MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

CONTRACT DOCUMENTS

CONTRACT 2020.07

BRIDGE REPAIRS 3 LOCATIONS
BOOM ROAD UNDERPASS MILE 33.4
BEECH RIDGE ROAD UNDERPASS MILE 41.4
GROVE STREET UNDERPASS MILE 83.7

NOTICE TO CONTRACTORS

PROPOSAL

CONTRACT AGREEMENT

CONTRACT BOND

FINAL LIEN AND CLAIM WAIVER AND AFFIDAVIT

SPECIFICATIONS

MAINE TURNPIKE AUTHORITY

SPECIFICATIONS

The Specifications are divided into two parts:
Part I, Supplemental Specifications and Part II, Special Provisions.

The Maine Turnpike Supplemental Specifications are additions and alterations to the 2014 Maine Department of Transportation Standard Specifications. See Subsection 100.1.

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MAINE TURNPIKE AUTHORITY

NOTICE TO CONTRACTORS

Sealed Proposals will be received by the Maine Turnpike Authority for:

CONTRACT 2020.07

BRIDGE REPAIRS 3 LOCATIONS
BOOM ROAD UNDERPASS MILE 33.4
BEECH RIDGE ROAD UNDERPASS MILE 41.4
GROVE STREET UNDERPASS MILE 83.7

at the office of the Maine Turnpike Authority, 2360 Congress Street, Portland, ME, until 11:00 a.m., prevailing time as determined by the Authority on December 12, 2019 at which time and place the Proposals will be publicly opened and read. Bids will be accepted from Contractors **prequalified** by the Maine Department of Transportation for Bridge Construction Projects. All other bids may be rejected. This Project includes a wage determination developed by the State of Maine Department of Labor.

The work consists of general bridge repairs and modifications to Boom Road Underpass Bridge at Mile 33.4, Beech Ridge Road Underpass Bridge at Mile 41.4, and Grove Street Underpass Bridge at Mile 83.7. The work includes milling and replacing partial depth bituminous wearing surface on Boom Road Underpass; pavement and membrane replacement on Beech Ridge Road and Grove Street Underpass Bridges; bridge joint repairs; concrete repairs; pavement grinding and overlay on approaches; maintenance of traffic and all other work incidental thereto in accordance with the Plans and Specifications.

Plans and Contract Documents may be examined by prospective Bidders weekdays between 8:00 a.m. and 4:30 p.m. at the office of the Maine Turnpike Authority, 2360 Congress Street, Portland, Maine. **The half size Plans** and Contract Documents may be obtained from the Authority upon payment of One Hundred ($100.00) Dollars for each set, which payment will not be returned. Checks shall be made payable to: Maine Turnpike Authority. The Plans and Contract Documents may also be downloaded from a link on our website at http://www.maineturnpike.com/project-and-planning/Construction-Contracts.aspx.

For general information regarding Bidding and Contracting procedures, contact Nate Carll, Purchasing Manager, at (207)482-8115. For information regarding Schedule of Items, plan holders list and bid results, visit our website at **http://www.maineturnpike.com/project-and-planning/Construction-Contracts.aspx** . For Project specific information, fax all questions to Nate Carll, Purchasing Manager, at (207) 871-7739 or email ncarll@maineturnpike.com. Responses will not be prepared for questions received by telephone. Bidders shall not contact any other Authority staff or Consultants for clarification of Contract provisions, and the Authority will not be responsible for any interpretations so obtained.

All work shall be governed by the Specifications entitled "State of Maine, Department of Transportation, Standard Specifications, Revision of November 2014", "Standard Details, Revision of November 2014" and "Best Management Practices for Erosion and Sediment Control", latest issue. Copies and recent updates to these publications can be downloaded at: http://www.maine.gov/mdot/contractors/publications/ .

Proposals must be accompanied by an original bid bond, certified or cashier's check payable to the Maine Turnpike Authority in an amount not less than Five (5%) Percent of the Total Amount in the Proposal, but not less than $500.00. The Bidder to whom a Contract is awarded will be required to furnish a Surety Corporation Bond, satisfactory to the Authority, on the standard Contract Bond form of the Authority, for a sum not less than the Total Amount of the Proposal.

Proposals must be made upon the Proposal Forms furnished by the Authority separately with the Contract Documents, and must be enclosed in the sealed special addressed envelope provided therefore bearing the name and address of the Bidder, the name of the Contract, and the date and time of Proposal opening on the outside.

A pre-bid conference will be held on November 26, 2019 at 10:00 a.m. at the Maine Turnpike Authority, 2360 Congress Street, Portland, Maine.

The Authority reserves the unqualified right to reject any or all Proposals and to accept that Proposal which in its sole judgment will under all circumstances serve its best interest.

MAINE TURNPIKE AUTHORITY

Nate Carll
Purchasing Manager
Maine Turnpike Authority

Portland, Maine

Maine Turnpike Authority

MAINE TURNPIKE

PROPOSAL

CONTRACT 2020.07

BRIDGE REPAIRS 3 LOCATIONS
BOOM ROAD UNDERPASS MILE 33.4
BEECH RIDGE ROAD UNDERPASS MILE 41.4
GROVE STREET UNDERPASS MILE 83.7

MAINE TURNPIKE AUTHORITY

PROPOSAL

CONTRACT 2020.07

BRIDGE REPAIRS 3 LOCATIONS
BOOM ROAD UNDERPASS MILE 33.4
BEECH RIDGE ROAD UNDERPASS MILE 41.4
GROVE STREET UNDERPASS MILE 83.7

TO MAINE TURNPIKE AUTHORITY:

This work consists of general bridge repairs and modifications to Boom Road Underpass Bridge at Mile 33.4, Beech Ridge Road Underpass Bridge at Mile 41.4, and Grove Street Underpass Bridge at Mile 83.7. The work includes milling and replacing partial depth bituminous wearing surface on Boom Road Underpass; pavement and membrane replacement on Beech Ridge Road and Grove Street Underpasses; bridge joint repairs; concrete repairs; pavement grinding and overlay on approaches; maintenance of traffic and all other work incidental thereto in accordance with the Plans and Specifications.

This Work will be done under a Contract known as Contract 2020.07 according to the Plans and Specifications which are on file in the office of the Maine Turnpike Authority, 2360 Congress Street, Portland, Maine.

On the acceptance of this Proposal for said Work, the undersigned will give the required bond with good security conditioned for the faithful performance of said Work, according to said Plans and Specifications, and the doing of all other work required by said Specifications for the consideration herein named and with the further condition that the Maine Turnpike Authority shall be saved harmless from any and all damages that might accrue to any person, persons or property by reason of the carrying out of said Work, or any part thereof, or by reason of negligence of the undersigned, or any person or persons under his employment and engaged in said Work.

The undersigned hereby declares that he/she has carefully examined the Plans, Specifications and other Contract Documents, and that he/she will contract to carry out and complete the said Work as specified and delineated at the price per unit of measure for each scheduled item of Work stated in the Schedule of Prices as follows:

It is understood that the TOTAL AMOUNT stated by the undersigned in the following Schedule of Prices is based on approximate quantities and will be used solely for the comparison of bids, and that the quantities stated in the Schedule of Prices for the various items are estimates only and may be increased or decreased all as provided in the Specifications.

SCHEDULE OF BID PRICES
CONTRACT NO. 2020.07
Bridge Repairs, 3 Locations

Item No.	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
202.127	REMOVING EXISTING BITUMINOUS PAVEMENT	Lump Sum	1				
202.202	REMOVING PAVEMENT SURFACE	Square Yard	1,405				
203.20	COMMON EXCAVATION	Cubic Yard	41				
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	Cubic Yard	32				
403.208	HOT MIX ASPHALT - 12.5 mm NOMINAL MAXIMUM SIZE	Ton	222				
403.213	HOT MIX ASPHALT, 12.5 mm NOMINAL MAXIMUM SIZE (BASE AND INTERMEDIATE COURSE)	Ton	119				
409.15	BITUMINOUS TACK COAT RS-1 OR RS1h - APPLIED	Gallon	119				
502.701	BRIDGE DRAIN GRATE MODIFICATIONS	Each	4				
502.7011	WEEP DRAIN EXTENSIONS	Lump Sum	1				
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE	Lump Sum	1				

CARRIED FORWARD:		

Item No.	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
				BROUGHT FORWARD:			
513.09	SLOPE PROTECTION - PORTLAND CEMENT CONCRETE	Square Yard	65				
515.201	PIGMENTED PROTECTIVE COATING FOR CONCRETE SURFACES	Square Yard	310				
515.202	CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES	Square Yard	1,865				
518.10	ABUTMENT REPAIRS	Square Foot	95				
518.20	PIER REPAIRS	Square Foot	215				
518.43	PARAPET JOINT REPAIRS	Linear Foot	845				
518.75	FASCIA AND OVERHANG REPAIRS	Square Foot	50				
518.80	PARTIAL DEPTH CONCRETE DECK REPAIRS	Square Foot	160				
520.211	EXPANSION DEVICE MODIFICATIONS (BOOM ROAD)	Lump Sum	1				
520.212	EXPANSION DEVICE MODIFICATIONS (BEECH RIDGE ROAD)	Lump Sum	1				
520.213	EXPANSION DEVICE MODIFICATIONS (GROVE STREET)	Lump Sum	1				
526.306	TEMPORARY CONCRETE BARRIER, TYPE I - SUPPLIED BY AUTHORITY	Lump Sum	1				
				CARRIED FORWARD:			

Item No.	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
613.319	EROSION CONTROL BLANKET	Square Yard	75				
615.07	LOAM	Cubic Yard	8				
618.14	SEEDING METHOD NUMBER 2	Unit	2				
619.1201	MULCH-PLAN QUANTITY	Unit	2				
619.1202	TEMPORARY MULCH	Lump Sum	1				
619.1401	EROSION CONTROL MIX	Cubic Yard	28				
627.712	WHITE OR YELLOW PAVEMENT MARKING LINE	Linear Foot	2,435				
639.19	FIELD OFFICE, TYPE B	Each	1				
652.30	FLASHING ARROW BOARD	Each	10				
652.312	TYPE III BARRICADE	Each	6				
652.331	DRUM	Lump Sum	1				
652.34	CONE	Each	75				
			CARRIED FORWARD:				

Item No.	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
				BROUGHT FORWARD:			
652.35	CONSTRUCTION SIGNS	Square Foot	4,783				
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	Lump Sum	1				
652.38	FLAGGERS	Hour	1,300				
652.41	PORTABLE-CHANGEABLE MESSAGE SIGN	Each	6				
652.45	TRUCK MOUNTED ATTENUATOR	Cal. Day	84				
652.451	AUTOMATED TRAILER MOUNTED SPEED LIMIT SIGN	Cal. Day	42				
652.46	TEMPORARY PORTABLE RUMBLE STRIPS	Unit	84				
656.50	BALED HAY, IN PLACE	Each	36				
656.632	30 INCH TEMPORARY SILT FENCE	Linear Foot	455				
659.10	MOBILIZATION	Lump Sum	1				
				TOTAL:			

Acknowledgment is hereby made of the following Addenda received since issuance of the Plans and Specifications: _____

_____

_____

Accompanying this Proposal is an original bid bond, cashiers or certified check on _____ Bank, for _____, payable to the Maine Turnpike Authority. In case this Proposal shall be accepted by the Maine Turnpike Authority and the undersigned should fail to execute a Contract with, and furnish the security required by the Maine Turnpike Authority as set forth in the Specifications, within the time fixed therein, an amount of money equal to Five (5%) Percent of the Total Amount of the Proposal for the Contract awarded to the undersigned, but not less than $500.00, obtained out of the original bid bond, cashier's or certified check, shall become the property of the Maine Turnpike Authority; otherwise the check will be returned to the undersigned.

The performance of said Work under this Contract will be completed during the time specified in Subsection 107.1.

It is agreed that time is of the essence of this Contract and that I (we) will, in the event of my (our) failure to complete the Work within the time limit named above, pay to Maine Turnpike Authority liquidated damages in the amount or amounts stated in the Specifications.

The undersigned is an Individual/Partnership/Corporation under the laws of the State of _____, having principal office at _____, thereunto duly authorized.

_____ *(SEAL)*

_____ *(SEAL)*

Affix Corporate Seal
or Power of Attorney
Where Applicable

_____ *(SEAL)*

By: _____

Its: _____

Information below to be typed or printed where applicable:

INDIVIDUAL:

_____ _____
(Name) (Address)

PARTNERSHIP - Name and Address of General Partners:

_____ _____
(Name) (Address)

_____ _____
(Name) (Address)

_____ _____
(Name) (Address)

_____ _____
(Name) (Address)

INCORPORATED COMPANY:

_____ _____
(President) (Address)

_____ _____
(Vice-President) (Address)

_____ _____
(Secretary) (Address)

_____ _____
(Treasurer) (Address)

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

YORK TO AUGUSTA

CONTRACT AGREEMENT

This Agreement made and entered into between the Maine Turnpike Authority, and sometimes termed the "Authority", and _____

_____

herein termed the "Contractor":

WITNESSETH: That the Authority and the Contractor, in consideration of the premises and of the mutual covenants, considerations and agreements herein contained, agree as follows:

FIRST: The parties hereto mutually agree that the documents attached hereto and herein incorporated and made a part hereof collectively evidencing and constituting the entire Contract to the same extent as if herein written in full, are the Notice to Contractors, the Accepted Proposal, the Specifications, the Plans, this Agreement, the Contract Bond and all Addenda to the Contract Documents duly issued and herewith enumerated:

_____

_____

SECOND: The Contractor for and in consideration of certain payments to be made as hereafter specified, hereby covenants and agrees to perform and execute all of the provisions of this Contract and of all documents and parts attached hereto and made a part thereof, and at his own cost and expense to furnish and perform everything necessary and required to construct and complete, ready for its intended purpose, in accordance with the Contract and such instructions as the Engineer may give, acceptable to the Authority, in the times provided, all of the Work covered and included under Contract No. _____ covering _____ as herein described.

THIRD: In consideration of the performance by the Contractor of his covenants and agreements as herein set forth, the Authority hereby covenants and agrees to pay the Contractor according to the Schedule of Prices set forth in the Proposal with additions and deductions as elsewhere herein provided in the times and in the manner stated in the Specifications. This Agreement shall insure to the benefit of, and shall be binding upon the parties hereto, and upon their respective successors and assigns; but neither party hereto shall assign or transfer his interest herein in whole or in part without the consent of the other, except as herein provided.

IN WITNESS WHEREOF the parties to this Agreement have executed the same in quintuplicate.

AUTHORITY -

MAINE TURNPIKE AUTHORITY

By: _____

Title: CHAIRMAN

Date of Signature: _____

ATTEST:

_____
Secretary

CONTRACTOR -

_____
CONTRACTOR

By: _____

Title: _____

Date of Signature: _____

WITNESS:

_____

CONTRACT BOND

KNOW ALL MEN BY THESE PRESENTS that _____

of _____ in the County of _____ and State of _____

as Principal, and _____ a Corporation duly organized under the

laws of the State of _____ and having a usual place of business in _____

_____

As Surety, are held and firmly bound unto the Maine Turnpike Authority in the sum of _____Dollars ($_____.___), to be paid to said Maine Turnpike Authority, or its successors, for which payment, well and truly to be made, we bind ourselves, our heirs, executors, successors and assigns jointly and severally by these presents.

