MAINE TURNPIKE AUTHORITY

ADDENDUM NO. 1

CONTRACT 2021.07

EXIT 45 – INTERCHANGE RECONFIGURATION
MILE 44.9

The bid opening date is Thursday February 18, 2021 at 11:00 am.

The following changes are made to the Proposal, Specifications and Plans.

GENERAL

All questions regarding Contract 2021.07 should be submitted by the 3:00 pm on Wednesday February 10, 2021 to be answered in the last addendum to be issued on Friday February 12, 2021, if necessary. Questions received after that time may not be answered.

PROPOSAL

Proposal Sheets P-6 and P-21 shall be deleted and replaced with revised sheet attached hereto.

SPECIFICATIONS

- Revisions to the attached Special Provisions are in bold font.
- Page N-1, Bid Opening date shall be changed to February 18th, 2021 at 11:00 a.m. by Zoom with the following meeting information:

  Topic: Exit 45 Bid Opening
  Time: Feb 18, 2021 11:00 AM Eastern Time (US and Canada)

  Join Zoom Meeting
  https://us02web.zoom.us/j/83402262179?pwd=KzJmZUsyWldtVmI2UGtsclQzZHBjUT09

  Meeting ID: 834 0226 2179
  Passcode: 915077
  One tap mobile
  +13126266799,,83402262179#,,,,*915077# US (Chicago)
  +19292056099,,83402262179#,,,,*915077# US (New York)

- Pages SP-3 to SP-5, Section 104.3.8 (Wage Rates) shall be deleted and replaced with the attached.
- Page SP-19, Section 107.4.7 (Prosecution of Work) shall be deleted and replaced with the attached.
- Page SP-21, Section 107.4.7: The first paragraph shall be deleted and replaced with: The contractor

shall not place geofoam within 30 feet of the abutments until the foundation piles are driven and accepted.

- Pages SP-48 to SP-54, Section 401 (Hot Mix Asphalt Pavement) shall be deleted and replaced with the attached.
- Pages SP-108 to SP-112, Section 520 (Asphaltic Plug Joint) shall be deleted and replaced with the attached.
- Page SP-266, Section 652.7: The first paragraph shall be deleted and replaced with: Portable-changeable message signs shall be measured for payment by each or by the week for each week that a portable-changeable message sign is used on the project. A week shall be defined as seven consecutive calendar days.
- Page SP-268, Section 652.8.2: The third paragraph shall be deleted and replaced with: The accepted quantity of Portable Changeable Message Signs will be paid for at the Contract unit price per week. This price shall be full compensation for furnishing, relocating, maintaining and removing the PCMS. The price also includes all costs associated with setting-up and paying for a data cellular account, technical support, training and any costs associated with the GPS location device.
- Page SP-269, Section 652.8.2: Delete Item 652.4101 – Portable-Changeable Message Sign – Calendar Day and replace with Item 652.4101 – Portable-Changeable Message Sign – Week.
- Part III, Division 800, Page 087100-3, Part 2 Materials – Section 2.01 Materials, the following pen and ink change shall be made to the end of Section 2.01 Materials – B. - Number 13 is added to the section and shall read as follows:

  13. Coordination: Contractor shall provide a minimum 2 months' notice when they are ready to have the building security turned over to the MTA. Contractor shall remove their cores from the building as the MTA staff installs new cores so that there is timely and seamless security transfer. The MTA will order the permanent cores and keys through their supplier and perform the permanent core install.

PLANS

- Plan Sheet EQ01 to EQ-02 (3-4 of 431) is deleted and replaced with the attached.
- Plan Sheet GT-05 to GT-08 (285-288 of 431) is deleted and replaced with the attached.

QUESTIONS

The following are questions asked at the pre-bid meeting held on January 26, 2021 or submitted to the Maine Turnpike Authority in writing. Answers to the questions are noted. Bidders shall utilize this information in preparing their bid.

Question 1: In reference to Sheet S-14 (306 of 431) the girder support leveling plate called out in the lower left-hand corner of the drawing is called out to be AASHTO M270 HPS 70W – is this a correct grade designation for this or can it be Grade 50 since it is encased in concrete in final construction? Also, what is the finish of both the plate and the anchor bolts? Galvanized or uncoated?

Answer: The girder support leveling plate shall be AASHTO M270 HPS 70W as shown on Sheet S-14. The leveling plate may be uncoated and anchor rods for the abutment leveling plate shall be galvanized.

Question 2: Are you anticipating and ledge on this project? If so, what is bid quantity?

Answer: Rock Excavation is not anticipated on this project.

Question 3: Can the Metal Lockers (Building SP 105113) be replaced with Scranton Duralife Lockers?

Answer: No, the Authority would prefer to use the metal lockers as specified.

ATTACHMENTS

- Addendum No. 1 (3 pages)
- Revised Proposal Sheets (2 pages)
- Special Provision Sheets (17 pages)
- Pre-Bid Agenda (9 pages)
- Pre-Bid Sign-In Sheet (2 pages)
- Revised Plan Sheets (6 pages)

Notes: The above items shall be considered as part of the bid submittal.

The total number of pages included with this addendum is Thirty-Nine pages (39).

All bidders are requested to acknowledge the receipt of the Addendum No. 1 by signing below and faxing this sheet to Nathaniel Carll, Purchasing Department, Maine Turnpike Authority at 207-871-7739. Bidders are also required to acknowledge receipt of this Addendum No. 1 on Page P-7 of the bid package.

_____
Business Name

_____
Print Name and Title

_____
Signature

_____
Date
February 3, 2021

Very truly yours,

MAINE TURNPIKE AUTHORITY

_____
Nathaniel Carll
Purchasing Department
Maine Turnpike Authority

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
503.18	GLASS FIBER REINFORCED POLYMER (GFRP) REINFORCING BARS, FABRICATED AND DELIVERED	Linear Foot	80,600				
503.19	GLASS FIBER REINFORCED POLYMER (GFRP) REINFORCING BARS, PLACING	Linear Foot	80,600				
503.90	SYNTHETIC FIBER REINFORCEMENT	Pound	2,700				
504.50	TOLL PLAZA CANOPY - SOUTHBOUND	Lump Sum	1				
504.51	TOLL PLAZA CANOPY - NORTHBOUND	Lump Sum	1				
504.61	TOLL DUAL PURPOSE MAST ARM – SOUTHBOUND	Lump Sum	1				
504.62	TOLL DUAL PURPOSE MAST ARM – NORTHBOUND	Lump Sum	1				
504.702	STRUCTURAL STEEL FABRICATED AND DELIVERED, WELDED (581,000 LB)	Lump Sum	1				
504.71	STRUCTURAL STEEL ERECTION (581,000 LB)	Lump Sum	1				
505.08	SHEAR CONNECTORS (5,285 EA)	Lump Sum	1				
506.9104	THERMAL SPRAY COATING (SHOP APPLIED)	Lump Sum	1				
507.091	ALUMINUM BRIDGE RAILING, 1 BAR (548 LF)	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:				
652.34	CONE	Each	50				
652.35	CONSTRUCTION SIGNS	Square Foot	3,750				
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	Lump Sum	1				
652.38	FLAGGERS	Hour	240				
652.41	PORTABLE-CHANGEABLE MESSAGE SIGN	Each	4				
652.4101	PORTABLE-CHANGEABLE MESSAGE SIGN	Week	20				
652.45	TRUCK MOUNTED ATTENUATOR	Calendar Day	290				
652.452	AUTOMATED TRAILER MOUNTED SPEED LIMIT SIGN	Each	3				
652.47	SEQUENTIAL FLASHING WARNING LIGHTS	Each	30				
655.012	INSTALLATION OF CASH LANE CONTROLLER CABINET	Each	6				
655.02	DVAS MOUNT INSTALLATION	Each	8				
655.041	INSTALLATION OF SENSOR LOOPS - SOUTHBOUND	Lump Sum	1				

CARRIED FORWARD:

THIS DOCUMENT MUST BE CLEARLY POSTED AT ALL CONSTRUCTION SITES FUNDED IN PART WITH STATE FUNDS

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.

2021 Fair Minimum Wage Rates
Highway & Earth Cumberland County

Occupation Title	Minimum Wage	Minimum Benefit	Total	Occupation Title	Minimum Wage	Minimum Benefit	Total
Asphalt Raker	$ 19.80	$ 1.01	$ 20.81	Ironworker - Reinforcing	$ 28.00	$ 6.74	$ 34.74
Backhoe Loader Operator	$ 25.46	$ 4.33	$ 29.79	Laborer - Skilled	$ 20.61	$ 2.19	$ 22.80
Boom Truck (Truck Crane) Operator	$ 26.00	$ 5.20	$ 31.20	Laborers (Helpers & Tenders)	$ 20.00	$ 0.89	$ 20.89
Bulldozer Operator	$ 24.97	$ 3.50	$ 28.47	Loader Operator - Front-End	$ 20.50	$ 3.80	$ 24.30
Carpenter - Rough	$ 30.76	$ 19.72	$ 50.48	Mechanic- Maintenance	$ 24.00	$ 3.92	$ 27.92
Cement Mason/Finisher	$ 20.75	$ 1.27	$ 22.02	Millwright	$ 25.75	$ 5.41	$ 31.16
Communication Equip Installer	$ 22.00	$ 0.00	$ 22.00	Painter	$ 19.50	$ 0.00	$ 19.50
Crane Operator =>15 Tons)	$ 29.12	$ 6.68	$ 35.80	Paver Operator	$ 30.00	$ 5.21	$ 35.21
Crusher Plant Operator	$ 20.00	$ 2.39	$ 22.39	Pipelayer	$ 23.90	$ 3.50	$ 27.40
Electrician - Licensed	$ 28.00	$ 5.90	$ 33.90	Reclaimer Operator	$ 26.83	$ 13.25	$ 40.08
Electrician Helper/Cable Puller	$ 18.50	$ 2.38	$ 20.88	Roller Operator - Earth	$ 19.83	$ 0.00	$ 19.83
Excavator Operator	$ 24.20	$ 4.00	$ 28.20	Roller Operator - Pavement	$ 23.06	$ 4.59	$ 27.65
Fence Setter	$ 19.00	$ 2.00	$ 21.00	Screed/Wheelman	$ 24.86	$ 4.18	$ 29.04
Flagger	$ 15.50	$ 0.00	$ 15.50	Stone Mason	$ 25.00	$ 1.88	$ 26.88
Grader/Scraper Operator	$ 25.00	$ 6.64	$ 31.64	Truck Driver - Heavy	$ 19.00	$ 2.03	$ 21.03
Highway Worker/Guardrail Installer	$ 24.87	$ 1.36	$ 26.23	Truck Driver - Light	$ 24.15	$ 0.38	$ 24.53
Hot Top Plant Operator	$ 23.91	$ 7.34	$ 31.25	Truck Driver - Medium	$ 21.00	$ 1.64	$ 22.64
Industrial Truck (Forklift) Operator	$ 26.83	$ 1.48	$ 28.31	Truck Driver - Tractor Trailer	$ 20.00	$ 0.72	$ 20.72

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.

Title 26 §1310 requires that a clearly legible statement of all fair minimum wage and benefits rates to be paid the several classes of laborers, workers and mechanics employed on the construction on the public work must be kept posted in a prominent and easily accessible place at the site by each contractor and subcontractor subject to sections 1304 to 1313.

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.

A true copy

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

Expiration Date: 12-31-2021

THIS DOCUMENT MUST BE CLEARLY POSTED AT ALL CONSTRUCTION SITES FUNDED IN PART WITH STATE FUNDS

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.

2021 Fair Minimum Wage Rates
Heavy & Bridge Cumberland County

Occupation Title	Minimum Wage	Minimum Benefit	Total	Occupation Title	Minimum Wage	Minimum Benefit	Total
Asphalt Raker	$ 18.38	$ 0.95	$ 19.33	Ironworker - Reinforcing	$ 29.38	$ 6.98	$ 36.36
Backhoe Loader Operator	$ 28.75	$ 12.88	$ 41.63	Ironworker - Structural	$ 22.00	$ 4.94	$ 26.94
Boom Truck (Truck Crane) Operator	$ 26.00	$ 5.20	$ 31.20	Laborer - Skilled	$ 22.50	$ 4.46	$ 26.96
Bulldozer Operator	$ 25.00	$ 2.15	$ 27.15	Laborers (Helpers & Tenders)	$ 21.01	$ 1.52	$ 22.53
Carpenter	$ 24.75	$ 5.90	$ 30.65	Line Erector - Power/Cable Splicer	$ 32.89	$ 5.85	$ 38.74
Carpenter - Rough	$ 25.00	$ 5.67	$ 30.67	Loader Operator - Front-End	$ 26.00	$ 4.54	$ 30.54
Cement Mason/Finisher	$ 23.68	$ 0.00	$ 23.68	Mechanic- Maintenance	$ 24.61	$ 3.67	$ 28.28
Comm Transmission Erector-Microwave/Cell	$ 23.00	$ 4.64	$ 27.64	Mechanic- Refrigeration	$ 26.50	$ 6.58	$ 33.08
Communication Equip Installer	$ 19.75	$ 3.69	$ 23.44	Millwright	$ 27.00	$ 5.49	$ 32.49
Crane Operator =>15 Tons)	$ 31.98	$ 6.87	$ 38.85	Painter	$ 35.00	$ 0.00	$ 35.00
Diver	$ 32.00	$ 4.80	$ 36.80	Paver Operator	$ 23.91	$ 4.19	$ 28.10
Dry-Wall Applicator	$ 24.00	$ 0.00	$ 24.00	Pipe/Steam/Sprinkler Fitter	$ 27.00	$ 6.72	$ 33.72
Dry-Wall Taper & Finisher	$ 24.00	$ 0.68	$ 24.68	Pipelayer	$ 25.50	$ 5.90	$ 31.40
Earth Auger Operator	$ 27.33	$ 5.85	$ 33.18	Plumber (Licensed)	$ 28.00	$ 4.18	$ 32.18
Electrician - Licensed	$ 31.98	$ 8.44	$ 40.42	Plumber Helper/Trainee	$ 19.25	$ 2.10	$ 21.35
Electrician Helper/Cable Puller	$ 21.75	$ 18.67	$ 40.42	Reclaimer Operator	$ 47.40	$ 0.00	$ 47.40
Elevator Constructor/Installer	$ 61.42	$ 41.17	$ 102.59	Rigger	$ 26.00	$ 7.43	$ 33.43
Excavator Operator	$ 28.00	$ 4.27	$ 32.27	Roller Operator - Earth	$ 20.00	$ 2.89	$ 22.89
Fence Setter	$ 19.00	$ 2.00	$ 21.00	Roller Operator - Pavement	$ 22.84	$ 4.52	$ 27.36
Flagger	$ 15.00	$ 0.00	$ 15.00	Screed/Wheelman	$ 20.00	$ 3.18	$ 23.18
Floor Layer	$ 22.00	$ 4.32	$ 26.32	Sheet Metal Worker	$ 22.50	$ 5.42	$ 27.92
Grader/Scraper Operator	$ 25.00	$ 6.64	$ 31.64	Truck Driver - Heavy	$ 23.99	$ 1.93	$ 25.92
Hot Top Plant Operator	$ 23.91	$ 5.94	$ 29.85	Truck Driver - Light	$ 22.00	$ 0.52	$ 22.52
Industrial Truck (Forklift) Operator	$ 25.00	$ 1.95	$ 26.95	Truck Driver - Medium	$ 20.81	$ 1.68	$ 22.49
Insulation Installer	$ 21.00	$ 2.12	$ 23.12	Truck Driver - Tractor Trailer	$ 25.00	$ 2.57	$ 27.57

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.

