



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

Paul R. LePage
GOVERNOR

David Bernhardt
COMMISSIONER

March 1, 2018
Subject: Pavement Milling, HMA
Overlay with Drainage & Safety
Improvements
State WINs: 023318.00, 023326.00
& 023388.00
Location: **Glenburn, Levant,
Hampden, Hermon, Newburgh &
Bangor**
Amendment No. 1

Dear Sir/Ms.:

Please make the following changes to the Bid Documents:

In the Bid Book:

On page 9, NOTICE TO CONTRACTORS, **REMOVE** the third paragraph, which begins:
"Location: In Penobscot County", and **REPLACE** with:

Location: In Penobscot County:

Project No. 023318.00 is located in Hermon and Hampden on Coldbrook Road beginning 0.03 miles southeast of Autocar Lane and extending southeasterly 2.53 miles, ending at Route 202.

Project No. 023326.00 is located in Newburgh and Hampden on Route 9 beginning 0.17 miles west of Chapman Road and extending easterly 7.50 miles.

Project No. 023388.00 is located in Levant, Glenburn, Hermon and Bangor on Route 222 beginning in Levant 0.37 miles southeast of Wagner Road and extending southeasterly 7.78 miles, ending in Bangor.

Make this change in pen and ink.

REMOVE PAGES 11-13, SCHEDULE OF ITEMS, 3 pages, dated February 12, 2018 and **REPLACE** with the attached, revised, SCHEDULE OF ITEMS, 3 pages, dated February 28, 2018.

REMOVE pages 50 – 54, CONSTRUCTION NOTES (WIN 023326.00), 5 pages, dated February 12, 2018, and **REPLACE** with the attached, revised CONSTRUCTION NOTES (WIN 023326.00), 5 pages, dated February 27, 2018.



PRINTED ON RECYCLED PAPER

REMOVE page 77, SPECIAL PROVISION 105 - CONSTRUCTION AREA (WIN 023318.00), 1 page, and **REPLACE** with the attached, revised SPECIAL PROVISION 105 - CONSTRUCTION AREA (WIN 023318.00), 1 page.

REMOVE pages 92-93, SPECIAL PROVISION – SECTION 403 - HOT MIX ASPHALT, 2 pages, dated January 31, 2018 and **REPLACE** with the attached, revised, SPECIAL PROVISION – SECTION 403 - HOT MIX ASPHALT, 2 pages dated February 27, 2018.

ADD the attached SPECIAL PROVISION – PROTECTION OF RAILROAD TRAFFIC AND STRUCTURES, 9 pages, dated January 24, 2018.

The following questions have been received:

Question: Can the Department clarify the mix items and their complementary notes? It appears note 30 is being referred too and asking for both a polymer and an anti-strip but the mix items do not necessarily reflect this.

Response: See the attached SPECIAL PROVISION 403, dated February, 26 2018. The notes have been revised for 3/4” HMA Overlay with Shim. Polymer will be required on WIN 23318.00 from station 7+50 to 62+00. Anti-strip will be required for all HMA.

Question: Will Railroad insurance be needed as it appears there is work around the tracks? If so can the Department provide the number of trains per day and times?

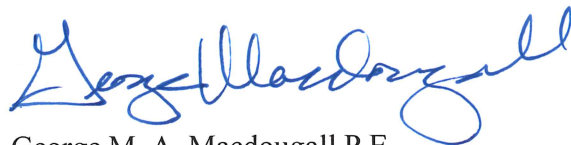
Response: Railroad insurance will be required, see the attached SPECIAL PROVISION, PROTECTION OF RAILROAD TRAFFIC AND STRUCTURES dated January 24, 2018 for specific requirements and train schedule.

Question: Will the Department be supplying the Railroad Flagger if needed, or is the costs on the Contractor?

Response: See the attached SPECIAL PROVISION, PROTECTION OF RAILROAD TRAFFIC AND STRUCTURES dated January 24, 2018.

Consider these changes and information prior to submitting your bid on **March 7, 2018**.