The condition of this obligation is such that the Principal, designated as Contractor in the foregoing Contract No. _____ shall faithfully perform the Contract on his part and satisfy all claims and demands incurred for the same and shall pay all bills for labor, material, equipment and all other items contracted for, or used by him, in connection with the Work contemplated by said Contract, and shall fully reimburse the Obligee for all outlay and expense which the Obligee may incur in making good any default of said Principal, then this Obligation shall be null and void; otherwise it shall remain in full force and effect.

Signed and sealed this _____ day of _____, A.D., 201___

Witnesses: CONTRACTOR

_____ _____ *(SEAL)*

_____ _____ *(SEAL)*

_____ _____ *(SEAL)*

SURETY

_____ _____ *(SEAL)*

_____ _____ *(SEAL)*

_____ _____ *(SEAL)*

(Surety must attach copy of Power of Attorney showing authority of Office or Agent to execute bonds)

FINAL LIEN AND CLAIM WAIVER AND AFFIDAVIT

Upon receipt of the sum of _____, which sum represents the total amount paid, including the current payment for work done and materials supplied for Project No. _____, in _____, Maine, under the undersigned's Contract with the Maine Turnpike Authority.

The undersigned, on oath, states that the Final Payment of _____ is the final payment for all work, labor, materials, services and miscellaneous (all of which are hereinafter referred to as "Work Items") supplied to the said Project through _____and that no additional sum is claimed by the undersigned respecting said Project.

The undersigned, on oath, states that all persons and firms who supplied Work Items to the undersigned in connection with said Project have been fully paid by the undersigned for such Work Items or that such payment will be fully effected immediately upon receipt of this payment.

In consideration of the payment herewith made, the undersigned does fully and finally release and hold harmless the Maine Turnpike Authority, and its Surety, if any, from any and all claims, liens or right to claim or lien, arising out of this Project under any applicable bond, law or statute.

It is understood that this Affidavit is submitted to assure the Owner and others that all liens and claims relating to the Work Items furnished by the undersigned are paid.

_____
(Contractor)

By: _____

Title: _____

State of MAINE

County of _____

I, _____, hereby certify on behalf of _____
(Company Officer) *(Company Name)*

its _____, being first duly sworn and stated that the foregoing representations are
(Title)

are true and correct upon his own knowledge and that the foregoing is his free act and deed in said capacity and the free act and deed of the above-named

_____

.

(Company Name)

The above-named, _____, personally appeared before me this ____ day of _____ and swears that this is his free act and deed.

(SEAL)

_____
Notary Public

My Commission Expires: _____

MAINE TURNPIKE AUTHORITY

SPECIFICATIONS

PART I – SUPPLEMENTAL SPECIFICATIONS

(Rev. November 10, 2016)

Supplemental Specifications available on the Maine Turnpike Authority website
http://www.maineturnpike.com/Projects-Planning/Construction-Contracts.aspx

MAINE TURNPIKE AUTHORITY

SPECIFICATIONS

PART II – SPECIAL PROVISIONS

PART II - SPECIAL PROVISIONS

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MAINE TURNPIKE AUTHORITY

SPECIFICATIONS

PART II - SPECIAL PROVISIONS

All work shall be governed by the Maine Department of Transportation Standard Specifications, Revision of November 2014, except for that work which applies to sections of the Maine Department of Transportation Standard Specifications which are amended by the Maine Turnpike Supplemental Specifications and the following modifications, additions and deletions.

General Description of Work

The work consists of general repairs and modifications to Boom Road Underpass Bridge at Mile 33.4, the Beech Ridge Road Underpass Bridge at Mile 41.4, and Grove Street Underpass Bridge at Mile 83.7. The work includes milling and replacing partial depth bituminous wearing surface on Boom Road Underpass; pavement and membrane replacement on Beech Ridge Road and Grove Street Underpasses; bridge joint repairs; concrete repairs; pavement grinding and overlay on approaches; maintenance of traffic and all other work incidental thereto in accordance with the Plans and Specifications.

Plans

The drawings included in these Contract Documents, and referred to as the Plans, show the general character of the work to be done under this Contract. They bear the general title "Maine Turnpike – Contract 2020.07 – BRIDGE REPAIRS 3 LOCATIONS – BOOM ROAD UNDERPASS (MILE 33.4) – BEECH RIDGE ROAD UNDERPASS (MILE 41.4) – GROVE STREET UNDERPASS (MILE 83.7)". The right is reserved by the Resident to make such minor corrections or alterations in the Plans as he deems necessary without change in the unit prices on the Schedule of Prices of the Proposal.

101.2 Definition

Holidays

The following is added after Memorial Day in the Supplemental Specifications:

Independence Day 2020 (Fourth of July)	Noon preceding Thursday to 6:00 a.m. the following Monday.

103.4 Notice of Award

The following sentence is added:

The Maine Turnpike Authority Board is scheduled to consider the Contract Award on December 19, 2019.

104.3.8 Wage Rates and Labor Laws

Section 104.3.8 Wage Rates and Labor Laws has been amended as follows:

The fair minimum hourly rates determined by the State of Maine Department of Labor for this Contract are as follows:

THIS DOCUMENT MUST BE CLEARLY POSTED AT THE PERTAINING STATE FUNDED PREVAILING WAGE CONSTRUCTION SITE

State of Maine
Department of Labor
Bureau of Labor Standards
Augusta, Maine 04333-0045
Telephone (207) 623-7906

Wage Determination - In accordance with 26 MRS §1301 et. seq., this is a determination by the Bureau of Labor Standards, of the fair minimum wage rate to be paid to laborers and workers employed on the below titled project.

Title of Project --------2020.07-BridgeRepairs and Toll Rehabilitation

Location of Project –Saco, Scarborough, New Gloucester, Cumberland, Sabattus & Litchfield

2019 Fair Minimum Wage Rates
Highway & Earth Androscoggin, Cumberland, Kennebec & York Counties

Occupation Title	Minimum Wage	Minimum Benefit	Total	Occupation Title	Minimum Wage	Minimum Benefit	Total
Asphalt Raker	$16.00	$0.87	$16.87	Line Erector - Power/Cable	$31.00	$5.32	$36.32
Backhoe Loader Operator	$22.00	$5.08	$27.08	Loader Operator - Front-End	$19.00	$2.97	$21.97
Bulldozer Operator	$23.00	$4.31	$23.31	Mechanic- Maintenance	$20.50	$2.96	$23.46
Carpenter	$20.00	$2.64	$22.64	Millwright	$24.25	$8.80	$33.05
Carpenter - Rough	$19.00	$1.88	$20.88	Oil/Fuel Burner Serv &Installer	$23.00	$3.51	$26.51
Cement Mason/Finisher	$17.00	$1.34	$18.34	Painter	$17.50	$0.42	$17.92
Concrete Mixing Plant Operator	$22.11	$4.89	$27.00	Paver Operator	$20.00	$0.54	$20.54
Crane Operator =>15 Tons)	$26.80	$4.74	$31.54	Pipelayer	$22.00	$1.49	$23.49
Crusher Plant Operator	$17.00	$3.86	$20.86	Reclaimer Operator	$21.58	$1.80	$23.38
Driller - Well	$19.83	$2.66	$22.49	Roller Operator - Earth	$21.28	$1.27	$22.55
Electrician - Licensed	$22.55	$14.26	$36.81	Roller Operator - Pavement	$19.00	$2.05	$21.05
Electrician Helper/Cable Puller	$17.00	$1.34	$18.34	Screed/Wheelman	$18.87	$2.45	$21.32
Excavator Operator	$21.00	$3.13	$24.13	Sider	$16.75	$1.38	$18.13
Fence Setter	$17.50	$2.94	$20.44	Stone Mason	$21.00	$0.95	$21.95
Flagger	$15.38	$4.12	$19.50	Truck Driver - Light	$17.00	$0.68	$17.68
Grader/Scraper Operator	$18.00	$1.62	$19.62	Truck Driver - Medium	$19.00	$3.37	$22.37
Highway Worker/Guardrail Install	$17.50	$1.76	$19.26	Truck Driver - Heavy	$17.15	$1.49	$18.64
Ironworker - Reinforcing	$22.11	$2.79	$24.90	Truck Driver - Tractor Trailer	$18.00	$3.51	$21.51
Laborers (Incl.Helpers & Tenders)	$15.00	$0.87	$15.87	Truck Driver - Mixer (Cement)	$17.19	$1.07	$18.26
Laborer - Skilled	$18.00	$1.59	$19.59				

The Laborer classifications include a wide range of work duties. Therefore, if any specific occupation to be employed on this project is not listed in this determination, call the Bureau of Labor Standards at the above number for further clarification.

Welders are classified in the trade to which the welding is incidental.

Apprentices - The minimum wage rate for registered apprentices are those set forth in the standards and policies of the Maine State Apprenticeship and Training Council for approved apprenticeship programs.

Posting of Schedule - Posting of this schedule is required in accordance with 26 MRSA §1301 et. seq., by any contractor holding a State contract for construction valued at $50,000 or more and any subcontractors to such a contractor.

Appeal - Any person affected by the determination of these rates may appeal to the Commissioner of Labor by filing a written notice with the Commissioner stating the specific grounds of the objection within ten (10) days from the filing of these rates.

Determination No: **HI-159-2019**

A true copy

Filing Date: **October 30-2019**

Attest: Scott R. Cotnoir

Scott R. Cotnoir
Wage & Hour Director

Expiration Date: **12-31-2019**

BLS(Highway & Earth AndCumKen&York)

THIS DOCUMENT MUST BE CLEARLY POSTED AT THE PERTAINING STATE FUNDED PREVAILING WAGE CONSTRUCTION SITE

State of Maine
Department of Labor
Bureau of Labor Standards
Augusta, Maine 04333-0045
Telephone (207) 623-7906

Wage Determination - In accordance with 26 MRS §1301 et. seq., this is a determination by the Bureau of Labor Standards, of the fair minimum wage rate to be paid to laborers and workers employed on the below titled project.

Title of Project -------- MTA 2020.07-Bridge Repairs and Toll Rehabilitation

Location of Project -- Saco, Scarborough, New Gloucester, Cumberland, Sabattus & Litchfield

2019 Fair Minimum Wage Rates
Heavy & Bridge Androscoggin County

Occupation Title	Minimum Wage	Minimum Benefit	Total	Occupation Title	Minimum Wage	Minimum Benefit	Total
Backhoe Loader Operator	$26.48	$4.96	$31.44	Laborer - Skilled	$19.96	$6.40	$26.36
Boilermaker	$24.00	$9.00	$33.00	Line Erector - Power/Cable	$31.00	$5.44	$36.44
Bulldozer Operator	$20.00	$3.71	$23.71	Loader Operator - Front-End	$22.00	$3.16	$25.16
Carpenter	$24.00	$4.06	$28.06	Mechanic- Maintenance	$22.25	$3.97	$26.22
Carpenter - Rough	$22.00	$7.18	$29.18	Mechanic- Refrigeration	$25.71	$5.09	$30.80
Communication Equip Installer	$23.00	$1.63	$24.63	Millwright	$25.00	$9.55	$34.55
Comm Transmission Erector	$20.00	$3.62	$23.62	Painter	$23.50	$3.15	$26.65
Concrete Mixing Plant Operator	$22.11	$4.92	$27.03	Paver Operator	$20.00	$0.00	$20.00
Crane Operator =>15 Tons)	$27.00	$5.93	$32.93	Pipe/Steam/Sprinkler Fitter	$27.00	$5.47	$32.47
Crusher Plant Operator	$17.38	$3.12	$20.50	Pipelayer	$21.75	$1.36	$23.11
Diver	$26.00	$10.40	$36.40	Plumber (Licensed)	$25.00	$4.26	$29.26
Driller - Well	$19.83	$2.66	$22.49	Plumber Helper/Trainee	$19.00	$3.10	$22.10
Earth Auger Operator	$25.84	$5.78	$31.62	Rigger	$22.50	$6.57	$29.07
Electrician - Licensed	$29.38	$9.34	$38.72	Roller Operator - Earth	$22.11	$2.77	$24.88
Electrician Helper/Cable Puller	$18.00	$6.08	$24.08	Roller Operator - Pavement	$19.00	$1.06	$20.06
Excavator Operator	$24.50	$3.75	$28.25	Sheet Metal Worker	$20.00	$4.11	$24.11
Fence Setter	$15.00	$2.00	$17.00	Stone Mason	$21.00	$0.95	$21.95
Flagger	$13.00	$0.00	$13.00	Truck Driver - Light	$17.00	$1.17	$18.17
Ironworker - Reinforcing	$28.71	$0.00	$28.71	Truck Driver - Medium	$19.00	$3.37	$22.37
Ironworker - Structural	$21.25	$2.83	$24.08	Truck Driver - Heavy	$19.00	$2.11	$21.11
Laborers (Helpers & Tenders)	$18.00	$2.04	$20.04	Truck Driver - Tractor Trailer	$22.75	$5.20	$27.95

The Laborer classifications include a wide range of work duties. Therefore, if any specific occupation to be employed on this project is not listed in this determination, call the Bureau of Labor Standards at the above number for further clarification.

Welders are classified in the trade to which the welding is incidental.

Apprentices - The minimum wage rate for registered apprentices are those set forth in the standards and policies of the Maine State Apprenticeship and Training Council for approved apprenticeship programs.

Posting of Schedule - Posting of this schedule is required in accordance with 26 MRS §1301 et. seq., by any contractor holding a State contract for construction valued at $50,000 or more and any subcontractors to such a contractor.

Appeal - Any person affected by the determination of these rates may appeal to the Commissioner of Labor by filing a written notice with the Commissioner stating the specific grounds of the objection within ten (10) days from the filing of these rates.

Determination No: **HB-044-2019**

A true copy

Filing Date: **October 30, 2019**

Attest: Scott R. Cotnoir

Scott R. Cotnoir
Wage & Hour Director
Bureau of Labor Standards

Expiration Date: **12-31-2019**

BLS(Heavy & Bridge AndCumKen&York)

104.4.7 Cooperation With Other Contractors

This Subsection is amended by the addition of the following:

Adjacent contracts currently scheduled for the 2020 construction season include:

MTA Contract 2020.01 – Pavement Rehabilitation and Safety Improvements MM 35.3 to MM 42.0

The following Subsection is added:

105.2.4.2 Lead Paint

The Contractor shall not disturb any painted surfaces on the bridges.

105.8.2 Permit Requirements

The Project is subject to the requirements of the Maine Pollutant Discharge Elimination System (MPDES) General Permit for Stormwater Discharge from Construction Activity, as promulgated by the US Environmental Protection Agency (US EPA) and Administrated by the Maine Department of Environmental Protection (DEP).