Title 26 §1310 requires that a clearly legible statement of all fair minimum wage and benefits rates to be paid the several classes of laborers, workers and mechanics employed on the construction on the public work must be kept posted in a prominent and easily accessible place at the site by each contractor and subcontractor subject to sections 1304 to 1313.

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.

A true copy

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

Expiration Date: 12-31-2021

THIS DOCUMENT MUST BE CLEARLY POSTED AT ALL CONSTRUCTION SITES FUNDED IN PART WITH STATE FUNDS

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.

2021 Fair Minimum Wage Rates
Building 2 Cumberland County
(other than 1 or 2 family homes)

Occupation Title	Minimum Wage	Minimum Benefit	Total	Occupation Title	Minimum Wage	Minimum Benefit	Total
Asbestos/Lead Removal Worker	$ 17.75	$ 0.72	$ 18.47	Heating/Vent/AC	$ 28.50	$ 3.92	$ 32.42
Assembler - Metal Building	$ 18.75	$ 3.55	$ 22.30	Insulation Installer	$ 21.00	$ 3.05	$ 24.05
Backhoe Loader Operator	$ 29.00	$ 9.34	$ 38.34	Ironworker - Reinforcing	$ 19.50	$ 5.63	$ 25.13
Boom Truck (Truck Crane) Operator	$ 26.00	$ 5.20	$ 31.20	Ironworker - Structural	$ 26.00	$ 7.66	$ 33.66
Bricklayer	$ 29.00	$ 4.45	$ 33.45	Laborer - Skilled	$ 20.00	$ 4.33	$ 24.33
Bulldozer Operator	$ 22.50	$ 3.45	$ 25.95	Laborers (Helpers & Tenders)	$ 17.04	$ 1.15	$ 18.19
Carpenter	$ 25.41	$ 4.81	$ 30.22	Line Erector - Power/Cable Splicer	$ 32.89	$ 6.55	$ 39.44
Carpenter - Acoustical	$ 20.00	$ 18.82	$ 38.82	Loader Operator - Front-End	$ 20.05	$ 2.98	$ 23.03
Carpenter - Rough	$ 22.90	$ 4.63	$ 27.53	Mechanic- Maintenance	$ 33.55	$ 2.75	$ 36.30
Cement Mason/Finisher	$ 19.50	$ 3.89	$ 23.39	Mechanic- Refrigeration	$ 26.71	$ 7.02	$ 33.73
Communication Equip Installer	$ 25.08	$ 5.73	$ 30.81	Millwright	$ 22.00	$ 1.96	$ 23.96
Concrete Pump Operator	$ 20.50	$ 0.00	$ 20.50	Oil/Fuel Burner Servicer/Installer	$ 25.20	$ 5.40	$ 30.60
Crane Operator =>15 Tons)	$ 29.12	$ 6.68	$ 35.80	Painter	$ 18.13	$ 1.89	$ 20.02
Crusher Plant Operator	$ 20.00	$ 2.90	$ 22.90	Pipe/Steam/Sprinkler Fitter	$ 26.00	$ 5.41	$ 31.41
Dry-Wall Applicator	$ 25.41	$ 1.49	$ 26.90	Plumber (Licensed)	$ 29.50	$ 4.24	$ 33.74
Dry-Wall Taper & Finisher	$ 29.50	$ 3.13	$ 32.63	Plumber Helper/Trainee	$ 19.44	$ 2.49	$ 21.93
Earth Auger Operator	$ 26.96	$ 5.55	$ 32.51	Propane & Natural Gas Serv/Inst	$ 28.00	$ 4.57	$ 32.57
Electrician - Licensed	$ 31.03	$ 16.28	$ 47.31	Roofer	$ 23.13	$ 0.00	$ 23.13
Electrician Helper/Cable Puller	$ 18.00	$ 2.01	$ 20.01	Sheet Metal Worker	$ 23.50	$ 5.30	$ 28.80
Elevator Constructor/Installer	$ 61.25	$ 39.21	$ 100.46	Sider	$ 17.50	$ 4.28	$ 21.78
Excavator Operator	$ 22.52	$ 1.51	$ 24.03	Tile Setter	$ 23.00	$ 3.58	$ 26.58
Fence Setter	$ 20.00	$ 6.61	$ 26.61	Truck Driver - Heavy	$ 18.00	$ 0.66	$ 18.66
Floor Layer	$ 23.00	$ 5.48	$ 28.48	Truck Driver - Light	$ 22.00	$ 0.52	$ 22.52
Furniture Installer/Assembler	$ 16.00	$ 2.52	$ 18.52	Truck Driver - Medium	$ 20.81	$ 1.68	$ 22.49
Glazier	$ 19.50	$ 4.71	$ 24.21	Truck Driver - Tractor Trailer	$ 20.00	$ 0.90	$ 20.90

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.

Title 26 §1310 requires that a clearly legible statement of all fair minimum wage and benefits rates to be paid the several classes of laborers, workers and mechanics employed on the construction on the public work must be kept posted in a prominent and easily accessible place at the site by each contractor and subcontractor subject to sections 1304 to 1313.

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.

A true copy

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

Expiration Date: 12-31-2021

Interim Completion Date B

The contractor shall complete the embankment construction of permanent Ramp A to the top of Aggregate Base Course -Type A from Sta. 100+00 to Sta. 111+50 by July 16, 2021 to provide one year of preload settlement. Placement of additional Aggregate Base Course – Type A will be required to correct any settlement over the one year duration, fine grading, and paving of this area and the Southbound Toll Administration building access road shall occur after July 16, 2022.

Permanent Ramp C from station 304+50 left to station 306+00 left, permanent Ramp C from station 315+25 to station 317+25, and Northbound On Emergency Vehicle Ramp from station 353+00 to station 354+50 shall be constructed to the top of Aggregate Base Course – Type A by July 16, 2021. Placement of additional Aggregate Base Course – Type A will be required to correct any settlement over the one year duration, fine grading, and paving of this area and the Southbound Toll Administration building access road shall occur after July 16, 2022.

Interim Completion Date C

The contractor shall complete the work associated with the proposed Exit 45 bridge, Southbound Toll Plaza Facilities (Entry and Exit) and Northbound Toll Plaza Facilities (Entry and Exit), including commissioning of the tolling systems by the System Integrator and the Authority, Southbound Toll Administration building and Northbound Toll Administration building, traffic signal system, including the final wearing course of pavement for Ramp A between station 106+00 and 119+25, Ramp B between stations 200+00 and 210+25, Ramp C between stations 300+00 and 318+00, Ramp D between stations 406+00 and 415+00 and Route 703 between stations 1046+20 and 1052+25, and all reconfigured ramps are operational and open to traffic by September 30, 2022. A weekend interchange closure will be allowed as stated in Special Provision Section 652 Project Specific Maintenance of Traffic Requirements to complete this work. The Authority will transfer fare collection operations from the existing toll plaza facility to the new southbound and northbound toll plaza facilities during the weekend closure. The Authority will be collecting fares at the new southbound and northbound toll plaza facilities when the interchange is reopened at the end of the weekend closure. The Contractor must account for 14 sequential calendar days per toll lane, in the construction schedule, that is required by the System Integrator for testing and commissioning of the toll lanes in their schedule. Multiple lanes will NOT be commissioned simultaneously but instead, sequentially. **The administration buildings shall be officially accepted (including completion of all punch list items, delivery of O&M manuals and any training) on or before Interim Completion Date C. Interim Completion Date C shall define the start of the buildings warranty period and all utility services shall become the responsibility of the Authority.**

Interim Completion Date D

The contractor shall complete all work associated with demolition of the existing toll plaza and toll administration building including reconstruction of the roadway within the demolition limits and the westbound right shoulder from station 2066+00 to station 2070+80 and shall have traffic established as shown in the Route 703 Phase 5 Maintenance of Traffic plans by November 11, 2022. The Authority will allow a Thursday overnight closure of the interchange ramps for demolition of the toll gantry and toll canopy in their entirety and a sequential weekend closure of the interchange ramps for the phase 1 demolition of the existing toll plaza. Traffic shall be established in accordance with the Route 703 Phase 4 maintenance of traffic plans when the interchange reopens to traffic at the completion of the weekend closure.

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 401.021 Recycled Asphalt Materials

Delete the second paragraph and replace with the following:

In the event that RAP source or properties change, the Contractor shall notify the Authority of the change and submit new documentation stating the new source or properties. A plant produced test batch meeting all requirements including Hamburg Wheel Tracker results.

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

Add the following line item after the third bullet:

- **Any HMA placed over bridge deck membrane shall have a minimum temperature of 300° F measured directly behind the screed in the uncompacted mat.**

Add the following paragraph:

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, shoulders, 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 paragraphs:

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.

The contractor shall supply enough haul units such that paving is continuous and without any delays or paver speed changes during the installation of mainline wearing course or any course placed on a bridge deck. The contractor will be charged a fee of $1000 for every occurrence if paving is either stopped or the paver must slow down to avoid stopping due to inadequate number of haul units at the sole discretion of the Authority. In addition to the fee a Quality Control Violation as outlined in Section 106.4.6 will be issued for every shift which does not have enough haul units. The Quality Control Violation will start at the 2nd incident.

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 401.11 Preparation of Existing Surface

Add the following paragraph:

The contractor will be permitted to be generally innovative in methods to dry existing wet or damp pavement. Any method which causes damage or burning of the existing pavement, or which causes debris to fly into traffic shall be discontinued.

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 from a fixed reference point. 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

Delete the following sentence from the third paragraph:

“The Authority may allow feathered or "lap" joints on lower base courses or when matching existing base type pavements.”

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 520

EXPANSION DEVICES – NON-MODULAR

(Asphaltic Plug Joint)

Section 520, Expansion Devices, Non-Modular, is deleted in its entirety and replaced with the following:

520.01 Description

This work consists of furnishing and installing asphaltic plug joint systems at the location(s) shown on the Plans, in accordance with these Specifications or as directed by the Resident. This work shall include furnishing, installation and removal of any bond breaking materials used to prevent asphalt pavement layers from adhering to waterproofing membrane, all temporary header(s) installed with the intent to form the asphaltic plug joint channel, and all preparation required for the installation of the asphaltic plug joint.

This work shall also include having the approved manufacturer provide a qualified technical representative to supervise the installation of the joint systems. The representative shall instruct, train and supervise the Contractor's personnel in the proper methods of installation. All costs associated with this service shall be included in the unit price of the work.

Bridging plates for asphaltic plug joint systems shall only be used when shown on the Contract Plans.

520.02 Submittals

Prior to construction, the Contractor shall submit the following to the Resident to for review and approval:

(a) Complete and detailed Shop Drawings of asphaltic plug joint system. Shop Drawing shall include information covering materials, their properties, installation procedures, storage and handling requirements, and Safety Data Sheets.

(b) The resume of the manufacturer's technical representative, which shall include the representative's experience installing the asphaltic plug joint system along with the names and telephone numbers of contact persons for recent projects where technical assistance was provided.

(c) Certified test reports of the asphaltic binder, closed cell foam backer rod, and the plastic compound.

(d) Certificates of Compliance for bridging plates, centering nails, and aggregate.

520.03 Materials

The asphaltic plug joints shall consist of a system including bridge joint binder material, aggregate, backer rod, elastomeric concrete header material, and polysulfide joint sealant

conforming to the details and dimensions shown on the Plans, in accordance with these Specifications and as directed by the Resident.

The asphaltic plug joint system shall be selected from the systems and manufacturers listed on the Contract Plans.

Materials which are incorporated in or used in conjunction with approved asphaltic plug joint systems are as follows:

(a) Asphaltic Binder:

Binder shall meet or exceed requirements of manufacturer's specifications.

