



JOHN ELIAS BALDACCI  
GOVERNOR

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
16 STATE HOUSE STATION  
AUGUSTA, MAINE  
04333-0016

DAVID A. COLE  
COMMISSIONER

April 16, 2010  
Subject: **Palermo & Augusta**  
Federal Project No: NH-1680(500)E,  
STP-1682(700)X, NH-1730(400)E  
State Pin No: 016805.00, 016827.00 &  
017304.00  
**Amendment No. 1**

Dear Sir/Ms:

Make the follow changes to the Bid Documents.

In the Bid Book (pages 4 thru 6), **REMOVE** the "SCHEDULE OF ITEMS", 6 pages dated 100324 and **REPLACE** with the attached new "SCHEDULE OF ITEMS", 6 pages dated 100416.

In the Bid Book (page 45), "CONSTRUCTION NOTES", "Item 411.10 - Untreated Aggregate Surface Course, Truck Measure", **CHANGE** the reference to "310" to read "**Special Provision 308**". Make this change in pen and ink.

In the Bid Book (pages 91 thru 94), **REMOVE** "SPECIAL PROVISION, SECTION 308, FULL DEPTH RECYCLED ASPHALT PAVEMENT, (With Bituminous Stabilizer)", 4 pages dated March 9, 2010 and **REPLACE** with the attached new "SPECIAL PROVISION, SECTION 308, FULL DEPTH RECYCLED ASPHALT PAVEMENT, (With Bituminous Stabilizer)", 4 pages dated April 9, 2010.

In the Bid Book (page 95), **REMOVE** "SPECIAL PROVISION, SECTION 308, FULL DEPTH RECYCLED ASPHALT PAVEMENT, (With Cement), 1 page undated and **REPLACE** with the attached updated "SPECIAL PROVISION, SECTION 308, FDR w/Stabilizer", 1 page dated April 16, 2010.

In the Bid Book (pages 122 and 123), **REMOVE** "SPECIAL PROVISION, SECTION 403, HOT MIX ASPHALT ONERLAY", 2 pages dated March 23, 2010 and **REPLACE** with the attached new "SPECIAL PROVISION, SECTION 403, HOT MIX ASPHALT ONERLAY", 2 pages dated April 16, 2010.

The following questions have been received:

**Question:** Is item 424.41, ASPHALT FOR CRACK REPAIR, the intended specification for this project? This specification does not require the use of reinforcing fibers, which help strengthen the PG Asphalt Binder. We respectfully request the use of a specification with a higher quality material, such as item 424.302, CRACK SEALER, APPLIED.



PRINTED ON RECYCLED PAPER

**Response:** Item 424.41, ASPHALT FOR CRACK REPAIR is the intended specification for this project. The materials for this specification were chosen to surface seal the existing cracks in the milled surface prior to overlaying with HMA pavements. It is anticipated that the cracks will be too small to effectively seal with conventional crackseal materials, and experience has shown that overlaying conventional, overbanded crack repairs has resulted in the expansion of the sealant under the overlay unless an extended cure time has elapsed. The overlay of PGAB liquid asphalt materials has proven to result in fewer issues when overlaying with new HMA layers. This is an experimental section for the Department.

**Question:** On PIN 16827.00 (Augusta Route 9), General Note #2 states “The Contractor shall place suitable existing or other material acceptable to the Resident on all paved edges to allow no greater than a 1 ¼ “ drop off.” How will this material and the associated placement be paid for?

**Response:** Dirty Borrow may be used, if so it will be paid for by the cubic yard placed. If existing material is used it will be placed using hourly rental items.

**Question:** On PIN 16827.00 (Augusta Route 9), Construction Notes, Item 411.10, Untreated Agg. Surface Course states “... as directed by MDOT personnel in conjunction with 310 if necessary”, Can you provide clarification on the above mentioned 310?

**Response:** It should reference special provision 308 not 310. Please see the above change.

**Question:** Can pavement millings be used for item 204.41, Rehab Existing Shoulder, and item 205.51, Widen existing Shoulder?

