small-aggregate leveling courses and/or polished, flushed, or bled pavement surfaces) will require application rates at the lower end of the specification range.

No equipment shall come in contact with the polymer-modified emulsion before the U-TBWC is applied.

The U-TBWC shall be applied across the full width of the emulsion at a temperature of 300°F – 350°F. The mix delivery temperature will be checked for conformance using the infrared thermometers provided. The Engineer will check the mix delivery temperature at the back of the haul truck. The Engineer may also check the mix delivery temperature in the hopper of the paver or in the hopper of the material transfer vehicle machine if warranted. When checking the mix in the back of the haul truck, at least the top 6 inches of the surface of the load will be removed prior to checking the mix temperature. This will be accomplished by either using a shovel to remove at least the top 6 inches of the load or the load shall be allowed to “break” when beginning the dumping process, exposing U-TBWC material that is at least 6 inches below the surface of the load. When checking mix in the hopper of the paver or the material transfer vehicle, the Engineer will use the infrared thermometer to record the temperature of the mix in several areas of the hopper and use a

shovel, if necessary, to remove any mix from the surface to expose mix in the hopper that is representative of the overall temperature of the truck load. The Engineer will record the highest temperature found when multiple infrared temperature readings are taken in the hopper. Truckloads of U-TBWC material not meeting the minimum temperature requirement will be rejected by the Engineer.

E. Testing of Materials: The Engineer will conduct acceptance sampling and testing of the U-TBWC mixture at the U-TBWC facility, in accordance with RIDOT Standard Specifications Part 400, for gradation and binder content. The Engineer may allow the Contractor to conduct acceptance testing, following the sampling and testing procedures herein and shall retain a 2500-gram split sample for verification testing. Verification testing will be performed by the Engineer on the retained samples in accordance with the RIDOT Standard Specifications Section 401.02.4 – Quality Assurance. Should gradation or binder content exceed the specified tolerances, the Department will investigate to determine an assignable cause. Contractor test results for a subject sublot may be replaced with the Department's results. Samples shall be stored in an appropriate container, sealed, and labeled with the Project number, U-TBWC plant name, date, time obtained, sequential truckload number, sublot, and name of the person obtaining the sample. The sample will be stored and disposed of at the discretion of the Engineer following the completion of the Project.

Passing Test: U-TBWC material meeting all tolerances for gradation and binder content shown in Table 2 as determined by sampling and testing in accordance with these requirements is defined as a Passing Test.

Failing Test: A Failing Test is defined as U-TBWC material exceeding one or more of the tolerances in gradation and binder content shown in Table 2 as determined by sampling and testing in accordance with these requirements.

Lot: For U-TBWC mixture sampling and testing purposes, a lot is defined as one planned production run or 24-hour period, whichever is shorter. An additional lot will be created every 24 hours of a multiple-day production run.

Each lot shall be subdivided into equal sublots based on planned quantity of U-TBWC mixture for the production run as outlined in Table 6 so that each lot is represented by a minimum of two or three sublots.

Table 6 – Minimum Sampling and Testing Schedule at U-TBWC Facility

Planned Production Run Quantity (tons)	Number of Sublots
1-400	1
401-800	2
801-1200	3
1201+	4

The Contractor shall submit to the Engineer the planned production quantity for a lot at least four (4) hours prior to commencement of production of the U-TBWC mixture. The planned quantity of production for each sublot shall be converted to a sequential, ordinal number of truckloads (i.e. 1, 2, 3, etc.). For each lot, the first sublot shall be randomly selected from the first five (5) truckloads. A random-selection procedure will be used to sample the truckload of material representing each remaining sublot.

At any time, the Contractor may obtain additional samples for Quality Control (QC) purposes. The Contractor shall designate a sample as a QC sample prior to conducting its sampling. No QC samples will be included in the acceptance of the produced material.

F. Compaction: The compaction process used is meant to seat the U-TBWC mixture into the sprayed polymer-modified emulsion rather than to obtain density. Compaction shall start immediately after application of the wearing course and be completed before the mix falls below the compaction cessation temperature of 200°F. Compaction shall be obtained by use of the paver screed and by the use of three (3) double drum rollers in static mode. A minimum of four (4) static roller passes must be made over any given area prior to cooling of the U-TBWC material below 200°F.

