



Janet T. Mills
GOVERNOR

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

Bruce A. Van Note
ACTING COMMISSIONER

January 11, 2019
Subject: Piscataqua River Bridge Wearing
Surface Replacement
State WIN: 019270.00
Location: **Kittery & Portsmouth, N.H.**
Amendment No. 5

Dear Sir/Ms.:

Please make the following changes to the Bid Documents:

In the Bid Book:

REMOVE pages 16 – 27, Proposal Schedule of Items, 12 pages, dated 12/17/2018 (from Amendment No. 3), and **REPLACE** with the attached, revised Proposal Schedule of Items, 12 pages, dated 1/7/2019.

ADD the attached, revised SPECIAL PROVISION – SECTION 424 – LOW MODULUS JOINT SEALER, 2 pages, dated March 17, 2017.

REMOVE page 124, SPECIAL PROVISION – SECTION 504 – STRUCTURAL STEEL – (Bridge Hardware, Truss Screen Panel), 1 page, dated October 29, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISION – SECTION 504 – STRUCTURAL STEEL – (Bridge Hardware, Truss Screen Panel), 1 page, dated December 18, 2018.

REMOVE page 171, SPECIAL PROVISION – SECTION 606 – GUARDRAIL – (Bridge Transition– Type III) (Bridge Transition- Type III Modified), 1 page, dated September 28, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISION – SECTION 606 – GUARDRAIL – (Bridge Transition– Type III) (Bridge Transition- Type III Modified), 1 page, dated January 9, 2019.

ADD the attached, revised SPECIAL PROVISION – SECTION 626 – FOUNDATIONS, CONDUIT, AND JUNCTION BOXES FOR HIGHWAY SIGNING, LIGHTING AND SIGNALS - (Under Pavement Duct), 2 pages, dated December 26, 2018.

REMOVE pages 196 - 198, SPECIAL PROVISION – SECTION 643 – (Weigh-in-Motion System), 3 pages, dated November 5, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISION – SECTION 643 – (Weigh-in-Motion System), 3 pages, dated December 31, 2018.

REMOVE pages 213 - 215, SPECIAL PROVISION – SECTION 652 – MAINTENANCE OF TRAFFIC, 3 pages, dated October 30, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISION – SECTION 643 – MAINTENANCE OF TRAFFIC, 4 pages, dated December 18, 2018.

In the Plan Set:

The following sheets are to be **REMOVED** from the existing plan set and then **REPLACED** with the corresponding attached revised sheets:

REMOVE sheet	and REPLACE with sheet
2B	2C
3B	3C
11A	11B
13	13A
80A	80B
86	86A
94	94A
227A	227B

The following questions have been received:

Question: The Notice to Contractors states that the basis of award will be section 1 combined with the “Chosen” alternate section 2 or section 3. Please confirm who chooses the Alternate that is to be combined with Section 1?

Response: The Contractor will choose the Alternate.

Question: If the contractor chooses the alternate, will the non-chosen alternate then be entered in Bid Express as a zero-dollar value?

Response: Yes.

Question: The electronic bid submission through Bid Express has a lump sum value required for both Alternate 1 (Section 2) and Alternate 2 (Section 3). The bid total for the electronic submission is then computed with Section 1 plus, Section 2, plus Section 3. This is different from the basis of award that is explained in the Notice to Contractors. Please clarify?

Response: The Contractor shall enter a value of 0 (zero) for the non-chosen Alternate.

Question: Standard specifications for item 202.127 – Removing of existing Bituminous Pavement state “Membrane Waterproofing, if present, shall also be removed in a manner approved by the engineer”. Please provide the manner anticipated to remove the existing membrane waterproofing on the bridge deck?

Response: Existing waterproofing membrane may be removed by any manner that does not damage the top of the concrete deck to remain and does not violate any Contract provisions.

Question: Please confirm milling the existing membrane waterproofing off the concrete deck is acceptable?

Response: Removal of the existing waterproofing membrane from the concrete deck may be accomplished by milling as long as the milling does not damage the top of the concrete deck to remain and does not violate any Contract provisions.

Question: Will milling of the pavement on the bridge deck be allowed? (We are assuming we leave the milling drum minimum of 1/8” above the membrane so we don’t scarify the deck with the milling machine)

Response: Removal of the existing waterproofing membrane from the concrete deck may be accomplished by milling as long as the milling does not damage the top of the concrete deck to remain and does not violate any Contract provisions.

Question: Item 626.222 – FRP Conduit has a bid quantity of 14,500 LF. This matches what is shown on sheet number 230. Sheet 168 shows proposed ITS conduit and proposed lighting conduit that is cast into the permanent fascia barrier. Please clarify where these conduits are to be paid?

Response: Please see the revised Sheet 168 provided in Amendment No. 1. Proposed Lighting Conduit is incidental to Item 634.160, Highway Lighting, as noted on the revised Sheet 227 provided in Amendment No. 1.

Question: Please provide a copy of the bridge deck evaluation report.

Response: The bridge deck cores and GPR report will be posted on the project website.

Question: Is the FRP conduit required for ITS standard wall or heavy wall?

Response: FRP conduit shall be XW.

Question: Will the entire area under the existing bridge be available for contractor use during construction?

Response: The Contractor may access the bridge for construction activity anywhere under the existing bridge. The Contractor may use the area beneath the bridge on the NH side from Preble Way to the river as a staging area and the area not currently used in the NH Maintenance yard near the Abutment

and railroad tracks. If the Contractor wants to use the area beneath the bridge in Kittery for a staging area, the Contractor will need to provide a detailed plan for review and approval to MaineDOT and the Town of Kittery. Concerns would be access, additional traffic, level of noise in a residential area and damage to town infrastructure. Access must be coordinated with NHDOT and MaineDOT, respectively.

Question: Will hot rubber be required on the surface layer at the joints?

Response: Low Modulus Joint sealant will be applied to all longitudinal and transverse joints in the surface layers as directed by the Resident. Please see the added special provision and updated quantity sheets.

Question: What are the treatment requirements for water discharge onsite into exiting as it relates to the hydro-demolition operations?

Response: Standard Best Management Practices apply.

Question: What is the acceptable PH and TSS levels for discharge of water into the local systems?

Response: For discharge into any Municipal system you must speak with the owner. Direct discharge into the resource is not allowed. Standard Best Management Practices apply.

Question: With regard to the stainless screen assemblies shown on drawing 223, please provide the grade of stainless steel required.

Response: Type 304 Stainless Steel shall be used for the mesh and frames.

Question: Please clarify if the existing bridge drainage frames supporting the curbside downspouts on the approach trusses (P/P 0 to P/P 9) are to remain for re-utilization with the new downspouts.

Response: Yes, they shall be re-used.

Question: Please clarify the extent of removals for the median drain extensions beyond the removal of the downspout piping frames, tie rods and cable bracing. (Reference 1977 River Bridge Drain Extensions Project).

Response: The median drains and drain extensions shall be removed in their entirety.

Question: Please quantify the locations that will require Bridge Hardware Truss Screen Panels or change the unit of measure from LS to EA.

Response: See attached, revised Proposal Schedule of Items. The pay item has been changed to EA.

Question: Will traffic be allowing to travel on the concrete bridge deck?

Response: Yes, with appropriate temporary pavement ramps per Special Provision 105, Note 19.

Question: How far below the existing steel can the demo shield extend in the navigable channel?

Response: The demo shield may not extend below the bottom of the existing structural steel above the navigational channel.

Question: Plan page 166 and 167 show a base/temp course HMA. Is the intent to install a temporary surface course in each phase and will it be milled off and resurfaced after all construction is complete?

Response: On the bridge deck, Item 403.2081 will be placed 2" - 2½" thick in each phase (flush with the expansion joint headers. At the completion of the project, a 1" mill and overlay will be constructed across the bridge deck.