Sincerely,



George M. A. Macdougall P.E.
Contracts & Specifications Engineer

Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 023318.00

Project(s): 023318.00, 023326.00, 023388.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0010	202.202 REMOVING PAVEMENT SURFACE	3,290.000 SY	_____	_____	_____	_____
0020	202.203 PAVEMENT BUTT JOINTS	4,000.000 SY	_____	_____	_____	_____
0030	403.208 HOT MIX ASPHALT 12.5 MM HMA SURFACE	10.000 T	_____	_____	_____	_____
0040	403.209 HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	500.000 T	_____	_____	_____	_____
0050	403.211 HOT MIX ASPHALT (SHIMMING)	7,206.000 T	_____	_____	_____	_____
0060	409.15 BITUMINOUS TACK COAT - APPLIED	18,730.000 G	_____	_____	_____	_____
0070	411.10 UNTREATED AGGREGATE SURFACE COURSE (TRUCK MEASURE)	110.000 CY	_____	_____	_____	_____
0080	461.210 9.5 MM HMA - CYCLICAL PAVEMENT RESURFACING	13,190.000 T	_____	_____	_____	_____
0090	461.2101 POLYMER MODIFIED 9.5 MM - CYCLICAL PAVEMENT RESURFACING	1,050.000 T	_____	_____	_____	_____
0100	604.18 ADJUSTING MANHOLE OR CATCH BASIN TO GRADE	21.000 EA	_____	_____	_____	_____
0110	608.26 CURB RAMP DETECTABLE WARNING FIELD	16.000 SF	_____	_____	_____	_____

Maine Department of Transportation

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SECTION: 1 HIGHWAY ITEMS

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0120	608.46 REGRAIDING SIDEWALK	53.000 SY	_____	 _____	_____	 _____
0130	609.31 CURB TYPE 3	232.000 LF	_____	 _____	_____	 _____
0140	613.319 EROSION CONTROL BLANKET	4,460.000 SY	_____	 _____	_____	 _____
0150	618.14 SEEDING METHOD NUMBER 2	430.000 UN	_____	 _____	_____	 _____
0160	619.12 MULCH	430.000 UN	_____	 _____	_____	 _____
0170	627.75 WHITE OR YELLOW PAVEMENT & CURB MARKING	1,684.000 SF	_____	 _____	_____	 _____
0180	627.78 TEMPORARY 4 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	367,500.000 LF	_____	 _____	_____	 _____
0190	629.05 HAND LABOR, STRAIGHT TIME	120.000 HR	_____	 _____	_____	 _____
0200	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	360.000 HR	_____	 _____	_____	 _____
0210	631.133 SKID STEER (INCLUDING OPERATOR)	10.000 HR	_____	 _____	_____	 _____
0220	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	720.000 HR	_____	 _____	_____	 _____
0230	643.86 TRAFFIC SIGNAL LOOP DETECTORS	1.000 EA	_____	 _____	_____	 _____

Maine Department of Transportation

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Project(s): 023318.00, 023326.00, 023388.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0240	652.33 DRUM	20.000 EA	_____	 _____	_____	 _____
0250	652.34 CONE	450.000 EA	_____	 _____	_____	 _____
0260	652.35 CONSTRUCTION SIGNS	3,200.000 SF	_____	 _____	_____	 _____
0270	652.36 MAINTENANCE OF TRAFFIC CONTROL DEVICES	115.000 CD	_____	 _____	_____	 _____
0280	652.38 FLAGGER	2,590.000 HR	_____	 _____	_____	 _____
0290	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP SUM		 LUMP SUM	_____	 _____
0300	659.10 MOBILIZATION	LUMP SUM		 LUMP SUM	_____	 _____
Section: 1			Total:		_____	 _____
			Total Bid:		_____	 _____

CONSTRUCTION NOTES

202.202 REMOVING PAVEMENT SURFACE

Mainline & Shoulder

Station	to	Station	Width (ft.)	Side	Comments
403+80		406+26	25'	Left	End Project
403+80		406+26	37'	Right	End Project

Shoulder Only

Station	to	Station	Width (ft.)	Side	Comments
383+65		384+15	6'	Left	(see note below)

Note: Mill off high pavement on shoulder across entrance to Evergreen Drive.

Railroad Crossing at Station 357+50

Note: Mill full depth of existing pavement 18" wide or as directed by Resident before and after rails and all existing pavement between rails.

202.203 PAVEMENT BUTT JOINTS

Mainline & Shoulder

Station	to	Station	Length (ft.)	Comments
10+00		10+45	45'	Begin Project

Bridge Approaches

Station	to	Station	Length (ft.)	Comments
199+90		200+40	50'	Bridge #5109
200+82		20+132	50'	Bridge #5109

Side Roads

Note: There are approximately (23) paved side roads where butt joints will be ground a minimum of 3 feet wide at an offset to be determined in the field by the Resident.

CONSTRUCTION NOTES

202.203 PAVEMENT BUTT JOINTS (continued)

Driveways

Note: There are approximately (104) existing paved driveways where butt joints will be ground a minimum of 18" wide at an offset to be determined in the field by the Resident.