**Response:** Yes it can but to a maximum depth of 3".

**Question:** PIN 17304.00, Construction Notes, Item 627.76, Temporary Pavement Marking Line, states TOMS can be used between pavement courses. Special Provision 105, page 2 of 2, note 13 states TOMS are allowed on surface pavement. Will TOMS be allowed on all pavement courses?

**Response:** TOM's will be allowed on all pavement courses but will not be allowed on milled surfaces.

**Question:** PIN 17304.00, Construction Notes, Sheet 2 of 2, Item 631 – Hourly Rental states that “... excavation of roadway Sta 33+40 to 38+75 shall be paid under these

items". The detail sheet 3 of 3 for this PIN calls for removal of pavement and shim gravel in this area, but no excavation. What is the intent in this area?

**Response:** In this area, the first 3" will be removed under item 202.202. The remaining pavement will be removed using hourly rental items. If during this operation, base gravel is found to be undesirable it will be excavated using hourly rental items and replaced with 411.10 which will be paid for by the cubic yard placed.

**Question:** Special Provision 202, Removing Structures and Obstructions, addresses where the MDOT portion of the millings are being hauled for PIN 16805.00. Where will the MDOT portion of millings for PIN 17304.00 be delivered?

**Response:** This material will become property of the contractor.

**Question:** Special Provision 308 calls for Full Depth Recycled Pavement (With Bituminous Stabilizer) and Full Depth Recycled Pavement (With Cement). Is it the intent of the Department to reclaim with cement or with bituminous stabilizer?

**Response:** See the attached Revised special provision 308 for the correct job mix formula.

**Question:** The bid quantity for item 403.207, Hot Mix Asphalt 19.0mm HMA, seems high, is this quantity correct?

**Response:** The correct total should be 200 ton. Please see the attached new Schedule of Items and Special Provision 403.

Consider these changes and information prior to submitting your bid on April 21, 2010.

Sincerely,



Scott Bickford  
Contracts & Specifications Engineer

SCHEDULE OF ITEMS

CONTRACT ID: 016805.00

PROJECT(S): NH-1680(500)E  
 STP-1682(700)X  
 NH-1730(400)E

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
SECTION 0001 PROJECT ITEMS						
0010	202.202 REMOVING PAVEMENT SURFACE	SY 71125.000				
0020	202.203 PAVEMENT BUTT JOINTS	SY 525.000				
0030	203.242 DIRTY BORROW	CY 100.000				
0040	204.41 REHABILITATION OF EXISTING SHOULDERS, PLAN QUANTITY	SY 238.000				
0050	205.51 WIDENING OF EXISTING SHOULDER - PLAN QUANTITY	SY 119.000				
0060	308.35 FULL DEPTH RECYCLED PAVEMENT ( WITH BITUMINOUS STABILIZER)	SY 9036.000				
0070	403.1021 TEXTURED ASPHALT PAVEMENT	SY 100.000				
0080	403.207 HOT MIX ASPHALT 19.0 MM HMA	T 200.000				
0090	403.208 HOT MIX ASPHALT 12.5 MM HMA SURFACE	T 6815.000				

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 STP-1682(700)X  
 NH-1730(400)E

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0100	403.209 HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	T 110.000				
0110	403.211 HOT MIX ASPHALT (SHIMMING)	T 3200.000				
0120	403.212 HOT MIX ASPHALT 4.75 MM	T 375.000				
0130	403.213 HOT MIX ASPHALT 12.5 MM BASE	T 2425.000				
0140	409.15 BITUMINOUS TACK COAT - APPLIED	G 6030.000				
0150	411.10 UNTREATED AGGREGATE SURFACE COURSE (TRUCK MEASURE)	CY 135.000				
0160	424.41 ASPHALT FOR CRACK REPAIR	G 3100.000				
0170	504.07 CONCRETE PIPE TIES	GP 4.000				
0180	603.7424 REMOVE & RELAY 24 INCH CONCRETE PIPE	LF 32.000				
0190	604.18 ADJUSTING MANHOLE OR CATCH BASIN TO GRADE	EA 1.000				