Question: Will the railroad flaggers be required after shielding is installed or just during the installation of the shielding?

Response: Railroad flaggers will not be required with shielding in place.

Question: On the 1" mill and fill on the bridge deck will all of the trimming around the expansion joints and drainage steel be paid for under the 202.203 item or will it be incidental to the 202.202?

Response: Trimming around the expansion joints will be incidental to item 202.202.

Question: Please reference Special Provision Section 524, Temporary Structural Supports, Protective Shielding, Section 524.031. What is the design criteria for the shield? Is the 100 psf load a working load or the ultimate design load?

Response: The design criteria for the platform is the responsibility of the Contractor's engineer, as specified in Standard Specification, Section 524 and SPECIAL PROVISION – SECTION 524 – TEMPORARY STRUCTURAL SUPPORTS – (Protective Shielding). At a minimum, the platform must provide an ultimate capacity of 100 psf.

Question: In Section 506.09 it states stripe coat is to be applied prior to application of the primer coat, however, it also states that the contractor may stripe coat with the intermediate coat on case by case basis. Please clarify if the intermediate stripe coat is a separate coat, or is this an alternate option instead of the primer stripe coat.

Response: This is an alternate option.

Question: It is our understanding that shields are to be designed to failure with no safety factor. Please verify that we are correct in our assumption. Otherwise please clarify design criteria

Response: The design criteria for the platform is the responsibility of the Contractor's engineer, as specified in Standard Specification, Section 524 and SPECIAL PROVISION – SECTION 524 – TEMPORARY STRUCTURAL SUPPORTS – (Protective Shielding). At a minimum, the platform must provide an ultimate capacity of 100 psf.

Question: The quantity in the book for the 403.2081 item is 6000 tons, if the bridge deck uses 2.25" of mix that will use all of the item up and there is still the I-95 mill/fill, 1.5" I-95 overlay, travel way, shoulders, and barrier areas to complete with this item. I also haven't been able to find where all of the 403.2131 item is going to be used.

Response: Please see the attached, revised Schedule of Items and Quantity Sheets. SPECIAL PROVISION - SECTION 403 – HOT MIX ASPHALT was correct.

Question: Item 403.2131 is listed as 1.5" thick to be placed at I95 Median Barriers and Travel Way & Shoulders as Intermediate course.

Item 403.2081 is listed as 1.5" thick to be placed at I95 Median Barriers and Travel Way & Shoulders as Wearing course.

The volume is exactly the same for these locations except that there is a quantity of 8,850 tons for item 403.2131 and that there is a quantity of 6,000 tons for item 403.2081. Additionally, the Bridge deck is listed as item 2-2.5" thick with item 403.2081. These quantities do not match up based on the volume of area that is listed in Special Provision Section 403 Hot Mix Asphalt.

Are these Hot Mix Asphalt ton quantities correct for the items they are associated with?

Response: Please see the attached, revised Schedule of Items and Quantity Sheets. SPECIAL PROVISION - SECTION 403 – HOT MIX ASPHALT was correct.

Question: Response to question 11 in Amendment No. 3 states "the 403.2081 mixture shall be placed first and utilized as the wearing course during construction" This matches the description in Amendment No. 3 HMA table which shows "Varies 2"-2.5" on bridge deck under item 403.2081. However, the estimated quantities sheet on Amendment No. 3 shows that the varying bridge deck lift of 2"-2.5" is item 403.2131. The bid quantity for 403.2131 is 8,850 Tons which only checks if the varying lift that is placed first on the bridge deck gets paid under item 403.2131. Please clarify which item the initial 2"-2.5" lift on the bridge deck gets paid?

Response: Please see the attached, revised Schedule of Items and Quantity Sheets. SPECIAL PROVISION - SECTION 403 – HOT MIX ASPHALT was correct.

Question: Will this project require the use of Rumble Strips as shown in the Paving Traffic Control Details? If yes, under which pay item will the rumble strips be paid?

Response: No temporary rumble strips will be included. See revised sheets.

Question: Per Amendment #3, Sheet 227 Note 8 was to be deleted per the response to a previous RFI. Will this Note be deleted in a future Amendment?

Response: Please see the revised sheet implementing this change issued with this Amendment.

Question: Per Amendment #3, Sheet 13 note references directional drilling would be incidental. The Amendment stated it was acceptable to change this to a pay item. Will this be done in a future Amendment?

Response: Please see the revised sheets and specs issued with this Amendment.

Question: The lead time on the Movable Temporary Concrete Barrier is 4-6 months. How much additional MTCB should be procured due to the probable occurrence of accidents and the need for some of it being damaged beyond repair? During any accidents, how will the penalties for lanes be accessed during barrier repair?

Response: Providing appropriate MTCB is the responsibility of the Contractor. Penalties for lanes will not be assessed during emergency barrier repair due to crashes.

Question: Would SIP concrete exterior forms be acceptable to be used for the fascias and median barriers to construct the permanent concrete barrier types?

Response: No.

Question: Will the Department allow any type of welding to be performed on top of the existing girders to allow for the installation of conventional deck hangers and associated hardware needed to install conventional overhang brackets to form the fascias?

Response: Welding is permissible for this purpose as long as all relevant standards are followed, including lead paint mitigation and touch-up painting. Any overhang bracket design must be stamped by a Professional Engineer registered in the State of Maine.

Question: Is there any existing drain removal on the Maine Approaches other than those in the areas that interfere with the new drains being installed?

Response: All existing bridge drains are being removed (most are located in overhangs that are being replaced anyway).

Question: Item 655.513 is a lump sum item. The detail sheets show a quantity for the item of 16,300 LF. This quantity would only cover the parapet lengths. If the embedded Cathodic protection is needed along the joints the quantity should be adjusted to 19,900 LF. Please clarify the quantity to use for item 655.513?

Response: Please see the revised quantity sheet correcting this quantity.

Question: Please tell me where you have dimensioned the ½" plate armor required for the finger joints at the parapets along both sides of the Southbound and Northbound lanes. Since these locations are finger joints, I would think they will be much larger than the parapet armor required at the new compression seal expansion joint locations. Please clarify.

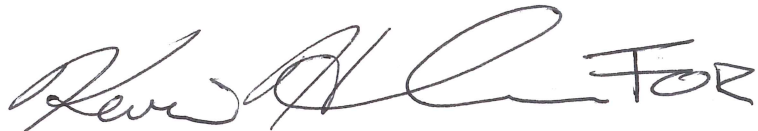
Response: Please refer to sheet 211B issued in Bid Amendment #3.

Question: Where are the locations of Item 518.51? Please also clarify other 518 item locations. Thank you.

Response: Items 518.51, 518.52, and 518.70 are primarily for deck repair. Exact quantities and repair locations shall be as directed by the Resident once the wearing surface has been removed and elements are accessible for hands-on evaluation. Item 518.60 is primarily for substructure repair and quantities and repair locations shall be as directed by the Resident once elements are accessible for hands-on evaluation. The Contractor shall provide the Resident access to evaluate and determine repair locations for 518 items, with costs incidental to 518 items.

Consider these changes and information prior to submitting your bid on **January 16, 2019**.

Sincerely,

A handwritten signature in dark ink, appearing to read "George M. A. Macdougall" followed by a stylized flourish and the word "FOR".