(b) Backer Rod:

Backer rod shall be a cylindrical closed cell expanded polyethylene foam rod, with a diameter of 150 percent of joint opening width, capable of withstanding the temperature of the hot binder materials **and shall meet or exceed the manufacturer's specifications.**

(c) Bridging Plate:

Bridging Plate shall be either Plate Steel or Aluminum Flashing as specified on the plans.

Steel Bridging Plates shall be fabricated from ASTM A36 steel, shall be a minimum of 1/4 inch thick and shall be galvanized. Holes for centering nails shall be located approximately one foot on center along the centerline of the plates.

Aluminum Flashing Bridging Plates shall be rust-free roll aluminum. The aluminum flashing shall be a minimum of 6" wide and have a minimum thickness of 0.02 inches.

(d) Centering Nail:

Centering nails shall be 16d or larger and hot dip galvanized in accordance with ASTM A153.

520.04 Installations

The asphaltic plug joint system shall be installed in accordance with this Specification and the manufacturer's latest installation procedures. An installer certified by the membrane manufacturer shall be present during the entire installation to ensure satisfactory results are obtained. Where conflicts between this Specification and the manufacturer's recommendations occur the more stringent requirement, as determined by the Resident, shall govern.

The asphaltic plug joint system shall allow for the joint movement specified on the Contract Plans (with the specified range being from extreme hot to extreme cold temperature). The installation shall be centered over the expansion joint gap as indicated on the **Contract** Plans.

Installation shall occur when the structure temperature is between the limits indicated on the **Contract** Plans. It shall not be installed when rain is imminent, or in other environmental conditions disapproved by the Resident. The area shall be free of any dirt, dust, moisture, petroleum or solvents that might contaminate the joint materials or reduce the bond of the joint system to the substrate or vertical faces. The use of compressed air and heat may be required to dry the area before installing the joint system.

The asphalt pavement layers shall be removed to the required dimensions shown on the **Contract** Plans. **For bridges with torch applied waterproofing membrane beneath the asphalt pavement, the waterproofing membrane shall remain in place regardless of the joint manufacturer's recommendations.** The asphalt pavement shall be sawcut to a depth that will not damage the waterproofing membrane but permit the removal of the asphalt pavement layer. The pavement layer shall be removed in a manner that will not damage the waterproofing membrane. **All other types of membrane shall be removed prior to joint installation in accordance with the manufacturer's recommendations. When membrane is required to be removed, the membrane removal limits shall end 1" to 2" from the pavement removal limits to allow the asphaltic joint to overlap with the membrane.**

Bond breakers such as interlayers and fabrics, or temporary header(s), may be used with new hot mix asphalt placements to avoid unnecessary saw cuts and protect the waterproofing membrane from damage. The method of attaching any temporary header(s) to the concrete deck shall be approved by the Resident. The use of a temporary header shall not be allowed if it will need to be anchored into a precast prestressed concrete member. Should a concrete leveling course be required before installing the bridging plates, and the membrane layer is removed in the process, it shall be replaced before the asphaltic plug joint system is installed. Vertical surfaces of the asphalt pavement layers shall be cleaned to remove all water, dust, or other contaminates.

Backer rods shall be installed in expansion joint openings at a minimum of one inch depth as indicated on the Contract Plans.

Unless otherwise specified by the asphaltic plug joint system manufacturer, liquid asphalt binder meeting the requirements of a 64-28 or 58-28 PGAB shall be used to coat the membrane and bridging plate surfaces.

The binder shall be heated to 350°F to 410°F, or a safe temperature as recommended by manufacturer. Heating kettles shall be equipped with continuous agitation system, temperature controller, calibrated thermometer, and double steel jacket with an oil layer in between, to prevent scorching of the binder. During application, the temperature of binder shall be maintained at a minimum of 350°F, but no greater than 410°F. It shall be poured and leveled into expansion joint openings until overfilled, and the excess binder spreads over the area covered by the bridging plates.

If called for on the **Contract** Plans the bridging plates, whether fabricated from steel plate or aluminum flashing, shall be placed from curb to curb on the roadway portion of expansion joints. The plates shall be centered over joint openings. Centering nails shall be placed in pre-drilled holes and hammered into secure plates.

Once the bridging plates are installed, liquid asphalt binder shall be poured and leveled over the bridging plates and adjacent membrane surfaces in a manner that ensures full coverage.

Areas with excessive application, such as pooling of liquid, should be removed or dispersed along the joint area.

Asphaltic plug joint system aggregate shall be heated in a rotating drum mixer to a minimum of 350°F but no greater than 410°F, or as recommended by the manufacturer. The thermoplastic polymeric modified asphalt binder shall be added to the mixer **and thoroughly combined into a coated aggregate mixture.**

Coated aggregate shall be placed into blockouts in layers as recommended by the manufacturer. Blockouts shall be overfilled with coated aggregate as required to compensate for compaction. Equipment for compaction shall be as recommended by the manufacturer. Additional thermoplastic polymeric modified asphalt binder shall be screeded over the compacted joint to fill any surface voids.

Top dressing aggregate shall be applied per the manufacturer's recommendation.

Plastic compound shall be used for repairing overcuts in bituminous concrete. Cleaning, mixing and application shall be in conformance to the manufacturer's instructions.

Vehicular traffic may pass over finished joints two-hours after compaction or as recommended by the manufacturer.

520.05 Method of Measurement

The Expansion Device - Asphaltic Plug Joint system will be measured by the linear foot along the top surface of installed joints to the limits as shown on the **Contract** Plans. Preparation of surfaces for the proposed joint system including cutting, grinding, and cleaning will not be measured separately for payment, but shall be incidental to the Expansion Device - Asphaltic Plug Joint pay item.

520.06 Basis of Payment

The asphaltic plug joint system will be paid for at the Contract unit price per linear foot, which price shall be full compensation for all labor, materials, equipment, and incidentals required for furnishing and installing the Expansion Device - Asphaltic Plug Joint as shown on the **Contract** Plans, in accordance with these Specifications, and as directed by the Resident.

The backer rod, closed cell foam, all patching needed for the waterproofing membrane, and elastomeric sealant installed up the vertical face, and across the horizontal surfaces, of bridge curbs and sidewalks will not be measured separately for payment, but shall be incidental to the Expansion Device - Asphaltic Plug Joint pay item.

Payment will be made under:

Pay Item		Pay Unit
520.23	Asphaltic Plug Joint	Linear Foot

This Page Intentionally Left Blank

MAINE TURNPIKE AUTHORITY

Pre-Bid Conference

CONTRACT 2021.07

EXIT 45
INTERCHANGE RECONFIGURATION
MILE 44.9

JANUARY 26, 2021, 10:00 A.M.

1) Location:

The general limits of work are as shown on the Contract Plans at Mile 44.9.

2) General Description:

The work consists of highway, bridge, and toll system construction at the Exit 45 South Portland Interchange. The work includes a new bridge, new southbound and northbound ramps, a new southbound toll plaza on the west side of the Maine Turnpike with a signalized intersection and a new northbound toll plaza on the east side of the Maine Turnpike, Route 703 reconstruction, demolition of the existing toll plaza and bridge underpass, pavement, concrete, signing, overhead sign structure, concrete barrier, guardrail, bridge rails, electrical work, highway lighting, lightning suppression systems, and maintenance of traffic. The toll plaza work includes installation of tolling equipment, administration buildings, canopies, and toll booths and all other work incidental thereto in accordance with the Plans and Specifications.

3) Bid:

a) Opening: February 16, 2019 at 11:00 A.M. at MTA Headquarters 2360 Congress Street, Portland. Opening date will be revised to February 18th at 11:00 AM and a call in number for the bid opening will be issued with addendum 1.

b) All bid and contractual questions shall be directed to Nate Carll. Phone No.: (207) 482-8115. E-Mail: ncarll@maineturnpike.com.

c) All questions on plans and specifications shall be in writing and shall be directed to Nate Carll, Purchasing Manager, of the Maine Turnpike Authority. Fax No. (207) 871-7739. Email ncarll@maineturnpike.com

d) Bids will be accepted from prime Contractors **prequalified** by the Maine Department of Transportation for Bridge Construction Projects, with a highway subcontractor **prequalified** by the Maine Department of Transportation for Highway Construction Projects, a building subcontractor **prequalified** by the Maine Department of Transportation for Buildings and an electrical subcontractor **prequalified** by the Maine Department of Transportation for Traffic Signals and Lighting Projects.

4) Notification:

a) Contractor shall notify and obtain approval from the Authority prior to visiting the Project sites for field inspection. The contact person is Mr. Steve Tartre at startre@maineturnpike.com

5) Contract Specifications

a) The Specifications are divided into four parts: Part I, Supplemental Specifications, Part II, Special Provisions, Part III, Division 800 - Building Specifications, and Part IV, Appendices.

b) The Maine Turnpike Supplemental Specifications are additions and alterations to the 2014 Maine Department of Transportation Standard Specifications and are available on MTA's website.

6) Maine Department of Labor – Fair Hourly Wages (Special Provision 104.3.8)

a) Wage rates for Building 2, Highway and Earthwork, and Heavy and Bridge will be provided as an addendum when available from the Department of Labor.

7) Utility Coordination (Special Provision 104.4.6)

a) Seven aerial utility facilities, five distribution facilities and one transmission facility, are present within the project site: CMP, Consolidated Communications, MCI World Communications, FirstLight, Charter Communications, and MTA Communications.

b) The Contractor shall review and comply with the Special Conditions contained in all Aeronautical Studies contained in Appendix K – FAA Restrictions and Advisory Circular AC No. 70/7460-1M, Obstruction Marking and Lighting. These documents are contained in Appendix K – FAA Restrictions. The FAA has determined equipment that is 150 feet tall or less (above ground level) may be used on this project with special marking and/or lighting; see documents noted in this paragraph. Any equipment or part of equipment that exceeds 150 feet above ground level will require an additional application process, review and approval of the FAA before the equipment can be used.

c) The Authority's propane supplier shall be responsible for inspecting the underground propane piping installation prior to burial, inspecting the above ground propane piping, fittings, and regulators prior to delivery and filling the new propane tanks supplied and installed by the Contractor at the Administration Buildings. The Authority's propane supplier shall also be responsible for disconnecting and pumping the existing tanks at the existing toll building prior to the contractor removing and disposing of the propane tanks.

d) MTA and MaineDOT lighting, including underground conduit, is present throughout the project.

e) An underground waterline owned by Portland Water District crosses the Turnpike north of Cummings Road and more or less parallels the existing northeast toe of slope. A second waterline owned by Portland Water District cross the Turnpike north of the CMP transmission corridor. An underground sewer main owned by Running Hill, LLC crosses the Turnpike just north of the second water main.

f) Granite State Gas owns one transmission main of unknown size within this project area. It is located just to the east of the Maine Mall Road Bridge. The main crosses Ramp C at approximate station 296+70, Route 703 at approximate station 1062+80 and Ramp D at approximate station 422+00.

8) Cooperation With Other Contractors (Special Provision 104.4.7):

A. MTA Contract 2018.19 – Cummings Road Underpass Bridge Replacement, MM 44.6

B. MTA Contract 2020.03 – Mainline Widening and Median Safety Improvements, MM 43.0 – 46.4. The Contractor shall provide two weeks of notice to the Resident for removal of any materials and equipment stored within the project limits from Contract 2020.03.

C. MTA Contract 2021.08 – Portland Area Widening & Safety Improvements, MM 46.4 to 49.0.

9) Permit Requirements (Special Provision 105.8.2)

a) The Project is being constructed under the Maine Department of Environmental Protection (DEP) Natural Resources Protection Act Tier III. Additionally, the Project impacts environmental resources that have been permitted under a Maine Turnpike Authority's Portland Area Widening project permit, which requires a DEP Natural Resources Protection Act Individual Permit.

b) The Project is being permitted under Section 404 of the Clean Water Act, through the US Army Corps of Engineers Individual Permit. Additionally, the Project impacts environmental resources that have been permitted under the Maine Turnpike Authority's Portland Area Widening project permit, which also requires a US Army Corps of Engineers Individual Permit.

c) Maine Pollutant Discharge Elimination System (MPDES) General Permit for Stormwater Discharge from Construction Activity shall be followed.

d) Limit of Disturbance Plan shall be submitted prior to any disturbance.

e) The project is within an MS4 Area and the Contractor will be required to follow and sign the MS4 Awareness and adoption plans provided in Appendix A of the special provisions.

10) Construction Schedule/Substantial Completion:

a) The Contractor should review the detailed information regarding the Interim Completion Dates in Specification 107.4.6 – Prosecution of Work

b) February 25, 2021 – Contract Award Date

c) May 27, 2021 – Interim Completion Date A – Construction of MOT Ramps A, B, and A/B, additional 2 foot surcharge on west bridge approach.

d) July 16, 2021 – Interim Completion Date B – Construction of Ramp A, Sta. 100+00 to Sta. 111+50, and Ramp C, Sta. 315+25 to Sta. 317.25, to top of Type A Gravel. Additional embankment construction of Ramp C and Northbound On EVR.

e) September 30, 2022 – Interim Completion Date C – New bridge and toll plazas open to traffic and fully operational.

f) November 11, 2022 – Interim Completion Date D – Demolition of existing toll plaza

g) June 29, 2023 – Interim Completion Date E – Maine Turnpike Mainline construction

h) August 18, 2023 – Substantial Completion.

i) September 1, 2023 – Contract Completion Date.

11) Incentives/Disincentives

a) This Contract will include Completion Incentives of $5,000 per day for each day ahead of Interim Completion Date C, up to a maximum of 15 days.

b) The Contract will also include Supplemental Liquidated Damages of $5,000 per day for each day beyond Interim Completion Date C

c) The Contract will also include Supplemental Liquidated Damages of $2,500 per day for each day beyond Interim Completion Dates A, B, D, and E.