The Contractor shall prepare a LOD plan illustrating the Contractor's proposed limit of earthwork disturbance. The LOD plan shall show all construction access locations, field office locations, material and temporary waste storage locations, as well as include the Contract limits of earthwork disturbance. All applicable erosion and sedimentation control devices needed shall be detailed on the Contractor's LOD plan and are not limited to those devices shown on the Contract LOD plan. **This Plan shall be submitted for review and approval, to the Resident within 14 days of Contract award.** Payment for creating, revising, and completing this plan shall be incidental to Item 659.10, Mobilization.

The LOD for this Contract has been estimated to be **0.07** acre. This includes 0.01 acre at Boom Road, 0.01 acre at Beech Ridge Road and 0.05 acre at Grove Street.

At any time during the Contract, if the Limit of Disturbance needs to be adjusted to accommodate construction activities, the Contractor shall resubmit the LOD plan (including any additional erosion and sedimentation control measures needed) to the Resident for review and approval prior to any additional disturbance taking place:

- If the cumulative area of disturbance exceeds the estimated LOD noted above, by less than one acre, the Resident shall have a minimum of five (5) working days to approve the revised LOD plan.
- If the cumulative area of disturbance exceeds the estimated LOD noted above, by over one acre, the Resident shall first approve of the plan and then possibly resubmit the NOI for MaineDEP approval. The approval may take a minimum of 21 working days.

Compliance with the erosion and sedimentation control requirements outlined in this Contract is required by the Contractor.

This Project is also subject to the requirements of the Maine Pollutant Discharge and Elimination System (MPDES) General Permit for the Discharge of Stormwater from MTA's Municipal Separate Storm Sewer Systems (MS4), because it is located within an Urbanized Area (UA) as defined by the 2000 census by the U.S. Bureau of the Census. MS4 compliance requires all Contractors to be properly trained in Erosion and Sedimentation Control (ESC) measures (as per Special Provision Subsections 105.8.1 and 656.07) and implement measures to reduce pollutants in stormwater runoff from construction activities.

107.1 Contract Time and Contract Completion Date

This Subsection is amended by the addition of the following:

All work shall be completed on or before October 31, 2020

107.4.6 Prosecution of Work

The Contractor shall submit to the Authority a construction schedule which shall document that the Contractor has the necessary labor and equipment to work immediately and continuously at the project site once the bridge is closed. The intent of this specification is to minimize the amount of time for bridge closure, while providing the Contractor sufficient time to complete the work in a diligent manner and reopen the bridge as prescribed by the project's Substantial Completion date.

The following activities must be completed in the time specified. Supplemental liquidated damages (SLD) of One Thousand Dollars ($1000) per calendar day per activity shall be assessed for each calendar day, or fraction thereof, that any of the below noted activities remain incomplete. The assessed SLD shall continue until the activities are complete:

- The Contractor will be allowed to close the Beech Ridge Road Underpass Bridge for a maximum of twenty-one (21) calendar days. This closure must be consecutive. All top-side work must be complete by July 17, 2020.
- The Contractor will be allowed to close the Grove Street Underpass Bridge for a maximum of twenty-one (21) calendar days. This closure must be consecutive.
- The Contractor will be allowed to use one-way alternating traffic controlled by flaggers on the Boom Road Underpass Bridge for a maximum of ten (10) calendar days. The bridge must be fully opened to traffic when the Contractor is not working at this site.
- The Contractor shall repave the Boom Road Underpass Bridge deck within four (4) calendar days of the removal of any pavement.

SPECIAL PROVISION

SECTION 202

REMOVING STRUCTURES AND OBSTRUCTIONS

(Removing Pavement Surface)
(Removing Pavement Surface-Bridge Deck)

202.01 Description

The following sentences are added:

This work shall also consist of removing the surface of the bituminous concrete pavement in all locations to the depth, width, grade, and cross section on the mainline as shown on the Plans or as directed by the Resident.

When full-depth pavement and membrane removal is required or directed by the Resident at bridge deck repair and header concrete repair locations, the work shall be completed by scraping or other methods that will not damage the existing concrete deck surface. The removal of pavement from bridge decks will be allowed using milling machines only when the full thickness of the pavement layer is not specified to be removed.

Removal of approach pavement shall be completed through the use of a milling machine. The milling machine(s) shall be capable of accurately establishing profile grades by referencing from a floating straight edge, a minimum of 30 feet.

Areas requiring shim pavement to reach final pavement grade shall not be milled.

This work shall also include the construction of temporary ramps at all butt joints as shown in the MaineDOT Standard Details, November 2014 Edition – Pavement Overlay Butt Joint Detail (Roadways), Page 202(01) or as approved by the Resident. The length of the temporary ramp shall be at least 1/2 L.

The following subsection is added:

202.032 Removing Bridge Pavement Surface and Membrane

All bridge deck pavement, membrane and scrapings shall be disposed of by the Contractor off of the turnpike right-of-way in accordance with the Maine Department of Environmental Protection Solid Waste Management Requirements.

The following paragraph is added:

Extreme care shall be taken to avoid damaging the existing concrete or bituminous pavement intended to remain. All existing bituminous pavement and bridge deck concrete, intended to remain, damaged by the Contractor's removal operations shall be repaired by the Contractor as approved by the Resident at no additional cost to the Authority.

202.061 Removing Pavement Surface

This Subsection is deleted and replaced with the following:

The milling equipment for removing the bituminous surface shall be a power-operated milling machine or planer capable of removing the bituminous concrete pavement to the required depth, transverse cross slope, and profile grade by use of an automated grade and slope control system. The controls shall automatically increase or decrease the pavement removal depth as required, and readily maintain desired cross slope to compensate for surface irregularities in the existing pavement course. The mill head on the machine shall have a maximum 8mm tooth spacing pattern and a minimum triple wrap configuration. The milling machine shall be capable of accurately establishing profile grades by referencing from a floating straight edge, minimum of 30± feet. The equipment shall also have an effective means for removing excess material from the surface and preventing flying material in compliance with Subsections 105.2.5 Compliance with Health and Safety Laws and 105.2.6 Convenience of the Public, of the Specification.

The contractor shall operate the milling machine such that the forward operating speed of the machine in feet per minute (fpm) does not exceed 65% of the mill head in revolutions per minute (rpm). i.e. 100 rpm head speed equals maximum forward operating speed of 65 fpm. The contractor shall avoid stopping the milling operation during truck exchanges by staging the haul units accordingly.

The Contractor shall locate, identify and remove all objects in the pavement through the work area that would be detrimental to the milling machine.

The Contractor shall be responsible for the layout of the longitudinal centerline.

The finished milled surface will be inspected before being accepted, and any deviations in the profile exceeding 3/8 inch under a 16-foot string line or straightedge placed parallel to the centerline will be corrected. Any deviations in the cross slope that exceed 3/8 inch under a 10 foot string line or straightedge placed transversely to the centerline will be corrected. In no case shall the cross slope in a single lane width be inverted resulting in a depression as measured transverse to the direction of travel. Any cross-slope inversions or depressions shall be corrected by spot shimming the area with HMA as directed by the resident prior to installing any leveling or wearing course. These corrections shall be done with no additional expense to the Authority.

All surplus pavement grindings shall be disposed of by the Contractor off the turnpike right-of-way. All grindings shall be disposed of in accordance with the Maine Department of Environmental Protection Solid Waste Management Requirements.

202.07 Method of Measurement

The following sentences are added:

Removing Pavement Surface will be measured by the square yard of material removed to the required depth.

Transporting and stockpiling of the pavement grindings will not be measured separately for payment but shall be incidental to the Removing Pavement Surface items.

Installation of temporary bituminous ramps will not be measured separately for payment but shall be incidental to the Contract.

Removal of temporary bituminous ramps will not be measured separately for payment but shall be incidental to the Contract.

202.08 Basis of Payment

Removing Pavement Surface will be paid for at unit price per square yard which price shall be full compensation for removing, transporting or disposing of the bituminous and membrane materials.

Payment will be made under:

Pay Item		Pay Unit
202.202	Removing Pavement Surface	Square Yard

SPECIAL PROVISION

SECTION 203

EXCAVATION AND EMBANKMENT

203.01 Description

The following paragraph is added:

This work shall consist of cutting, removing and disposing of the full depth of existing bituminous concrete pavement at the approaches to the bridge structures within the limits of work as shown on the Plans or as approved by the Resident. The pavement shall be sawcut to the full depth of pavement at the limits of the excavation to provide a clean, vertical cut surface.

203.04 General

The following sentence is added to the end of the third paragraph.

There are no approved waste storage areas or waste areas within the Project limits unless shown on the Plans. Unsuitable materials shall be disposed of off-site in accordance with Subsection 203.06.

All excavations shall be accomplished in accordance with the applicable OSHA Standards. The Resident reserves the right to request the Contractor to prepare an excavation plan. This plan shall include, but not necessarily be limited to, the limit and depth of excavation, side slope, shoring, trench box and utility support.

203.10 Embankment Construction - General

The thirteenth and fourteenth paragraphs are deleted and replaced with the following:

All portions of the embankment shall be compacted in accordance with the designated embankment compaction requirements specified for the Project.

The existing slopes should be benched as shown on the drawings prior to placing additional fill. Embankment fill should be placed in lifts which extend laterally beyond the limits of the design side slopes such that the specified degree of compaction is achieved within the limits of the completed embankment. The slopes should then be trimmed back to design dimensions.

203.16 Winter Construction of Embankments

The word “core” is deleted from the first and second sentences in the first paragraph.

203.18 Method of Measurement

The following paragraphs are added:

There will be no additional payment for the required excavation plan, and costs shall be incidental to the Excavation items.

SPECIAL PROVISION

SECTION 401

HOT MIX ASPHALT PAVEMENT

Section 401 of the Maine Turnpike Authority 2016 Supplemental Specifications is modified as follows:

401.01 Description

The following paragraph is added:

A Quality Control Plan (QCP) is required.

401.02 Materials

Section 401.02 is deleted in its entirety and replaced with the following:

Aggregates for HMA Pavements Coarse Aggregate and fine aggregate for HMA pavements shall be graded such that when combined in the proper proportions, including filler if required, the resultant blend will meet the composition of mixture for the type of pavement specified. Materials shall meet the requirements specified in Section 700 – Materials:

Asphalt Cement	702.01
Aggregates for HMA Pavement	703.07
RAP for HMA Pavement	703.08
HMA Mixture Composition	703.09

Mainline Surface HMA Coarse aggregate: The material retained on the No. 4 sieve, shall consist of angular fragments obtained from crushed quarry stone and be free of dirt or other objectionable materials. Coarse aggregate shall have a Micro-Deval value of 15.0 percent or less as determined by AASHTO T 327. The crushed stone shall have a maximum of 1.5% material finer than the No. 200 mesh when tested in accordance with AASHTO T-11. Flat and elongated particles shall not exceed a maximum of 8% at a 5:1 ratio in accordance with ASTM D-4791. Coarse aggregate angularity shall be a minimum of 95/90 in accordance with AASHTO T-335.

Mainline Surface HMA Fine aggregate: The material passing the No. 4 sieve, shall be crushed manufactured sand free from dirt, clay balls, or other objectionable material. Natural sand may be incorporated into the mix at a rate no greater than 10 percent by weight of total aggregate. The unconfined void content of the fine aggregate blend shall be a 45 minimum value when tested in accordance with AASHTO T-304, method A. AASHTO T-176 sand equivalent value shall be 45 minimum.

Asphalt Low Modulus Joint Sealer: Asphalt Low Modulus Joint Sealer shall be a modified asphalt and rubber compound designed for sealing and improving the strength and performance of the base asphalt cement and shall conform to ASTM D6690 Type IV and the following specifications:

Cone Penetration	90-150
Flow @ 60°C [140ºF]	3.0mm [1/8 in] max
Bond, non-immersed	Three 12.7mm [½ in] specimens pass 3 cycles @ 200% extension @ -29°C [-20ºF]
Resilience, %	60 min
Asphalt Compatibility, ASTM D5329	pass*

* There shall be no failure in adhesion, formation of any oily exudate at the interface between the sealant and asphaltic concrete or other deleterious effects on the asphaltic concrete or sealant when tested at 60°C [140ºF].

The Contractor shall provide the Resident or authorized representative with a copy of the material manufacturer's recommendations pertaining to heating, application, and reheating prior to the beginning of operations or the changing of materials.

Section 401.03 Composition of Mixtures

Section 401.03 is deleted in its entirety and replaced with the following:

HMA pavement mixtures for base, intermediate, shim and local road bridge projects shall be a currently approved MDOT design unless otherwise noted. A maximum of 20% RAP may be used. VMA shall meet the requirements listed in Table 1.

HMA pavement mixtures for Mainline surface paving projects shall conform to the following requirements:

The Contractor shall compose the Hot Mix Asphalt Pavement with aggregate, Performance Graded Asphalt Binder (PGAB), and mineral filler if required. HMA shall be designed and tested according to AASHTO R35 and the volumetric criteria in Table 1. The Contractor shall size, uniformly grade, and combine the aggregate fractions in proportions that provide a mixture meeting the grading requirements of the Job Mix Formula (JMF). The Contractor may use a maximum of 15 percent reclaimed asphalt pavement (RAP) in any mainline surface course.

The Contractor shall submit a job mix formula (JMF) developed for each specified mixture at least 30 days prior to placement.

The JMF shall establish a single percentage of aggregate passing each sieve size within the limits shown in Subsection 703.09. The mixture shall be designed and produced, including all production tolerances, to comply with the allowable control points for the particular type of mixture as outlined in Subsection 703.09. The JMF shall state the original source, gradation, and percentage to be used of each portion of the aggregate and mineral filler if required. It shall also state the proposed PGAB content, the name and location of the refiner, the supplier, the source of PGAB submitted for approval, the type of PGAB modification if applicable, and the location of the terminal if applicable.

In addition, the Contractor shall provide the following information with the proposed JMF:

- Properly completed JMF indicating all mix properties (Gmm, VMA, VFB, etc.).
- Stockpile Gradation Summary.
- Test reports for individual aggregate consensus properties
- Design Aggregate Structure Consensus Property Summary.
- Design Aggregate Structure Trial Blend Gradation Plots (0.45 power chart).
- Trial Blend Test Results for at least three different aggregate blends.
- Selected design aggregate blend.
- Test results for the selected design aggregate blend at a minimum of three binder contents.
- Test results for final selected blend compacted to $N_{max.}$
- Specific Gravity for the PGAB to be used.
- Recommended mixing and compaction temperatures from the PGAB supplier.
- Data Sheets (SDS) For PGAB.
- Asphalt Content vs. Air Voids trial blend curve.
- Test report for Contractor's Verification sample.
- Summary of RAP test results (if used), including count, average and standard deviation of binder content and gradation.

At the time of JMF submittal, the Contractor shall identify and make available the stockpiles of all proposed aggregates at the plant site. There must be a minimum of 150 ton for coarse aggregate stockpiles, 75 ton for fine aggregate stockpiles before the JMF may be submitted. The Authority shall obtain samples for laboratory testing. The Contractor shall also make available to the Authority the PGAB proposed for use in the mix in enough quantity to test the properties of the asphalt and to produce samples for testing of the mixture. Before the start of paving, the Contractor and the Authority's representative shall test a production sample in the Contractor's laboratory for evaluation. If the Authority finds the mixture acceptable, an approved JMF will be forwarded to the Contractor. The Authority will then notify the Contractor that paving may commence. The first day's production shall be monitored, and the approval may be withdrawn if the mixture exhibits undesirable characteristics such as checking, shoving or displacement. The Contractor shall be allowed to submit aim changes within 24 hours of receipt of the first Acceptance test result for an individual JMF. Adjustments will be allowed of up to 2% on the percent passing the 2.36 mm sieve through the 0.075 mm and 3% on the percent passing the 4.75 mm or larger sieves. Adjustments will be allowed on the %PGAB of up to 0.2 percent. Adjustments will be allowed on GMM of up to 0.010.