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

1/9/2019

Maine Department of Transportation

Proposal Schedule of Items

Page 1 of 12

Proposal ID: 019270.00

Project(s): 019270.00

SECTION: 1 MAIN ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0010	202.12 REMOVING EXISTING STRUCTURAL CONCRETE	2,540.000 CY	_____	 _____	_____	 _____
0020	202.1211 CONCRETE HAUNCH REMOVAL	32,200.000 LF	_____	 _____	_____	 _____
0030	202.127 REMOVE EXISTING BITUMINOUS PAVEMENT	LUMP SUM	LUMP SUM		_____	 _____
0040	202.1294 REMOVAL OF BRIDGE DRAINAGE SYSTEM	LUMP SUM	LUMP SUM		_____	 _____
0050	202.1295 HYDRO DEMOLITION, PROPERTY OF CONTRACTOR	4,530.000 SY	_____	 _____	_____	 _____
0060	202.13 REMOVING EXISTING RAILINGS (RETAINED BY DEPARTMENT)	7,260.000 LF	_____	 _____	_____	 _____
0070	202.202 REMOVING PAVEMENT SURFACE	76,250.000 SY	_____	 _____	_____	 _____
0080	202.203 PAVEMENT BUTT JOINTS	7,305.000 SY	_____	 _____	_____	 _____
0090	202.205 RUMBLE STRIPS - SHOULDER	16,600.000 LF	_____	 _____	_____	 _____
0100	202.207 RUMBLE STRIPS, FILL	850.000 LF	_____	 _____	_____	 _____
0110	203.20 COMMON EXCAVATION	3,160.000 CY	_____	 _____	_____	 _____
0120	203.24 COMMON BORROW	670.000 CY	_____	 _____	_____	 _____

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Project(s): 019270.00

SECTION: 1 MAIN ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0130	203.25 GRANULAR BORROW	1,150.000 CY	_____	_____	_____	_____
0140	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	380.000 CY	_____	_____	_____	_____
0150	304.14 AGGREGATE BASE COURSE - TYPE A	260.000 CY	_____	_____	_____	_____
0160	403.2081 12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	13,050.000 T	_____	_____	_____	_____
0170	403.2101 9.5 MM POLYMER MODIFIED HMA	5,150.000 T	_____	_____	_____	_____
0180	403.211 HOT MIX ASPHALT (SHIMMING)	1,500.000 T	_____	_____	_____	_____
0190	403.213 HOT MIX ASPHALT 12.5 MM BASE	4,050.000 T	_____	_____	_____	_____
0200	403.2131 12.5 MM POLYMER MODIFIED HMA BASE	1,800.000 T	_____	_____	_____	_____
0210	409.15 BITUMINOUS TACK COAT - APPLIED	7,850.000 G	_____	_____	_____	_____
0220	424.3333 LOW MODULUS JOINT SEALER, APPLIED	76,580.000 LF	_____	_____	_____	_____
0230	461.131 TEMPORARY PAVEMENT	56.000 T	_____	_____	_____	_____
0240	502.26 STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLABS ON STEEL BRIDGES	LUMP SUM	LUMP SUM		_____	_____

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SECTION: 1 MAIN ITEMS

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Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0250	502.705 COMPOSITE BRIDGE DRAIN	LUMP SUM		LUMP SUM		
0260	503.12 REINFORCING STEEL, FABRICATED AND DELIVERED	636,000.000 LB				
0270	503.13 REINFORCING STEEL, PLACING	636,000.000 LB				
0280	504.7091 BRIDGE HARDWARE	800.000 EA				
0290	504.811 STRUCTURAL STEEL REPAIR	1,900.000 LB				
0320	514.06 CURING BOX FOR CONCRETE CYLINDERS	2.000 EA				
0330	515.21 PROTECTIVE COATING FOR CONCRETE SURFACES	LUMP SUM		LUMP SUM		
0340	518.51 REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL < 8 IN.	20,400.000 SF				
0350	518.52 REPAIR OF UPWARD FACING SURFACES >= 8 IN.	11.000 CY				
0360	518.60 REPAIR OF VERTICAL SURFACES < 8 IN.	1,450.000 SF				
0370	518.70 REPAIR OF OVERHEAD SURFACES < 8 IN.	770.000 SF				

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SECTION: 1 MAIN ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0380	520.2321 ASPHALTIC CRACK CONTROL JOINT	LUMP SUM		 LUMP SUM		
0390	520.245 BRIDGE JOINT MODIFICATION TYPE 5	36.000 EA				
0400	520.261 LONGITUDINAL JOINT SEAL	3,200.000 LF				
0410	521.32 FABRIC TROUGH FOR FINGER JOINT Approach Piers	4.000 EA				
0420	521.32 FABRIC TROUGH FOR FINGER JOINT Approach Spans	14.000 EA				
0430	524.40 PROTECTIVE SHIELD	LUMP SUM		 LUMP SUM		
0440	526.301 TEMPORARY CONCRETE BARRIER TYPE I	LUMP SUM		 LUMP SUM		
0450	526.307 MOVABLE TEMPORARY CONCRETE BARRIER SYSTEM	LUMP SUM		 LUMP SUM		
0460	526.312 PERMANENT CONCRETE BARRIER TYPE II	LUMP SUM		 LUMP SUM		
0470	526.331 PERMANENT CONCRETE BARRIER TYPE III B	LUMP SUM		 LUMP SUM		
0480	526.36 MEDIAN BARRIER FIXED OBJECT PROTECTION	165.000 LF				

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SECTION: 1 MAIN ITEMS

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0490	526.50 PRECAST CONCRETE BARRIER MEDIAN	4,440.000 LF	_____	_____	_____	_____
0500	527.33 TRUCK MOUNTED ATTENUATOR	2.000 EA	_____	_____	_____	_____
0510	527.341 WORK ZONE CRASH CUSHIONS, TL-3	3.000 UN	_____	_____	_____	_____
0520	530.25 FIBERGLASS REINFORCED POLYMER GRATING	900.000 SF	_____	_____	_____	_____
0530	603.159 12 INCH CULVERT PIPE OPTION III	63.000 LF	_____	_____	_____	_____
0540	604.09 CATCH BASIN TYPE B1	2.000 EA	_____	_____	_____	_____
0550	604.161 ALTERING CATCH BASIN	5.000 EA	_____	_____	_____	_____
0560	604.164 REBUILDING CATCH BASIN	3.000 EA	_____	_____	_____	_____
0570	604.18 ADJUSTING MANHOLE OR CATCH BASIN TO GRADE	9.000 EA	_____	_____	_____	_____
0580	604.26 CATCH BASIN TYPE B5	10.000 EA	_____	_____	_____	_____
0590	605.105 8" UNDERDRAIN OUTLET TY B	13.000 LF	_____	_____	_____	_____
0600	606.1301 31" W-BM GR, MID-WAY SPLICE-SGL FACED	3,530.000 LF	_____	_____	_____	_____

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SECTION: 1 MAIN ITEMS

Alt Set ID:

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Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0610	606.1305 31" W-BM GR, MID-WAY SPLICE FLARED TERMINAL	3.000 EA	_____	_____	_____	_____
0620	606.1733 BRIDGE TRANSITION - TYPE 3	4.000 EA	_____	_____	_____	_____
0630	606.1733 BRIDGE TRANSITION - TYPE 3 MODIFIED	1.000 EA	_____	_____	_____	_____
0640	606.277 TERMINAL END - ANCHORED END	2.000 EA	_____	_____	_____	_____
0650	606.352 REFLECTORIZED BEAM GUARDRAIL DELINEATORS	100.000 EA	_____	_____	_____	_____
0660	606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8.000 EA	_____	_____	_____	_____
0670	606.356 UNDERDRAIN DELINEATOR POST	2.000 EA	_____	_____	_____	_____
0680	606.362 GUARDRAIL ADJUSTED	1,970.000 LF	_____	_____	_____	_____
0690	606.363 GUARDRAIL REMOVE AND DISPOSE	8,700.000 LF	_____	_____	_____	_____
0700	606.569 REMOVE, MODIFY AND RESET - DOUBLE RAIL	65.000 LF	_____	_____	_____	_____
0710	607.17 CHAIN LINK FENCE - 6 FOOT	700.000 LF	_____	_____	_____	_____
0720	607.432 PROTECTIVE SCREENING	120.000 LF	_____	_____	_____	_____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0730	608.07 PLAIN CONCRETE SIDEWALK	220.000 SY	_____	_____	_____	_____
0740	609.312 SPECIAL CURB TYPE 2	90.000 LF	_____	_____	_____	_____
0750	610.08 PLAIN RIPRAP	1,505.000 CY	_____	_____	_____	_____
0760	615.07 LOAM	630.000 CY	_____	_____	_____	_____
0770	618.14 SEEDING METHOD NUMBER 2	51.000 UN	_____	_____	_____	_____
0780	620.58 EROSION CONTROL GEOTEXTILE	420.000 SY	_____	_____	_____	_____
0790	620.622 CELLULAR CONFINEMENT SYSTEM	610.000 SY	_____	_____	_____	_____
0800	626.222 FRP CONDUIT	14,500.000 LF	_____	_____	_____	_____
0810	626.25 UNDER PAVEMENT DUCT	60.000 LF	_____	_____	_____	_____
0820	627.18 12 " SOLID WHITE PAVEMENT MARKING	3,550.000 LF	_____	_____	_____	_____
0830	627.1801 12" SOLID WHITE RETROFLECTIVE THERMOPLASTIC PAVE MARK	690.000 LF	_____	_____	_____	_____
0840	627.51 6" TEMPORARY PAVEMENT TAPE, YELLOW OR WHITE	6,500.000 LF	_____	_____	_____	_____