12) Prosecution of Work (107.4.6) & Limits of Operations (Special Provision 107.4.7)

a) Completion of the surcharge period will be determined by the Engineer based on the collection and evaluation of instrumentation data and in-situ undrained shear strength measurements within the marine clay deposit. The ongoing surcharge duration for embankments built during Contract 2019.13 have anticipated surcharge removal dates for specific locations listed on plan sheets GT-09 and GT-10. The removal of surcharge fill shall not begin until directed by the Engineer. The Contractor shall consider the anticipated durations as noted on plan sheets GT-09 and GT-10 in the development of their bid and in the sequencing and scheduling the work.

b) The contractor shall not place geofoam within 30 feet of the abutments until the pile foundations are complete.

c) Fine grading and paving of Ramp A Sta. 100+00 to Sta. 111+50, Ramp C Sta. 315+75 to Sta. 317+25, and NB On EVR Sta. 353+00 to Sta. 354+50 shall occur after July 16, 2022.

d) The contractor shall complete the excavation, drainage, subbase, pavement, toll booths, concrete slabs, and electrical work associated with the three (3) Northbound and the three (3) Southbound cash lanes, the one (1) Northbound exit toll lane and the one (1) Southbound exit toll lane in a condition suitable for commissioning and testing of the toll lanes by the System Integrator and Authority. The electrical systems associated with the two Administration buildings shall be complete prior to beginning the testing and commissioning of the cash toll lanes, including all interconnect fiber cables. The System Integrator shall commence commissioning testing once the cash lanes are in a suitable condition and complete the testing no later than 14 calendar days for each entry or exit lane. The commissioning and testing on the Northbound and Southbound entry and exit lanes can be done separately to facilitate the construction schedule.

e) The administration building official acceptance date shall be considered the date that the Authority occupies the building for operations associated with fare collection at the completion of work associated with Interim Completion Date C. This date shall define the start of the buildings warranty period and all utility services shall become the responsibility of the Authority.

f) Due to the presence of marine deposits, material stockpiles will not be permitted on the project site to minimize the potential for slope instability without prior approval by the Engineer. The Contractor shall spread materials delivered for embankment construction as they arrive on site.

g) Care shall be taken when working near catch basins to ensure foreign material and contaminants do not enter the basin. If foreign material and/or contaminants enter the basin, it shall be removed prior

to the material exiting the basin into a waterway. Removal shall be completed to the satisfaction of the Resident and payment shall be incidental to the Contract.

h) The Contractor shall submit their proposed staging and storage areas for approval by the Resident. All stored equipment must be outside of the clear zone. Proposed equipment storage locations shall be selected based on (1) proximity to UIS/Protected Natural Resources; (2) minimizing rutting or other actions that may hinder sheet flow from roadway; and (3) spill control and prevention, in the event of a fluid release from the equipment.

i) The Contractor shall complete the work as shown on the phasing and maintenance of traffic plans. Modifications to the phasing or associated maintenance of traffic plans will not be permitted unless approved by the Resident.

j) All roadway lanes, ramps, bridges and driveways shall remain open at all times and in accordance with the restriction of Special Provision 652 unless otherwise noted herein or approved by the Resident.

k) Ramps may not be closed on holiday weekends or weekends between Thanksgiving and Christmas.

l) The Contractor shall progress the work in a manner that minimizes disruption to the public to the extent practical.

m) The Contractor shall secure all catch basin grates with Sikaflex 1a before being allowed to shift traffic onto the shoulder.

n) Long-term lane closures and shoulder closures along I-95 mainline shall only be used during periods of construction activity. During periods of inactivity (periods of inactivity for long-term lane closure and shoulder closures is considered to be greater than two weeks), the Contractor shall remove the lane closure and relocate the temporary barrier and other maintenance of traffic devices to reestablish normal traffic conditions.

o) The existing Exit 45 southbound off ramp currently has a wide load restriction of 12 feet that will remain in place until the reconfigured interchange is opened to traffic.

p) All work associated with the Northbound Administration Building water service connection to the water main along Payne Road shall be accessed from Route 703.

q) The Contractor shall be responsible for coordinating and scheduling work activities with adjacent contracts in overlapping work zones. Contract 2020.03 maintenance of traffic operations will take precedence over Contract 2021.07 maintenance of traffic operations. The Contractor shall coordinate access and operations with the Contractor on Contract 2020.03.

r) Wide loads will be allowed to pass through the Project area during daylight hours as authorized by the Authority. Wide loads are restricted from moving on the turnpike from a half hour after sunset until a half hour before sunrise. Wide loads must be able to safely pass all daytime work areas. The wide load lane may be closed when wide loads are not permitted on the Turnpike by the Authority, including the existing toll plaza after fare collection begins at the new northbound and southbound toll plazas prior to completing the phase 1 demolition. The temporary wide load lane

closures must be scheduled one week in advance and occur outside of the various Holiday restrictions.

s) Between November 15th and April 1st the Contractor shall provide, at a minimum, 4'-0" inside shoulders and 8'-0" outside shoulders along the Maine Turnpike mainline.

t) There shall be no pile driving during non-daylight hours. Pile driving will not be allowed within 10 feet of traffic.

13) Specific Contract Items

a) Section 304 – Aggregate Subbase Course

i) All Aggregate Subbase Course – Gravel shall be from surcharge excavation. The contractor is encouraged to visit the site and review the material in place. This material is a very coarse gap-graded 4-inch crushed gravel.

b) Section 502 – Asphaltic Plug Joint

i) The Joint shall be one of the two manufacturer's listed on the Contract Plans.

ii) Strict adherence to the structure temperature at the time of joint installation is required. The Contractor shall time the work accordingly.

c) Section 602 – Pumped Grout Fill

i) All existing culverts to be abandoned shall be filled with Pumped Grout Fill.

d) Section 626 – Foundations, Conduit, and Junction Boxes for Highway Signing, Lighting, and Traffic Signals

i) Payment for non-metallic conduit and horizontal directional drilled conduit for highway lighting and traffic signals includes all wiring for highway lighting and traffic signals.

e) Section 626 – Overhead Guide Sign Foundation Sta. 1062+50

i) The foundation for the overhead guide sign at Sta. 1062+50 will be paid separately from the overhead guide sign structure as noted in special provision 626. The overhead sign structure shall be designed, fabricated, and installed by the Contractor. Anchor bolts for the overhead sign structure shall be incidental to the overhead guide sign. The Contractor's design submittal for the overhead sign structure shall be approved prior to placing the foundation.

f) Section 639 – Geotechnical Instrumentation Protection and Removal

i) The Contractor shall protect all existing instrumentation from damage during construction operations until such time as the Resident directs the instruments to be removed. The protection shall also include maintenance of existing protective barriers and flagging. The Contractor shall provide access to all active instruments by the Engineer for the purposes of data readings.

ii) Removal of settlement platforms, piezometers, and inclinometers shall be as noted in the special provisions.

g) Section 652 – Maintenance of Traffic

i) Cummings Road temporary lane closure windows are 7:00PM to 7:00AM, Sunday through Thursday nights. Operations associated with the construction of the SB Toll Plaza access road may reduce traffic to alternating one-way from 9 AM to 3 PM Monday through Friday. Two lanes of traffic shall be maintained at all times between Thanksgiving and Christmas.

ii) Maintenance of traffic plans have been developed for the work shown in the plans. Minimum widths on the Mainline and Route 703 shall be 12 ft lanes and 2 ft shoulders unless otherwise noted. Minimum ramp widths of 16 ft (12 ft lanes and 2 ft shoulders) must be maintained at all times unless otherwise noted.

iii) A single weekend closure of the southbound On Ramp and Off Ramp, with an off-site detour for the purpose of reconstructing the Ramp A/B ramp crossings to grade early in the contract to allow for anticipated settlement, is permitted as defined in Subsection 107.4.6 Prosecution of Work (Interim Completion Date A). All gravels, pavement, temporary pavement markings, traffic control devices and temporary barrier or guardrail must be installed prior to reopening the ramps. A weekend refers to Friday 9:00 p.m. to the following Monday at 6:00 a.m.

iv) A second weekend closure of the southbound On Ramp and Off Ramp, with an off-site detour for the purpose of reconstructing the southbound Off Ramp (Ramp B) ramp crossing to grade early in the contract to allow for anticipated settlement and connecting the proposed southbound On Ramp (Ramp A) realignment to the existing southbound On Ramp, is permitted as defined in Subsection 107.4.6 Prosecution of Work (Interim Completion Date A). All gravels, pavement, temporary pavement markings, traffic control devices and temporary barrier or guardrail must be installed prior to reopening the ramps. A weekend refers to Friday 9:00 p.m. to the following Monday at 6:00 a.m.

v) A third weekend closure of the entire interchange, with an off-site detour for the purpose of connecting the new interchange ramps immediately prior to switching fare collection to the new toll plaza facilities, are permitted as defined in Subsection 107.4.6 Prosecution of Work (Interim Completion Date C). All gravels, pavement, temporary pavement markings, traffic control devices and temporary barrier or guardrail must be installed prior to opening the ramps. A weekend refers to Friday 9:00 p.m. to the following Monday 6:00 a.m.

vi) A fourth weekend closure of the entire interchange, with an off-site detour for the purpose of the phase 1 demolition of the existing toll plaza, is permitted as defined in Subsection 107.4.6 Prosecution of Work (Interim Completion Date D). All gravels, pavement, temporary pavement markings, traffic control devices and temporary barrier or guardrail must be installed prior to opening the ramps. A weekend refers to Friday 9:00 p.m. to the following Monday 6:00 a.m.

vii) The northbound on ramp and southbound on ramps may only be closed at the same time, as noted in the plans and/or as noted above. Ramp closures will not be permitted on holiday weekends or any weekend between Thanksgiving and New Year's Day. Overnight ramp closures will be allowed from 9:00 p.m. to 5:00 a.m. the following morning for the purposes of establishing maintenance of traffic phases and any work that cannot be performed due to proximity of the work to the active ramp travel lanes associated with limited ramp widths. The

Contractor shall notify the Resident/Authority two weeks prior to all closures. A temporary detour shall be established and maintained at all times in accordance with the detour plan shown in the Plans.

viii) Equipment moves across ramps will require a ramp stoppage by the state police and must be approved by the authority in advance. Ramp stoppages for equipment moves will not be permitted between 6:00 a.m. and 10:00 a.m. and between 3:00 p.m. and 7:00 p.m.

ix) Construction vehicles are prohibited from merging with mainline traffic between 7:00 a.m. and 9:00 a.m. and between 4:00 p.m. and 6:00 p.m.

x) Maine Turnpike temporary lane closures times are included in tables in the SP's. In general daytime lane closures are not permitted.

xi) Portable-Changeable Message Signs (PCMS) are included in this contract under two separate pay items – Item 652.41 (each) and Item 652.4101 (calendar day). The PCMS paid by the each shall be used on the project at all times. Additional PCMS necessary for short term activities shall be paid by the calendar day. All additional PCMS shall be approved by the resident prior to installation. Unit of Item 652.4101 will be changed from Calendar Day to Week under Addendum #1.

xii) The Automated Speed Limit Sign Special Provision has been revised and the Contractor shall fill out the price in the bid form. Automated Trailer Mounted Speed Limit Signs shall only be used when a work zone speed limit is in place during temporary lane closures on the Turnpike. 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 on the mainline then it will be considered a Traffic Control Plan violation and result in a reduction of payment as outlined in Section 652.

xiii) 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 shall 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

652 SP replaces the MTA 2016 Supplemental Specification Section 652, substantive revisions have been "bolded" in the 652 SP.

h) Section 655 – Electrical Work (Toll System Conduit and Wiring)

i) All conduit (including horizontal directional drilled conduit) and wiring for toll systems shall be paid under their respective pay items.

i) Part III – Division 800

i) Where noted within this Division, a Warranty connected to Substantial Completion shall be defined as Intermediate Completion Date C where the building is considered operational and accepted.

14) Questions

a) Questions received prior to prebid conference will be answered with Addendum #1.