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 NH-1730(400)E

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0200	606.17 GUARDRAIL TYPE 3B - SINGLE RAIL	75.000 LF				
0210	606.178 GUARDRAIL BEAM	125.000 LF				
0220	606.23 GUARDRAIL TYPE 3C - SINGLE RAIL	738.000 LF				
0230	606.231 GUARDRAIL TYPE 3C - 15 FOOT RADIUS AND LESS	75.000 LF				
0240	606.232 GUARDRAIL TYPE 3C - OVER 15 FOOT RADIUS	75.000 LF				
0250	606.265 TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	6.000 EA				
0260	606.352 REFLECTORIZED BEAM GUARDRAIL DELINEATORS	52.000 EA				
0270	606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	34.000 EA				
0280	606.367 REPLACE UNUSABLE EXISTING GUARDRAIL POSTS	5.000 EA				
0290	606.47 SINGLE WOOD POST	13.000 EA				

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CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0300	606.51 MULTIPLE MAILBOX SUPPORT	2.000 EA				
0310	606.79 GUARDRAIL 350 FLARED TERMINAL	2.000 EA				
0320	609.31 CURB TYPE 3	2075.000 LF				
0330	610.08 PLAIN RIPRAP	25.000 CY				
0340	613.319 EROSION CONTROL BLANKET	885.000 SY				
0350	615.07 LOAM	58.000 CY				
0360	618.13 SEEDING METHOD NUMBER 1	5.000 UN				
0370	618.1401 SEEDING METHOD NUMBER 2 - PLAN QUANTITY	76.000 UN				
0380	619.1201 MULCH - PLAN QUANTITY	81.000 UN				
0390	627.733 4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	6399.000 LF				

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 STP-1682(700)X  
 NH-1730(400)E

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0400	627.76 TEMPORARY PVMT. MARK LINE, W OR YELLOW	LUMP	LUMP			
0410	629.05 HAND LABOR, STRAIGHT TIME	120.000 HR				
0420	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	170.000 HR				
0430	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	340.000 HR				
0440	631.18 CHAIN SAW RENTAL (INCLUDING OPERATOR)	10.000 HR				
0450	631.32 CULVERT CLEANER (INCLUDING OPERATOR)	8.000 HR				
0460	639.19 FIELD OFFICE TYPE B	1.000 EA				
0470	652.33 DRUM	150.000 EA				
0480	652.34 CONE	280.000 EA				
0490	652.35 CONSTRUCTION SIGNS	1788.000 SF				

SCHEDULE OF ITEMS

CONTRACT ID: 016805.00

PROJECT(S): NH-1680(500)E  
 STP-1682(700)X  
 NH-1730(400)E

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0500	652.36 MAINTENANCE OF TRAFFIC CONTROL DEVICES	95.000 CD				
0510	652.38 FLAGGER	2795.000 HR				
0520	652.41 PORTABLE CHANGEABLE MESSAGE SIGN	2.000 EA				
0530	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP			
0540	659.10 MOBILIZATION	LUMP	LUMP			
	SECTION 0001 TOTAL					
	TOTAL BID					

SPECIAL PROVISION  
SECTION 308  
FULL DEPTH RECYCLED PAVEMENT  
(With Bituminous Stabilizer)

308.01 Description. This work shall consist of pulverizing a portion of the existing roadway structure into a homogenous mass, adding a bituminous stabilizer into the top **125 mm [5 inch]** of the processed material, and placing and compacting this material to the lines, grades, and dimensions shown on the plans or established by the Resident.

MATERIALS

308.02 Pulverized Material. Pulverized material shall consist of a portion or all of the existing bituminous pavement and, if specified, a designated portion of the underlying gravel, pulverized and blended into a homogenous mass. Pulverized material will be processed to 100 percent passing a 50 mm [2 inch] square mesh sieve.

308.021 New Aggregate and Additional Recycled Material. New aggregate for mainline travelway shall meet the requirements of Subsection 411.02 Untreated Aggregate Surface Course.

Recycled material shall consist of material from the project or from off-site stockpiles which has been processed prior to use to 100 percent passing a 50 mm [2 inch] square mesh sieve. Recycled material shall be conditionally accepted at the source by the Resident. It shall be free of winter sand, granular fill, construction debris, and other materials not generally considered bituminous pavement.