The U-TBWC mixture shall be placed and rolled to provide a continuous and smooth surface with uniform texture. The roller(s) shall not be allowed to stop on the freshly placed wearing course. The wearing course shall be protected from traffic until the rolling operation is complete and the material has cooled sufficiently to resist damage.

A 10-foot straightedge shall be made available to the Engineer during all paving operations, inspection, and testing. If milling is specified as part of the work, or in any other areas where the U-TBWC is required to be placed flush with adjacent pavement surfaces, structures, or other

surrounding appurtenances, the pavement surface shall be tested with the straightedge to ensure that the pavement surface does not deviate by more than 1/4 inch in any direction. When matching irregular surfaces or structures, the Engineer will use discretion when enforcing this rule.

G. Corrective Work Procedures: Any portion of the completed pavement that the Engineer determines to not meet these specifications or is determined to be defective or non- homogeneous in surface texture, shall be corrected at the Contractor's expense.

If at any time the Engineer determines that the polymer-modified emulsion supplied does not meet any of these specifications, the Engineer will stop the entire paving operation until the Contractor demonstrates "re-conformance" with these specifications.

If the specified application rate of the polymer-modified emulsion is determined by the Engineer to fall outside the allowable tolerances, the Engineer will stop the paving operation until such time the Contactor can demonstrate compliance with these specifications. In all cases, if the Contractor continues to place material unacceptable to the Engineer, the Engineer reserves the right to withhold payment for, or call for the removal and replacement of, all material placed in non-conformance with these specifications.

If any of the individual specified U-TBWC material production tolerances are not met more than once in four tests, the production of the U-TBWC material shall be stopped until the Contractor runs a trial test demonstrating compliance within the production tolerances listed herein. In such a case, the Engineer reserves the right to withhold payment for, or call for the removal and replacement of, all U-TBWC material placed between the rendering of the first out of tolerance test and ceasing mix production operations due to the second out of tolerance test.

Any U-TBWC material placed at less than 0.625 inches thick, or greater than 0.875 inch thick, not within an area of existing surface depression equal to or less than ½" not previously patched shall be subject to removal as determined by the Engineer. In no case shall the U-TBWC exceed the minimum thickness of 0.625 inches along the longitudinal edge of the treatment at the shoulders. Any longitudinal edge or "drop-off" formed showing a thickness of greater than 0.625 inch shall be removed immediately by the Contractor.

Any flushing of the polymer-modified emulsion to the surface of the U-TBWC material shall be considered and treated as a deviation in texture

and shall be analyzed and treated according to the texture requirements herein.

If the Engineer determines that any full width travel lane area or full width shoulder area that is at least 100 feet long contains any change or deviation in texture occurring in 1.5% (or greater) of the surface, that area shall be replaced at the Contractor's expense.

Unless otherwise determined by the Engineer, all corrective work shall be done with the U-TBWC material. Any corrective U-TBWC placed shall be placed by the spray paver as specified herein and shall be placed at a minimum width equal to the width of the main screed of the paver for no less than 100 feet in length. Corrective work shall not be performed exclusively by hand with the U-TBWC material. Small, isolated areas or defects, with the permission of the Engineer, may be repaired with material other than the U-TBWC material required to be placed with the spray paver specified herein.

Note: "Small isolated areas or defects" are defined as: One area of 25 square feet or less per full width lane or full width shoulder for any given continuous 200-foot lane or shoulder section that was placed by the spray paver.

If pavement placed by the Contractor is deemed unacceptable, and the Engineer requires its replacement or correction, the Contractor shall:

- **a.** Propose a corrective procedure to the Engineer for review and approval prior to any corrective work commencing. The proposal shall include:
  - **i.** Limits of pavement to be replaced or corrected, indicating stationing or other landmarks.
  - **ii.** Anticipated schedule.
  - **iii.** Construction method and sequence of operations.
  - **iv.** Methods of maintenance and protection of traffic.
  - **v.** Material sources.
  - **vi.** Names and telephone numbers of supervising personnel.
- **b.** Perform all corrective work in accordance with the Contract and the approved corrective procedure

H. Material Documentation: All vendors producing U-TBWC must have their truck- weighing scales, storage scales, and mixing plant automated to provide a detailed ticket. Delivery tickets must include the following information:

- **a.** State of Massachusetts printed on ticket.