403.208 HOT MIX ASPHALT 12.5 mm SURFACE

Mainline & Shoulders

Station	Length (ft.)	Width (ft.)	Depth (in.)	Comments
357+50	1.5'	34'	5"	Before rails
357+50	4.5'	34'	5"	Between rails
357+50	1.5'	34'	5"	After rails

Note: This mix shall be placed and compacted in a minimum of (3) lifts.

403.209 HOT MIX ASPHALT 9.5 mm (INCIDENTALS)

Notes: There are approximately (121) gravel driveways. (110) of these driveways have existing paved aprons and will receive a 1" overlay. The gravel drives with no existing paved apron (approximately 11) will be prepped for 2 inch deep by 3 foot wide paved aprons, with length to be determined in the field by the Resident. All work necessary to prep these driveways for paving shall be considered incidental to Item 403.209. Any material required to prep these aprons for paving will be paid for under Item 411.10.

There are approximately (104) existing paved driveways that will receive a 1" overlay.

Approximately (6) tons of hand placed paving was estimated for ADA improvements to sidewalk areas at (2) cross walks located at approximately Sta. 391+60 and Sta. 400+60.

CONSTRUCTION NOTES

403.211 HOT MIX ASPHALT – SHIM

Full Width Shim

Station to Station

10+00 406+26

Note: This item is intended to be used to drag shim mainline zeroing out 0' to 3' out onto the shoulders.

Shim location and limits may be adjusted by the Resident.

411.10 UNTREATED AGGREGATE SURFACE COURSE, TRUCK MEASURE

Note: This item is intended to be used to prep existing gravel drives without aprons before paving and to back the aprons in all gravel drives after they are placed or overlaid. The Contractor may use processed (screened) millings in place of gravel meeting the requirements of Item 411.10 to back paved aprons.

604.18 ADJUST MANHOLE OR CATCH BASIN TO GRADE

Station	Side	Description
383+56	Lt.	Catch Basin
389+77	Lt.	Catch Basin
393+19	Lt.	Catch Basin

608.26 CURB RAMP DETECTABLE WARNING FIELD

Station	to	Station	Size (L x W)	Side	Comments
391+58		391+62	4' x 2'	Lt.	X-walk at Constitution Avenue
400+58		400+62	4' x 2'	Lt.	X-walk at Roe Village

608.46 REGRADING SIDEWALK

Station	to	Station	Side	Length (ft.)	Width (ft.)
391+49		391+91	Lt.	42'	5'
400+49		401+01	Lt.	52'	5'

CONSTRUCTION NOTES

609.31 CURB TYPE 3

Station	to	Station	Side	Length (ft.)	Mold	Comments
391+49		391+57	Lt.	8'	1	8' tip down
391+63		391+71	Lt.	8'	1	8' tip down
391+71		391+91	Lt.	20'	1	Replace existing curb
400+49		400+57	Lt.	8'	1	8' tip down
400+63		400+71	Lt.	8'	1	8' tip down
400+71		401+01	Lt.	30'	1	Replace existing curb

627.75 WHITE OR YELLOW PAVEMENT & CURB MARKING

Station	Side	Description
348+20	Rt.	Railroad crossing ahead (2 bars, large X, & RR)
363+80	Lt.	Railroad crossing ahead (2 bars, large X, & RR)
319+60	Lt./ Rt.	Crosswalk (8 blocks @ 2' x 6' each)
400+60	Lt./ Rt.	Crosswalk (8 blocks @ 2' x 6' each)
403+05	Lt.	Left turn arrow
403+45	Lt.	Left turn arrow
403+75	Rt.	SLOW – SCHOOL – ZONE
405+20	Rt.	Left turn arrow
405+20	Rt.	Straight & left turn arrow
405+20	Rt.	Right turn arrow
405+95	Rt.	Left turn arrow
405+95	Rt.	Straight & left turn arrow
405+95	Rt.	Right turn arrow
406+18	Rt.	Stop bar (2' x 35')
401+62	402+42	80' X 10' Replace existing stamped island

CONSTRUCTION NOTES

627.78 TEMPORARY 4" PAVEMENT MARKING LINE WHITE OR YELLOW

Notes: Temporary center lines shall be painted on all matched pavement within one week.

Temporary edge lines shall be painted on all pavement layers within four weeks.

All temporary lines shall be painted prior to final striping.

Multilane sections, truck lanes, and milled surfaces must be striped daily on all matched pavement layers.

TOMs must be used on all pavement layers until temporary paint is applied.

TOMs will be removed before final striping.

TOM removal will be addressed in the Traffic Control Plan.

Only painted temporary line will be paid under this item. TOMs will be considered incidental to the contract.

629.05, 631.12, & 631.172 HOURLY RENTAL ITEMS

Note: These items will be used to pay for backing the edge of pavement, miscellaneous ditch and inslope, winter sand cleanup, cleaning around culverts, and as directed by Resident.