308.022 Bituminous Stabilizer. The bituminous stabilizer shall be emulsified asphalt, grade MS-2 or HFMS-2 meeting the requirements of Subsection 702.04 Emulsified Asphalt.

308.023 Composition of Mixture The mixture shall be composed as directed in the job mix formula. The recycled asphalt pavement shall be processed by the Contractor so all material will be no larger than 50.0 mm [2 in]. Any stockpiles used shall be free of any materials not generally considered to be asphalt pavement. If additional material is required, the material will be supplied by the State or acquired from the Contractor through the Contract Modification process.

A job mix formula shall be furnished by the Department establishing the percentage of emulsified asphalt cement, Portland Cement, aggregate, and water to be used in the mixture. The JMF additive proportions will be verified by taking a second recycled material sample once the in place materials have been processed.

Emulsion, water, Portland Cement, and aggregate shall be added in percentage by weight and verified by tank checks done in accordance with the minimum quality control frequencies. Cement additives may be introduced in dry form or introduced as a cement slurry.

After a test strip has been completed, or as the work progresses, it may be necessary for the Resident to make necessary adjustments to the mix design. Changes to admixture percentages shall be in accordance with the Mix Design Special Provision.

## EQUIPMENT

308.03 Pulverizer. The pulverizer shall be a self-propelled machine, specially manufactured for cold in-place recycling type work and capable of reducing the required existing materials to a size which will pass a 50 mm [2 inch] square mesh sieve. The machine shall be equipped with standard automatic depth controls and must maintain a consistent cutting depth and width. The machine also shall be equipped with a gauge to show depth of material being processed.

308.04 Liquid Mixer Unit or Distributor. A liquid mixing unit or distributor shall be used to introduce the bituminous stabilizer into the pulverized material. The mixing unit shall contain a liquid distribution and mixing system which has been specifically manufactured for cold in-place recycling type work, capable of mixing the pulverized material with an evenly metered distribution of emulsified asphalt into a homogeneous mixture, to the depth and width required.

The mixing unit shall be designed, equipped, maintained, and operated so that bituminous stabilizer at constant temperature may be applied uniformly on variable widths of pulverized material up to 1800 mm [6 ft] at readily determined and controlled rates from 0.04 to 5.0 liters per square meter [0.01 to 1.056 gal/yd<sup>2</sup>] with uniform pressure and with an allowable variation from any specified rate not to exceed 0.04 liters per square meter [0.01 gal/s yd<sup>2</sup>]. Mixing units shall include a tachometer, pressure gages, accurate volume measuring devices or a calibrated tank and a thermometer for measuring temperatures of tank contents.

308.05 Placement and Grading Equipment. Placement or grading of the cold in-place recycled material to the required slope and grade shall be done with an approved highway grader or by another method approved by the Resident.

308.06 Rollers The recycled material shall be rolled with a vibratory pad/tamping foot roller, a vibratory steel drum soil compactor and a Type II pneumatic tire roller. The pad/tamping foot roller drum shall have a minimum of 112 tamping feet 73 mm [3 in] in height, a minimum contact area per foot of 110 cm<sup>2</sup> [17 in<sup>2</sup>], and a minimum width of 2.15 m [84 in]. The vibratory steel drum roller shall have a minimum 2.15 meter [84 in] width single drum. The pneumatic tire roller shall meet the requirements of Section 401.10 and the minimum allowable tire pressure shall be 586 kPa [85 psi].

## CONSTRUCTION REQUIREMENTS

308.07 Pulverizing. The entire depth of existing pavement on the travel way shall be pulverized together with approximately 25 mm [1 inch] of the underlying gravel into a homogeneous mass. All pulverizing shall be done with equipment that will provide a homogeneous mass of pulverized material, processed in-place which will pass a 50 mm [2 inch] square mesh sieve.

308.08 Weather Limitations. Cold in-place recycled work shall not be performed when the atmospheric temperature is below 10°C [50°F] , or when weather conditions are such that proper pulverizing, spreading, adding, and mixing bituminous stabilizer are unfavorable to proper construction procedure or compaction of the pulverized material cannot be accomplished.