Contract 2021.07
Exit 45 Interchange Reconfiguration

HNTB

SIGN-IN SHEET **PRE-BID MEETING** **February 25, 2021**
Please Print

Name	Company and/or Address	Phone	E-Mail
Joe Howe	HNTB	228-0882	jhowe@hntb.com
Ray Hanf	HNTB	228-0903	rhanf@hntb.com
Bruce Munger	HNTB	228-0896	bmunger@hntb.com
Ralph Norwood	MTA	482-8348	RNorwood@maineturnpike.com
Nate Carll	MTA	482-8115	ncarll@maineturnpike.com
Steve Tartre	MTA	482-8144	startre@maineturnpike.com
Eric Barnes	MTA	482-8374	ebarnes@maineturnpike.com
Jamie Mason	MTA	482-8172	jmason@maineturnpike.com
Scott Warchol	MTA	482-8121	swarchol@maineturnpike.com
Doug Davidson	MTA		ddavidson@maineturnpike.com
Peter Merfeld	MTA		pmerfeld@maineturnpike.com
WilliamYates	MTA	482-8300	wyates@maineturnpike.com
Sean O'Leary	RJ Grondin	400-6817	estimators@grondinconstruction.com
Michael Thibodeau	Sargent Corp	827-4435	mthibodeau@sragent-corp.com
Greg Scott	Scott Construction	632-0521	Gscott207@gmail.com
Patrick Driscoll	Moulison Heavy Electrical		
Adam Miller	Moulison Heavy Electrical		

Contract 2021.07
Exit 45 Interchange Reconfiguration

HNTB

SIGN-IN SHEET **PRE-BID MEETING** **February 25, 2021**

Please Print

Name	Company and/or Address	Phone	E-Mail
Pat Dubay	Sargent Corp	847-4435	pdubay@sragent-corp.com
Jackson Parker	Reed & Reed		
Todd Griffeth	Glidden Paving	856-9990	todd@gliddenpaving.com
Weston Scott	Scott Construction	899-5709	wscott@scottcon.com
Matt Woodbury	All States Construction		
Andy Kittredge	CPM	865-0000	andyk@cpmconstructors.com
Phil Nunley	Hissong Ready Mix & Aggregates	229-9810	pnunley@thehissonggroup.com
Kim Suhr	Wyman & Simpson	737-4471	ksuhr@wymanandsimpson.com
Mitch Elliot	Shaw Brothers	839-2552	melliot@shawbrothers.com
Bob Brady	Shaw Brothers	839-2552	bbrady@shawbrothers.com
Jim Wentworth	Reed & Reed	319-8530	jwentworth@reed-reed.com
Joe Oliver	Cianbro		
Roland Clark	Cianbro		
R Carney			

Date:1/29/2021

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	HIGHWAY QUANTITY	BRIDGE QUANTITY	TOLL QUANTITY	TOTAL QUANTITY	UNIT
201.11	CLEARING	2			2	AC
202.071	REMOVING ASBESTOS CONTAINING MATERIALS			1	1	LS
202.081	REMOVING BUILDINGS			1	1	LS
202.15	REMOVING EXISTING MANHOLE OR CATCH BASIN	16			16	EA
202.17	REMOVING EXISTING STRUCTURAL CONCRETE (320 CY)			1	1	LS
202.19	REMOVE EXISTING BRIDGE (500,000 LB STEEL, 750 CY CONCRETE)		1		1	LS
202.202	REMOVING PAVEMENT SURFACE	16,900			16,900	SY
203.20	COMMON EXCAVATION	96,800		1575	98,375	CY
203.25	GRANULAR BORROW	6700	530	150	7380	CY
203.43	GEOFOAM LIGHTWEIGHT FILL	7000			7000	CY
203.45	LEVELING SAND	1650			1650	CY
203.52	LOW PERMEABILITY FILL	15			15	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES, PLAN QUANTITY		370	870	1240	CY
206.10	STRUCTURAL EARTH EXCAVATION - PIERS		270		270	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	13,400			13,400	CY
304.14	AGGREGATE BASE COURSE - TYPE A	9100		920	10,020	CY
403.207	HOT MIX ASPHALT, 19.0 mm NOMINAL MAXIMUM SIZE	7500			7500	TON
403.2072	19.0 mm ASPHALT RICH BASE HMA	4200			4200	TON
403.208	HOT MIX ASPHALT, 12.5 mm NOMINAL MAXIMUM SIZE	910			910	TON
403.2081	HOT MIX ASPHALT, 12.5 mm (POLYMER MODIFIED) - RAP	5150	170	62	5382	TON
403.209	HOT MIX ASPHALT, 9.5 mm (SIDEWALKS, DRIVES, ISLANDS & INCIDENTALS)	59			59	TON
403.212	HOT MIX ASPHALT, 4.75 mm NOMINAL MAXIMUM SIZE (SHIM)	400			400	TON
403.213	HOT MIX ASPHALT, 12.5 mm NOMINAL MAXIMUM SIZE (BASE AND INTERMEDIATE	5450	170	62	5682	TON
	BASE COURSE)					
409.15	BITUMINOUS TACK COAT RSI OR RSIH - APPLIED	6300	160	63	6523	GAL
419.30	SAWING BITUMINOUS PAVEMENT	9400			9400	LF
470.08	BERM DROPOFF CORRECTION - GRINDINGS	50			50	TON
501.231	DYNAMIC LOADING TEST		3	5	8	EA
501.50	STEEL H-BEAM PILES 89 LB/FT, DELIVERED			4300	4300	LF
501.501	STEEL H-BEAM PILES 89 LB/FT, IN PLACE			4300	4300	LF
501.52	STEEL H-BEAM PILES 102 LB/FT, DELIVERED		3650	2600	6250	LF
501.521	STEEL H-BEAM PILES 102 LB/FT, IN PLACE		3650	2600	6250	LF
501.90	PILE TIPS		40	84	124	EA
501.91	PILE SPLICES		76	189	265	EA
501.92	PILE DRIVING EQUIPMENT MOBILIZATION		0.5	0.5	1	LS
502.219	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS (155 CY)		1		1	LS
502.239	STRUCTURAL CONCRETE, PIERS (243 CY)		1		1	LS
502.26	STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLAB ON STEEL BRIDGES (533 CY)		1		1	LS
502.261	STRUCTURAL CONCRETE, PILE CAPS (300 CY)			1	1	LS
502.262	STRUCTURAL CONCRETE, PAVEMENT SLABS (890 CY)			1	1	LS
502.263	STRUCTURAL CONCRETE - PLAZA ISLANDS, BUMPERS AND CURTAIN WALLS (120 CY)			1	1	LS
502.264	STRUCTURAL CONCRETE, PARAPET (59 CY)		1		1	LS
502.265	STRUCTURAL CONCRETE - UTILITY PITS (66 CY)			1	1	LS
502.266	STRUCTURAL CONCRETE - PEDESTALS & FOOTINGS (13 CY)			1	1	LS
502.31	STRUCTURAL CONCRETE APPROACH SLAB (160 CY)		1		1	LS
502.452	STRUCTURAL CONCRETE DISTRIBUTION SLAB (140 CY)		1		1	LS
503.14	EPOXY-COATED REINFORCING STEEL, FABRICATED AND DELIVERED		257,000	257,000	514,000	LB
503.15	EPOXY-COATED REINFORCING STEEL, PLACING		257,000	257,000	514,000	LB
503.18	GLASS FIBER REINFORCED POLYMER (GFRP) REINFORCING BARS, FABRICATED			80,600	80,600	LF
	AND DELIVERED					
503.19	GLASS FIBER REINFORCED POLYMER (GFRP) REINFORCING BARS, PLACING			80,600	80,600	LF
503.90	SYNTHETIC FIBER REINFORCEMENT			2700	2700	LB
504.50	TOLL PLAZA CANOPY - SOUTHBOUND			1	1	LS
504.51	TOLL PLAZA CANOPY - NORTHBOUND			1	1	LS
504.61	TOLL DUAL PURPOSE MAST ARM - SOUTHBOUND			1	1	LS
504.62	TOLL DUAL PURPOSE MAST ARM - NORTHBOUND			1	1	LS
504.702	STRUCTURAL STEEL FABRICATED AND DELIVERED, WELDED (581,000 LB)		1		1	LS
504.71	STRUCTURAL STEEL ERECTION (581,000 LB)		1		1	LS

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	HIGHWAY QUANTITY	BRIDGE QUANTITY	TOLL QUANTITY	TOTAL QUANTITY	UNIT
505.08	SHEAR CONNECTORS (5,265 EA)		1		1	LS
506.9104	THERMAL SPRAY COATING (SHOP APPLIED)		1		1	LS
507.091	ALUMINUM BRIDGE RAILING, REAR (548 LF)		1		1	LS
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (2800 SY)		0.7	0.3	1	LS
511.091	TEMPORARY EARTH SUPPORT SYSTEMS		0.5	0.5	1	LS
513.09	SLOPE PROTECTION - PORTLAND CEMENT CONCRETE		1020		1020	SY
514.06	CURING BOX FOR CONCRETE CYLINDERS		1		1	EA
515.202	CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES		895	700	1595	SY
515.203	BROADCAST SEALANT FOR CONCRETE SURFACES			1300	1300	SY
515.23	EPOXY OVERLAY			86	86	SY
520.23	ASPHALTIC PLUG JOINT		125	360	485	LF
523.52	BEARING INSTALLATION		7		7	EA
523.5401	LAMINATED ELASTOMERIC BEARINGS, FIXED		7		7	EA
524.30	TEMPORARY STRUCTURAL SUPPORT			1	1	LS
524.40	PROTECTIVE SHIELDING - STEEL GIRDERS		4200		4200	SY
526.306	TEMPORARY CONCRETE BARRIER, TYPE 1 - SUPPLIED BY AUTHORITY (7900 LF)	1			1	LS
526.307	CONCRETE BARRIER TYPE 1 - STORMWATER FILTER	30			30	LF
526.351	CONCRETE BARRIER - TYPE A (2021 LF)		1		1	LS
526.352	CONCRETE BARRIER - TYPE B (453 LF)		1		1	LS
526.353	CONCRETE BARRIER - TYPE C (370 LF)		1		1	LS
526.354	CONCRETE BARRIER - TYPE D (151 LF)		1		1	LS
526.362	CONCRETE BARRIER - TYPE C TRANSITION BARRIER		2		2	EA
526.366	CONCRETE BARRIER - MEDIAN GUARDRAIL TRANSITION BARRIER		2		2	EA
526.367	CONCRETE BARRIER - TYPE B GUARDRAIL TRANSITION BARRIER		2		2	EA
526.368	CONCRETE BARRIER - TYPE C GUARDRAIL TRANSITION BARRIER		1		1	EA
526.369	CONCRETE BARRIER - TYPE D GUARDRAIL TRANSITION BARRIER		1		1	EA
527.307	CENTER BARRIER CRASH ATTENUATOR (SMART CUSHION)	2			2	EA
527.341	WORK ZONE CRASH CUSHION - TL-3	6			6	UNIT
527.342	WORK ZONE CRASH CUSHION - TL-2	4			4	UNIT
527.343	RESETTING EXISTING WORK ZONE CRASH CUSHION	1			1	UNIT
602.40	PUMPED GROUT FILL	91			91	CY
603.101	TEMPORARY CULVERT	150			150	LF
603.102	TEMPORARY CULVERT - 15" RCP CLASS V	32			32	LF
603.155	12" REINFORCED CONCRETE PIPE - CLASS III	510			510	LF
603.159	12" CULVERT PIPE OPTION III	440			440	LF
603.175	18" REINFORCED CONCRETE PIPE - CLASS III	330			330	LF
603.195	24" REINFORCED CONCRETE PIPE - CLASS III	330			330	LF
603.28	CONCRETE COLLAR	1			1	EA
604.09	CATCH BASIN TYPE BI	4			4	EA
604.182	CLEANING EXISTING CATCH BASIN AND MANHOLE	1			1	EA
604.244	CATCH BASIN TYPE F4	1			1	EA
604.246	CATCH BASIN TYPE F5	9			9	EA
604.248	CATCH BASIN TYPE F6	6			6	EA
604.26	CATCH BASIN TYPE B5	6			6	EA
604.40	SECURE CATCH BASIN GRATE	5			5	EA
605.016	6" PVC UNDERDRAIN	550			550	LF
605.018	8" PVC UNDERDRAIN	210			210	LF
605.09	6 INCH UNDERDRAIN TYPE B	1050			1050	LF
605.10	6 INCH UNDERDRAIN OUTLET	40			40	LF
605.11	12 INCH UNDERDRAIN TYPE C	420			420	LF
605.12	15 INCH UNDERDRAIN TYPE C	300			300	LF
605.13	18 INCH UNDERDRAIN TYPE C	620			620	LF

Filename: 00X_EstimatedQuantities_01.dgn

Scale: NOT TO SCALE

No.	Revision	By	Date
1	DELETED REFERENCE UNITS	JRH	1/21

Designed by: HNTB

CONSULTANT PROJECT MANAGER: Raymond W. Hanf, P.E.

	By	Date		By	Date
Designed	DEB	09\20	Checked	RMH	09\20
Drawn	CAV	09\20	In Charge of	RAL	09\20

HNTB CORPORATION
340 County Road, Suite 6-C
Westbrook, ME 04092
TEL (207) 774-5155
FAX (207) 228-0909

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

EXIT 45 INTERCHANGE RECONFIGURATION

ESTIMATED QUANTITIES (1 of 3)