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SECTION: 1 MAIN ITEMS

Alt Set ID:

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Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0850	627.57 12" REMOVABLE BLACK LINE MASKING TAPE	1,350.000 LF	_____	_____	_____	_____
0860	627.744 6" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	83,100.000 LF	_____	_____	_____	_____
0870	627.7441 6" WHITE RETROFLECTIVE THERMOPLASTIC PAVEMENT MARKING	5,650.000 LF	_____	_____	_____	_____
0880	627.77 REMOVING PAVEMENT MARKINGS	130,000.000 SF	_____	_____	_____	_____
0890	627.781 TEMPORARY 6 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	400,000.000 LF	_____	_____	_____	_____
0900	627.801 TEMPORARY RAISED PAVEMENT MARKER	36,200.000 EA	_____	_____	_____	_____
0910	627.945 PAVEMENT MARKING TAPE	805.000 LF	_____	_____	_____	_____
0920	627.945 PAVEMENT MARKING TAPE DOTTED WH LN LINE 6 IN	385.000 LF	_____	_____	_____	_____
0930	629.05 HAND LABOR, STRAIGHT TIME	80.000 HR	_____	_____	_____	_____
0940	631.10 AIR COMPRESSOR (INCLUDING OPERATOR)	10.000 HR	_____	_____	_____	_____
0950	631.11 AIR TOOL (INCLUDING OPERATOR)	10.000 HR	_____	_____	_____	_____

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Proposal ID: 019270.00

Project(s): 019270.00

SECTION: 1 MAIN ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0960	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	30.000 HR	_____	_____	_____	_____
0970	631.14 GRADER (INCLUDING OPERATOR)	40.000 HR	_____	_____	_____	_____
0980	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	5.000 HR	_____	_____	_____	_____
0990	634.160 HIGHWAY LIGHTING	LUMP SUM	LUMP SUM		_____	_____
1000	634.210 CONVENTIONAL LIGHT STANDARD	36.000 EA	_____	_____	_____	_____
1010	639.18 FIELD OFFICE TYPE A	1.000 EA	_____	_____	_____	_____
1020	643.71 TRAFFIC SIGNAL MODIFICATION I95 NB/ MARKET ST	LUMP SUM	LUMP SUM		_____	_____
1030	643.71 TRAFFIC SIGNAL MODIFICATION I95 SB/ MARKET ST	LUMP SUM	LUMP SUM		_____	_____
1040	643.71 TRAFFIC SIGNAL MODIFICATION RT 1 BYPASS/ ALBACORE	LUMP SUM	LUMP SUM		_____	_____
1050	643.871 WEIGH-IN-MOTION SYSTEM	LUMP SUM	LUMP SUM		_____	_____
1060	645.103 DEMOUNT GUIDE SIGN	1.000 EA	_____	_____	_____	_____

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Proposal ID: 019270.00

Project(s): 019270.00

SECTION: 1 MAIN ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
1070	645.106 DEMOUNT REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN	3.000 EA	_____	 _____	_____	 _____
1080	645.113 REINSTALL GUIDE SIGN	1.000 EA	_____	 _____	_____	 _____
1090	645.116 REINSTALL REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN	3.000 EA	_____	 _____	_____	 _____
1100	645.521 HYBRID TRAVEL TIME SIGN INTEGRATION	LUMP SUM		LUMP SUM	_____	 _____
1110	645.523 TRAVEL TIME DATA	LUMP SUM		LUMP SUM	_____	 _____
1120	652.30 FLASHING ARROW BOARD	4.000 EA	_____	 _____	_____	 _____
1130	652.312 TYPE III BARRICADE	20.000 EA	_____	 _____	_____	 _____
1140	652.33 DRUM	600.000 EA	_____	 _____	_____	 _____
1150	652.34 CONE	100.000 EA	_____	 _____	_____	 _____
1160	652.35 CONSTRUCTION SIGNS	3,000.000 SF	_____	 _____	_____	 _____
1170	652.361 MAINTENANCE OF TRAFFIC CONTROL DEVICES	LUMP SUM		LUMP SUM	_____	 _____
1180	652.38 FLAGGER	3,000.000 HR	_____	 _____	_____	 _____

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Proposal Schedule of Items

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Proposal ID: 019270.00

Project(s): 019270.00

SECTION: 1 MAIN ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
1190	652.381 TRAFFIC OFFICER	640.000 HR	_____	 _____	_____	 _____
1200	652.382 TRAFFIC MONITOR	915.000 CD	_____	 _____	_____	 _____
1210	652.41 PORTABLE CHANGEABLE MESSAGE SIGN ADV RET BY CONTR	13.000 EA	_____	 _____	_____	 _____
1220	652.41 PORTABLE CHANGEABLE MESSAGE SIGN RTT RET BY CONTR	5.000 EA	_____	 _____	_____	 _____
1230	652.41 PORTABLE CHANGEABLE MESSAGE SIGN RTT RET BY DEPT	8.000 EA	_____	 _____	_____	 _____
1240	652.451 AUTOMATED TRAILER MOUNTED SPEED LIMIT SIGN	200.000 CD	_____	 _____	_____	 _____
1250	655.511 EMBEDDED GALVANIC ANODE (FROM MANUFACTURER)	16,160.000 EA	_____	 _____	_____	 _____
1260	655.513 EMBEDDED CATHODIC PROTECTION SYSTEM	LUMP SUM	LUMP	 SUM	_____	 _____
1270	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP SUM	LUMP	 SUM	_____	 _____
1280	659.10 MOBILIZATION	LUMP SUM	LUMP	 SUM	_____	 _____
Section: 1			Total:	_____	_____	 _____

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Proposal Schedule of Items

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Proposal ID: 019270.00

Project(s): 019270.00

SECTION: 2 NH APPR SPANS HP MEMBRANE TORCH APPL

Alt Set ID: AL

Alt Mbr ID: 1

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0300	508.1401 HIGH PERFORMANCE WATERPROOFING MEMBRANE, TORCH APPLIED	LUMP SUM		LUMP SUM		
Section: 2			Total:			

SECTION: 3 NH APPR SPANS HP MEMBRANE SPRAY APPL

Alt Set ID: AL

Alt Mbr ID: 2

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0310	508.1402 HIGH PERFORMANCE WATERPROOFING MEMBRANE, SPRAY APPLIED	LUMP SUM		LUMP SUM		
Section: 3			Total:			
			Total Bid:			

SPECIAL PROVISION
SECTION 424
 LOW MODULUS JOINT SEALER

Description This work shall consist of furnishing all labor, equipment and materials necessary to clean and seal longitudinal and transverse joints that result in the construction of bituminous concrete pavement courses. This material is to be thoroughly applied to the joints during the construction of bituminous pavement courses, to seal the construction joint from deterioration due to the elements, and to adhere the joint materials together.