b. Name of producer, identification of plant, and specific storage bin (silo) if used.
c. Date and time of day.
d. Net weight (tons) of material loaded into truck.
e. Gross weight or tare weight of truck.
f. Project number, purchase order number, name of contractor (if contractor other than producer)
g. Sequential truck number for specific identification of truck. Sequential number shall use natural numbers and be ordered beginning with the first truck for a production lot on the basis of time truck is loaded (i.e. 1, 2, 3, etc.)
h. Individual aggregate and asphalt high/target/low weights shall be printed on batch plant tickets. (For drum plants and silo loadings, the plant printouts shall be maintained by the vendor for a period of three (3) years after the completion of the Project).

The Contractor must notify the Engineer immediately if, during the production day, there is a malfunction of the recording system in the automated plant or truck-weighing scales. Manually written tickets containing all required information will be allowed for one (1) hour, but for no longer, provided that each load is weighed on State-approved scales. At the Engineer's sole discretion, trucks may be approved to leave the plant if a State inspector is present to monitor weighing. If such a malfunction is not fixed within forty-eight (48) hours, material will not be approved to leave the plant until the system is fixed to the Engineer's satisfaction. No damages will be considered should the State be unable to provide an inspector at the plant.

The State reserves the right to have an inspector present to monitor batching or weighing operations.

I. Cessation of Supply: The production plant providing U-TBWC shall cease supplying materials to this Project under any of the following conditions:
a. If the supplied U-TBWC material exceeds one or more of the tolerances shown in Table 2 on two (2) samples out of the latest consecutive three (3) samples tested for gradation or binder content, delivery of material to the Site shall not resume until a passing test is performed.
b. If the supplied polymer-modified emulsion fails to meet any of the specified requirements. Supply of material to the Site may resume once the Contractor demonstrates, in writing to the Engineer, that the requirements herein are met.
c. If the resulting surface texture fails to meet any of the specified

requirements. Supply of material to the Site shall not resume until the Contractor determines the cause of the deficient or non-homogeneous surface texture, proposes corrective measures in a submittal to the Engineer for acceptance or approval.

d. If the final compacted thickness requirements/tolerances stated herein are not met. Supply of the material shall not resume until the Contractor determines why the final compacted thickness placed specified herein was not met, proposes/demonstrates a change in the placement operations, and institutes said change to assure conformance with this specification.

e. If the compaction requirements stated herein are not met, Supply may not resume until the Contractor submits, in writing to the Engineer, the cause of the inability to meet the compaction requirements within this specification. In addition, the Contractor shall submit, in writing to the Engineer, proposed changes to address the identified cause of the problem and a proposed revised compaction plan to meet this specification.

Cessation of Supply shall occur as many times as necessary until the Contractor completes the work properly according to all the requirements within this specification.

All U-TBWC material in non-conformance with this specification, as described above, which is not subject to non-payment or removal and replacement by the Engineer, shall be considered deficient material.

404.9901.04 – Method of Measurement:

Under this item's unit cost work for the bridge deck Ultra-Thin Bonded Wearing Course work, at locations directed by the RITBA, this work shall be measured for payment based on the number of square yards of Ultra-Thin Bonded Wearing Course installed, in accordance with the Contract Specifications and Special Provisions, including all labor, materials, and equipment required for this work.

404.9901.05 – Basis of Payment:

Under this item's unit cost work for the bridge deck Ultra-Thin Bonded Wearing Course work, the Department will pay for the square yard unit cost work indicated below, under Pay Item #4, for the accepted quantities. The price constitutes full compensation for all labor, materials, equipment, disposal, and incidentals required to finish the work, complete and accepted.

The Department will pay for the completed and accepted quantities as follows:

Pay Item	Payment Reference Description	Pay Unit
4	Ultra-Thin Bonded Wearing Course	SY

END OF SECTION 404

SECTION 818.9901 - BRIDGE DECK CONCRETE OVERFILL REPAIRS

818.9901.01 - Description

This work includes removing loose/deteriorated concrete and rubberized asphalt chip seal from existing bridge deck surfaces and placing new asphalt patching material. Refer to subsection 104.01 – INTENT OF CONTRACT ("Scope and Sequencing of the Work to be Performed").