Approved mix designs from the previous calendar year may be carried over, however no aim changes will be granted for a carryover mix design and the initial design must not be older than the previous paving season.

The Contractor shall submit a new JMF for approval each time a change in material source or materials properties is proposed. The same approval process shall be followed. The cold feed percentage of any aggregate except natural sand may be adjusted up to 10 percentage points from the amount listed on the JMF, however no aggregate listed on the JMF shall be eliminated. Natural sand may be adjusted up to 5 percent from the amount listed on the JMF but shall not exceed 10% by weight of total aggregates. The cold feed percentage for RAP may be reduced up to five percentage points from the amount listed on the JMF and shall not exceed the percentage of RAP approved in the JMF or for the specific application.

TABLE 1
VOLUMETRIC DESIGN CRITERIA

Design ESAL's (Millions)	Required Density (Percent of G_{mm})			Voids in the Mineral Aggregate (VMA)(Minimum Percent) Nominal Maximum Aggregate Size (mm)				Voids Filled with Binder (VFB) (Minimum %)	Fines/Eff. Binder Ratio
	$N_{initial}$	N_{design}	N_{max}	19	12.5	9.5	4.75		
10 to <30	≤89.0	96.0	≤98.0	13.5	14.5	15.5	15.5	65-80	0.6-1.2

As part of the JMF submittal, there are Hamburg Wheel Tracker requirements, the Contractor shall provide the Authority the test results in accordance with AASHTO T324. The results shall be generated by a third-party independent testing laboratory as approved by the Authority. The test results for each individual specimen as well as the average shall meet the requirements of Table 1A

TABLE 1A
HAMBURG WHEEL TRACKER REQUIREMENTS

Specified PG Binder Grade	Test Temperature (ºC)	Maximum Rut Depth (mm)	Minimum Number of Passes	Minimum Allowable SIP*
64-28	45	12.5	20,000	15,000
64E-28	45	8.0	20,000	15,000
70E-34	45	6.3	20,000	15,000

Section 401.031 Warm Mix Technology

Add the following to the end of the first paragraph:

Weather and seasonal limitations as outlined in section 401.06 may be reduced by a maximum 5ºF with the use of WMA except for HMA being placed over bridge deck membrane.

Section 401.04 Temperature Requirements

No vehicular loads shall be permitted on newly completed pavement until adequate stability has been attained and the material has cooled sufficiently to prevent distortion or loss of fines. The newly paved area may be opened to traffic after the internal temperature of the pavement has cooled to 120° F. The Resident will test the internal temperature of the pavement and shall be the sole judge as to the opening to traffic. The period of time before opening to traffic may be extended at the discretion of the Resident. The lane closure may not be removed until the internal temperature has cooled to 120° F.

Section 401.06 Weather and Seasonal Limitations

The first paragraph shall be deleted and replaced with:

The Contractor may place Hot Mix Asphalt Pavement for use other than a traveled way wearing course, provided that the air temperature as determined by an approved thermometer (placed in the shade at the paving location) is 45°F or higher and the area to be paved is not frozen. The Contractor may place Hot Mix Asphalt Pavement as traveled way wearing course, provided the air temperature determined as above is 50°F or higher. For the purposes of this Section, the traveled way includes truck lanes, ramps, approach roads and auxiliary lanes. The atmospheric temperature for all courses on bridge decks shall be 50°F or higher.

Section 401.08 Hauling Equipment Trucks for Hauling HMA

Add the following paragraph:

The undercarriage of haul units actively hauling HMA to the site shall be relatively free of dust / mud agglomerations. Haul units found to be contaminating the paving surface shall be removed from the site and cleaned prior to returning.

Section 401.09 Pavers

Add the following to the end of the fourth paragraph:

The forward operating speed of the paver shall be limited based on the course being placed. A shim or leveling course shall have a maximum speed of 50 feet per minute (fpm). Any base, intermediate, or surface course shall have a maximum paver speed of 40 fpm. The limited speed is not to be calculated on an average basis over time but shall be the actual limitation at any moment during the paving operation.

Section 401.091 Material Transfer Vehicle (MTV)

The first paragraph shall be deleted and replaced with:

When required by Special Provision Section 403, the paver shall be supplied mixture by a material transfer vehicle (Roadtec SB2500 or approved equal) capable of receiving and storing bituminous mixture from haul trucks, remixing, and delivering the mix to the paver hopper in a consistently uniform manner.

The fourth paragraph shall be deleted and replaced with:

The MTV shall be designed so that the mix receives additional mixing action.

Section 401.111 Layout

The contractor shall layout the site prior to any pavement course or final striping. Layout shall be achieved by physical measurements obtained every 50' along the length to be paved or striped. The contractor shall transfer the measurements to the pavement surface every 50' and apply a paint mark at each location. The marks shall then be connected by a smoothed string line and subsequent paint marks applied along the string at no greater than 10' intervals. The Resident will inspect the layout line before associated activities may begin.

Section 401.165 Longitudinal Joint Density

The first paragraph shall be deleted and replaced with:

When noted in Special Provision Section 403, the Authority will measure the pavement density of longitudinal joints between adjoining mainline travel lanes in both the unconfined and confined condition as determined by the days paving operation.

The eighth paragraph shall be deleted and replaced with:

The minimum density of the completed pavement shall be 92.0 percent of the theoretical maximum density obtained. Two consecutive failing tests shall result in production shut down. Prior to resuming paving operations, the contractor quality control unit shall satisfy the Authority that the paving operation will produce joint densities in compliance with the Specifications.

The eleventh paragraph and associated table shall be deleted and replaced with:

Payment reduction will be applied to each sublot that has a density lower than 92.0% as outlined below.

PERCENT COMPACTION	PERCENT PAY
92.0 or greater	100
91.9 to 90.0	95
89.9 to 88.5	90
88.4 or less	80

Section 401.17 Joints

The fourth paragraph shall be deleted and replaced with:

When required by Special Provision Section 403, Mainline Longitudinal joints shall be constructed as notched-wedge joint and constructed in a manner that will best ensure joint integrity.

Section 401.18 Quality Control

The following shall be added to section c. Quality Control Technician(s) QCT:

The QCT shall be on site during paving operations performing quality control activities. QCT's shall not act as equipment operators, trainers or laborers.

Section 401.191 Inspection/Testing

In paragraph nine delete and replace Item #8 with:

8. Secure High-Speed Internet Access

401.21 Method of Measurement

The second paragraph shall be deleted and replaced with:

A reduction in payment will occur when the voids, asphalt content, and density are other than the limits specified below for 100 percent payment. The payment reduction for voids and PGAB content and density will be based upon each sublot (500 tons) of production as specified in Subsections 401.162, 401.163, 401.164, and 401.165. The Contractor may request one retest for each failing sublot for core density only. The original core density and the recut core density shall be averaged together to determine payment for the sublot. No retest will be allowed for voids or asphalt content. The Contractor shall pay $250.00 for each additional core tested. Pavement restoration will not be measured separately for payment but shall be incidental to the respective pay item.

SPECIAL PROVISION

SECTION 403

HOT MIX ASPHALT PAVEMENT

Course	HMA Grading	Item Number	Total Thickness	No. of Layers	Complimentary Notes
Boom Road Underpass Bridge and Approaches Mill & Fill					
Wearing	**12.5mm**	**403.208**	**1.5”**	**1**	**C, I**
Beech Ridge Road Underpass Bridge Grove Street Underpass Bridge					
Wearing	**12.5mm**	**403.208**	**1.5”**	**1**	**C, I**
Base	**12.5mm**	**403.213**	**1.5”**	**1**	**C, I**
Beech Ridge Road Underpass Approaches Mill & Fill Grove Street Underpass Approaches Mill & Fill					
Wearing	**12.5mm**	**403.208**	**1.5”**	**1**	**C, I**

COMPLEMENTARY NOTES

A. The required PGAB for this mixture shall be **64E-28.**
B. RAP may not be used.
C. The Maine DOT will conduct the job mix verification. The aggregate qualities shall meet the design traffic level of 3 to <10 million ESALS for mix placed under this contract. Minimum and Maximum PGAB content limits from 401.21 shall not apply.
D. The MTA will conduct the job mix verification. The aggregate qualities shall meet the design traffic level of 10 to <30 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**. (N design)
E. A material transfer vehicle (MTV) shall be used for the placement of Hot Mix Asphalt wearing surface on all roadways including acceleration and deceleration lanes and all ramps.
F. Joints shall be constructed as the “notched wedge” type in accordance with Subsection 401.17.
G. Joint density will be measured in accordance with Subsection 401.165.
H. PGAB shall conform to the provisions of 403.02 – Polymer Modified PGAB for HMA
I. The contractor shall furnish a quality control technician equipped with an approved densometer to ensure density requirements are met.
J. Hydrated Lime shall be incorporated into the mixture.
K. The antistrip additive Zycotherm manufactured by Zydex Industries shall be incorporated into the PGAB at a rate of 0.1%.

SPECIAL PROVISION

SECTION 409

BITUMINOUS TACK COAT

409.02 Bituminous Material

This Subsection is deleted and replaced with the following:

This work consists of furnishing and applying one uniform application of Emulsified Asphalt RS-1 or RS-1h conforming to the specifications of AASHTO M-140. The application rate shall be 0.04 gal/yd^2.

409.05 Equipment

Add "or as determined by the Resident", after the words "gal/yd^2]" in the fourth line of the second paragraph of this Subsection.

409.06 Preparation of Surface

The following paragraph is added:

All existing pavement and shoulder areas on which bituminous concrete mixtures are to be placed shall receive a tack coat. The surface area where the tack coat is to be applied shall be dry and cleaned of all dirt, sand, and loose material. Cleaning shall be accomplished by use of revolving brooms or mechanical sweepers. Undesirable material not removed by the above means shall be cleaned by hand sweeping or scraping, or a combination of both. Small areas otherwise inaccessible may be swept with hand brooms. The tack coat shall be applied only when the existing surface is dry.

409.08 Method of Measurement

The following paragraphs are added:

Measurement will be based on delivery slips made out in duplicate by the Contractor and signed by the Resident, or his representative, at the point of delivery. One of these slips shall be retained by the Resident and one by the Contractor. Delivery slips shall be furnished by the Contractor and shall provide space for identifying the vehicle and driver, for stating the volume of material carried, the source of the material, the date, and the Resident or his representative's signature.

Material included in the delivery slips and not used or rejected shall be deducted from the amount being measured for payment. Each day's delivery slips shall be reconciled by the Contractor and the Resident within 24-hours.

Cleaning of the surface area where tack coat is to be applied shall be incidental to Item 409.15, Bituminous Tack Coat - Applied.

409.09 Basis of Payment

The following pay items are added:

Pay Item		Pay Unit
409.15	Bituminous Tack Coat RS-1 or RS1h – Applied	Gallon

SPECIAL PROVISION

SECTION 419

SAWING AND SEALING JOINTS IN BITUMINOUS PAVEMENT

(Sawing Bituminous Pavement)

419.01 Description

This work consists of sawing bituminous concrete pavement as shown on the Plans, as specified herein or as approved by the Resident.

419.02 General

The bituminous concrete pavement to be sawed shall be accurately marked before cutting. The marking shall be in accordance with the locations as shown on the Plans or as approved by the Resident. Cutting shall be with an approved power driven saw with an abrasive blade.

Unless otherwise noted or directed, the sawcut shall be vertical, a minimum of 3/8 inch wide, and extend to the depth as shown on the Plans.

Residue or debris from the sawing operation shall be removed immediately and legally disposed of by the Contractor.

419.03 Method of Measurement

Sawing Bituminous Pavement will be measured by the linear foot of pavement actually cut and accepted. No additional payment will be made for variations in the pavement thickness.

419.04 Basis of Payment

Sawing Bituminous Pavement will be paid for at the Contract unit price per linear foot which shall be full compensation for all materials, tools, equipment labor, and all incidentals necessary for the completion of the work to the satisfaction of the Resident. The disposal of sawcut residue shall be incidental to this item.

Payment will be made under:

Pay Item		Pay Unit
419.30	Sawing Bituminous Pavement	Linear Foot

SPECIAL PROVISION

SECTION 502

STRUCTURAL CONCRETE

(Bridge Drain Grate Modification)
(Weep Drain Extensions)

502.01 Description

The following sentences are added:

The work also consists of removing existing bridge drain grates, and fabricating, galvanizing, and installing bridge drain grate extensions where noted and as detailed on the Plans.

The work also consists of removing and patching deck concrete adjacent to the bridge drain grates being modified where noted and as detailed on the Plans.

The work also consists of extending deck weep drains as directed by the Resident and approved by the Engineer.

502.03 Materials

The following sentences are added:

Bridge drain materials shall meet the requirements specified in, and shall be galvanized in accordance with, Division 700, Subsection 711.04, Bridge Drains.

Bridge weep drain extensions shall match the material of the existing weep drains to be extended.

All structural concrete removed shall be replaced with a material from Maine Turnpike Authority's approved concrete patching material list. See Section 518 – Structural Concrete Repair.

502.17 Bridge Drains and Incidental Drainage

The following sentences are added:

Prior to beginning the work, the Contractor shall make provisions to ensure that concrete debris or portions of the existing bridge drains do not drop into any water body, roadway, shoulder or railroad area below.

The existing bridge drain grates shall be removed by grinder, cut off wheel or other mechanical means which minimize damage to the adjacent grate to remain. After removal of the existing bridge drain grate and adjacent concrete the replacement grate shall be fitted and welded to the existing bridge drain body.

All bridge drains grates shall be accurately placed at the locations shown on the Plans or as approved by the Resident. The Contactor shall provide an adequate means for securely holding them in the required positions during welding.

Touch-up the damaged galvanizing with two coats of zinc-rich chromate paint after wire brushing and solvent cleaning the damaged area.

Patch concrete with a concrete repair material from the Maine Turnpike Authority's approved concrete patching material list.

502.18 Method of Measurement

The following sentences are added:

Bridge Drain Grate Modification will be measured per each by the actual number of bridge drain grates modified per the Plans, complete in place and accepted.

Weep Drain Extensions will be measured by the lump sum, as required on the Plans and directed by the Resident, complete in place and accepted.

502.19 Basis of Payment

The following paragraphs are added:

Bridge Drain Grate Modification will be paid for at the Contract unit price per each, which price shall be full compensation for measuring and preparing the existing bridge drain grate; fabrication, galvanizing and installation of the replacement bridge drain grate and extension, galvanizing touchup, and deck removal and repair including all materials, labor, tools, equipment and incidentals necessary for furnishing and installing the Bridge Drain Grate Modification with the Plans and Specifications.