Materials 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 D-6690, Type IV, and the following specification.

Cone Penetration	90 - 150
Flow @ 60°C [140°F]	< 1/8 inch]
Bond, non-immersed	Three ½ inch specimens pass 3 cycles @ 200% extension @ -29°C [-20°F]
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 140°F.

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

CONSTRUCTION REQUIREMENTS

Weather Low modulus joint sealer shall not be applied on a wet surface, or when the atmospheric temperature is below 50°F in a shaded area at the job site, or when weather conditions are otherwise unfavorable to proper construction procedures. An atmospheric temperature of 36°F and rising will be permitted on intermediate and base courses, with the time and weather constraints remaining.

Preparation and Placement This work shall be constructed using a low modulus joint sealer. The sealer shall be heated and applied at a temperature between 340°F - 390°F or as specified by the manufacturer and approved by the Resident. Sealer shall be delivered to the joint through a pressure hose line and applicator shoe. The shoe width shall be designed place sealant over the joint being sealed, and provide full coverage over the joint being sealed, depending on the joint height variability.

The sealer shall be applied at a rate and manner that produces a material thickness of 1/8 inch, typical. The material shall not be applied more than 12 hours prior to the placement of any pavement course, and subject to approval by the Resident.

Preparations of Joints All joints shall be swept or blown free of loose material, dirt, and other debris. Material removed from the joint shall be removed from the pavement surface by means of a power sweeper or appropriate hand tools as required. Joints shall additionally be cleaned by appropriate hand tools if contaminants remain on the face. All debris and water shall be removed to enhance adhesion of the joint sealing material.

THIS WORK SHALL NOT BE DONE IN INCLEMENT WEATHER.

Equipment Equipment used in the performance of the work shall be subject to the Resident's approval and shall be maintained in a satisfactory working condition at all times.

(a) Sweeper: The sweeper shall be a manually operated, gas powered air-broom, or self-propelled sweeper designed especially for use in cleaning pavements shall be used to remove all debris, dirt, and dust from the joints.

(b) Melting Kettle: The unit used to melt the joint sealing compound shall be a double boiler, indirect fired type. The space between inner and outer shells shall be filled with a suitable heat transfer oil or substitute having a flash point of not less than 608°F. The kettle shall be equipped with a satisfactory means of agitating and mixing the joint sealer at all times. This may be accomplished by continuous stirring with mechanically operated paddles and/or a continuous circulating gear pump attached to the heating unit. The kettle must be equipped with thermostatic control calibrated between 170°F and 525°F.

Quality of Work Excess sealer shall be removed from the pavement by approved methods and discarded. Any quality of Work determined to be below normal acceptable standards will not be accepted, and will be corrected and/or replaced as directed by the Resident.

Method of Measurement Low modulus joint sealer will be measured by the foot applied.

Basis of Payment The accepted quantity of Low Modulus Joint Sealer will be paid for at the contract unit price per foot complete in place, which price shall be full compensation for furnishing and placing sealer, including all cleaning of joints, and furnishing and placing all materials necessary to perform the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
424.3333 Low Modulus Joint Sealer, Applied	Foot

SPECIAL PROVISION
SECTION 504
STRUCTURAL STEEL
(Bridge Hardware, Truss Screen Panel)

504.01 Description. The following paragraph is added:

This work includes fabricating and installing screen panels as shown on the Plans and described in these Specifications. This work also includes providing the Resident with an acceptable means of access to all portions of the work for the purposes of project inspection and documentation.

504.65 Method of Measurement. This Subsection is amended by the addition of the following:

Bridge Hardware, Truss Screen Panels will be measured for payment by each unit fabricated, transported, installed, complete and accepted in place in accordance with the Plans and these Specifications. All hardware will not be paid for separately but will be considered incidental.

504.66 Basis of Payment. This Subsection is amended by the addition of the following:

The accepted quantity of Bridge Hardware, Truss Screen Panel will be paid for at the Contract unit price each, which payment will be full compensation for all materials, equipment, labor, and incidentals including but not limited to field measurements, framing steel, mesh screen, fasteners, field drilling and tapping, and all tools, equipment and materials necessary to complete the work in accordance with the Plans and these Specifications.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
504.7091 Bridge Hardware, Truss Screen Panel	Each

SPECIAL PROVISION
SECTION 606
GUARDRAIL
(Bridge Transition- Type III)
(Bridge Transition- Type III, Modified)

606.01 Description. The following sentence is added:

This work shall consist of furnishing and installing Type III Bridge Transitions and Type III, Modified Bridge Transitions at bridge endposts as shown in the Contract Documents.

The following Subsection is added:

606.071 Guardrail Attachments at Bridges

Bridge transition - Type III, and Bridge Transition - Type III, Modified shall be used at bridge endpost locations as shown on the plans.

606.08 Method of Measurement. The following paragraphs are added:

Bridge transition - Type III will be measured by each unit of the type specified, installed and accepted.

Bridge Transition- Type III, Modified will be measured by each unit of the type specified, installed and accepted.

606.09 Basis of Payment. The following paragraphs are added:

Bridge Transition - Type III, and Type III, Modified, will be paid for at the Contract unit price each complete in place and shall be full compensation for furnishing all labor, equipment and materials necessary to complete the work consisting of, but not necessarily limited to, the following: furnishing and installing guardrail, modifications to concrete end wall to accept terminal anchor, one terminal connector, including terminal connector anchorage and all other detailed accessories; furnishing and installing all required posts, rails, offset brackets, back-up plates, nuts, bolts, washers, and all other items necessary to make for a complete installation as shown on the Plans or as approved by the Resident.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
606.1733 Bridge Transition - Type III	Each
606.1733 Bridge Transition - Type III, Modified	Each

SPECIAL PROVISION
SECTION 626
FOUNDATIONS, CONDUIT, AND JUNCTION BOXES FOR HIGHWAY SIGNING,
LIGHTING AND SIGNALS
(Under Pavement Duct)

Description. Horizontal Directional Drilling (HDD) method shall be used for installation of non-metallic conduit for Weigh-in-Motion systems when specified on the project plans or approved by the Resident. It shall include furnishing of all materials, site preparation, equipment setup, pilot bore, conduit pulling through the drilled bore, installation of pull wire and fittings, site restoration, and incidental work necessary to satisfactorily install conduit at the required locations and depths.

Materials. Conduit for Horizontal Directional Drilling shall meet requirements of Section 715.03 for non-metallic conduit. Non-metallic conduit to be installed under roadways shall be Schedule 80 or greater. Non-metallic conduit to be installed in other locations shall be Schedule 40 or greater. Conduit sections shall be joined by methods suitable for installation by HDD. Joined conduit sections must have adequate strength and flexibility to withstand the installation stresses and overburden pressures without compromising the structural stability of the conduit wall. Conduit must be able to meet the bend radius required for the proposed installation. Conduit sections shall be joined in a manner resulting in the inner surfaces being flush and even.

Construction. Prior to commencing HDD work, the Contractor shall submit a drilling work plan to the Resident for approval addressing the following, at minimum:

- Profile of the proposed bore plotted at a scale appropriate for the crossing and acceptable to the Resident;
- HDD site layout including entry and exit points;
- Drilling fluid management plan, including drilling fluid types and specifications, cleaning and recycling equipment to be used, estimated flow rates, procedures for minimizing drilling fluid escape, and the method and location for final disposal of waste drilling fluids. Material safety data sheets shall be provided for all drilling fluid additives that will be used;
- Conduit storage and handling details;
- Summary of assembly and installation procedures to be used;
- Material safety data sheets of any other potentially hazardous substances to be used;
- Response plans for possible problems that may be encountered;
- Documentation and certification of the ability of the proposed conduit to withstand installation stresses and pressures.