Bridge deck concrete overfill repair work shall be performed following the construction activities related to the micro-milling of the existing deck's rubberized asphalt chip seal and concrete patch areas, under Section 935.9901.

PLEASE NOTE: Refer to Section 935.9901 (micro-milling) for the relationship and coordination required between micro-milling activities and the follow-on bridge deck repairs under this section.

The sequencing and allowable timeframes for the bridge deck concrete overfill repair work shall be in accordance with the contract plans.

818.02 - Materials

Provide patching material that conforms to Class 4.75 or Class 9.5 hot mix asphalt as required.

818.03 - Construction Methods

Following existing deck micro-milling activities, locate and delineate loose/deteriorated deck concrete overfill and rubberized asphalt chip seal areas for the length and width of the bridge deck, for review and approval of the Engineer. Deck repair work cannot start until the Engineer approves the areas to be repaired and the Contractor's means and methods. Spall in the existing concrete deck overfill measuring ½" or less in depth shall not be patched.

Saw cutting around the perimeters of the concrete deck overfill repair areas is not required. Loose/deteriorated deck concrete overfill and chip seal shall be removed by hand. Removal is not expected to go beyond the concrete overfill of the existing concrete-filled steel grid without the approval of the Engineer. No hammers, chisels, jackhammers, or chipping hammers should be required. In the event that loose/deteriorated deck concrete within a delineated repair area is held in place by remaining chip seal, the Contractor shall remove the chip seal and loose/deteriorated deck concrete by means deemed necessary in the field

Utilize pressurized air to clean out the repair areas to ensure they are free of loose asphalt, debris, dirt, and excess moisture prior to placement of polyester polymer concrete patching material.

Place asphalt patching material by hand in up to 2-in. lifts, leaving the repair flush with the newly micro-milled deck surface when complete.

Removal of all debris to the satisfaction of the Engineer and proper disposal is considered incidental.

818.04 - Method of Measurement

Under this item's unit cost work for the bridge deck concrete overfill repairs, at locations directed by the RITBA, this work shall be measured for payment based on the number of Tons of HMA placed, in accordance with the Contract Specifications and Special Provisions, including all labor, materials, and equipment required for the bridge deck concrete overfill repair work.

If this item's Allowance is reached prior to completion of this deck repair work, then subsequent deck repair work, at locations directed by the RITBA, shall be measured for payment based on submitted and approved Time and Materials documentation, in accordance with the Contract Specifications and Special Provisions, to include all labor, materials, and equipment required for the bridge deck concrete overlay repair work.

818.05 - Basis of Payment

Under this item's unit cost work for the bridge deck concrete overfill repairs, RITBA will pay for the Tonnage unit cost work indicated below, under Pay Item #5, for the accepted quantities. The price constitutes full compensation for all labor, materials, equipment, disposal, and incidentals required to finish the work, complete and accepted.

If this item's Allowance is reached prior to completion of this deck overfill repair work, then subsequent deck overfill repair work, at locations directed by the RITBA, shall be paid for by Time and Materials, in accordance with the Contract Specifications and Special Provisions, to include all labor, materials, and equipment required for the bridge deck concrete overfill repair work.

Payment shall be made under:

Pay Item	Payment Reference Description	Pay Unit
5	Bridge Deck Concrete Overfill Repairs	TON
6	Bridge Deck Concrete Overfill Repairs – ALLOWANCE	AL

END OF SECTION 818

SECTION 914 – FLAGPERSONS

Amend the following sections of the RIDOT Standard Specifications as noted below:

914.01 DESCRIPTION

Add the following after the first paragraph:

The Contractor shall provide at least two flagpersons in all Mount Hope daily lane closures and these requirements shall be identified on the Maintenance of Traffic Plans submitted by the Contractor to the Engineer for approval. These items are required regardless of whether these items are called out on the Contract Drawings, recommended by the Contractor's Engineer, or required by any applicable standard or guideline.

A minimum of one additional flagperson shall be required when work in a daily lane closure includes workers or equipment, stationary or working, near the traffic side of the lane closure, and at all times during ultra-thin bonded wearing course installation operations.

Additional flagpersons shall be provided as needed to maintain safety during lane closure and staging movements/reconfigurations.

The cost of flagpersons will not be paid for under any specific item, but the cost thereof including all labor, tools, material, equipment, and all other incidentals required to complete the work shall be included in the Contract bid prices in the Proposal.