652.35 CONSTRUCTION SIGNS

Note: Two "Road Work Next 8 Miles" signs are required as part of this project.

Project WIN: 23318.00

SPECIAL PROVISION 105
CONSTRUCTION AREA

A Construction Area located in the **Towns of Hermon and Hampden** has been established by the Maine Department of Transportation (MDOT) in accordance with provisions of 29-A § 2382 Maine Revised Statutes Annotated (MRSA).

- (a) The section of highway under construction in Penobscot County, WIN 23318.00 is on Coldbrook Road beginning 0.03 mi. southeast of Autocar Lane and extending southeasterly 2.53 miles, ending at Route 202.

Per 29-A § 2382 (7) MRSA, the MDOT may “*issue permits for stated periods of time for loads and equipment employed on public way construction projects, United States Government projects or construction of private ways, when within construction areas established by the Department of Transportation. The permit:*

A. Must be procured from the municipal officers for a construction area within that municipality;

B. May require the contractor to be responsible for damage to ways used in the construction areas and may provide for:

(1) Withholding by the agency contracting the work of final payment under contract; or

(2) The furnishing of a bond by the contractor to guarantee suitable repair or payment of damages.

The suitability of repairs or the amount of damage is to be determined by the Department of Transportation on state-maintained ways and bridges, otherwise by the municipal officers;

C. May be granted by the Department of Transportation or by the state engineer in charge of the construction contract; and

D. For construction areas, carries no fee and does not come within the scope of this section.”

The Municipal Officers for the **Towns of Hermon and Hampden** agreed that an Overlimit Permit will be issued to the Contractor for the purpose of using loads and equipment on municipal ways in excess of the limits as specified in 29-A MRSA, on the municipal ways as described in the “Construction Area”.

As noted above, a bond may be required by the municipality, the exact amount of said bond to be determined prior to use of any municipal way. The MDOT will assist in determining the bond amount if requested by the municipality.

The maximum speed limits for trucks on any town way will be 25 mph (40 m per hour) unless a higher legal limit is specifically agreed upon in writing by the Municipal Officers concerned.

SPECIAL PROVISION
SECTION 403
HOT MIX ASPHALT

Desc. Of Course	Grad Design.	Item Number	Total Thick	No. Of Layers	Comp. Notes
<u>WIN 023318.00: Station 7+50 to Station 62+00 - 3/4" HMA Overlay with Shim</u>					
<u>Travelway & Shoulders (As Indicated)</u>					
Wearing	9.5 mm	461.2101	3/4"	1	2,4,9,11,14,20,27,30
Shim	9.5 mm	403.211	variable	1	1,2,4,9,11,14,20
<u>3/4" HMA Overlay with Shim</u>					
<u>Travelway & Shoulders (As Indicated)</u>					
Wearing	9.5 mm	461.210	3/4"	1	1,2,4,9,11,14,20,27
Shim	9.5 mm	403.211	variable	1	1,2,4,9,11,14,20
<u>Railroad Crossings</u>					
Wearing	12.5 mm	403.208	3"/more	2/more	1,2,4,16,18
<u>Drives, Misc.</u>					
Wearing	9.5 mm	403.209	1"	1/more	1,2,3,10,11,14

COMPLEMENTARY NOTES

1. The required PGAB for this mixture will meet a **PG 64-28** grading. All asphalt grades utilized on the Project shall be treated with an approved liquid anti-strip. PG binders shall be treated with a minimum 0.50 percent anti-strip by weight of asphalt binder used unless otherwise recommended by the anti-strip manufacturer. The PGAB and anti-strip blend shall meet the **PG 64-28** requirements. The Contractor shall provide supporting test data showing the PGAB and anti-strip blend meet the required criteria.
2. The incentive/disincentive provisions for density shall not apply. Rollers shall meet the requirements of this special provision. The use of an oscillating steel roller shall be required to compact all mixtures pavements placed on bridge decks.
3. The design traffic level for mix placed shall be <0.3 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **50 gyrations**.
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**.
9. Section 106.6 Acceptance, (2) Method C. The Contractor may request a contract modification to change to testing method "A" prior to work starting on this item.
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.
14. The combined aggregate gradation required for this item shall be classified as a 9.5mm Thin Lift Mixture (TLM) mixture, using the Aggregate Gradation Control Points as defined in 703.09.