Weep Drain Extensions will be paid for at the Contract lump sum price, which price shall be the full compensation for measuring and preparing the existing weep drains, providing shop drawings for approval by the Engineer of the intended repair method and materials, fabrication and installation of the weep drain extension, deck removal and repair including all materials, labor, tools, equipment, and incidentals necessary for furnishing and installing the Weep Drain Extensions as detailed in the Plans and Specifications, and as directed by the Resident.

Payment will be made under:

Pay Item		Pay Unit
502.701	Bridge Drain Grate Modification	Each
502.7011	Weep Drain Extensions	Lump Sum

SPECIAL PROVISION

SECTION 515

PROTECTIVE COATING FOR CONCRETE SURFACES

(Pigmented Concrete Protective Coating)

Section 515, Protective Coating for Concrete Surfaces, is deleted in its entirety and replaced with the following:

515.01 Description

The work shall include the surface preparation and application of a pigmented concrete protective coating system, consisting of a clear penetrating sealer followed by a pigmented top coat, to protect new and existing concrete and masonry structures. The coating system shall be applied to piers, endposts, wingwalls, abutments, curbs and fascia in accordance with the Plans, Specifications and the manufacturer's published recommendations.

Where pigmented protective coatings are already present on concrete surfaces specified to receive new protective coatings, the work shall also include removing areas of existing protective coating that are blistered, flaking, peeling or otherwise loosely adhered to the concrete substrate prior to application of the new coating. The removal of loosely adhered pigmented protective coatings shall be completed by high-pressure washing. Where the removal of existing pigmented coatings is required the anticipated removal limits, and the anticipated quantity of removal, will be shown on the plans. The actual removal limits may vary and will be established and marked in the field by the Resident.

515.02 Materials

The pigmented penetrating sealer system shall be a two coat system consisting of Certi-Vex Guard Clear (primer/sealer) and Certi-Vex HBC Smooth (top coat), as manufactured by Vexcon Chemicals, Inc., or an approved equal, consisting of the following two parts:

- The primer shall be a vinyl toulene acrylic silane polymer blend or an approved equal. This primer shall provide the main protection against the ingress of water borne chlorides and sulfates.

- The top coat shall be solvent borne modified acrylic resins with selected pigments and fillers.

The products shall comply with regulations limiting the Volatile Organic Compound (VOC) content of architectural and industrial maintenance coatings.

The Contractor shall submit the Vexcon Chemical's product data sheets, material safety data sheets and recommended instructions for application of the Certi-Vex Guard Clear and Certi-Vex HBC Smooth.

The pigmented penetrating sealer color shall be Concrete Gray.

Materials shall be delivered to the site in original packages or containers bearing the manufacturer's labels and identification.

515.021 Substitute Materials

The Contractor shall submit a written request for approval of proposed substitute material naming the proposed manufacturer and product. This request shall be accompanied by:

1. Test data from an independent testing laboratory stating that the proposed substitute meets or exceeds the specified requirements as listed and has been tested in accordance with the specified test standards.

2. Documentation that the proposed material has a proven record of performance when used in the intended application as confirmed by actual field tests and successful installations in place on at least five similar projects.

3. Certification that if two or more types of products are intended to be used as part of a system they will be supplied by the same manufacturer to ensure compatibility of materials, and to maintain single source manufacturer responsibility.

The Resident reserves the right to require additional testing to evaluate any proposed substitute product at no additional cost to the Authority. The Resident's decision as to the acceptability or non-acceptability of the proposed product shall be final.

515.03 Surface Preparation

All caulking, patching, and joint sealant shall be installed prior to application of the sealer. The surface shall be prepared in strict accordance with the instructions of the approved manufacturer. Surface shall be fully cured, dry, and free from contamination such as asphalt coatings, oil, grease, loose particles, decaying matter, moss, algae growth, and curing compounds. For maximum penetration of the primer, the Contractor shall lightly sandblast the surface.

Existing form tie hole plugs which are loose or deteriorated shall be completely removed. The holes shall be reamed to sound concrete. All open form tie holes, new and existing shall be filled with an approved non-shrinking mortar, and after setting, rubbed level to the adjacent surface. Filled holes shall be cured for at least two (2) days prior to the application of the concrete protective coating.

Grass and vegetation adjacent to surfaces to be coated shall be removed or trimmed closely to permit proper preparation and application of the coating.

Where coatings are specified to be applied to concrete surfaces that have been previously covered with pigmented coating, the Contractor shall remove any protective coating that, in the judgement of the Resident, is blistered, flaking, peeling or otherwise loosely adhered to the concrete substrate. Loosely adhered coating shall be generally defined as any coating that can be removed by vigorously scraping the concrete surface using a 3” steel putty knife and firm pressure. The goal of the removal work is to remove areas of flaking, missing or otherwise compromised

coating systems; protective coatings that are tightly adhered to the concrete substrate need not be removed.

The removal of existing protective coatings shall be completed using high pressure washing. The specific pressure, flow rate, nozzle and standoff distance for the high-pressure washing operation shall be selected by the Contractor to remove loosely adhered coatings as specified. After high-pressure washing the Resident shall verify all loosely adhered coatings have been removed from the specified areas by scraping the surfaces with a putty knife. The Contractor will be required to complete additional pressure washing to remove any remaining loosely adhered coatings identified by the Resident

Following removal of existing coating systems all exposed surfaces of the substructure unit to be coated shall be cleaned and rinsed by pressure washing. The Contractor may use, when required, appropriate cleaning materials recommended by the sealer manufacturer in conjunction with high pressure water for cleaning the concrete or masonry. After pressure washing the concrete surfaces shall be allowed to air dry for a minimum of 48 hours prior to applying the new protective coating.

The Contractor will be responsible for controlling and filtering runoff resulting from the pressure washing operations in accordance with Supplemental Specification 656, and all local, state and federal requirements.

515.04 Application

The materials shall be mixed and applied in strict accordance with the instructions of the approved manufacturer. Spray or roll the primer at the recommended application rate. If the surface is very absorbent, the primer should be applied until surface is saturated per the manufacturer's written instructions. All areas not to receive coating shall be marked with straight, even lines as the limit lines.

The Contractor shall, in the presence of the Resident, apply the materials on a sample area which is representative of a jobsite application. When color and application methods are approved, the sample area shall serve as a standard of acceptance for all further work.

The primer shall not be applied in direct sunlight when the air or surface temperature is greater than 90°F, or when air or surface temperature is below 35°F. The top coat shall not be applied when air or surface temperature is below 45°F or as approved by the Resident.

For surfaces that have previously received pigmented coating the primer shall only be applied to areas where the existing coating was marked for removal and then removed by sandblasting. The primer application shall extend beyond the removal limits of the existing coating system by six inches on all sides.

The primer shall be allowed to dry for a minimum of two-hours before applying pigmented top coat. Under poor drying conditions this time shall be extended. The primer shall not be coated with top coat until the surface is dry. The top coat should be applied by brush, roller or suitable airless spray.

Top coat material shall be applied per the manufacturer's recommended application rate and in strict accordance with the manufacturer's written instructions. The top coat shall provide consistent color without light spots or shadows. The Resident reserves the right to have the Contractor recoat the top coat if the dried top coat(s) lack consistent color or show light spots or shadows.

For surfaces that have previously received pigmented coating the top coat shall be applied to the complete limits of pigmented coating application as described on the Contract Plans, not just the area of old coating removal.

Regardless of the application method used (sprayer, roller or brush) the Contractor shall be responsible for achieving 100% coverage of the concrete including the interior surfaces of concrete voids, recesses, or other depressions on the concrete surface.

Protect plants, grass, sealant, asphalt, traffic, etc. during application from spray.

515.05 Method of Measurement

Pigmented Concrete Protective Coating will be measured for payment by the square yard, satisfactorily applied and accepted.

The removal of existing pigmented protective coatings will not be measured for payment separately, but shall be incidental to the Pigmented Protective Coating for Concrete Surfaces pay item.

515.06 Basis of Payment

Pigmented Concrete Protective Coating will be paid at the Contract unit price per square yard which price shall be full compensation for all labor, materials, equipment and incidentals required for furnishing and applying the pigmented concrete protective coating as shown on the Plans, in accordance with these Specifications or as approved by the Resident.

Surface preparation, including high-pressure washing to remove existing pigmented coatings, vegetation removal, and protection of surfaces not designated for treatment will not be paid for separately, but shall be incidental to the Pigmented Concrete Protective Coating item.

Payment will be made under:

Pay Item		Pay Unit
515.201	Pigmented Protective Coating for Concrete Surfaces	Square Yard

SPECIAL PROVISION

SECTION 515

PROTECTIVE COATING FOR CONCRETE SURFACES

(Clear Concrete Protective Coating)

Section 515, Protective Coating for Concrete Surfaces, is deleted in its entirety and replaced with the following:

515.01 Description

The work shall include the surface preparation and application of a clear protective coating on concrete surfaces to protect new cast-in-place concrete, precast concrete and masonry structures. The coating system shall be applied to piers, endposts, curbs and fascia in accordance with the Plans, Specifications and the manufacturer's published recommendations.

515.02 Materials

The penetrating sealer shall be StandOff® SLX100 Water & Oil Repellent, as manufactured by ProSoCo, Inc., or an approved equal. The sealer shall have the following properties:

Active Substance:	modified alkyl alkoxy silane
Active Content:	> 90%
Form:	clear liquid
VOC:	< 3.5 pounds per gallon

The product shall comply with regulations limiting the Volatile Organic Compound (VOC) content of architectural and industrial maintenance coatings.

The Contractor shall submit the ProSoCo's product data sheets, material safety data sheets and recommended instructions for application of the StandOff® SLX100.

Materials shall be delivered to the site in original packages or containers bearing the manufacturer's labels and identification.

515.021 Substitute Materials

The Contractor shall submit a written request for approval of proposed substitute material naming the proposed manufacturer and product. This request shall be accompanied by:

1. Test data from an independent testing laboratory stating that the proposed substitute meets or exceeds the specified requirements as listed and has been tested in accordance with the specified test standards.

2. Documentation that the proposed material has a proven record of performance when used in the intended application as confirmed by actual field tests and successful installations in place on at least five similar projects.

3. Certification that if two or more types of products are intended to be used as part of a system, they will be supplied by the same manufacturer to ensure compatibility of materials, and to maintain single source manufacturer responsibility.

The Resident reserves the right to require additional testing to evaluate any proposed substitute product at no additional cost to the Authority. The Resident's decision as to the acceptability or non-acceptability of the proposed product shall be final.

515.03 Surface Preparation

All caulking, patching, and joint sealant shall be installed prior to application of the sealer. On new surfaces to be treated, all voids shall be dressed by dry rubbing to remove form marks and blemishes to present a neat appearance. Concrete and masonry surfaces shall be cleaned free of dust, surface dirt, oil, efflorescence and contaminants to ensure penetration of the sealer. The surface may be slightly damp at the time of treatment.

The Contractor may use, when required, appropriate cleaning materials recommended by the sealer manufacturer in conjunction with high pressure water for cleaning the concrete or masonry.

515.04 Application

The Contractor shall apply the clear concrete protective coating in strict accordance with the manufacturer's published recommendations.

The application shall not be conducted when surface and air temperatures are below 40°F or above 90°F. The work shall not be conducted when there is a chance of the surface temperature falling below 40°F in the 24-hours following application; nor should it be applied on hot, windy days.

The treatment shall not be applied during rain to wet surfaces or when there is a chance of rain within 24-hours after application. After treatment, surfaces should be protected from rain for not less than 48-hours. It shall not be applied when winds are sufficient to carry airborne chemicals to unprotected surfaces.

Prior to applying the sealer, the Contractor shall protect all surrounding non-masonry/non-concrete surfaces, landscape and lawn areas, and surfaces not designated for treatment, from contact with the penetrating sealer, and prevent overspray of the penetrating sealer caused by wind drift.

The Contractor shall ensure that all safety equipment, facilities and precautions recommended by the product manufacturer are furnished and/or strictly adhered to.

The sealer material shall be applied in the manner and with the equipment recommended by the product manufacturer. Coverage will vary depending on condition, texture and porosity of the surfaces. Pre-testing is required.

Sealer shall be applied as packaged without dilution or alteration. The sealer shall be applied with low pressure (20 psi) airless spray equipment or with a heavily saturated brush or roller unless otherwise permitted by the Resident. Sufficient material shall be applied to thoroughly saturate the surface making sure to brush out excess material that does not penetrate.

When the sealer is applied to horizontal surfaces, it shall be applied in a single saturating application with sufficient material and applied so the surface remains wet for one to two minutes before penetration into the concrete. Surface residues, pools and puddles shall be broomed-out thoroughly until they completely penetrate into the surface.

When the sealer is applied to vertical and sloped surfaces, it shall be applied in a "wet-on-wet" application for best results on most porous materials. In the case of extremely dense concrete, it may be necessary to restrict the amount of material applied to one saturating application in order to prevent surface darkening. Apply from the bottom up with sufficient material to thoroughly coat the surface and create a slight rundown below the spray pattern. Allow the first application to penetrate the concrete surface, and within a few minutes after the first coat appears dry, reapply in the same saturating manner.

When the sealer is applied to vertical and sloped surfaces, it shall be applied in two applications, 10 minutes apart, with a low pressure (20 psi) airless sprayer.

515.05 Method of Measurement

Clear Protective Coating for Concrete Surfaces will be measured for payment by the square yard, satisfactorily applied and accepted.

515.06 Basis of Payment

Clear Protective Coating for Concrete Surfaces will be paid at the Contract unit price per square yard which price shall be full compensation for all labor, materials, equipment and incidentals required for furnishing and applying the clear concrete protective coating as shown on the Plans, in accordance with these Specifications or as approved by the Resident.

Surface preparation, vegetation removal, and protection of surfaces not designated for treatment will not be measured separately for payment, but shall be incidental to the Clear Concrete Protective Coating item.

Payment will be made under:

Pay Item		Pay Unit
515.202	Clear Protective Coating for Concrete Surfaces	Square Yard

SPECIAL PROVISION

SECTION 518

STRUCTURAL CONCRETE REPAIR

(Parapet Joint Repair)

518.01 Description

The following sentence is added:

This work shall consist of the removal and replacement of existing deteriorated parapet joint sealant as approved by the Resident. The Contractor shall provide the Resident safe access to all the parapet joints for inspection before this work begins, including access to the fascia parapet joints.

The following Subsection is added:

518.032 Construction Requirements

After the Resident has identified the joint repair locations, the Contractor shall remove the existing joint sealant to a minimum 3/8 inch depth, clean and prepare the concrete surfaces per sealant manufacturer recommendations, and replace the sealant to the edge of concrete with an approved polyurethane-based sealant such as Sikaflex-1a or other product on the MaineDOT approved products list as directed by the Resident.

518.10 Method of Measurement

The following sentence is added:

The quantity of Parapet Joint Repair will be measured by the linear foot where the repair occurs.

518.11 Basis of Payment

The following sentence is added:

Parapet Joint Repair will be paid for at the Contract unit price per linear foot, which includes all materials, labor, equipment, and incidentals necessary to complete the work including removal of existing joint sealant.