SHEET NUMBER: EQ-01

CONTRACT:2021.07

Date:1/29/2021

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	HIGHWAY QUANTITY	BRIDGE QUANTITY	TOLL QUANTITY	TOTAL QUANTITY	UNIT
606.1301	31" W-BEAM GUARDRAIL - MID-WAY SPLICE (7' STEEL POST, 8" OFFSET BLOCKS,	1350			1350	LF
	SINGLE FACED)					
606.1304	31" W-BEAM GUARDRAIL - MID-WAY SPLICE (7' STEEL POST, 8" OFFSET BLOCKS,	50			50	LF
	OVER 15' RADIUS)					
606.1307	31" W-BEAM GUARDRAIL - MID-WAY SPLICE FLARED TERMINAL	9			9	EA
606.132	31" W-BEAM GUARDRAIL - MID-WAY SPLICE (7' STEEL POST, 8" OFFSET BLOCKS,	180			180	LF
	DOUBLE FACED)					
606.1351	31" W-BEAM GUARDRAIL - MID-WAY SPLICE TERMINAL END - ANCHORED END	8			8	EA
606.1723	BRIDGE TRANSITION - TYPE III	8			8	EA
606.1724	BRIDGE TRANSITION - TYPE III, MODIFIED	1			1	EA
606.265	TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	4			4	EA
606.352	REFLECTORIZED BEAM GUARDRAIL DELINEATOR	38			38	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	34			34	EA
606.356	UNDERDRAIN DELINEATOR POST	380			380	EA
606.3561	DELINEATOR POST - REMOVE AND RESET	60			60	EA
606.3562	DELINEATOR POST - REMOVE AND STACK	70			70	EA
607.25	REMOVE AND RESET CHAIN LINK FENCE			11	11	LF
607.494	GATE SUPPLIED BY THE AUTHORITY			1	1	EA
608.08	REINFORCED CONCRETE SIDEWALK			190	190	SY
609.11	VERTICAL CURB TYPE 1			280	280	LF
609.12	VERTICAL CURB TYPE 1 - CIRCULAR			58	58	LF
609.13	VERTICAL BRIDGE CURB TYPE 1			490	490	LF
609.14	VERTICAL BRIDGE CURB TYPE 1 - CIRCULAR			180	180	LF
609.15	SLOPED CURB TYPE 1		570		570	LF
609.234	TERMINAL CURB TYPE 1 - 4 FOOT			8	8	EA
609.238	TERMINAL CURB TYPE 1 - 8 FOOT			2	2	EA
609.34	CURB TYPE 5	170			170	LF
609.35	CURB TYPE 5 - CIRCULAR	20			20	LF
610.08	PLAIN RIPRAP	340			340	CY
610.18	STONE DITCH PROTECTION	750			750	CY
610.181	TEMPORARY STONE CHECK DAM	81			81	CY
613.319	EROSION CONTROL BLANKET	8650			8650	SY
615.07	LOAM	7050			7050	CY
615.073	LOAM - SUPPLIED BY AUTHORITY	2700			2700	CY
618.14	SEEDING METHOD NUMBER 2	810			810	UNIT
618.143	SPECIAL SEEDING	14			14	UNIT
619.1201	MULCH - PLAN QUANTITY	810			810	UNIT
619.1202	TEMPORARY MULCH	1			1	LS
620.56	DRAINAGE GEOTEXTILE	800			800	SY
620.58	EROSION CONTROL GEOTEXTILE	3350			3350	SY
620.60	SEPARATION GEOTEXTILE	390			390	SY
620.70	HDPE GEOMEMBRANE	4300			4300	SY
621.408	EVERGREENS (2.5' - 3') GROUP B			6	6	EA
621.513	HYBRID RHODODENDRON 'PJM' (2.5' - 3')			6	6	EA
621.553	DECIDUOUS SHRUBS (3'-4') GROUP B			4	4	EA
625.106	WATER SERVICE SUPPLY LINE (<3")			1550	1550	LF
625.107	WATER METER PIT			1	1	EA
626.121	QUAZITE JUNCTION BOX (36x24)			23	23	EA
626.122	QUAZITE JUNCTION BOX (18x11)	68			68	EA
626.123	QUAZITE JUNCTION BOX (48x36)			4	4	EA
626.131	ADJUST EXISTING JUNCTION BOX TO GRADE	6			6	EA
626.22	NON-METALLIC CONDUIT	10,000			10,000	LF
626.223	HORIZONTAL DIRECTIONAL DRILLED CONDUIT	2753		3897	6650	LF
626.31	18 INCH DIAMETER FOUNDATION	2			2	EA
626.32	24 INCH DIAMETER FOUNDATION	70			70	EA
626.332	30-INCH DIAMETER, GREATER THAN 8-FEET LONG, ALL 36 INCH AND	9			9	CY
	42 INCH DIAMETER FOUNDATIONS					
626.38	GROUND MOUNTED CABINET FOUNDATION			3	3	EA
626.701	OVERHEAD GUIDE SIGN FOUNDATION STA 1062+50			1	1	LS
627.18	12" SOLID WHITE PAVEMENT MARKING LINE	6100			6100	LF
627.712	WHITE OR YELLOW PAVEMENT MARKING LINE	49,000			49,000	LF
627.73	TEMPORARY 6 INCH PAVEMENT MARKING TAPE	20,000			20,000	LF
627.731	TEMPORARY 6 INCH BLACK PAVEMENT MARKING TAPE	250			250	LF
627.75	WHITE OR YELLOW PAVEMENT & CURB MARKING	32			32	SF
627.77	REMOVING EXISTING PAVEMENT MARKING	45,200			45,200	SF

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	HIGHWAY QUANTITY	BRIDGE QUANTITY	TOLL QUANTITY	TOTAL QUANTITY	UNIT
627.78	TEMPORARY PAVEMENT MARKING LINE, WHITE OR YELLOW	197,000			197,000	LF
627.812	TEMPORARY RAISED PAVEMENT MARKERS	1650			1650	EA
627.941	PAVEMENT MARKING TAPE - DOTTED WHITE LANE LINE, 6-INCH WIDTH	350			350	LF
627.942	PAVEMENT MARKING TAPE - DOTTED WHITE LANE LINE, 12-INCH WIDTH	420			420	LF
627.944	PAVEMENT MARKINGS - RECESSED TAPE - WORDS, ARROWS, STOP BARS	320			320	SF
629.05	HAND LABOR, STRAIGHT TIME	200			200	HR
631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	40			40	HR
631.11	AIR TOOL (INCLUDING OPERATOR)	40			40	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	160			160	HR
631.13	BULLDOZER (INCLUDING OPERATOR)	160			160	HR
631.14	GRADER (INCLUDING OPERATOR)	160			160	HR
631.171	TRUCK - SMALL (INCLUDING OPERATOR)	40			40	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	160			160	HR
631.22	FRONT END LOADER (INCLUDING OPERATOR)	80			80	HR
631.32	CULVERT CLEANER (INCLUDING OPERATORS)	20			20	HR
631.36	FOREMAN	160			160	HR
631.50	JACKHAMMER (AIR TOOL INCLUDING OPERATOR)			60	60	HR
631.51	BUCKET TRUCK			60	60	HR
631.52	SCISSOR LIFT			60	60	HR
631.53	ELECTRICIAN			100	100	HR
631.54	ELECTRICIAN'S APPRENTICE			100	100	HR
631.55	PLUMBER			60	60	HR
633.031	PROPANE SERVICE - SOUTHBOUND			1	1	LS
633.032	PROPANE SERVICE - NORTHBOUND			1	1	LS
633.21	PROPANE TANK SUPPORTS			8	8	EA
633.31	PROPANE TANK PAD			55	55	SY
634.175	REPLACEMENT LED FIXTURE	6			6	EA
634.208	REMOVE AND RESET LIGHT STANDARD	11			11	EA
634.2083	REMOVE AND STACK LIGHT STANDARD	8			8	EA
634.231	CONVENTIONAL LIGHT STANDARD WITH LED FIXTURE	41			41	EA
639.181	FIELD OFFICE, TYPE A (PROVIDED BY MTA)	1			1	EA
639.261	GEOTECHNICAL INSTRUMENTATION PROTECTION AND REMOVAL	1			1	LS
643.712	LANE USE SIGNAL			6	6	EA
643.80	TRAFFIC SIGNAL AT: EXIT 45 I-95 SB ON/OFF RAMPS	1			1	LS
643.931	WOOD POLES WITH GUYS AND SPAN WIRE	6			6	EA
645.107	REMOVE AND STACK CANOPY MOUNTED SIGN			4	4	EA
645.109	REMOVE AND RESET SIGN			1	1	EA
645.1092	CANOPY MOUNTED DYNAMIC MESSAGE SIGN			2	2	EA
645.1099	REMOVE AND DISPOSE SIGN	70			70	EA
645.123	OVERHEAD GUIDE SIGN: (STA. 1062+50)			1	1	LS
645.124	OVERHEAD GUIDE SIGN ON EXISTING STRUCTURE	1			1	LS
645.14	CANOPY MOUNTED SIGN			2	2	EA
645.141	CANOPY MOUNTED SIGN - SUPPLIED BY AUTHORITY			2	2	EA
645.161	BREAKAWAY DEVICE SINGLE POLE	14			14	EA
645.162	BREAKAWAY DEVICE MULTI POLE	9			9	EA
645.251	ROADSIDE GUIDE SIGN, TYPE I	610			610	SF
645.271	REGULATORY, WARNING, CONFIRMATION AND ROUTE ASSEMBLY SIGN, TYPE I	760			760	SF
645.289	STEEL H-BEAM POLES	6500			6500	LB
645.501	REMOVE AND RESET MAINLINE SIGN NO. 1	1			1	LS
645.5011	TEMPORARY REMOVE AND RESET MAINLINE SIGN	1			1	LS
645.502	REMOVE AND RESET MAINLINE SIGN NO. 2	1			1	LS
645.503	REMOVE AND RESET MAINLINE SIGN NO. 3	1			1	LS
645.504	REMOVE AND RESET MAINLINE SIGN NO. 4	1			1	LS
645.505	REMOVE AND RESET MAINLINE SIGN NO. 5	1			1	LS
648.00	FLAGPOLE AND SPOTLIGHT			2	2	EA
652.30	FLASHING ARROW	6			6	EA
652.312	TYPE III BARRICADES	9			9	EA
652.33	DRUM	710			710	EA
652.34	CONE	50			50	EA
652.35	CONSTRUCTION SIGNS	3750			3750	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1			1	LS
652.38	FLAGGERS	240			240	HR
~~652.41~~	~~PORTABLE-CHANGEABLE MESSAGE SIGN~~	~~4~~			~~4~~	~~EA~~
652.4101	PORTABLE-CHANGEABLE MESSAGE SIGN	20			20	WEEK
~~652.45~~	~~TRUCK MOUNTED ATTENUATOR~~	~~290~~			~~290~~	~~DA~~
652.452	AUTOMATED TRAILER MOUNTED SPEED LIMIT SIGN	3			3	EA
652.47	SEQUENTIAL FLASHING WARNING LIGHTS	30			30	EA

Filename: 00X_EstimatedQuantities_02.dgn

Scale: NOT TO SCALE

No.	Revision	By	Date
1	UPDATED QUANTITY AND UNITS	JRH	1/21

Designed by: HNTB

CONSULTANT PROJECT MANAGER: Raymond W. Hanf, P.E.

	By	Date		By	Date
Designed	DEB	09\20	Checked	RMH	09\20
Drawn	CAV	09\20	In Charge of	RAL	09\20

HNTB CORPORATION
340 County Road, Suite 6-C
Westbrook, ME 04092
TEL (207) 774-5155
FAX (207) 228-0909

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

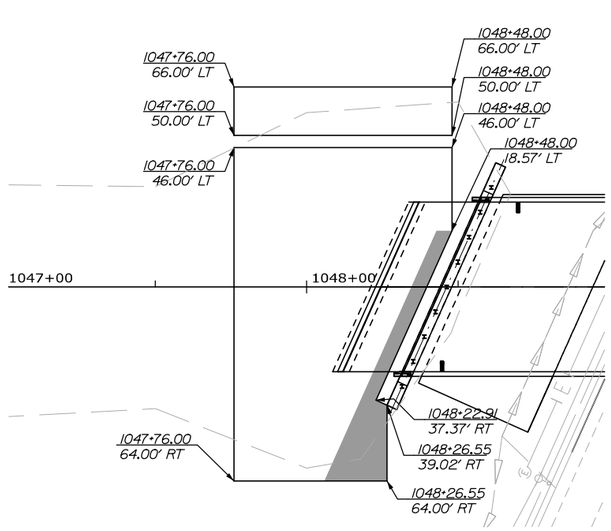
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

EXIT 45 INTERCHANGE RECONFIGURATION

ESTIMATED QUANTITIES (2 OF 3)

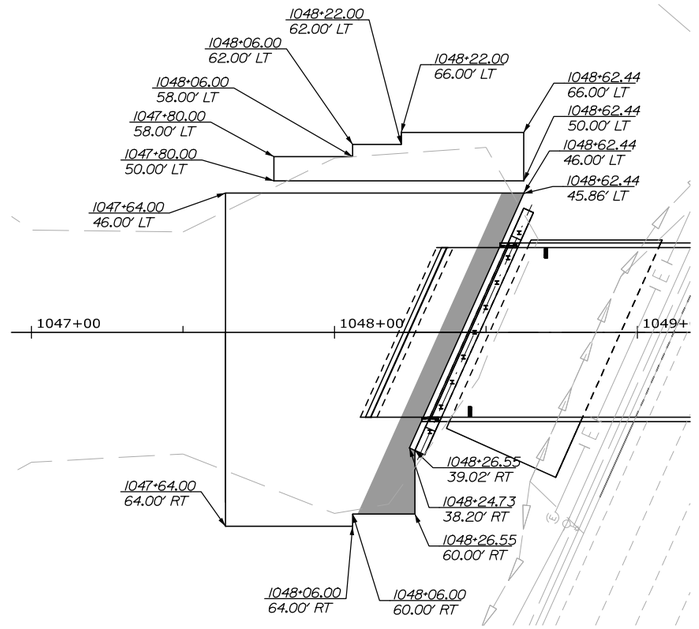
SHEET NUMBER: EQ-02

CONTRACT:2021.07



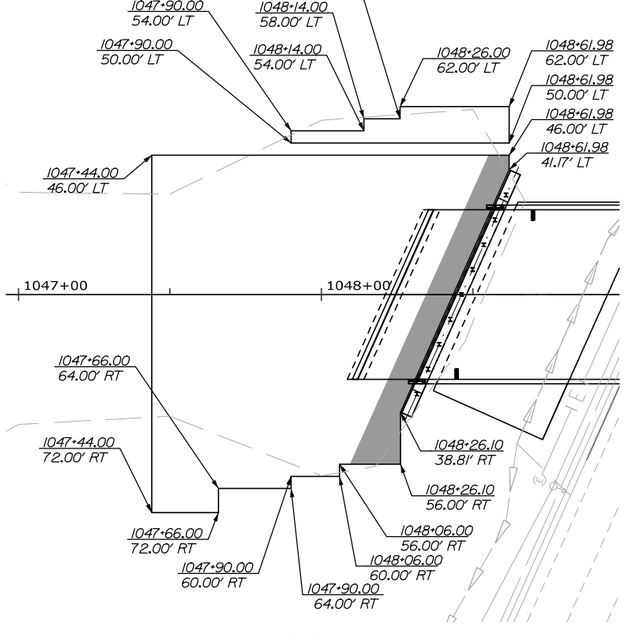
LEVEL 1

BOTTOM ELEVATION - EL. 65
TOP ELEVATION - EL. 68



LEVEL 2

BOTTOM ELEVATION - EL. 68
TOP ELEVATION - EL. 70



LEVEL 3

BOTTOM ELEVATION - EL. 70
TOP ELEVATION - EL. 72

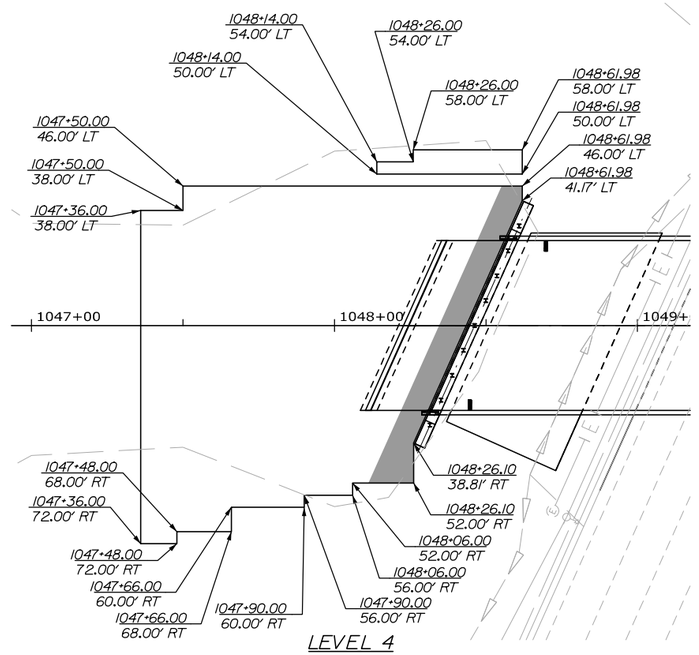
NOTES:

1. THE CONTRACTOR MAY MAKE MINOR ALTERATIONS TO THE GEOFOAM LAYOUT DEPICTED ON THE PLANS TO MEET THEIR CONSTRUCTION MEANS AND METHODS. ANY SUCH MODIFICATIONS SHALL BE SUBMITTED FOR APPROVAL WITH THE SHOP DRAWINGS.