**Hermon/Hampden, Newburgh/Hampden, Bangor/Glenburn
023318.00, 023326.00, 023388.00
Coldbrook Road, Route 9, Route 22
Pavement Preservation
February 26, 2018**

16. Compaction of the new Hot Mix Asphalt Pavement will be obtained using a minimal roller train consisting of a **3-5 ton** vibratory roller. Areas less than 2 feet wide shall be compacted with a minimum of a **150 pound** plate compactor. An approved release agent is required to ensure the mixture does not adhere to hand tools, rollers, pavers, and truck bodies. The use of petroleum based fuel oils, or asphalt stripping solvents will not be permitted.
18. The Department will accept or reject any HMA based on a visual basis, either prior to its use, during placement, or in its final disposition.
20. The Contractor may place the specified HMA pavement course, not to exceed 1 inch 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 weekend suspension. The Contractor will also be responsible for installing additional warning signage that clearly defines the centerline elevation differential hazard. Unless otherwise addressed in the contract, the Contractor shall install additional centerline delineation such as a double RPM application, or temporary painted line for centerline at the end of each production day. 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 for the entire length of 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, will be considered incidental to the appropriate 652 items.
27. See Special Provision 461 – Cyclical Pavement Resurfacing
30. The required PGAB shall be a storage-stable, homogeneous, polymer modified asphalt binder that meets PG 64E-28 grading requirements in AASHTO M 332. All polymer modified asphalt grades utilized on the Project shall be treated with an approved liquid anti-strip. PG binders shall be treated either at the asphalt source terminal with the required dose rate on the delivery documentation, or at the hot mix asphalt plant utilizing a system integrated with the plants controls that will introduce a minimum 0.50 percent anti-strip by weight of asphalt binder used unless a rate is otherwise recommended by the anti-strip manufacturer. The PGAB and anti-strip blend shall meet the PG 64E-28 requirements. The Contractor shall provide supporting test data showing the PGAB and anti-strip blend meet the required criteria.

Tack Coat

A tack coat of emulsified asphalt, RS-1, RS-1h, CRS-1 or CRS-1h, Item 409.15 shall be applied to any existing pavement at a rate of approximately 0.030 gal/yd², and on milled pavement approximately 0.05 gal/yd² prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim /base courses and surface course as well as to any bridge membrane prior to the placement of HMA layers at a rate not to exceed 0.030 gal/yd². Tack used will be paid for at the contract unit price for Item 409.15 Bituminous Tack Coat.

Town: **Hermon-Hampden & Newburgh-Hampden**
Project/PIN: **23318.00 & 23326.00**
1/24/18

SPECIAL PROVISION PROTECTION OF RAILROAD TRAFFIC AND STRUCTURES

1. GENERAL REQUIREMENTS

Part of the work required by the Contract will be performed within a railroad right of way and/or adjacent to the tracks, telephone, telegraph, signal and electric supply lines of a railroad or railroads. The Contractor agrees to perform all such work in compliance with all of the terms of this Special Provision and all safety rules, regulations, or standards applicable to the Railroad. The Contractor shall be fully responsible for all damages arising from his failure to comply with the requirements of this Special Provision. The Contractor shall be deemed to have included all costs in the unit prices of the Schedule of Prices and the Proposal.

2. AMOUNT OF RAILROAD WORK

The estimated amount of work to be done within 25 feet of the track of the Central Maine & Quebec Railway is 1% of the contract.

3. NUMBER OF TRAINS AND TRAIN SPEED

The Contractor is notified that a maximum speed of 25 mph will be considered as prevailing for the operation of trains of the Railroad at this project and that the approximate number of trains per day at this project is 4.

4. PRIORITY OF RAILROAD OPERATIONS

The train movements of the Railroad, and its lessees, and licensees shall have absolute priority over the performance of the Construction Project within the railroad right of way. The Contractor hereby agrees that the hours and times of work within the Railroad right of way must be coordinated through the Railroad and that such hours and times are subject to change without prior notice to the Contractor, unless other prior arrangements have been made through the Railroad.

5. AUTHORITY OF RAILROAD TO STOP WORK

If the Contractor fails to comply with the safety terms of this Special Provision, or if the Chief Engineer of the Railroad determines that the Contractor is using unsafe practices that threaten the safety of rail traffic, rail workers, or the general public, the Railroad shall have the right to immediately order the Contractor to cease work and vacate the Railroad's property. The Railroad agrees to confirm any cessation of work in writing by delivering to the Department's Construction Manager a completed Stop Work Order form attached as Exhibit A within 24 hours of giving any such order.

Town: **Hermon-Hampden & Newburgh-Hampden**
Project/PIN: **23318.00 & 23326.00**
1/24/18

6. ENTRY UPON RAILROAD PROPERTY

The Railroad hereby agrees to permit the Contractor, together with their subcontractors, suppliers, consultants and engineers (the “Contractor”), to enter upon the Railroad property for the purpose of performing the Construction Project, PROVIDED THAT the Contractor complies with all of the terms of this Special Provision and all safety requirements and directions of the Chief Engineer of the Railroad, or his authorized representative (the “Railroad’s Chief Engineer”).