Payment will be made under:

Pay Item		Pay Unit
518.43	Parapet Joint Repair	Linear Foot

SPECIAL PROVISION

SECTION 520

EXPANSION DEVICES – NON-MODULAR

(Expansion Joint Modifications)

520.01 Description

This work consists of removing the existing joint seals, modifying and cleaning the existing steel rails and joint armor as noted below, and installing new replacement seals in the bridge joints at the Boom Road, Beech Ridge Road, and Grove Street Bridges in accordance with the Plans and this Specification.

Boom Road joint armor shall be modified by welding all cracks noted on the plans. The seal shall be replaced with an in-kind replacement gland seal.

Beech Ridge Road joint armor shall be modified by removing the existing locking compression seal steel rails (extrusions) and welding new steel plates and extrusions for new gland seals. Precaution shall be taken to avoid damaging the joint armor to remain.

Grove Street joint armor shall be modified by adding new steel plate extrusions to the existing joint armor.

520.02 Materials

Replacement joints used shall be Expansion Device - Gland Seal and shall meet the material requirements of Section 520 - Expansion Devices - Non-Modular Expansion Joints.

520.06 Installation

Existing steel shall be cleaned, sandblasted, and ground smooth if needed, prior to the installation of the new joint steel. Any portions of the existing steel rails within the parapet joint opening that must be removed to fit the new joint rails shall be ground smooth prior to installation of the new joint steel rails.

The Contractor shall install the replacement joint seals according to the manufacturer's recommendations. Replacement gland seals shall be installed full deck width (including turn-ups within parapets) in one piece after the existing seals are removed and the existing seal extrusions or joint armor are repaired, cleaned, sandblasted and primed (if priming is recommended by the seal manufacturer).

Once the new gland seals are permanently installed, the Contractor shall thoroughly clean the abutment seats, bearings, and girder ends by pressure washing to remove any debris, salt, or other foreign contaminants. Payment for pressure washing shall be incidental to the Expansion Device Modifications item.

520.07 Method of Measurement

Expansion Device Modifications will be measured as one lump sum, complete in place and accepted.

520.08 Basis of Payment

Expansion Device Modifications will be paid for at the contract lump sum price, which shall be full compensation for removal and disposal of the existing joint seal, cleaning and partial removal of existing steel rails, installation of new joint armor, repair of existing joint armor, and all materials, coatings, equipment, labor and incidentals necessary for furnishing and installing the new seals.

Payment will be made under:

Pay Item		Pay Unit
520.211	Expansion Device Modifications (Boom Road)	Lump Sum
520.212	Expansion Device Modifications (Beech Ridge Road)	Lump Sum
520.213	Expansion Device Modifications (Grove Street)	Lump Sum

SPECIAL PROVISION

SECTION 524

TEMPORARY STRUCTURAL SUPPORTS

(Protective Shielding - Steel Girders)

524.01 Description

The following paragraph is added:

This work shall also consist of furnishing all labor, equipment and materials required to provide protection for the public during demolition and construction. This protection shall include, but not necessarily be limited to, protective shielding of existing structures during demolition work, concrete removal, and installation of temporary deck support over roadway lanes and shoulders on all existing and new bridge structures.

The following Subsections are added:

524.031 Protective Shielding Design

Prior to the start of work, the Contractor shall submit working drawings for review and comment indicating the sizes and dimensions of protective shielding. If the shielding is to be attached to prestressed concrete components the submittal shall be coordinated with the respective precast concrete shop drawings. The proposed methods of protective shielding, including connections and fasteners, shall be in accordance with the following criteria:

The protective shielding shall be designed for safely supporting all construction and dead loads, but not less than 100 pounds per square foot with a load duration of seven (7) days. Protective shielding shall be stiff enough to limit deflection to 1/2 inch under maximum loads and to be tightly sealed at all joints. The protective shielding shall be placed on the tops of the bottom flanges of the steel girders with edges and laps made tight to protect the turnpike motorists from dust, debris and falling objects.

524.041 Protective Shielding Erection and Removal

No portion of the protective shielding installed over a roadway shall project below a plane connecting the bottoms of the bottom flanges of the steel stringers. During demolition operations, the protective shielding shall be covered with sheet plastic made tight at edges and laps to prevent water used in the sawcutting operation from falling onto the facilities under the bridge.

The protective shielding on existing and new structures shall extend horizontally three feet beyond the fascia lines and vertically to a point one foot minimum above the top of parapet or railing. The shielding shall also extend 10 feet beyond the edge of pavement of the roadway below, unless otherwise noted on the Plans or as approved by the Resident.

Shielding shall be approved and installed prior to the start of any demolition work and shall remain in position during all demolition work. Shielding shall also be approved and installed prior to the start of any deck forming and shall remain in position during all deck work. The shielding shall be relocated or removed only as approved by the Resident.

Construction sequences may require protective shielding material to be removed, stored and then reinstalled by the Contractor. Any shielding which is damaged during this removal and reinstallation shall be replaced by the Contractor at no additional cost.

524.28 Method of Measurement

The following paragraph is added:

Protective Shielding will not be measured separately for payment, but shall be considered incidental to the related contract items under Section 518.

SPECIAL PROVISION

SECTION 526

CONCRETE BARRIER

(Temporary Concrete Barrier Type I - Supplied by Authority)

526.01 Description

The following paragraphs are added:

This work shall consist of loading, transporting, setting, resetting, removing, transporting and stacking Temporary Concrete Barrier Type I – Supplied by Authority. The barrier shall have attachments allowing individual sections to be connected into a continuous barrier.

The work also includes supplying connecting pins and furnishing and mounting retro-reflective delineators, per Subsection 526.02 and 526.03.

Concrete barriers supplied by Authority shall be available at the following location(s):

Maintenance Area	Linear Feet of Barrier
Crosby Farm Maintenance Area Mile 45.8 Southbound	2030

Upon substantial completion of work, the Contractor shall remove and transport the barrier back to its maintenance area of origin. All barrier shall be returned, sorted and stacked according to type in locations directed by the project Resident or maintenance area foreman.

526.02 Materials

The following paragraphs are added:

e. Delineators shall be bi-directional with a minimum effective reflective area of eight square inches as approved by the Resident. The reflectors shall be methyl methacrylate and the housing of acrylonitrile butadiene styrene. Color shall be in accordance with the MUTCD.

526.021 Acceptance

The Resident shall have the authority to accept or reject all Temporary Concrete Barrier Type I – Supplied by Authority used on the Project that does not meet the requirements of this specification

526.03 Construction Requirements

The following paragraphs are added:

The Contractor shall notify the Resident prior to the scheduled pick-up and delivery of concrete barrier. No barrier shall be removed from or stacked at the Turnpike Maintenance Area without approval of the Resident.

The Contractor shall move and place barrier-utilizing methods that will not damage the barrier. Barrier that is damaged by the Contractor by failing to use proper methods shall be replaced by the Contractor at no additional cost to the Maine Turnpike Authority.

Concrete barrier supplied by the Authority consists of several different styles. Not all barriers may be compatible. The Contractor shall utilize caution when setting barrier to use identical barrier types as adjacent barrier. Non-compatible barrier that cannot be attached together shall be overlapped by a minimum of 10 feet with the blunt end on the non-traffic side of the barrier. This work will not be measured separately for payment, but shall be incidental to the concrete barrier.

Concrete barrier placed at roadway low points shall be shimmed on 1" by 2" by 2' long wood planks to allow drainage to pass under the barrier. In addition, the Resident may direct the Contractor to shim the concrete barrier at other locations to provide for proper roadway drainage. All labor, material, and equipment necessary to shim the barrier will not be measured separately for payment, but shall be incidental to the Concrete Barrier.

The removal of concrete barrier from adjacent to the travel lane may be conducted without a lane closure if it is accomplished in accordance with the following requirements:

1. Barrier is removed from the trailing end and the workmen and equipment involved in the operation are always behind the barrier. No workmen or equipment shall enter the travel lane.
2. Barrier shall be dragged away from the travel lane to at least a 30-degree angle by the use of a cable.
3. Barrier shall be lifted no more than six inches while within 10 feet of the travel lane.

Retro-Reflective Delineators shall be mounted as follows:

4. One on top of each barrier.
5. One on the traffic side of every barrier used in a taper.
6. One on the traffic side of every other barrier at regularly spaced intervals and locations.
7. Delineators shall be installed on both sides of the barrier if barrier is used to separate opposing traffic.
8. Delineators shall be physically adhered so as to withstand the force of throw from a snow plow.
9. If more than 25% of delineators in any 50 foot section of barrier fall off for any reason, the Contractor will be responsible for reinstalling all the delineators in that run at that their own cost.
10. Contractor is required to submit the installation method for review and approval to the Resident.

526.04 Method of Measurement

The following paragraphs are added:

Temporary Concrete Barrier Type I – Supplied by Authority shall be measured for payment by the lump sum.

The loading, transporting, setting, resetting, removing, transporting, sorting and stacking of the barrier, the furnishing, installation and maintenance of the barrier delineators, and furnishing and installing connector pins will not be measured separately for payment, but shall be incidental to the cost of the Barrier. Temporary storage of Concrete Barrier between construction phases, if required, will not be measured separately for payment, but shall be incidental to the cost of the Barrier. All equipment required to load, unload, transport and stack Concrete Barrier shall be supplied by the Contractor.

Any Barrier lost or damaged by the Contractor shall be replaced by the Contractor at no additional cost to the Authority.

526.05 Basis of Payment

The fifth paragraph is deleted and not replaced.

The following paragraphs are added:

Temporary Concrete Barrier Type I – Supplied by Authority will be paid for at the Contract lump sum price, complete in place. Such payment shall be full compensation for loading, transporting, setting, resetting, temporary storage, removing, transporting and stacking at the area designated, furnishing all materials, and all other incidentals necessary to complete the work. Temporary Concrete Barrier Type I – Supplied by Authority and all connecting pins shall remain the property of the Authority, and shall be returned to the Turnpike Maintenance Area as designated in Subsection 526.01.

Payment of Concrete Barrier shall be based on a percentage of the work accomplished during that pay period.

Payment will be made under:

Pay Item		Pay Unit
526.306	Temporary Concrete Barrier, Type I – Supplied by Authority	Lump Sum

SPECIAL PROVISION

SECTION 527

ENERGY ABSORBING UNIT

(Work Zone Crash Cushion)

527.01 Description

The first paragraph is deleted in its entirety and replaced with the following:

The Contractor shall furnish and install work zone crash cushions where shown on the Plans, as specified herein, in Special Provision 652, or as approved by the Resident. Work zone crash cushions are required at each exposed end of temporary concrete barrier or guardrail.

The exposed end of the concrete barrier within 30 feet of the mainline travel lane shall be protected at all times. Barrier shall not be reset until after the work zone crash cushion(s) has been set to protect the exposed end of the barrier.

527.02 Materials

The following paragraph is added:

Only work zone crash cushions meeting the NCHRP Report 350 TL-3 crash test requirements may be used on the turnpike and local roadways with posted speeds of 45 MPH or greater. Work zone crash cushions meeting the NCHRP Report 350 TL-2 crash test requirements may be used on local roadways with posted speeds of 40 MPH or less. The Contractor shall provide the Resident with documentation of the proposed work zone crash cushion's NCHRP Report 350 Crash Test Results prior to installation at the jobsite.

527.03 Construction Requirements

The following is added to the end of the first paragraph:

The design speeds for work zone crash cushions shall be 45 mph for local road and 70 mph for turnpike roadways unless otherwise noted on the Plans.

527.05 Basis of Payment

Payment will be made under:

Pay Item		Pay Unit
527.341	Work Zone Crash Cushions – TL-3	Unit

SPECIAL PROVISION

SECTION 613

EROSION CONTROL BLANKET

613.01 Description

This work shall also include seeding, mulching and watering the median swale and/or longitudinal flow line to the limits and width as shown on the Plans or as directed by the Resident.

613.02 Materials

The following sentences are added:

Seeding shall meet the requirements of Section 618, Seeding, Method Number 2.

Mulch shall meet the requirements of Section 619.

The following Subsection is added:

613.041 Maintenance and Acceptance

See Section 618.10 for maintenance and acceptance of seeding.

613.042 Mulch

All mulch shall be placed after the area has been seeded and prior to the installation of the Erosion Control Blanket.

613.09 Basis of Payment

The following "and mulch" is added after the words "initial seeding" in the second sentence.

SPECIAL PROVISION

SECTION 619

MULCH

(Mulch – Plan Quantity)
(Temporary Mulch)

619.01 Description

The first paragraph is modified by the addition of the following:

"as a temporary or permanent erosion control measure" after the word "mulch".

Add the following sentence at the end of the first paragraph:

Refer to Section 656 Temporary Soil and Water Pollution Control, for more information on Temporary Mulch.

619.03 General

The first paragraph is deleted and replaced with the following:

Cellulose fiber mulch shall not be used within 200 feet of a wetland or stream. The limits shall be 200 feet up station and down station of the wetland or streams as well as the slopes adjacent to the stream. The application of hay or straw mulch with an approved binder shall be used at these locations to prevent erosion.

The use of cellulose fiber mulch will only be allowed at other areas with the approval of the Resident. The Contractor may be required to demonstrate that the material may be applied in a manner that will prevent erosion and will aid in the establishment of permanent vegetation. The Resident reserves the right to require the use of hay or straw mulch at all locations if he determines that the cellulose mulch is ineffective. Cellulose fiber mulch is not acceptable for winter stabilization.

610.06 Method of Measurement

The following sentence is added:

Temporary Mulch will be paid for by the lump sum.

619.07 Basis of Payment

Temporary Mulch will be paid for at the Contract price per lump sum which shall be full compensation for furnishing and spreading the Temporary Mulch as many times as necessary as determined by the Contractor's operations and staging. The price shall also include the additional mulch netting and snow removal necessary during the winter months.

Payment will be made under:

Pay Item		Pay Unit
619.1201	Mulch – Plan Quantity	Unit
619.1202	Temporary Mulch	Lump Sum

SPECIAL PROVISION

SECTION 627

PAVEMENT MARKINGS

(White or Yellow Pavement Marking Line)

627.01 Description

The following sentences are added:

This work shall consist of furnishing and placing the final pavement markings at locations as shown on the Plans or as directed by the Resident.

627.02 Materials

The following is added before the last paragraph:

The paint for pavement markings shall be 100% acrylic waterbase paint.

627.04 General

The following is added to the third paragraph:

Dotted white lines (DWL) shall consist of alternate 3-foot painted line segments and 9 foot gaps.

Permanent pavement marking paint shall be applied at the end of each work week prior to opening the work area to traffic or as approved by the Resident.

627.08 Removing Lines and Markings

The last sentence is deleted and is not replaced.

627.09 Method of Measurement

The second and third sentences in the second paragraph are deleted and replaced with the following:

The measurement of broken white lines, both permanent and temporary and dotted white lines, will include the gaps when painted. Temporary painted pavement marking lines will be measured for payment by the linear foot.

627.10 Basis of Payment

This Subsection is deleted and replaced with the following:

The accepted quantity of white or yellow pavement marking lines will be paid at the Contract price per linear foot. This price shall include all labor and materials to furnish and install the paint line.