308.09 Surface Tolerance. The completed surface of the cold in-place recycled course shall be shaped and maintained to a tolerance, above or below the required cross sectional shape, of 10 mm [3/8 inch].

308.10 Cold In-Place Recycling Procedure. The material will be pulverized, processed, and blended into a homogeneous mass passing a 50 mm [2 inch] square mesh sieve; a representative sample of the pulverized material will be collected and taken by the Department to the Bangor Laboratory for a design recommendation of bituminous stabilizer to be added.

The material will then be shaped to the cross-slope and grade shown on the plans, typical, or as directed by the Resident. New aggregate or recycled pavement meeting the requirements of Subsection 308.021 New Aggregate and Recycled Material, of this Special Provision, will be added as necessary to restore cross-slope and/or grade. Locations will be shown on the plans or described in the construction notes; the Resident may add other locations while construction of the project is in progress. The Contractor will use recycled pavement to the extent it is available, in lieu of untreated aggregate surface course.

Bituminous stabilizer will then be incorporated into the top **125 mm [5 inch]** of the processed material by use of the liquid mixer unit or a distributor, at the rate of about 3 L [0.8 gallons] per square meter [square yard]. This bituminous liquid shall then be uniformly blended into a homogeneous mass until an apparent uniform distribution has occurred. The rate of application may be adjusted as necessary by the Resident. The resultant material shall be graded and compacted to the cross-slope and profile shown on the plans or as directed by the Resident. The Contractor will also be responsible for re-establishing the existing profile grade.

Density of the cold in-place recycled material will be determined by the Department using nuclear density gauges. A 90 m [295 foot] section at the start of the pulverizing operation will be designated as the control section. After the control section has been pulverized, the bituminous stabilizer added and mixed, and the roadway brought to proper shape, it will be

rolled as directed until the nuclear density readings show an increase in dry density of less than 16 kg/m<sup>3</sup> [one pound per cubic foot] for the final four vibratory roller passes. This density will be used as the target density for the recycled material. The remaining cold in-place recycled material shall be compacted to a minimum density of 98 percent of the target density as determined in the control section.

308.11 Miscellaneous. No new pavement shall be placed on the cold in-place recycled pavement until curing has reduced the moisture content to 1 percent or less by total weight of the mixture, or a curing period of 10 days has elapsed, whichever comes first.

308.12 Method of Measurement. Cold in-place recycled material (with Bituminous Stabilizer) will be measured by the square meter [square yard]. Materials added to restore grade and/or cross-slope in areas not shown on the plans or described in the construction notes will be measured in vehicles at the point of delivery or by some other method mutually agreeable to the Contractor and the Resident.

308.13 Basis of Payment. The accepted quantity of cold in-place recycled material will be paid for at the contract unit price per square meter [square yard], complete in-place which price will be full compensation for furnishing all equipment and labor for pulverizing, blending, placing, grading, compacting, and for all incidentals necessary to complete the work.

Adding materials to restore grade and/or cross-slope in areas shown on the plans or described in the construction notes will not be paid separately; this work will be considered incidental to the pay item. Adding materials in areas not shown on the plans or described in the construction notes will be paid under the appropriate contract pay item.

Payments will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
308.35 Full Depth Recycled Pavement (With Bituminous Stabilizer)	Square Meter [Square Yard]

SPECIAL PROVISION  
SECTION 308  
FDR w/ Stabilizer  
**Mix Design**

The FDR Pavement layer on this project will be treated with the following material proportions:

Emulsion	3.50%
Water	3.00% – 6.0%
Portland cement (Type I or II)	1.00 %

The optimum moisture content for compaction shall be determined by the Department using samples obtained from the pulverized material prior to addition of the emulsion and Portland cement, by means of AASHTO T 180, Method D.

A contract modification will be executed if percentages change from the requirements above for added emulsion or Portland cement by more than 0.10%. Positive and negative price adjustments will be made. The price adjustment will be based upon receipted bills for materials delivered the project site. If a price adjustment is warranted, the contractor will supply the Department with all receipted bills for emulsion and Portland cement for the entire project. Adjustments in water content exceeding the initial targets shall not be paid for directly, but shall be incidental.