2. GEOFOAM IN THE SHADED REGIONS SHALL MEET THE MATERIAL REQUIREMENTS OF EPS 15 AS DEFINED IN THE PROJECT SPECIFICATIONS. IT IS NOT PERMISSIBLE TO REPLACE MATERIAL IN THESE REGIONS WITH A HIGHER GRADE GEOFOAM. HIGHER GRADE GEOFOAM MAY NOT BE REPLACED WITH EPS 15.

⚠1

3. GEOFOAM SHALL BE INSTALLED TO MEET THE EXTERIOR BOUNDARIES AS DEFINED BY THE STATIONS, OFFSETS, AND ELEVATIONS SHOWN IN THE LAYOUT PLANS. WITHIN THE INTERIOR OF THE GEOFOAM ZONES, BLOCK PLACEMENT IS LEFT TO THE MEANS AND METHODS OF THE CONTRACTOR. THAT IS, THE VERTICAL THICKNESSES OF THE BLOCKS MAY BE LARGER OR SMALLER THAN THE "LEVELS" SHOWN ON THE PLANS PROVIDING THE LAYERS ARE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT SPECIAL PROVISIONS (E.G. OFFSET VERTICAL JOINTS, PERPENDICULAR ORIENTATION OF SUCCESSIVE LAYERS AND BLOCKS ARE A MINIMUM OF 4'X8'X1'), THOUGH OCCASIONAL EXCEPTIONS MAY BE NECESSARY AT EDGE AND TRANSITION LOCATIONS AS APPROVED BY THE ENGINEER. GEOFOAM INSTALLATION SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE RESIDENT.



LEVEL 4

BOTTOM ELEVATION - EL. 72
TOP ELEVATION - EL. 74

Date:1/29/2021

Filename: OXX_Geofoam Layout West_Plan.dgn

Scale: 25 0 25 50
Scale of Feet

No.	Revision	By	Date
⚠1	UPDATED NOTE	JRH	1/21

Designed by: HNTB

CONSULTANT PROJECT MANAGER: Raymond W. Hanf, P.E.

	By	Date		By	Date
Designed	JDZ	09\20	Checked	JRH	09\20
Drawn	EPR	09\20	In Charge of	RAL	09\20

HNTB CORPORATION
340 County Road, Suite 6-C
Westbrook, ME 04092
TEL (207) 774-5155
FAX (207) 228-0909

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

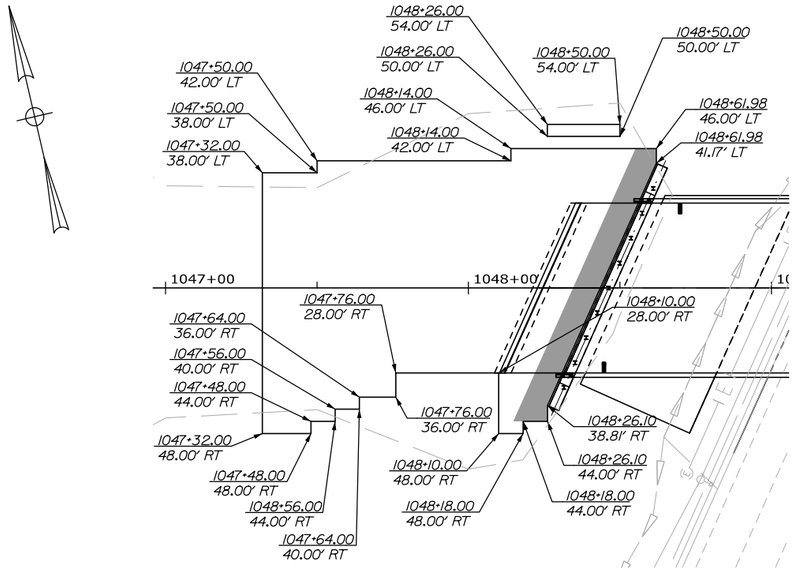
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

EXIT 45
INTERCHANGE RECONFIGURATION

GEOFOAM LAYOUT ABUTMENT 1

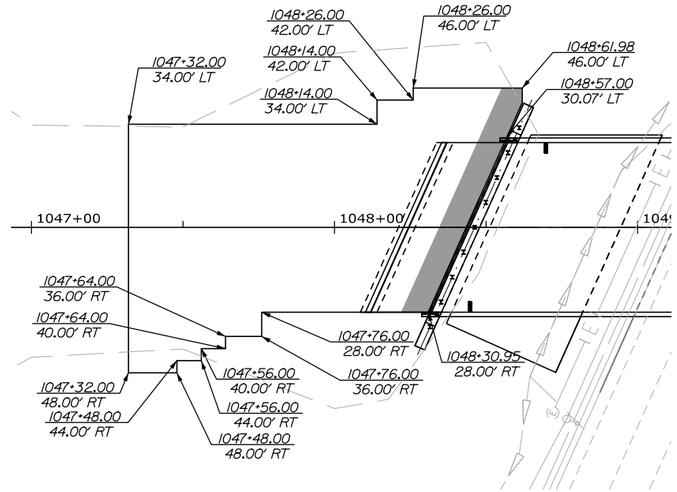
SHEET NUMBER: GT-05

CONTRACT:2021.07



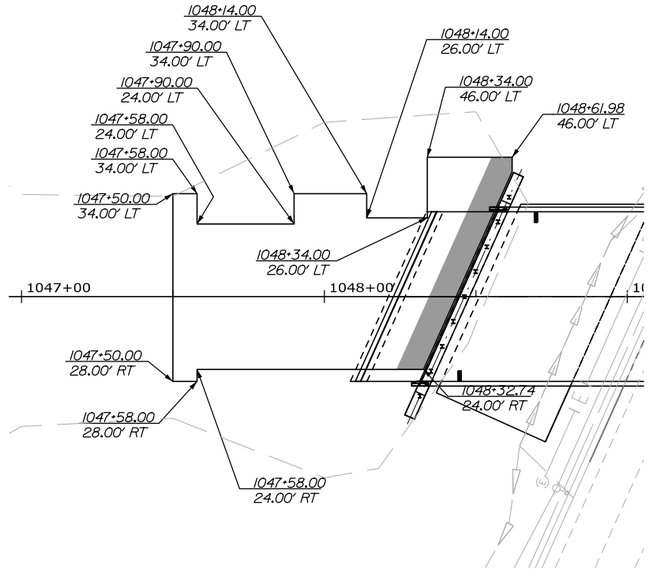
LEVEL 5

BOTTOM ELEVATION - EL. 74
TOP ELEVATION - EL. 76



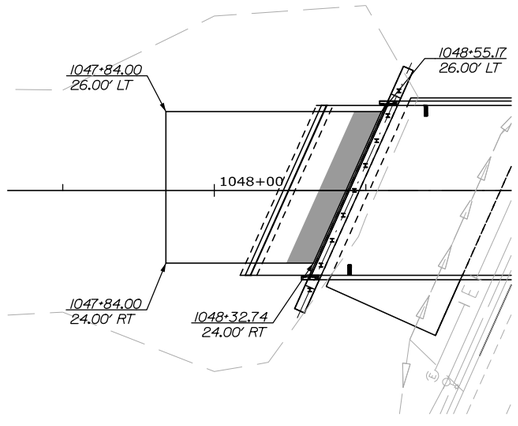
LEVEL 6

BOTTOM ELEVATION - EL. 76
TOP ELEVATION - EL. 77



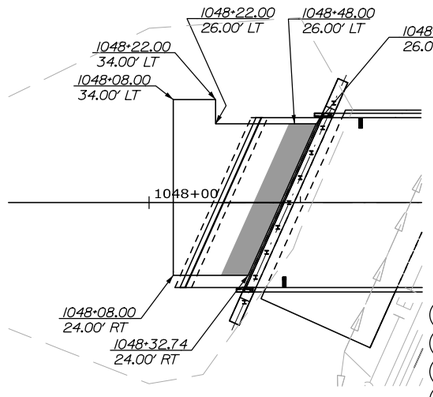
LEVEL 7

BOTTOM ELEVATION - EL. 77
TOP ELEVATION - EL. 78



LEVEL 8

BOTTOM ELEVATION - EL. 78
TOP ELEVATION - EL. 79



LEVEL 9

BOTTOM ELEVATION - EL. 79
TOP ELEVATION OF EPS 22 - EL. 80
TOP ELEVATION OF EPS 15 - EL. 81

NOTES:

1. THE CONTRACTOR MAY MAKE MINOR ALTERATIONS TO THE GEOFOAM LAYOUT DEPICTED ON THE PLANS TO MEET THEIR CONSTRUCTION MEANS AND METHODS. ANY SUCH MODIFICATIONS SHALL BE SUBMITTED FOR APPROVAL WITH THE SHOP DRAWINGS.
2. GEOFOAM IN THE SHADED REGIONS SHALL MEET THE MATERIAL REQUIREMENTS OF EPS 15 AS DEFINED IN THE PROJECT SPECIFICATIONS. IT IS NOT PERMISSIBLE TO REPLACE MATERIAL IN THESE REGIONS WITH A HIGHER GRADE GEOFOAM. HIGHER GRADE GEOFOAM MAY NOT BE REPLACED WITH EPS 15.
3. GEOFOAM SHALL BE INSTALLED TO MEET THE EXTERIOR BOUNDARIES AS DEFINED BY THE STATIONS, OFFSETS, AND ELEVATIONS SHOWN IN THE LAYOUT PLANS. WITHIN THE INTERIOR OF THE GEOFOAM ZONES, BLOCK PLACEMENT IS LEFT TO THE MEANS AND METHODS OF THE CONTRACTOR. THAT IS, THE VERTICAL THICKNESSES OF THE BLOCKS MAY BE LARGER OR SMALLER THAN THE "LEVELS" SHOWN ON THE PLANS PROVIDING THE LAYERS ARE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT SPECIAL PROVISIONS (E.G. OFFSET VERTICAL JOINTS, PERPENDICULAR ORIENTATION OF SUCCESSIVE LAYERS AND BLOCKS ARE A MINIMUM OF 4'X4'X1'), THOUGH OCCASIONAL EXCEPTIONS MAY BE NECESSARY AT EDGE AND TRANSITION LOCATIONS AS APPROVED BY THE ENGINEER. GEOFOAM INSTALLATION SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE RESIDENT.

Scale: 25 0 25 50
Scale of Feet

No.	Revision	By	Date
1	UPDATED NOTE	JRH	1/21

Designed by: HNTB

CONSULTANT PROJECT MANAGER: Raymond W. Hanf, P.E.