7. NOTICE REQUIRED BEFORE ENTRY

The Contractor shall give written notice to the Railroad's Chief Engineer at least **10** calendar day(s) in advance of the time it proposes to do work within the limits of the Railroad right-of-way or perform operations that may create a Hazard as specified by this Special Provision. The Contractor shall give such notice regardless of whether the work may also be within the limits of a public highway.

8. HAZARDS

The Contractor shall assess to its own satisfaction hazards which may be caused by its operations. At a minimum, the Contractor agrees that the following shall constitute Hazards.

An operating track shall be considered fouled and subject to hazard when any object is brought nearer than **25.00** feet to the gauge line of the near rail of the track.

A signal line or communication line shall be considered fouled and subject to hazard when any object is brought nearer than **25.00** feet to any wire or cable.

An electric supply line shall be considered fouled and subject to hazard when any object is brought nearer than **25.00** feet to any wire of the line.

Cranes, trucks, power shovels or any other equipment shall be considered as fouling and subjecting to hazard a track, signal line, communication or electric supply line when working in such position that failure of equipment, with or without load, could foul the track, signal line, communication or electric supply line.

Railroad operation will be considered subject to hazard when explosives are used in the vicinity of railroad premises, or during the driving or pulling of sheeting for any footing adjacent to a track, or when erecting structural steel adjacent to a track, or when performing work under, across or adjacent to a track, or when operations involve, swinging booms or chutes that could in any way come nearer than **8.00** feet to the gauge line of the near rail of the track, or when erection or removal of staging, false work or forms fouls a track or wire line.

Town: **Hermon-Hampden & Newburgh-Hampden**
Project/PIN: **23318.00 & 23326.00**
1/24/18

None of the operations specified as a Hazard above shall be carried on during the approach or passing of a train or without permission from the Railroad's Chief Engineer and the presence of a railroad inspector/flagman, unless other prior arrangements have been made through the Railroad.

9. MINIMUM CLEARANCES

During the construction of staging, false work or forms, the Contractor shall at all times maintain a minimum vertical clearance of **21.00** feet above the top of high rail and a minimum side clearance of **8.00** feet from the gauge line of the near rail where track is tangent. Additional side clearance must be maintained where track is on a curve.

10. WORK PLAN SUBMITTAL AND APPROVAL

The Contractor shall submit in writing to the Railroad's Chief Engineer or duly authorized representative, and the Department's Railroad Property Manager or his appointed representative, at least **10** calendar day(s) in advance of the start of the project, an outline of his plan for work within the Railroad right of way including contemplated method(s) of construction. This plan must meet with the approval of the Railroad's Chief Engineer and the Department's Railroad Property Manager in every respect. If the Contractor contemplates the use of "on the track equipment", it should so state and obtain from the Railroad the conditions pertaining to such operations. All Railroad costs included in this operation will be borne by the Contractor. In a like manner, any of the Contractor's equipment or material on cars for this project shall be handled in conformance with existing traffic rules with all costs borne by the Contractor.

Prior to submitting his Proposal, the Contractor shall have ascertained from the Railroad and from the Department's Railroad Property Manager or his appointed representative, all information relating to its requirements and regulations and all costs in connection with compliance thereto.

11. EXCAVATIONS

Before excavation for footings adjacent to tracks and/or within the Railroad's right-of-way may commence, whether or not also within the limits of a public highway, plans and calculations for such excavations, prepared by a Professional Engineer authorized to practice in Maine, shall be submitted to the Railroad's Chief Engineer for review and approval. Unless other prior arrangements have been made, the Railroad's Chief Engineer shall have **2** week(s) to perform such review and approval and issue a written permission to proceed with the excavation. No excavation shall proceed without such permission.

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At a minimum, excavations must utilize proper bracing, shoring, sheeting or other support as determined by the Railroad's Chief Engineer, to support the tracks with railroad traffic. Open excavation shall be suitably planked over when construction operations are not in progress. No excavation work shall be performed by the Contractor within the limits of the Railroad right of way, whether or not also within the limits of a public highway, until the Contractor has ascertained from the Chief Engineer of the Railroad the location of any wires, conduits, pipes, cables or other railroad facilities below the surface of the ground. Damage to any such facilities caused by the failure of the Contractor to ascertain the location of such facilities or by failure to use due care to avoid injury to such facilities shall be at the expense of the Contractor.