The accepted quantity of broken and dotted white pavement marking lines will be paid at the Contract price per linear foot. This price shall include all labor and materials to furnish and install the paint line.

The accepted quantity of temporary white or yellow pavement marking lines will be paid at the Contract price per linear foot. This price shall include all labor and materials to furnish, install and maintain the paint marking.

Payment will be made under:

Pay Item		Pay Unit
627.712	White or Yellow Pavement Marking Line	Linear Foot

SPECIAL PROVISION

SECTION 652

MAINTENANCE OF TRAFFIC

(Truck Mounted Attenuator)

Section 652 of the Maine Turnpike Authority 2016 Supplemental Specifications is modified as follows:

652.1 Description

The following paragraph is added:

When a pay item for a Truck Mounted Attenuator (TMA) is included in the contract at least one TMA will be required on the project and its use will be required. The truck mounted attenuator should be utilized in lane closures and other construction operations where workers are exposed to traffic and not protected by other positive means. The Contractor shall manage the utilization and operation of the TMA and if at least one is not used as described above then it will be considered a Traffic Control Plan violation and result in a reduction of payment as outlined in Section 652.

652.2.1 Truck Mounted Attenuator

This section is deleted in its entirety and replaced with the following:

The truck mounted attenuator system shall conform to the following requirements:

- Truck and attached attenuator shall conform to the NCHRP Report 350, Test Level 3 criteria.
- A mounted revolving amber light or amber strobe light with 360-degree visibility.
- An arrow light bar fixed to the vehicle.
- The attenuator shall be mounted to a vehicle with a minimum weight of 10,000 lbs.

652.3.7 Operations

This section is deleted in its entirety and replaced with the following:

The Contractor shall manage the operation of the truck mounted attenuator. The truck mounted attenuator should be utilized in lane closures and other construction operations where workers are exposed to traffic and not protected by positive means. The operation of the vehicle shall be in accordance with the Manual of Uniform Traffic Control Devices and the manufacturer's recommendation.

Installation: The chart below identifies the distance from the work zone or hazard where the TMA shall be deployed. If the work zone is within a marked lane closure, the barrier truck distances shall apply and if the work is mobile, then shadow truck distances shall apply. The TMA shall not be located in the buffer zone. When used as a barrier, the barrier truck shall be parked in

low gear with brakes applied and the front wheels turned away from the work zone and the adjacent traffic lane. For placement details, reference the Manual of Uniform Traffic Control Devices (MUTCD).

Weight of Truck	Barrier Truck Distance from Work Zone of Hazard	Shadow Truck Distance from Work Vehicle or Work Zone
10,000 lbs	250 ft	300 ft
15,000 lbs	200 ft	250 ft
>24,000 lbs	150 ft	200 ft

652.7 Method of Measurement

The last paragraph is deleted and replaced with:

Truck mounted attenuator shall be measured for payment by the calendar day for each calendar day that a unit is used on a travel lane or shoulder on the project, as approved by the Resident.

652.8.2 Basis of Payment

The last two paragraphs are deleted and replaced with:

The Truck Mounted Attenuator(s) will be paid for at the Contract unit price per calendar day for each TMA used. This price shall include all costs associated with the use of the vehicle. Payment shall include operator, fuel, truck, maintenance, flashing lights, arrow board and all other incidentals necessary to operate the vehicle.

Payment will be made under:

Pay Item		Pay Unit
652.45	Truck Mounted Attenuator	Calendar Day

SPECIAL PROVISION

SECTION 652

MAINTENANCE OF TRAFFIC

(Temporary Portable Rumble Strips)

652.01 Description:

This work consists of furnishing and placing temporary portable rumble strips RoadQuake 2F TPRS or an approved equal.

652.02 Materials:

Furnish a temporary portable rumble strip system, which includes a method to transport and move these to on-site locations where they will be used. The Contractor shall submit for approval, literature and all necessary certifications to the Maine Turnpike prior to procurement of the product.

652.03 General:

Placement:

Provide rumble strips where the plans show or as directed by the Resident as follows:

Prior to placing rumble strips, clean the roadway of sand and other materials, that may cause slippage.

Place one end of the rumble strips 6 inches from the roadway centerline. Extend the strips perpendicular to the direction of travel. Ensure strips lay flat on the roadway surface.

Only one series of rumble strips, placed before the first work zone, is required per direction of travel for multiple work zones spaced 1 mile or less apart. Work zones spaced greater than 1 mile apart require a separate series of rumble strips. Each lane shall use one group of temporary rumble strips.

Bracketed “Rumble Strip Ahead” and “Bump” signs shall be utilized and will be paid for under the respective construction sign pay items.

Maintenance:

Maintain rumble strips as follows:

If rumble strips slide, become out of alignment, or are no longer in the wheel path of approaching vehicles during the work period, thoroughly clean both sides of the rumble strips and reset on a clean roadway.

Repair or replace damaged rumble strips immediately.

652.04 Method of Measurement:

The accepted quantity of temporary portable rumble strips shall be measured by the unit complete in place, per lane closure application. A unit shall consist of 1 group of 3 full-lane width of rumble strips. As shown in the plans, a maximum of 3 units may be used at each lane closure. A unit shall be measured for each group of rumble strips, each time they are used for a lane closure.

652.05 Basis of Payment:

The accepted quantity of temporary portable rumble strips will be paid for at the contract unit price per unit which shall include the transport device. Payment is full compensation for providing, relocating, maintaining or replacing, and removing temporary portable rumble strips.

If the pay item is not included in the contract quantities, then the Authority does not anticipate the use of this item on the contract. If contractor wishes to utilize temporary portable rumble strips and the item is not in the contract, then the contractor may propose use of them to the Authority for consideration.

Pay Item		Pay Unit
652.46	Temporary Portable Rumble Strip	Unit

SPECIAL PROVISION

SECTION 652

MAINTENANCE OF TRAFFIC

(Automated Speed Limit Sign)

652.1 Description

This special provision provides for furnishing, operating, and maintaining an Automated Trailer Mounted Radar Speed Limit Sign for project use. When a pay item for an Automated Trailer Mounted Radar Speed Limit Sign is included in the Contract at least one will be required on the project when there is a Work Zone Speed Limit in place. The Contractor shall furnish, operate, and maintain the Automated Trailer Mounted Radar Speed Limit Signs during the project operations.

652.1.1 Instruction and maintenance manuals shall be provided.

652.2 Materials

Automated Trailer Mounted Speed Limit Sign

Trailer mounted speed limit signs shall be self-contained units including sign assembly, flashing lights, directional radar to measure speed limits, a regulatory speed limit sign, and power supply specifically constructed to operate as a trailer-mounted sign. The preferred color of the unit shall be “construction orange”.

Signs

Base material for the regulatory speed limit signs shall be weather proof, rigid substrate specifically manufactured for highway signing and meet the retro-reflective sheeting application requirements of the sheeting manufacturer.

Sign text shall consist of the letters, digits and symbols either applied by stick-on or silk screen, to conform to the dimensions and designs indicated in the Contract, MUTCD and/or FHWA Standard Highway Signs. The materials and methods shall be in accordance with standard commercial processes.

“Work Zone” construction signs shall be mounted on the trailer unit above the regulatory speed limit sign. (see Appendix).

Signs and secondary signs shall follow the MUTCD for minimum mounting heights.

Power supply

The power supply shall be either full battery power with solar panel charging (capable of maintaining a charged battery level) and 135 ampere, 12 volt deep cycle batteries, or diesel powered generator with a fuel capacity sufficient for 10 hours of continuous operation.

Flashing Lights

Each unit shall be equipped with two mono-directional flashing lights, placed in accordance with the MUTCD, with amber lenses and reflectors, which are visible through a range of 120 degrees when viewed facing the sign. The lights, either strobe, halogen, or incandescent lamps, shall be visible for a minimum distance of one mile under daylight conditions and shall have a minimum flash rate of 40 flashes per minute. An "On" indicator light shall be mounted on the back of the signs, which is visible for at least 500 feet to provide confirmation that the flashing lights are operating.

Radar

The directional radar shall monitor approaching traffic only. The radar shall be capable of measuring speeds from 5 to 70 MPH at a distance of up to 1500 feet and shall have a high speed cut off thresh hold.

CONSTRUCTION REQUIREMENTS

652.3.2 Responsibility of the Contractor

The Contractor shall furnish the Automated Trailer Mounted Speed Limit Sign as described in this Special Provision for this project.

All existing speed limit signs, which conflict with the construction zone trailer mounted speed limit signs shall be covered completely when the work zone speed limit is in place.

Automated Trailer Mounted Speed Limit Signs shall only be used when a work zone speed limit is in place. The Contractor shall manage the utilization and operation of the Automated Trailer Mounted Speed Limit Signs and if at least one is not used when work zone speed limits are in place then it will be considered a Traffic Control Plan violation and result in a reduction of payment as outlined in Section 652.

The Resident will record the actual time and location for the signs on a daily basis when the Automated Trailer Mounted Speed Limit Signs are in use.

The Automated Trailer Mounted Radar Speed Limit Sign may be placed as shown on the plans, or may replace the posted regulatory speed limit signs or may be placed at a location within the closed lane that has a reduced speed limit.

Automated Trailer Mounted Speed Limit Signs shall be delineated with retro-reflective temporary traffic control devices while in use and shall also be delineated by affixing a retro-reflective material directly on the trailer.

Upon delivery of the Automated Trailer Mounted Speed Limit Sign and before acceptance by the Authority, the Contractor shall have a representative of the manufacturer review the condition and notify the Resident in writing, of all deficiencies noted.

The Contractor shall arrange to have all necessary repairs performed at no cost to the Authority.

To avoid impairing driver vision, the Contractor shall dim the lighted speed limit readings by 50 percent during nighttime use, and restore full power lighting during daytime operation.

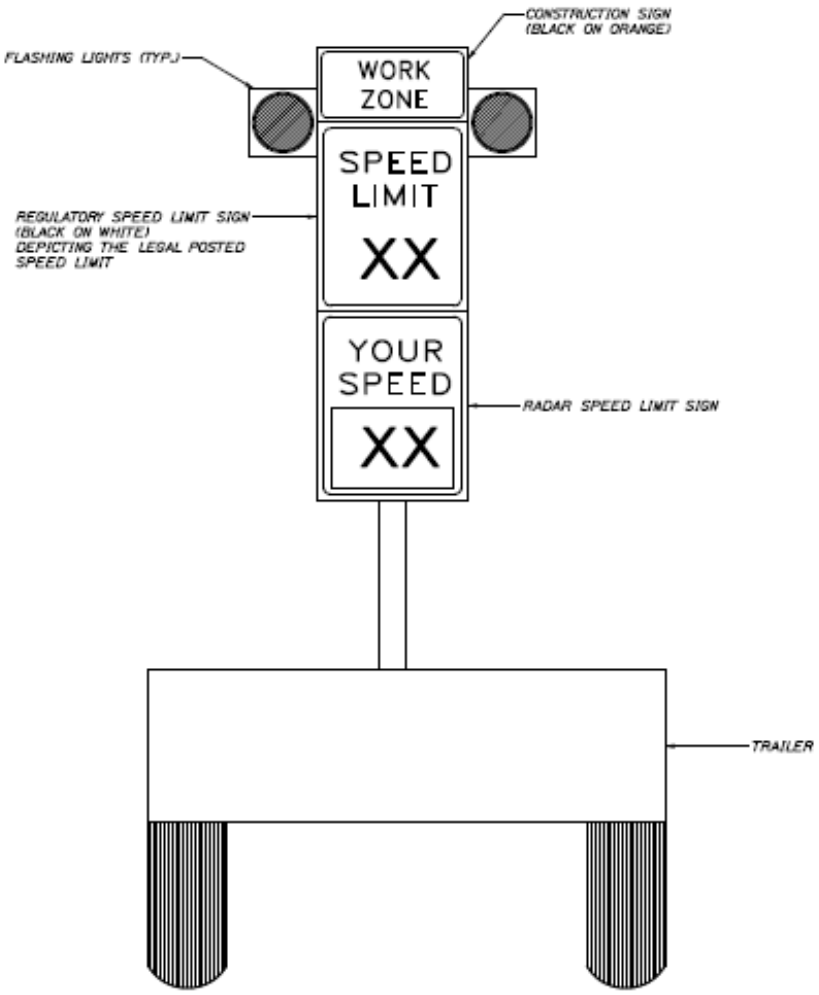
652.7 Method of Measurement

Automated Trailer Mounted Speed Limit Sign shall be measured for payment by the calendar day for each calendar day that the unit is used on a travel lane or shoulder on the project or per each for the continued use for the duration of the project. Payment shall include the Trailer, Radar Speed Limit Sign, flashing beacon amber lights, regulatory speed limit sign, fuel, necessary maintenance, and all checking of Radar Speed Limit Signs by manufacturer and all project moves including the transporting and delivery of the unit.

652.8 Basis of Payment

The Automated Trailer Mounted Speed Limit Sign(s) will be paid for at the Contract unit price per calendar day or per each. This price shall include all costs associated with the use of the Automated Trailer Mounted Speed Limit Sign.

Pay Item		Pay Unit
652.451	Automated Trailer Mounted Speed Limit Sign	Calendar Day
652.452	Automated Trailer Mounted Speed Limit Sign	Each



Date: 2/13/2018

Filename: Trailer Mounted Speed Limit.dgn

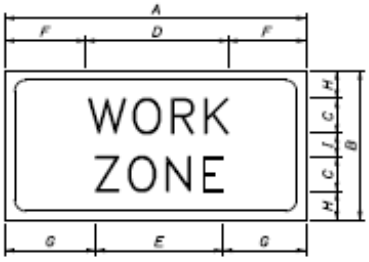
MAINE TURNPIKE

HNTB

FEBRUARY 2018

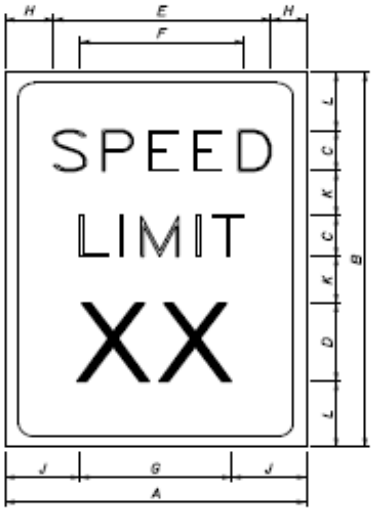
AUTOMATED TRAILER MOUNTED
SPEED LIMIT SIGN

1OF 2



SIGN #1

1.25" BORDER, 0.75" INDENT,
BLACK ON ORANGE, 5S GRADE PLYWOOD SIGN



SIGN #2

1.25" BORDER, 0.75" INDENT,
BLACK ON WHITE, 5S GRADE PLYWOOD SIGN

	DIMENSIONS (INCHES) / LETTER FONTS											
	A	B	C	D	E	F	G	H	I	J	K	L
#1	48	20	5D	18 1/8	16 5/8	14 7/8	15 5/8	4	2	N/A	N/A	N/A
#2	48	60	8E	16E	38 1/4	29 1/4	29 1/2	4 1/2	9 3/8	9 1/4	8	6

Date: 2/13/2018

Filename: Trailer Mounted Speed Limit.dgn

MAINE TURNPIKE

HNTB

FEBRUARY 2018

TRAILER MOUNTED CONSTRUCTION ZONE
SPEED LIMIT SIGN

2 OF 2

SPECIAL PROVISION

SECTION 652

MAINTENANCE OF TRAFFIC

(Specific Project Maintenance of Traffic Requirements)

This Specification describes the specific project maintenance of traffic requirements for this Project.