914.04 METHOD OF MEASUREMENT

Delete this subsection in its entirety and replace with the following:

This item will not be measured separately but will be included in payment of the other work items.

914.05 BASIS OF PAYMENT

Delete this subsection in its entirety and replace with the following:

No separate payment will be made for this item. Payment will be included in the unit costs and lump sum payments of the other items included in the Contract.

END OF SECTION 914

SECTION 922 – TEMPORARY CONSTRUCTION SIGNS

Amend the following subsections of the RIDOT Specifications as noted below:

922.04 METHOD OF MEASUREMENT

Delete this subsection in its entirety and replace with the following:

This item will not be measured separately but will be included in payment of the other work items.

922.05 BASIS OF PAYMENT

Delete this subsection in its entirety and replace with the following:

No separate payment will be made for this item. Payment will be included in the unit costs and lump sum payments of the other items included in the Contract.

END OF SECTION 922

SECTION 923 – PORTABLE CHANNELIZING DEVICES AND BARRICADES

Amend the following sections of the RIDOT Standard Specifications as noted below:

923.01.2 Types of Portable Channelizing Devices and Barricades

Delete this subsection in its entirety and replace with the following:

Only weighted, tall, Fluorescent Traffic Cones will be allowed to be used for daily lane closures.

923.04 METHOD OF MEASUREMENT

Delete this subsection in its entirety and replace with the following:

This item will not be measured separately, but will be included in payment of the other work items.

923.05 BASIS OF PAYMENT

Delete this subsection in its entirety and replace with the following:

No separate payment will be made for this item. Payment will be included in the unit costs and lump sum payments of the other items included in the Contract.

END OF SECTION 923

SECTION 924 – ADVANCE WARNING ARROW PANEL

Amend the following sections of the RIDOT Standard Specifications as noted below:

924.04 METHOD OF MEASUREMENT

Delete this subsection in its entirety and replace with the following:

This item will not be measured separately but will be included in payment of the other work items.

924.05 BASIS OF PAYMENT

Delete this subsection in its entirety and replace with the following:

No separate payment will be made for this item. Payment will be included in the unit costs and lump sum payments of the other items included in the Contract.

END OF SECTION 924

SECTION 928 – TRUCK MOUNTED ATTENUATOR (TMA) WITH TRUCK MOUNTED FLASHING ARROW BOARD (TMFAB)

Amend the following sections of the RIDOT Standard Specifications as noted below:

The Contractor shall provide a Traffic Mounted Attenuator in all lane closures and these requirements shall be identified on the Maintenance of Traffic Plans submitted by the Contractor to the Engineer for approval. These items are required regardless of whether these items are called out on the Contract Drawings, recommended by the Contractor's Engineer, or required by any applicable standard or guideline.

928.04 METHOD OF MEASUREMENT

Add the following to this subsection:

The cost of TMA for Defined Work Pay Items will not be paid for under any specific item, but the cost thereof including all labor, tools, material, equipment, maintenance of traffic, and all other incidentals required to complete the work shall be deemed included in the Contract bid prices in the Proposal.

The Optional On-Call Pay Items for Extra TMA are for work performed as requested by the Engineer on the Optional On-Call Pay Items only. These Pay Items does not apply to work performed under Defined Pay Items.

The unit bid price of each TMA will be paid based on the actual number of TMA's provided, as approved by the Engineer. On-Call Pay Item NBE – Extra TMA for Indefinite Quantity Work and On-Call Pay Item JBE – Extra TMA for Indefinite Quantity Work include all of the provisions, requirements, and limitations within these Contract Documents.

928.05 BASIS OF PAYMENT

Delete this subsection in its entirety and replace with the following:

The cost of a truck mounted attenuator with truck mounted arrow board will not be paid for under any specific item, but the cost thereof including all labor, tools, material, equipment, and all other incidentals required to complete the work shall be deemed included in the Contract bid prices in the Proposal.

END OF SECTION 928

SECTION 929 – FIELD OFFICES AND MATERIALS LABORATORY

Delete this Section in its entirety.

END OF SECTION 929

SECTION 930 – PLANT FIELD LABORATORY

Delete this Section in its entirety.