12. EQUIPMENT

Equipment of the Contractor shall be in such condition so as to prevent failure that would cause delay in the operation of trains or damage to railroad facilities. Equipment shall not be placed or put in operation adjacent to a track without first obtaining permission of the Railroad. The Railroad agrees that such permission shall not be unreasonably withheld.

13. RAILROAD SERVICES - GENERALLY

When work is to be performed within the Railroad's right-of-way, the Railroad shall provide the services, equipment and materials provided in this Special Provision including, but not limited to, engineering, flagging, inspection, signal protection and/or relocation, and restoration or replacement of the Railroad's track structure of ballast. Further, if the Railroad's Chief Engineer determines that the Contractor's operations do not comply with all of the safety requirements of this Special Provision and all safety requirements and directions of said Chief Engineer, the Railroad will employ the necessary qualified employees to protect its trains and other facilities. The Contractor shall pay to the Railroad the cost for performing all Railroad Services unless said costs are to be paid by the Department as specified in this Special Provision.

14. INSPECTION / FLAGGING

The Railroad shall furnish and assign all inspectors / flaggers for general inspection purposes of general protection of railroad property and operations during construction as the Railroad's Chief Engineer determines are necessary to preserve safety.

(a) Responsibility for Cost. The Department will bear the cost of flagging or inspection (including travel time) or any combination thereof up to **0** man days of said flagging or inspection. If, in the opinion of the Railroad's Chief Engineer, further services of a flagger or inspector will be required due to the operations of the Contractor, the services will be furnished and the cost thereof (salary, expenses, insurance, taxes and vacation allowance, etc.) shall be paid to the Railroad by the Department, and will be recovered by the Department from the Contractor.

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(b) Terms. The minimum hours per day for the Railroad employees engaged in inspection flagging services shall be eight (8) hours. Time at rates for straight time, overtime or for deadheading starts in accordance with established practices in effect in the territory in which the project is located. Information as to these practices should be obtained from the Railroad's Chief Engineer.

The Contractor shall notify the Railroad's Chief Engineer and the Chief Engineer of the Department in writing 7 calendar day(s) before beginning, resuming or suspending work within 25 feet of the track, so that an inspector may be provided or removed in accordance with the requirements of this Special Provision. An inspector may be removed upon 2 calendar day(s) notice. Failure to give notice of intent to suspend work shall be cause of charge to the Contractor the cost of inspection during the period when work is suspended.

(c) Estimated Cost. The following is an estimate of the cost per day of inspection/flagging necessary for this project. The rates shown include all overhead charges, travel time, deadheading and personal expenses.

Date of estimate 1-3-18.

Estimated daily rate for four (4) consecutive hours Monday-Friday (straight time): \$0.00

Estimated daily rate for four (4) consecutive hours Saturday, Sunday, Holiday (overtime): \$0.00

Estimated rate for hours worked in excess of eight (8) hours in any one day: \$0.00

Rates charged will be those in effect at the time of the performing the inspection/ flagging which may be different than the rates used at the date of the Estimate. The Railroad agrees to notify the Department if rates used to calculate the above estimates change before the date of bids are received for this Contract.

(d) Definitions.

Man day (M.D.) - eight (8) consecutive hours or any portion thereof.

Overtime - Each additional hour or fraction thereof consecutive to and beyond the standard man day will count as 3/16 of a man day.

Standard Man day - Eight (8) consecutive hour, Monday - Friday between the hours of 7:00 a.m. to 3:30 p.m. unless otherwise noted and agreed to by all parties.

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Travel Time - Time required by flagger and/or inspector to commute between his or her point of headquarters to the project site. This time shall not be charged used in determining available man days.

15. OTHER CONTRACTOR RESPONSIBILITIES

The restoring and resurfacing of tracks, if disturbed due to Contractor's operations, shall be at the expense of the Contractor.

Any other changes made or services furnished by the Railroad as a result of the Contractor will be at the Contractor's expense.

16. EXTRA-CONTRACT SERVICES

Temporary and permanent changes of tracks and telephone, signal and electric supply lines made necessary by or to clear the permanent work of the Contractor as shown on the construction plans and included in the Railroad force account as collectable from the State will be made or caused to be made by the Railroad without expense to the Contractor.

17. INDEMNIFICATION

Where work is being performed over, under, across or adjacent to Railroad premises, the Contractor shall defend, indemnify and save harmless the Railroad and the Maine Department of Transportation from and against any and all loss, cost, damage, claims, suits, demands, or liability for damages for personal injury including death and for damage to property, which may arise from or out of the operations conducted under his contract, occurring by reason of any act or omission of the Contractor, his agents, servants or employees, or by reason of any act or omission of any subcontractor, his agents, servants or employees.