The HDD drill rig and auxiliary pieces of equipment shall be appropriate for the diameter and length of conduit being installed. The power system shall provide sufficient pressure to power the drilling operations with a hydraulic system free from leakage. The directional drilling machine shall be anchored as necessary to stabilize it against excessive dislocation.

In order to minimize friction and prevent collapse of the bore hole, a soil stabilizing agent (drilling fluid) may be introduced into the annular bore space from the front end of the drill head to create a slurry. The drilling fluids shall be selected or designed for the site's specific soil and ground water conditions. The drilling fluid mixing system shall be self-contained and closed with sufficient size to mix and deliver drilling fluid to the drill head. The mixing system shall continually agitate the drilling fluid during drilling operations. The fluids delivery system shall be capable of pumping drilling fluid with sufficient volume and pressure from the mixing tank through the drill rods to the drill head.

Alignment of the bore shall be accomplished by proper orientation of the drill head as it is pushed through the ground by the drill rig. Orientation and tracking of the drill head shall be determined by using an acceptable tracking system from a transmitter located within the drill head. The HDD guidance system shall be capable of locating and tracking the drill head continuously and accurately both horizontally and vertically during the pilot bore. All equipment shall be properly calibrated before commencing the directional drilling operation.

Borehole diameter relative to the conduit diameter shall be minimized to limit potential damage from soil displacement, settlement, and heaving. When necessary, the pilot borehole may be enlarged by back reaming to accommodate conduit larger than the pilot borehole size. Back reaming may be accomplished ahead of or at the same time as pulling the conduit through the pilot borehole. The back-reamer shall be sized to create a large enough borehole to allow cuttings to transfer from the face of excavation to the surface with minimum soil displacement.

Escaping slurry or drilling fluids shall be confined at the ground surface during pull back or drilling. All drilling fluids shall be disposed of or recycled in a manner acceptable to the Maine Department of Environmental Protection. Upon completion of the HDD operation, the work site shall be cleaned of all excess slurry or spoils. Any damage caused by heaving, settlement, separation of pavement, escaping drilling fluid, or other damage from the directional drilling operation shall be repaired by the Contractor to the satisfaction of the Resident.

At the completion of the HDD conduit installation, the Contractor shall provide to the Resident marked up plans noting location, depth, and material type of all conduit installed by the Horizontal Directional Drilling method.

Method of Measurement. Under Pavement Duct will be measured by the number of linear feet of conduit in place and accepted by the Resident.

Basis of Payment. Payment will be made for the total number of linear feet of Under Pavement Duct complete and accepted at the contract price per linear foot. Payment shall include the cost of furnishing and installing the conduit; site preparation and restoration of drilling entry and exit points; removal of excavated material and drilling spoils; removal and disposal of drilling fluids and excess slurry; pull wire, fittings, grounding and bonding; test cleaning of conduit interior; and all other materials, labor, equipment, and incidentals necessary to complete the work.

Payment will be made under:

	<u>Pay Item</u>	<u>Pay Unit</u>
626.25	Under Pavement Duct	Linear Foot

SPECIAL PROVISION
SECTION 643
(Weigh-in-Motion System)

Description. This work shall consist of furnishing and installing a Weigh-in-Motion (WIM) system, as shown in the attached standard detail. The piezoelectric axle sensors must be Class I piezo Quartz axle sensors and must provide an output capable of use for the purpose of ASTM Type II weigh-in-motion data collection. Two 2 meter quartz sensors shall be supplied per lane or shoulder. All sensors shall be supplied with sufficient grout and associated hardware for proper installation. Any temperature compensation device required by the piezoelectric sensor itself must be supplied and installed at no additional cost to insure proper operation and correct data collection. The sensor constant sensitivity repeatability shall be +/- 7%. Working temperature range shall be -15 degrees F to 160 degrees F (-25 C to 70 C). The sensor shall provide a consistent voltage output signal when a vehicle axle makes multiple passes over it, and shall have shielded transmission cable attached. The Shielded Transmission Cable shall be a coaxial cable. The length of each wheel path sensor length shall be 2 meters.

Materials.

Contractor will be asked to supply and install the following items under this specification:

- (1) 20 foot long, pressure treated 6 inch by 6 inch post 720.12
- (1) unpainted aluminum M cabinet (H 51" x W 30" x D 18") no police door required.
- (2) 80 watt solar panels
- Approximately 200 feet of 1.5 inch PVC conduit 715.03
- (1) vehicle rated junction box (with positively attached lid) 626.11
- (2) Piezoelectric axle sensors per lane or shoulder (6 lanes and 2 shoulders in Kittery)
- (2) IMSA loop ducts per lane 718.04

MaineDOT will supply and contractor shall install:

Rack mounted control unit by Electronic Control Measure (ECM)

Construction Requirements

Cabinet:

- Cabinet mounting post shall be installed 6 feet in the ground and drilled to the TS 350 breakaway standard
- Solar panels shall be installed at 60 degrees from horizontal, facing true south

Sensor:

- Lead in saw cuts to be 2 inches deep by 3/8 inch wide
- Prior to installing sealant, wires to be held in bottom of saw cut by Styrofoam backer rod.
- Loops are to be centered in the lane, 6 feet by 6 feet with 4 turns of wire in IMSA loop duct.
- Loop lead-in wires from controller box are to be twisted, and routed separately to each loop for each travel lane or shoulder.

- The sensors supplied shall be 2 meter quartz sensors by Kistler Corp of 75 John Glenn Drive, Amherst, NY. Sensors will not require any temperature compensation.
- Sensor wires will not be routed with loop wires. Sensor wires will also be separated from other sensor wires. This will minimize damage to sensor wires when one set needs replacement and another does not.
- Trailing edge of loop to trailing edge of loop to be 12 feet.
- Sensors to be located 13 inches downstream of trailing edge of loop.
- After sensor grout hardens, the grout/sensor surface will be ground to be level with pavement.
- **Furthest sensor/loop's lead-in will not pass in front of nearest sensor array.**
- Leading edge to leading edge of sensor to be 12 feet.
- Center line sensor must be located in advance of shoulder sensor according to travel direction.
- Installation should resemble the configuration labeled "Six-Lane Divided Highway".
- If new conduit is required to connect cabinet and pull box, cutting of existing pavement to install conduit will not be allowed. New conduit shall be installed by directional drilling only and be of equivalent size of existing.