	By	Date		By	Date
Designed	JDZ	09\20	Checked	JRH	09\20
Drawn	EPR	09\20	In Charge of	RAL	09\20

HNTB CORPORATION
340 County Road, Suite 6-C
Westbrook, ME 04092
TEL (207) 774-5155
FAX (207) 228-0909

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

EXIT 45
INTERCHANGE RECONFIGURATION

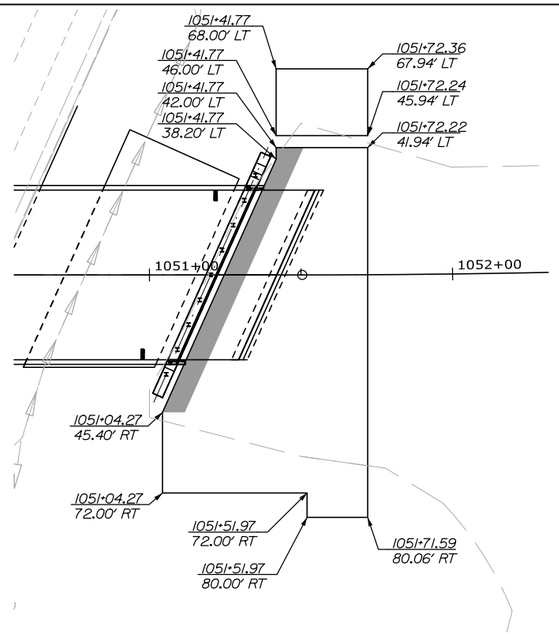
GEOFOAM LAYOUT ABUTMENT 1

SHEET NUMBER: GT-06

CONTRACT:2021.07

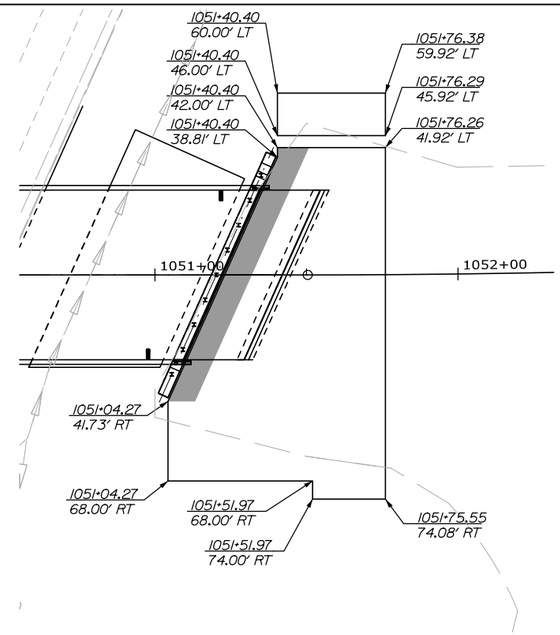
Date:1/29/2021

Filename: 0XX_Geofoam Layout West_Plan2.dgn



LEVEL 1

BOTTOM ELEVATION - EL. 69
TOP ELEVATION - EL. 71

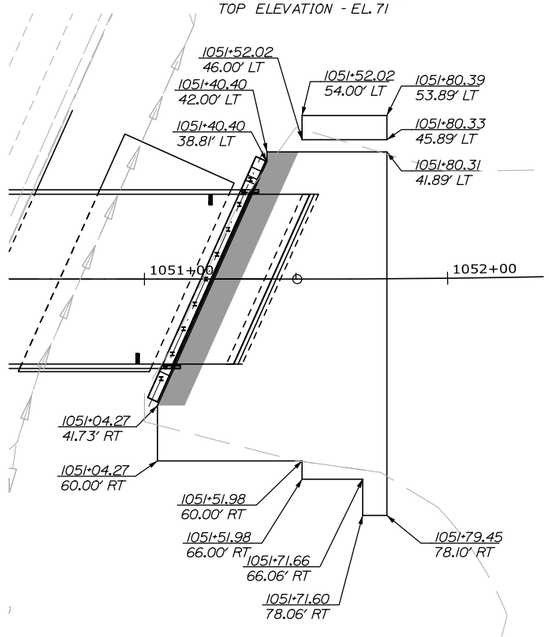


LEVEL 2

BOTTOM ELEVATION - EL. 71
TOP ELEVATION - EL. 73

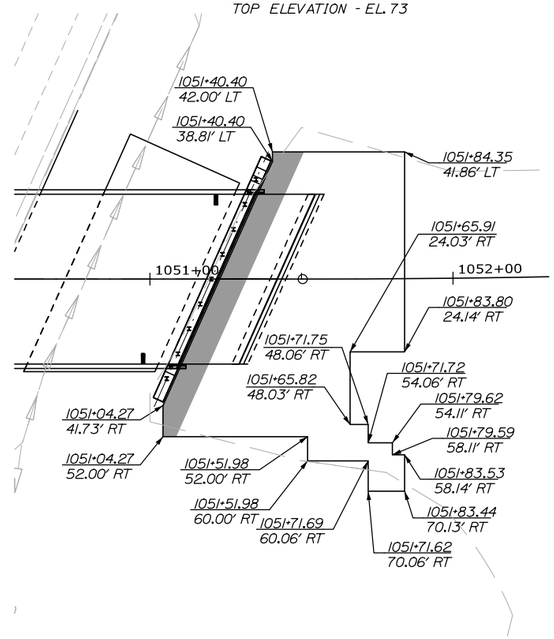
NOTES:

1. THE CONTRACTOR MAY MAKE MINOR ALTERATIONS TO THE GEOFOAM LAYOUT DEPICTED ON THE PLANS TO MEET THEIR CONSTRUCTION MEANS AND METHODS. ANY SUCH MODIFICATIONS SHALL BE SUBMITTED FOR APPROVAL WITH THE SHOP DRAWINGS.
2. GEOFOAM IN THE SHADED REGIONS SHALL MEET THE MATERIAL REQUIREMENTS OF EPS 15 AS DEFINED IN THE PROJECT SPECIFICATIONS. IT IS NOT PERMISSIBLE TO REPLACE MATERIAL IN THESE REGIONS WITH A HIGHER GRADE GEOFOAM. HIGHER GRADE GEOFOAM MAY NOT BE REPLACED WITH EPS 15.
3. GEOFOAM SHALL BE INSTALLED TO MEET THE EXTERIOR BOUNDARIES AS DEFINED BY THE STATIONS, OFFSETS, AND ELEVATIONS SHOWN IN THE LAYOUT PLANS. WITHIN THE INTERIOR OF THE GEOFOAM ZONES, BLOCK PLACEMENT IS LEFT TO THE MEANS AND METHODS OF THE CONTRACTOR. THAT IS, THE VERTICAL THICKNESSES OF THE BLOCKS MAY BE LARGER OR SMALLER THAN THE "LEVELS" SHOWN ON THE PLANS PROVIDING THE LAYERS ARE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT SPECIAL PROVISIONS (E.G. OFFSET VERTICAL JOINTS, PERPENDICULAR ORIENTATION OF SUCCESSIVE LAYERS AND BLOCKS ARE A MINIMUM OF 4'X8'X1'), THOUGH OCCASIONAL EXCEPTIONS MAY BE NECESSARY AT EDGE AND TRANSITION LOCATIONS AS APPROVED BY THE ENGINEER. GEOFOAM INSTALLATION SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE RESIDENT.
4. GEOFOAM SHALL BE INSTALLED ORTHOGONAL TO THE BRIDGE.



LEVEL 3

BOTTOM ELEVATION - EL. 73
TOP ELEVATION - EL. 75



LEVEL 4

BOTTOM ELEVATION - EL. 75
TOP ELEVATION - EL. 77

Date:1/29/2021

Filename: 0XX_Geofoam Layout East_Plan.dgn

Scale: 25 0 25 50
Scale of Feet

No.	Revision	By	Date
1	UPDATED NOTE	JRH	1/21

Designed by: HNTB

CONSULTANT PROJECT MANAGER: Raymond W. Hanf, P.E.

	By	Date		By	Date
Designed	JDZ	09\20	Checked	JRH	09\20
Drawn	EPR	09\20	In Charge of	RAL	09\20

HNTB CORPORATION
340 County Road, Suite 6-C
Westbrook, ME 04092
TEL (207) 774-5155
FAX (207) 228-0909

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

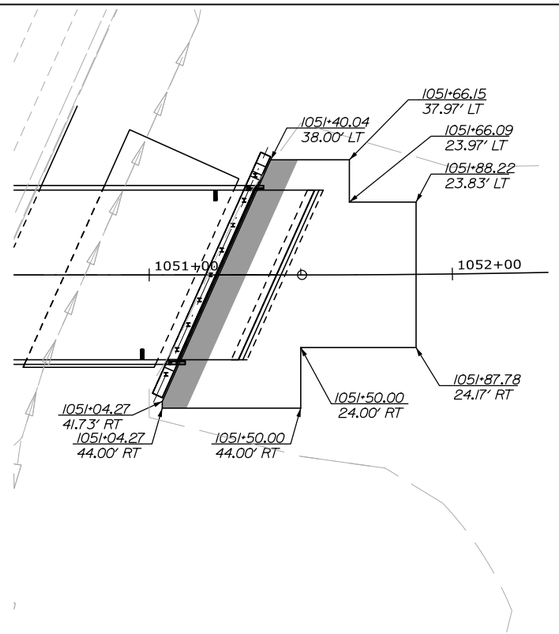
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

EXIT 45
INTERCHANGE RECONFIGURATION

GEOFOAM LAYOUT ABUTMENT 2

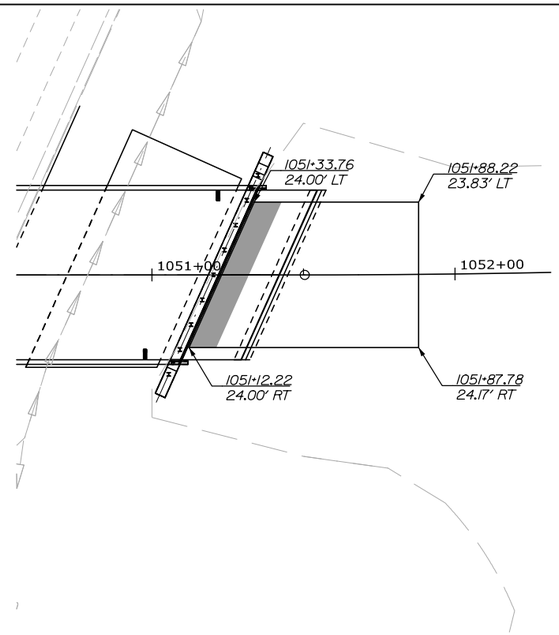
SHEET NUMBER: GT-07

CONTRACT:2021.07



LEVEL 5

BOTTOM ELEVATION - EL. 77
TOP ELEVATION - EL. 78

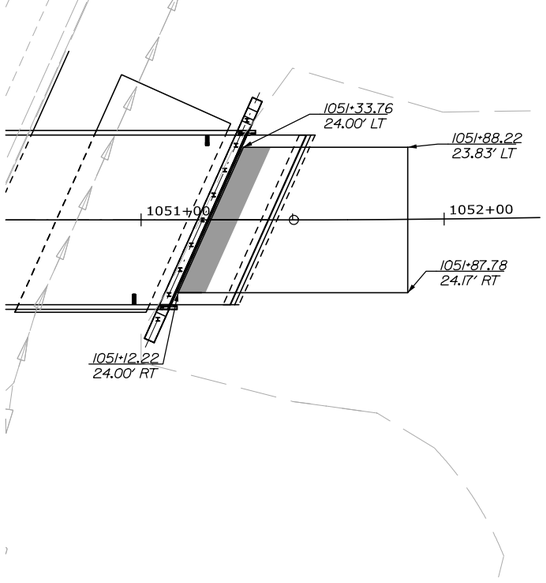


LEVEL 6

BOTTOM ELEVATION - EL. 78
TOP ELEVATION - EL. 79

NOTES:

1. THE CONTRACTOR MAY MAKE MINOR ALTERATIONS TO THE GEOFOAM LAYOUT DEPICTED ON THE PLANS TO MEET THEIR CONSTRUCTION MEANS AND METHODS. ANY SUCH MODIFICATIONS SHALL BE SUBMITTED FOR APPROVAL WITH THE SHOP DRAWINGS.
2. GEOFOAM IN THE SHADED REGIONS SHALL MEET THE MATERIAL REQUIREMENTS OF EPS 15 AS DEFINED IN THE PROJECT SPECIFICATIONS. IT IS NOT PERMISSIBLE TO REPLACE MATERIAL IN THESE REGIONS WITH A HIGHER GRADE GEOFOAM. HIGHER GRADE GEOFOAM MAY NOT BE REPLACED WITH EPS 15.
3. GEOFOAM SHALL BE INSTALLED TO MEET THE EXTERIOR BOUNDARIES AS DEFINED BY THE STATIONS, OFFSETS, AND ELEVATIONS SHOWN IN THE LAYOUT PLANS. WITHIN THE INTERIOR OF THE GEOFOAM ZONES, BLOCK PLACEMENT IS LEFT TO THE MEANS AND METHODS OF THE CONTRACTOR. THAT IS, THE VERTICAL THICKNESSES OF THE BLOCKS MAY BE LARGER OR SMALLER THAN THE "LEVELS" SHOWN ON THE PLANS PROVIDING THE LAYERS ARE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT SPECIAL PROVISIONS (E.G. OFFSET VERTICAL JOINTS, PERPENDICULAR ORIENTATION OF SUCCESSIVE LAYERS AND BLOCKS ARE A MINIMUM OF 4'X8'X1'), THOUGH OCCASIONAL EXCEPTIONS MAY BE NECESSARY AT EDGE AND TRANSITION LOCATIONS AS APPROVED BY THE ENGINEER. GEOFOAM INSTALLATION SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE RESIDENT.
4. GEOFOAM SHALL BE INSTALLED ORTHOGONAL TO THE BRIDGE.



LEVEL 7

BOTTOM ELEVATION - EL. 79
TOP ELEVATION OF EPS 22 - EL. 80
TOP ELEVATION OF EPS 15 - EL. 81

Scale: 25 0 25 50
Scale of Feet

No.	Revision	By	Date
1	UPDATED NOTE	JRH	1/21

Designed by: HNTB

CONSULTANT PROJECT MANAGER: Raymond W. Hanf, P.E.

	By	Date		By	Date
Designed	JDZ	09\20	Checked	JRH	09\20
Drawn	EPR	09\20	In Charge of	RAL	09\20

HNTB CORPORATION
340 County Road, Suite 6-C
Westbrook, ME 04092
TEL (207) 774-5155
FAX (207) 228-0909

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

EXIT 45
INTERCHANGE RECONFIGURATION

GEOFOAM LAYOUT ABUTMENT 2

SHEET NUMBER: GT-08

CONTRACT:2021.07

Date:1/29/2021

Filename: 0XX_Geofoam Layout East_Plan2.dgn