18. INSURANCE

In addition to any other forms of insurance or bonds required under the terms of the Contract, the Contractor will be required to procure and maintain, at its sole cost and expense, the following insurance coverages naming the Railroad as an insured.

(a) Railroad Protective Liability Insurance with limits not less than **\$3,000,000** per single occurrence and **\$6,000,000** per aggregate total occurrences.

(b) Comprehensive General Liability Insurance protecting against liability from bodily injury or property damage arising out of the Construction Project with limits of not less than **\$3,000,000** per single occurrence and **\$6,000,000** per aggregate total occurrences.

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(c) Workers Compensation and Occupational Disease Insurance, as required by law.

(d) Automobile Liability Insurance covering all motor vehicles used about or in connection with the Construction Project.

If any part of the work is sublet, these insurance coverages shall be provided by or on behalf of the subcontractors to cover their operations

Each policy shall carry an endorsement covering the “save harmless” clause in favor of the Railroad and the Maine Department of Transportation, as set forth in the paragraph, “Responsibility for Damage Claims”.

If blasting is to be done in the vicinity of the Railroad, the insurance policies shall include such coverage.

The policies shall be in force before any work is done on the project and shall remain in effect until all work required to be performed under the terms of the contract is satisfactorily completed as evidenced by the formal acceptance by the State and the Railroad.

Before any work is done on the project, the Department of Transportation and the Railroad's Chief Engineer shall be furnished certificates of each policy. Further, the original policy of the Comprehensive General Liability Insurance and the Railroad Protective Liability Insurance shall be furnished to the Railroad's Chief Engineer and a duplicate shall be furnished to the Department of Transportation.

The policy or policies of the Railroad’s protective public liability and property damage liability shall be written by a Company authorized to do business in the State of Maine, and shall be signed by the President and Secretary of the Insurance Company and shall be countersigned by an authorized representative of the Company.

19. ROADWAY WORKER SAFETY REGULATION

Notice to all Contractors/Subcontractors and individuals must be aware of the Federal Roadway Worker Safety Regulation, CFR 49, Part 214(c). They may be required to comply with this regulation. Any requirements for them to comply will be discussed at the pre-construction utility meeting.

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EXHIBIT A
 ORIGINAL TO CONTRACTOR
MDOT/RAILROAD STOP WORK ORDER

Section A - Contractor	Town
	DOT Railroad Project #
Railroad Name	Location
	Notice #
DESCRIPTION OF SAFETY HAZARD/REASON FOR ORDER	
Standard Violated	RAC (Risk Assessment Code)
	N/R
Railroad Official (Flagger/Inspector) Name	Date
Signature	
SECTION B - ACTION TAKEN:	

cc: MDOT - R.E. or Inspector
 MDOT - Utility Section
 MDOT - Construction Division
 Railroad - Chief Engineer

1. Risk Assessment. Each identified/validated hazard shall be assigned a Risk Assessment Code (RAC) by the Safety Office. The RAC represents the degree of risk associated with the deficiency and combines the elements of hazard severity and mishap probability. The RAC is derived as follows:

a. Hazard Severity. The hazard severity is an assessment of the worst potential consequence: Defined by degree of injury, occupational illness, or property damage, which is likely to occur as a result of a deficiency. Hazard severity categories shall be assigned by roman numeral according to the following criteria.

- (1) Category I - Catastrophic: The hazard may cause death or loss of a facility.
- (2) Category II - Critical: May cause severe injury, severe occupational illness, or major property damage.
- (3) Category III - Marginal: May cause minor injury, minor occupational illness, or minor property damage.
- (4) Category IV - Negligible: Probably would not affect personnel safety or health, but is nevertheless in violation of a NAVOSH standard.

b. Mishap Probability. The mishap probability is the probability that a hazard will result in a mishap, based on an assessment of such factors as location, exposure in terms of cycles or hours of operation, and affected population. Mishap probability shall be assigned an Arabic letter according to the following criteria:

- (1) Sub-category A - Likely to occur immediately or within a short period of time.
- (2) Sub-category B - Probably will occur in time.
- (3) Sub-category C - May occur in time.
- (4) Sub-category D - Unlikely to occur.

c. Risk Assessment Code. The RAC is an expression of risk which combines the elements of hazard severity and mishap probability. Using the matrix shown below, the RAC is expressed as a single Arabic number that can be used to help determine hazard abatement priorities.

	Mishap Probability				RAC	
		A	B	C	D	
Hazard Severity	I	1	1	2	3	1 - Critical
	II	1	2	3	4	2 - Serious
	III	2	3	4	5	3 - Moderate
	IV	3	4	5	5	4 - Minor
						5 - Negligible