END OF SECTION 930

SECTION 935.9901 - MICRO-MILLING EXISTING RUBBERIZED ASPHALT CHIP SEAL AND CONCRETE PATCHES

935.9901.01 - DESCRIPTION

This work includes the removal of 0.625" of existing rubberized asphalt chip seal material and existing concrete patch material from the existing concrete bridge deck surface using micro-milling. See RIDOT Standard Specifications SECTION 401 for additional, applicable information.

PLEASE NOTE: The final deck micro-milled surfaces shall be suitable for the application of the ultra-thin bonded wearing course (under Section 404), as determined by a field technical representative of the firm performing the wearing course installation.

Refer to subsection 104.01 – INTENT OF CONTRACT ("Scope and Sequencing of the Work to be Performed").

935.9901.02 - MATERIALS

Not applicable.

935.9901.03 - CONSTRUCTION METHODS

The suggested sequence of construction for the overall ultra-thin bonded wearing course installation process shall be in accordance with the contract plans and subsection 104.01 – INTENT OF CONTRACT ("Scope and Sequencing of the Work to be Performed").

Micro-milling the existing deck's rubberized asphalt chip seal and concrete patches is the first step in this process. The sequencing and allowable timeframes for the micro-milling work shall be in accordance with the contract plans.

PLEASE NOTE: Micro-milling limits must be limited to the amount of follow-on bridge deck concrete overfill repairs (under Section 818.9901) that can be accomplished, within the allowable timeframes indicated on the contract plans.

935.9901.03.1 - Equipment

Ensure that the micro-milling equipment for removing 0.625" of the existing rubberized asphalt chip seal material and existing concrete patch material from the existing concrete bridge deck surface is designed specifically for grinding rubberized asphalt chip seal and concrete patch material to close tolerances, and is operated at a rate that will avoid tearing and gouging of the existing concrete bridge deck surface and existing chip seal to remain.

Ensure that the equipment can accurately establish profile grades and cross slopes and has a positive means for preventing any dust resulting from the operation from escaping into the air. Use an averaging ski not less than 25 ft

in length on each side of the existing rubberized asphalt chip seal and concrete patch removal equipment, on all limited-access highways and on other types of highways when indicated in the Contract Documents.

935.9901.03.2 - Control Strip

On the first day of milling, grind a control strip at least 500 ft long with uniformly textured surface and cross section. Ensure that the milled rubberized asphalt chip seal and concrete patch surfaces have a transverse pattern 0.3 in. or less between the centers of each strike area and that the macrotexture is 1/16 in. or less as measured using ASTM E965.

935.9901.03.3 - Rubberized Asphalt Chip Seal and Concrete Patch Grinding
Upon the approval of the control strip by the Engineer, grind all areas designated for micro-milling using the identical procedures, settings, and speed, and ensure that the work conforms to the requirements for the control strip.

When micro-milling impacts areas that include bridge joints that will remain in place, mill the rubberized asphalt chip seal and concrete patch surfaces leading up to and away from the joints with the micro-milling machine. Mill any small areas that remain with a trimmer designed to come close to structures. Do not use a skid steer with attachment for this operation. Construct temporary ramps using Class 4.75 or Class 9.5 HMA and rosin paper or equivalent for debonding.

Do not allow any rubberized asphalt chip seal and concrete patch cuttings to remain on the Project at the end of the workday.

935.9901.04 - METHOD OF MEASUREMENT

Removing existing rubberized asphalt chip seal and concrete patch materials by Micro-Milling will be measured by the number of square yards of rubberized asphalt chip seal and concrete patch material removed, to the depths previously specified.

935.9901.05 - BASIS OF PAYMENT

The Department will pay for the completed and accepted quantities as follows:

Pay Item	Payment Reference Description	Pay Unit
7	Micro-Milling Existing Rubberized Asphalt Chip Seal and Concrete Patches	SY

The price constitutes full compensation for all labor, materials, equipment, disposal, cleaning and sweeping deck surfaces, and incidentals required to finish the work, complete and accepted.

Additional passes for micro-milling are incidental to the item and will not be reimbursed.

END OF SECTION 935.9901

SECTION 936 – MOBILIZATION

Amend the following sections of the RIDOT Standard Specifications as noted below:

936.01 DESCRIPTION

Add the following to this Subsection:

It is the Contractor's responsibility to provide for fabrication, delivery and storage of materials and equipment necessary to perform the work, for a Project Office, and for all space required for the support of the work on this project including parking for workers.