**SPECIAL PROVISION**  
**SECTION 403**  
**HOT MIX ASPHALT OVERLAY**

<b>Desc. of Course</b>	<b>Grad. Design</b>	<b>Item #</b>	<b>Bit Cont. % of Mix</b>	<b>Total Thick</b>	<b>No. of Layers</b>	<b>Comp. Notes</b>
<b><u>3" Mill with 3" HMA Overlay Areas</u></b>						
<b><u>Mainline Travelway, Turnlanes, Widening, and Shoulders</u></b>						
Wearing	12.5mm	403.208	N/A	1 ½"	1	5,8
Base	12.5mm	403.213	N/A	1 ½"	1/more	5,8
Shim	4.75mm	403.212	N/A	variable	1/more	2,4,8,20
<b><u>Full Depth Reconstruction Area</u></b>						
<b><u>Mainline Travelway, Turnlanes, Widening, and Shoulders</u></b>						
Wearing	12.5mm	403.208	N/A	1 ½"	1	5,8
Base	12.5mm	403.213	N/A	1 ½"	1	5,8
Base	19.0mm	403.207	N/A	3"	1/more	4,10,12,15
<b><u>Drives, Misc.</u></b>						
Wearing	9.5mm	403.209	N/A	2"	1/more	2,3,10,11,14

**COMPLEMENTARY NOTES**

2. The density requirements are waived.
3. The design traffic level for mix placed shall be <0.3 million ESALS.
4. The design traffic level for mix placed shall be 0.3 to <3 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **50 gyrations.**
5. The aggregate qualities shall meet the design traffic level of 3 to <10 million ESALS for mix placed under this contract. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **75 gyrations.**
8. Section 106.6 Acceptance, (2) Method B.
10. Section 106.6 Acceptance, (2) Method D.
11. The combined aggregate gradation required for this item shall be classified as a 9.5mm "**fine graded**" mixture, (using the Primary Control Sieve control point) as defined in 703.09.
12. A mixture meeting the gradation of 12.5 mm hot mix asphalt may be used at the option of the contractor.
14. A mixture meeting the requirements of section 703.09 Grading 'D', with a minimum PGAB content of 6%, and the limits of Special Provision 401, Table 9 (Drives and Sidewalks) for PGAB content and gradation may be substituted for this item. A job mix formula shall be submitted to the department for approval.
15. Mixtures tested under Method D shall be tested for density. The density requirements shall be 92.5 to 97.5, or the same as the specified for the travel lane, ramps, and sideroads. The incentive / disincentive for mix properties and density shall apply.
20. The Contractor may place the specified HMA pavement course, not to exceed 1¼ inch (30mm) compacted depth, over the full single travel lane width, for each production day. If this option is utilized the Contractor will be required to place a matching course of HMA over the adjacent section of travel lane before the end of the following calendar day. The Contractor will also be responsible for installing additional warning signage that clearly defines the centerline elevation differential hazard, as well as additional centerline

**Augusta  
Route 3 and Church Hill  
NH- 1730(400)E  
Pavement Rehabilitation  
Mill and Overlay  
April 16, 2010**

delineation such as double RPM application, or temporary painted line. The Traffic Control Plan shall be amended to include this option and the additional requirements.

All signs and traffic control devices will conform to Section 719.01, and Section 652, and will be installed prior to the work, at a maximum spacing of 0.50 mile [0.80 km] for the entire length of the effected roadway section. On roadways with two-way traffic, the Contractor will be required to place the specified course over the full width of the mainline traveled way being paved prior to opening the sections to weekend or holiday traffic. If this option is utilized, all additional signing, labor, traffic control devices, or incidentals will not be paid for directly, but will be considered incidental to the appropriate 403 items.

Tack Coat

A tack coat of emulsified asphalt, RS-1, Item 409.15 shall be applied to any existing pavement at a rate of approximately 0.025 gal/yd<sup>2</sup>, and on milled pavement approximately 0.05 gal/yd<sup>2</sup> prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim /base courses and the surface course, at a rate not to exceed 0.025 gal/yd<sup>2</sup>.

Tack used between layers of pavement will be paid for at the contract unit price for Item 409.15 Bituminous Tack Coat.