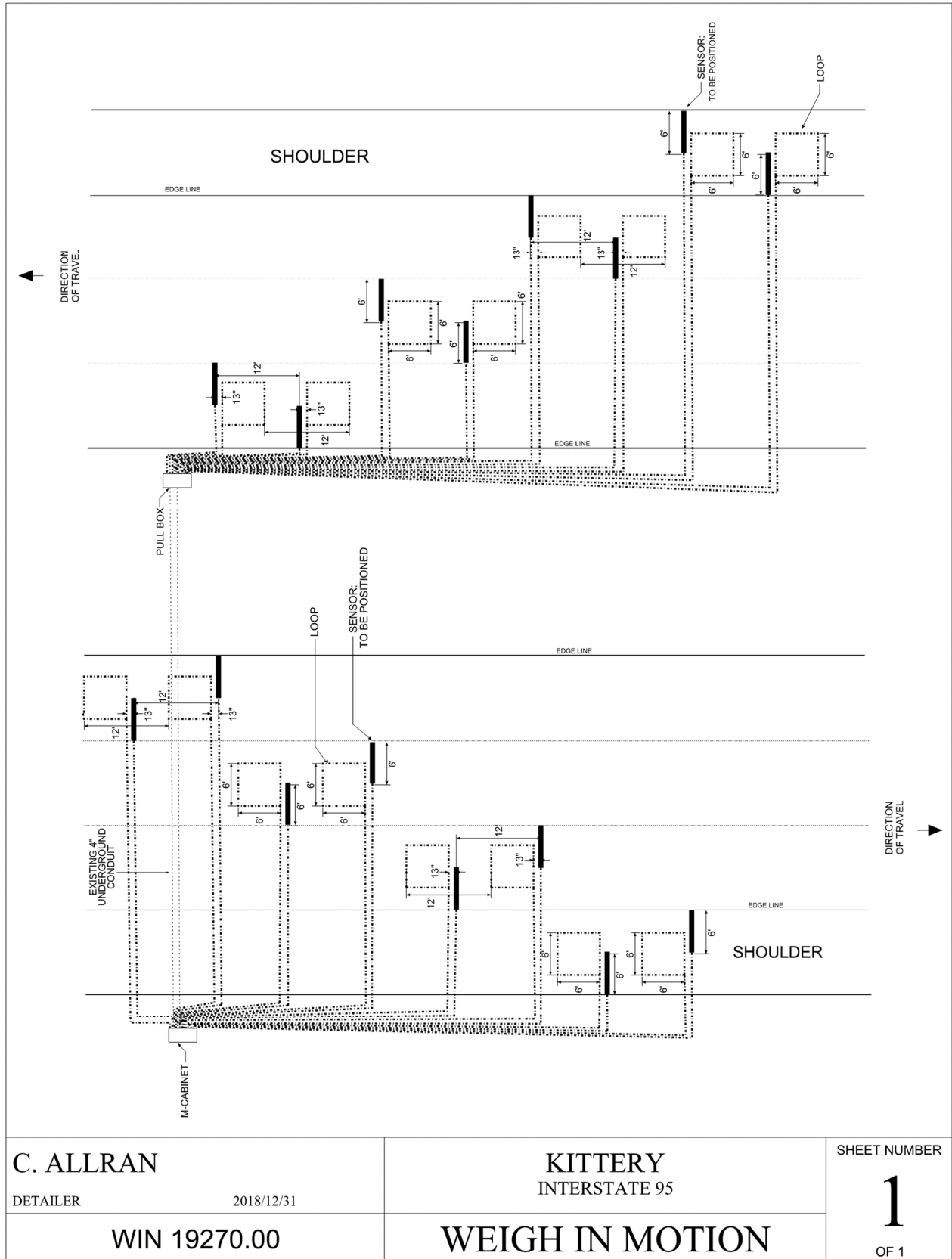
MaineDOT staff to mark location during construction. Contact Ron Cote, MaineDOT WIM Program Coordinator, at ron.cote@maine.gov or via phone at (207) 446-2305 at least 72 hours prior to installation to coordinate.

Method of Measurement. Weigh-In-Motion System will be measured for payment by the lump sum complete in place and accepted.

Basis of Payment. Weigh-In-Motion System will be paid for at the Contract lump sum price, which will be full compensation for furnishing and installing all equipment and associated hardware and incidentals to complete the work as specified. Directional drilling, if required, will be paid for under Item 626.223, Horizontal Directional Drilled Conduit.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
643.871 Weigh-In-Motion System	Lump Sum



SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC

652.1 Description. This subsection is amended by the addition of the following:

All traffic control shall be in accordance with the maintenance of traffic and construction phasing plans in the Contract Documents. The Contractor shall submit Traffic Control Plans for lane closures to install the work zone traffic control and complete the highway preservation work. Submittals shall meet the requirements of Subsection 652.3.3 Submittal of Traffic Control Plan (TCP).

The Contractor shall furnish all signs noted herein and noted on the Sign Summary Sheets. The Contractor shall furnish all sign posts, sign post breakaways and fasteners required to erect and maintain the signs.

As noted below, some Portable Changeable Message Signs shall become the property of the Department and shall remain in place after completion of the Contract.

652.2.2 Signs. This subsection is amended by the addition of the following:

The minimum required construction signing is shown on the Sign Summary Sheets.

652.2.5 Portable Changeable Message Sign. This first sentence in the sixth paragraph shall be replaced with the following sentences:

PCMS units shall be capable of being programmed by a remote computer via a data (IP over Cell) cellular modem connection. It shall also have GPS location capability by adding on a GPS device capable of providing GPS location remotely.

The Contractor shall complete and/or provide the following for PCMS designated on the Plans as ADV-x:

- Submit a catalog cut shop drawing to the Resident of all proposed equipment for review and approval.
- Establish and pay for a data cellular account so that PCMS may be remotely programmed and operated from the MaineDOT and NHDOT Traffic Management Centers (TMC), the MTA Communications' Center, and by the Resident.
- Provide to the representatives listed technical support from the PCMS manufacturer that may be necessary to integrate the PCMS into their software platform (Vanguard Software by Daktronics).
- Provide the manufacturer's software necessary to change the PCMS messages remotely from the MaineDOT and NHDOT TMC, the MTA Communications' Center, and the Resident's computer if necessary or requested.

- Provide training on the operation of the PCMS to representatives of the MaineDOT and NHDOT TMC, the MTA Communications' Center, and to the Resident.
- Make all PCMS on the Project work site available to the TMC's and the MTA for any/all emergency situations as defined by the Resident. This shall include the preemption of any messages running at the time of need as approved by the Resident.
- Furnish, operate, relocate and maintain the PCMS as approved or requested by the Resident.
- Be responsible for the day to day programming and operation of the PCMS for Project purposes.

PCMS designated on the Plans as RTT-x shall meet the requirements as noted in Special Provision Section 645 Highway Signing – Travel Time Sign Integration. PCMS designated on the Plans as RTT-x that are placed in Maine will become the property of the Department and remain in place and operational after the Contract is complete.

652.3.3 Submittal of Traffic Control Plan. This Subsection is amended by the addition of the following:

The Department has prepared Maintenance of Traffic Plans for the work zone for the Contractor to implement to complete the Project. The Contractor may include these plans as a portion of the Traffic Control Plan submittal.

652.3.3.f. Notification Procedure. This subsection is amended by the addition of the following:

The Contractor shall provide a schedule of anticipated lane closures to the Resident on a weekly basis, and provide a minimum notice of 72 hours of proposed changes to the lane closures. The Contractor shall provide a 4 hour notice to the emergency dispatchers for both the Town of Kittery and the City of Portsmouth for all temporary lane closures. The Contractor shall meet all required notifications listed in Special Provision 105 Limitations of Operations.

652.3.4 General. The fourth and fifth paragraphs of this subsection are deleted and replaced with the following:

The Contractor, his/her Subcontractors and employees shall conduct all work in a safe and professional manner as it relates to the traveling public (i.e. not adversely disrupting the flow of traffic in an unsafe manner when exiting or entering a lane closure or crossover, no negative verbal or physical gestures).

Channelization. Channelization devices shall include the following:

Flashing Arrow Boards

Drums (**In lane closures, The Contractor shall place 3 drums across a closed lane every 1500'**)

Channelization devices shall be installed and maintained at the spacing determined by the MUTCD to delineate travel lanes through the project. Drums shall be placed in the closed lane at a maximum spacing of 2 x speed limit.

Existing emergency access crossovers shall not be used by the Contractor, Subcontractors and employees to change direction, store materials, park vehicles or equipment, or for any other purpose, at any time, unless explicitly allowed in the Contract Documents. Existing emergency access crossovers shall be closed within the project limits, utilizing drums at all times during phased bridge construction, and at times when lane closures are in place. Existing emergency access crossovers shall not be blocked in a manner that prevents normal use by MaineDOT maintenance, Maine Turnpike Authority maintenance, or State Police forces.

652.3.6 Traffic Control. Temporary lane closures shall not be set up until work in the area is to be performed and must be removed when no work is being performed. The work zone minimum travel lane widths are shown on the Plans and stated in Special Provision 105 Limitations of Operations. The Contractor shall provide the minimum roadway width stated (face of drum to face of drum; face of drum to toe of concrete barrier) during a temporary lane closure.