RITBA will provide the area at the Mount Hope Bridge North Anchorage to the Contractor for use at the Contractor's discretion. The Contractor shall submit a plan for utilization and coordinate security with the RITBA for use of these areas. The Contractor shall return the areas used to previous conditions at the completion of work. It is the Contractor's responsibility to ensure for the provision of adequate space for all mobilization/laydown to support all work and the RITBA does not infer that the areas provided are sufficient to support the Contractor's needs.

The Contractor shall ensure that adequate provisions are made to support on-site oversight, management, quality control and safety staff during the work performed under this contract.

Items which are not to be included in the lump sum price bid for the item Mobilization, include but are not limited to:

1. Any portion of the work covered by the specific bid item or incidental work which is to be included in a bid item or items.

2. Profit, interest on borrowed money, overhead, or management costs.

936.04 METHOD OF MEASUREMENT

Delete this subsection in its entirety and replace with the following:

This work shall be measured for payment in the manner described below:

1. When 5% of the total original contract price is earned, excluding amounts paid for materials on hand and Mobilization, 40% of the lump sum bid price for this item will be certified for payment.

2. When 10% of the total original contract price is earned, excluding amounts paid for materials on hand and Mobilization, 60% of the lump sum bid price for this item, less previous payment for this item, will be certified for payment.

3. When 15% of the total original contract price is earned, excluding amounts paid for materials on hand and Mobilization, 75% of the lump sum bid price for this item, less any previous payment for this item, will be certified for payment.

4. When 20% of the total original contract price is earned, excluding amounts paid for materials on hand and Mobilization, 90% of the lump sum bid price for this item, less any previous payment for this item, will be certified for payment.

5. When 50% of the total original contract price is earned, excluding amounts paid for materials on hand and Mobilization, 100% of the lump sum bid price for this item, less any previous payment for this item, will be certified for payment.

936.05 BASIS OF PAYMENT

Add the following and delete conflicting provisions:

This work will be paid for at the Contract lump sum price for Mobilization, which price shall include materials, equipment, tools, labor, transportation operations, and all work incidental thereto.

Payment shall be made under:

Pay Item	Payment Reference Description	Pay Unit
3	Mobilization	Lump Sum

END OF SECTION 936

SECTION 937 – FURNISH, INSTALL, MAINTAIN, AND MOVE TEMPORARY TRAFFIC PROTECTION

Amend the following sections of the RIDOT Standard Specifications as noted below:

937.04 METHOD OF MEASUREMENT

Delete this subsection in its entirety and replace with the following:

This item will not be measured separately but will be included in payment of the other work items.

937.05 BASIS OF PAYMENT

Delete this subsection in its entirety and replace with the following:

No separate payment will be made for this item. Payment will be included in the unit costs and lump sum payments of the other items included in the Contract.

END OF SECTION 937

SECTION 940 – ON-SITE ADMINISTRATION FACILITY

Delete this Section in its entirety.

END OF SECTION 940

SECTION 944 – DIESEL EMISSIONS REDUCTION PROGRAM

Delete this Section in its entirety.

END OF SECTION 944

SECTION T20 — PAVEMENT MARKINGS

Amend the following sections of the RIDOT Standard Specifications as noted below:

T20.01 DESCRIPTION

Add the following to this Subsection:

It is the Contractor's responsibility to survey and record the details (type, dimensions, and layout) of the existing pavement markings on the bridge, within the work limits, prior to performing any deck work, for review and approval of the Engineer. The layout and dimensions of the pavement markings shall match the existing surveyed markings. The types of new pavement markings to be utilized shall be determined by the Contractor, for review and approval of the Engineer.

T20.04 METHOD OF MEASUREMENT

Delete this subsection in its entirety and replace with the following:

Being paid on a lump sum, no measurement is required.

T20.05 BASIS OF PAYMENT

Delete this subsection in its entirety and replace with the following:

This work will be paid for at the Contract lump sum price for Pavement Markings, which price shall include surveying the existing pavement markings, materials, equipment, tools, labor, transportation operations, and all work incidental thereto.

Payment shall be made under:

Pay Item	Payment Reference Description	Pay Unit
8	Pavement Markings	Lump Sum

END OF SECTION T20