The following minimum traffic requirements shall be maintained. These requirements may be adjusted based on the traffic volume when authorized by the Authority.

Boom Road Traffic Control Requirements

The Contractor shall maintain two 11-foot lanes at all times on Boom Road Underpass Bridge except as allowed below or directed by the Resident. At any time that the Contractor is not working, the full width of the bridge shall be open to traffic.

During the paving work on the bridge and approaches, the Contractor is permitted to maintain one 12-foot lane of alternating traffic using flaggers. Paving work includes pavement milling, resurfacing, bridge joint repairs, and bridge seal replacement.

See tables below for specific limitations on Mainline maintenance of traffic operations.

Beech Ridge Road Traffic Control Requirements

Beech Ridge Road will be closed to through traffic between Payne Road and Dresser Road. The Contractor shall coordinate directly with the Authority for acceptable road closure dates. The Contractor shall notify the Resident/Authority two weeks prior to the closure. A temporary detour shall be established and maintained at all times in accordance with the detour plan shown in the Plans. The detour route begins at the Beech Ridge Road Underpass Bridge over the Maine Turnpike, proceeding west to Dresser Road; following Dresser Road to Holmes Road; following Holmes Road to Two Rod Road across the Turnpike to Payne Road; following Payne Road back to Beech Ridge Road on the east side of the Turnpike. The Resident/Inspector shall notify the Town of Scarborough prior to closing Beech Ridge Road Underpass Bridge at the Turnpike.

See tables below for specific limitations on Mainline maintenance of traffic operations.

Grove Street Traffic Control Requirements

Grove Street will be closed to through traffic between Crowley Road and Randall Road. The Contractor shall coordinate directly with the Authority for acceptable road closure dates. The Contractor shall notify the Resident/Authority two weeks prior to the closure. A temporary detour shall be established and maintained at all times in accordance with the detour plan shown in the Plans. The detour route begins at the Grove Street Underpass Bridge over the Maine Turnpike, proceeding west to Sabattus Street/Rt 126; following Sabattus St/Rt 126 east to Middle Rd/Rt 9;

following Middle Rd/Rt 9 south to Crowley Rd; following Crowley Rd west to Grove St, and thence following Grove St. west to the Grove Street Underpass Bridge.

Mainline may have single lane closures at any time at Grove Street.

Maine Turnpike Traffic Control Requirements

This Section outlines the minimum requirements that shall be maintained for work on, over, or adjacent to the Maine Turnpike roadway. Operations are allowed as outlined below:

Bridge work directly over traffic or within six feet of a travel lane as measured from the painted pavement marking line or traffic control device will require a lane closure. This work includes but is not limited to the following:

1. Installing and removing shielding
2. Superstructure rehabilitation
3. Pier Rehabilitation
4. Unbolting structural steel
5. Removing structural steel
6. Erecting structural steel or concrete beams
7. Installing and removing deck and diaphragm forms
8. Erecting or moving sign panels on bridges
9. Bolting structural steel
10. Painting structural steel

When approved by the Resident, Items 4, 7 and 9 may be performed over traffic if a temporary floor is provided between the bottom flanges of the beams.

When the speed limit on the Maine Turnpike has been reduced to 45 MPH, temporary shoulder/lane closures cannot be set up and any currently in place shall be removed. Only work on the Turnpike Mainline that is behind temporary concrete barrier will be allowed when speed is reduced to 45 MPH.

Maintenance of Traffic Limitation Tables

Mainline Northbound, Boom Road Underpass and Beech Ridge Road Underpass Peak Season June 26, 2020 through September 8, 2020					
		Equipment Moves	**Temporary Double Lane Closures**	**Temporary Single Lane Closures**	**Temporary Shoulder Closures**
Days of Week:	Sunday night through Thursday night				
Time of Day:	Overnight: 7:00 p.m. to 6:00 a.m.			Allowed	Allowed
Time of Day:	Middle of night: 10 p.m. to 5 a.m.	Allowed	Allowed	Allowed	Allowed
Time of Day:	Daytime: 9:00 a.m. to 3:00 p.m.				Allowed
Time of Day:	Commutes: 6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m.				
Days of Week:	Friday through Friday night				
Time of Day:	Overnight: 9:00 p.m. to 6:00 a.m.			Allowed	Allowed
Time of Day:	Middle of night: 11 p.m. to 5 a.m.	Allowed	Allowed	Allowed	Allowed
Time of Day:	Daytime: 9:00 a.m. to 3:00 p.m.				Allowed
Time of Day:	Commutes: 6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m.				
Days of Week:	Saturday (Day only)				
Time of Day:	Daytime: 9:00 a.m. to 3:00 p.m.				
Time of Day:	Commutes: 6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m.				
Days of Week:	Saturday Night through Sunday	No work or closures allowed			

Mainline Northbound, Boom Road Underpass and Beech Ridge Road Underpass Shoulder Seasons May 15, 2020 through June 25, 2020 and September 9, 2020 through October 12, 2020					
		Equipment Moves	**Temporary Double Lane Closures**	**Temporary Single Lane Closures**	**Temporary Shoulder Closures**
Days of Week:	Sunday night through Thursday night				
Time of Day:	Overnight: 6:00 p.m. to 6:00 a.m.			Allowed	Allowed
Time of Day:	Middle of night: 9 p.m. to 5 a.m.	Allowed	Allowed	Allowed	Allowed
Time of Day:	Daytime: 9:00 a.m. to 3:00 p.m.			Allowed	Allowed
Time of Day:	Commutes: 6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m.				
Days of Week:	Friday through Friday night				
Time of Day:	Overnight: 7:00 p.m. to 6:00 a.m.			Allowed	Allowed
Time of Day:	Middle of night: 10 p.m. to 5 a.m.	Allowed	Allowed	Allowed	Allowed
Time of Day:	Daytime: 9:00 a.m. to 3:00 p.m.				Allowed
Time of Day:	Commutes: 6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m.				
Days of Week:	Saturday (Day only)				
Time of Day:	Daytime: 9:00 a.m. to 3:00 p.m.				Allowed
Time of Day:	Commutes: 6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m.				Allowed
Days of Week:	Saturday Night through Sunday	No work or closures allowed			

Mainline Northbound, Boom Road Underpass and Beech Ridge Road Underpass Off Season January 1, 2020 through May 14, 2020 and October 12, 2020 through December 31, 2020					
		Equipment Moves	**Temporary Double Lane Closures**	**Temporary Single Lane Closures**	**Temporary Shoulder Closures**
Days of Week:	Sunday night through Thursday night				
Time of Day:	Overnight: 6:00 p.m. to 6:00 a.m.			Allowed	Allowed
Time of Day:	Middle of night: 9 p.m. to 5 a.m.	Allowed	Allowed	Allowed	Allowed
Time of Day:	Daytime: 9:00 a.m. to 3:00 p.m.			Allowed	Allowed
Time of Day:	Commutes: 6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m.				Allowed
Days of Week:	Friday through Friday night				
Time of Day:	Overnight: 7:00 p.m. to 6:00 a.m.			Allowed	Allowed
Time of Day:	Middle of night: 9 p.m. to 5 a.m.	Allowed	Allowed	Allowed	Allowed
Time of Day:	Daytime: 9:00 a.m. to 2:00 p.m.			Allowed	Allowed
Time of Day:	Commutes: 6:00 a.m. to 9:00 a.m. and 2:00 p.m. to 6:00 p.m.				Allowed
Days of Week:	Saturday (Day only)				
Time of Day:	Daytime: 9:00 a.m. to 3:00 p.m.			Allowed	Allowed
Time of Day:	Commutes: 6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m.			Allowed	Allowed
Days of Week:	Saturday Night through Sunday	No work or closures allowed			

Mainline Southbound, Boom Road Underpass and Beech Ridge Road Underpass Peak Season June 26, 2020 through September 8, 2020					
		Equipment Moves	**Temporary Double Lane Closures**	**Temporary Single Lane Closures**	**Temporary Shoulder Closures**
Days of Week:	Sunday night through Thursday night				
Time of Day:	Overnight: 8:00 p.m. to 7:00 a.m.			Allowed	Allowed
Time of Day:	Middle of night: 10 p.m. to 5 a.m.	Allowed	Allowed	Allowed	Allowed
Time of Day:	Daytime: 7:00 a.m. to 3:00 p.m.				Allowed
Time of Day	Commute: 3:00 p.m. to 8:00 p.m.				
Days of Week:	Friday through Friday night				
Time of Day:	Overnight: 8:00 p.m. to 7:00 a.m.			Allowed	Allowed
Time of Day:	Middle of night: 10 p.m. to 5 a.m.	Allowed	Allowed	Allowed	Allowed
Time of Day:	Daytime: 7:00 a.m. to 3:00 p.m.				Allowed
Time of Day	Commute: 3:00 p.m. to 8:00 p.m.				
Days of Week:	Saturday (Day only)				
Time of Day:	Daytime: 9:00 a.m. to 7:00 p.m.				
Time of Day:	Morning and Evening: 6:00 a.m. to 9:00 a.m. and 7:00 p.m. to 9:00 p.m.			Allowed	Allowed
Days of Week:	Saturday Night through Sunday	No work or closures allowed			

Mainline Southbound, Boom Road Underpass and Beech Ridge Road Underpass Shoulder Seasons May 15, 2020 through June 25, 2020 and September 9, 2020 through October 12, 2020					
		Equipment Moves	**Temporary Double Lane Closures**	**Temporary Single Lane Closures**	**Temporary Shoulder Closures**
Days of Week:	Sunday night through Thursday night				
Time of Day:	Overnight: 7:00 p.m. to 11:00 a.m.			Allowed	Allowed
Time of Day:	Middle of night: 10 p.m. to 5 a.m.	Allowed	Allowed	Allowed	Allowed
Time of Day:	Daytime: 11:00 a.m. to 7:00 p.m.				Allowed
Days of Week:	Friday through Friday night				
Time of Day:	Overnight: 8:00 p.m. to 10:00 a.m.			Allowed	Allowed
Time of Day:	Middle of night: 10 p.m. to 5 a.m.	Allowed	Allowed	Allowed	Allowed
Time of Day:	Daytime: 10:00 a.m. to 8:00 p.m.				Allowed
Days of Week:	Saturday (Day only)				
Time of Day:	Daytime: 11:00 a.m. to 6:00 p.m.				Allowed
Time of Day:	Morning and Evening: 6:00 a.m. to 11:00 a.m. and 6:00 p.m. to 9:00 p.m.			Allowed	Allowed
Days of Week:	Saturday Night through Sunday	No work or closures allowed			

Mainline Southbound, Boom Road Underpass and Beech Ridge Road Underpass Off Season January 1, 2020 through May 14, 2020 and October 12, 2020 through December 31, 2020					
		Equipment Moves	**Temporary Double Lane Closures**	**Temporary Single Lane Closures**	**Temporary Shoulder Closures**
Days of Week:	Sunday night through Thursday night				
Time of Day:	Overnight: 7:00 p.m. to 12:00 noon			Allowed	Allowed
Time of Day:	Middle of night: 9 p.m. to 5 a.m.	Allowed	Allowed	Allowed	Allowed
Time of Day:	Daytime: 12:00 noon to 7:00 p.m.				Allowed
Days of Week:	Friday through Friday night				
Time of Day:	Overnight: 8:00 p.m. to 11:00 a.m.			Allowed	Allowed
Time of Day:	Middle of night: 10 p.m. to 5 a.m.	Allowed	Allowed	Allowed	Allowed
Time of Day:	Daytime: 11:00 a.m. to 8:00 p.m.				Allowed
Days of Week:	Saturday (Day only)				
Time of Day:	Daytime: 11:00 a.m. to 6:00 p.m.				Allowed
Time of Day:	Morning and Evening: 6:00 a.m. to 11:00 a.m. and 6:00 p.m. to 9:00 p.m.			Allowed	Allowed
Days of Week:	Saturday Night through Sunday	No work or closures allowed			

SPECIAL PROVISION

SECTION 652

MAINTENANCE OF TRAFFIC

(Flaggers)

Section 652 of the Maine Turnpike Authority 2016 Supplemental Specifications is modified as follows:

652.2.4 Other Devices

Paragraph five is deleted and replaced with the following:

STOP/SLOW paddles shall be the primary and preferred hand-signaling device. Flags shall be limited to emergencies. The paddle shall have an octagonal shape and be at least 18 inches wide with letters at least 6 inches high and should be fabricated from light semi-rigid material. STOP/SLOW paddles shall have internal flashing LEDs and be Visual-Alert LED STOP/SLOW Paddles or approved equivalent.

652.4 Flaggers

The last sentence in the first paragraph is deleted and replaced with the following:

Only flashing SLOW/STOP paddles shall be used and the flagger station shall be illuminated to assure visibility in accordance with 652.6.2.

Add:

Flaggers shall not stop traffic on Turnpike mainline or interchange ramps. Only State Police are allowed to stop traffic on mainline or interchange ramps.

652.7 Method of Measurement

Add:

Payment for flagging will only be made for the paving work on Boom Road as described in Special Provision Section 652, unless otherwise directed by the Resident.

Flaggers used for the convenience of the Contractor will not be measured for payment and shall be incidental to the various pay items.

SPECIAL PROVISION

SECTION 719

SIGNING MATERIAL

Section 719.01 Reflective Sheeting

This Subsection is deleted in its entirety and replaced with the following:

Retroreflective sheeting for signs shall meet at a minimum the requirements for ASTM 4956 – Type XI (Prismatic) manufactured by 3M Company, for all signs.

Reflective sheeting, used in sign construction, shall have been manufactured within the six months immediately prior to the fabrication of each sign. Upon delivery at the job site of each shipment of signs, a letter of certification shall be provided that the reflective sheeting conforms to the requirements.

For Type 1 Guide Signs, all reflective sheeting shall be color matched on each sign unit.

All warning signs shall be fluorescent yellow except for Ramp Advisory Speed signs which shall be yellow.

All Construction Series signs that use orange backgrounds shall be fluorescent orange.

All Pedestrian Signs shall be fluorescent yellow-green.

EZ-PASS Purple shall conform to the FHWA Purple color box.

719.02 Demountable High Intensity Reflectorized Letters, Numerals, Symbols, and Borders

This Subsection, including the title, is deleted in its entirety and replaced with the following:

719.02 Direct Applied Reflectorized Letters, Numerals, Symbols, and Borders

Direct applied letters, numerals, symbols and borders shall consist of cut out sheeting that shall meet at a minimum the requirements for ASTM 4956 – Type XI (Prismatic) sheeting. The sheeting material used for the direct applied legend shall be the same type as used for the background.