All construction work shall be confined to the temporary lane closures or long term lane closures, and be closed to traffic.

Slow moving construction equipment may travel the closed lane for short distances. **ALL** vehicles shall be oriented with the flow of traffic unless otherwise authorized by the Resident.

Any vehicle using LED Lights shall have them angled as to not impede or disrupt normal traffic flow at any time as determined by the Resident. Vehicles unable to manipulate these devices shall be removed from the project immediately.

All trucking shall be done in the lane open to traffic.

No equipment or vehicles of the Contractor, Subcontractor or employees engaged in work on this Contract, shall be parked or stopped on lanes carrying traffic, or on lanes or shoulders adjacent to lanes carrying traffic, at any time.

The Contractor shall keep all paved areas of the roadway as clear as possible at all times. The Contractor's personnel and equipment shall avoid crossing traffic lanes whenever possible.

Existing pavement markings at centerline in the taper to the lane closure shall be removed or covered over with an approved paint or tape beginning at the first drum in the taper in overnight lane closures.

See the General Notes sheet in the Construction Plans for additional requirements for temporary pavement marking lines.

Temporary pavement markings shall be placed from the existing lane edge line through the length of the taper in overnight lane closures (highway milling and pavement work only).

Placing all temporary pavement marking lines or markers will be paid under Items 627.51 6 Inch Temporary Pavement Tape, 627.781 Temporary 6 Inch Painted Pavement Marking Line, and 627.812 Temporary Raised Pavement Markers.

Contractor shall place Temporary 6 Inch Painted Pavement Marking Line, White or Yellow on all milled mainline surfaces prior to opening the lane up to traffic. These lines shall be paid under Item 627.781.

Temporary Lane Lines and Edge Lines. Temporary painted/taped edge lines and lane lines shall be marked each day on all new pavement to be used by traffic. The temporary lines shall conform to the standard marking patterns used for permanent markings and will be paid for under Section 627. Failure to apply temporary lines daily will result in suspension of paving until temporary markings are applied to all previously placed pavement.

Roadside Recovery Area The Contractor shall not temporarily store material nor park equipment within 15 feet of the edge of the established travel lanes without a lane or shoulder closure.

No long term storage of equipment or material will be allowed within 30 feet of the edge of the established travel lanes. Short term storage of equipment or material less than 30 feet from the edge of the established travel lanes must be approved by the Department and shall be clearly marked by **drums and cones**. Short term storage shall be defined as less than 12 hours.

652.8 Basis of Payment. This subsection is amended by the addition of the following:

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
652.41 Portable-Changeable Message Sign – ADV Retained by Contractor	Each
652.41 Portable-Changeable Message Sign – RTT Retained by Contractor	Each
652.41 Portable-Changeable Message Sign – RTT Retained by Department	Each

Date:1/9/2019

Username:

Division: HIGHWAY

Filename: ... \MSTAN\002c_Quantities.dgn

ESTIMATED QUANTITIES									
ITEM NO.	DESCRIPTION	QUANTITIES							UNIT
		N.H. APPROACH ROADWAY	N.H. APPROACH BRIDGE SPANS	RIVER BRIDGE	MAINE APPROACH BRIDGE SPANS	MTA APPROACH ROADWAY	MAINTENANCE OF TRAFFIC	TOTAL QUANTITY	
202.12	Removing Existing Structural Concrete		880	830	830			2,540	CY
202.121	Concrete Haunch Removal		29600		2600			32,200	LF
202.127	Removing of Existing Bituminous Pavement (50400 SY)		0.43	0.28	0.29			1	LS
202.1294	Bridge Drainage System Removal		0.5	0.5				1	LS
202.1295	Hydro-Demolition, Property of Contractor		1530	1500	1500			4,530	SY
202.13	Removing Existing Railings Retained by Department		1870	2690	2700			7,260	LF
202.202	Removing Pavement Surface	16200	21500	14700	14500	9350		76,250	SY
202.203	Pavement Butt Joints					7305		7,305	SY
202.205	Rumble Strip - Shoulder	3800				12800		16,600	LF
202.207	Rumble Strips, Fill						850	850	LF
203.20	Common Excavation					3160		3,160	CY
203.24	Common Borrow					670		670	CY
203.25	Granular Borrow					1150		1,150	CY
205.41	Reconstruction of Existing Shoulder, Plan Quantity					7000		7,000	SY
205.51	Widening of Existing Shoulder, Plan Quantity					3100		3,100	SY
304.10	Aggregate Subbase Course - Gravel					380		380	CY
304.14	Aggregate Base Course - Type A					260		260	CY
403.2081	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Polymer Modified)		3000	2050	2000	6000		13,050	TON
403.2101	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Polymer Modified)	900	1800	1250	1200			5,150	TON
403.211	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Shimming)					1500		1,500	TON
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Course)					4050		4,050	TON
403.2131	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Course, Polymer Modified)		3000	2050	2000	1800		1,800	TON
409.15	Bituminous Tack Coat, Applied	650	1080	740	730	4650		7,850	GAL
424.3333	Low Modulus Joint Sealer, Applied	10560	11590	9950	8350	36130		76,580	LF
461.131	Temporary Pavement						56	56	TON
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges (1980 CY)		0.33	0.34	0.33			1	LS
502.705	Composite Bridge Drain (256 EA)		0.17	0.58	0.25			1	LS
503.12	Reinforcing Steel, Fabricated and Delivered		228000	189000	219000			636,000	LB
503.13	Reinforcing Steel, Placing		228000	189000	219000			636,000	LB
504.709	Bridge Hardware, Truss Screen Panel (800 EA)			1				1	LS
504.7091	Bridge Hardware, Truss Screen Panel			800				800	EA
504.811	Structural Steel Repair			1900				1,900	LB
514.06	Curing Box for Concrete Cylinders (45950 SY)		1		1			2	EA
515.21	Protective Coating for Concrete Surfaces		0.47	0.15	0.38	0.00		1	LS
518.51	Repair of Upward Facing Surfaces - Below Reinforcing Steel <8 inches		7700	7700	5000			20,400	SF
518.52	Repair of Upward Facing Surfaces ≥ 8 inches		5	3	3			11	CY
518.60	Repair of Vertical Surfaces < 8 inches		600	280	520	50		1,450	SF
518.70	Repair of Overhead Surfaces < 8 inches		320	210	240			770	SF
	(240 LF)								
520.2321	Asphaltic Crack Control Joint		0.58		0.42			1	LS
520.245	Bridge Joint Modifications Type 5			36				36	EA
520.261	Longitudinal Joint Seal		1850		1350			3,200	LF
521.32	Fabric Trough for Finger Joint (Anchor Piers)		8	4	6			4	EA
521.32	Fabric Trough for Finger Joint (Approach Spans)							14	EA
524.40	Protective Shielding (9500 LF)		0.92		0.08			1	LS
526.301	Temporary Concrete Barrier, Type I (9700 LF)						1	1	LS
526.307	Movable Temporary Concrete Barrier						1	1	LS
526.312	Permanent Concrete Barrier Type II (1345 LF)			1				1	LS
526.331	Permanent Concrete Barrier Type IIlb (13780 LF)		0.4	0.2	0.4			1	LS
526.36	Median Barrier Fixed Object Protection					165		165	LF
526.50	Precast Concrete Barrier, Median					4440		4,440	LF
527.331	Truck Mounted Attenuator						2	2	EA
527.341	Work Zone Crash Cushions - TL-3						3	3	UNIT
530.25	FRP Grating			900				900	SF
603.159	12" Culvert Pipe Option III					63		63	LF
604.09	Catch Basin Type B1					2		2	EA
604.161	Altering Catch Basin					5		5	EA
604.164	Rebuilding Catch Basin					3		3	EA
604.18	Adjusting Manhole or Catch Basin to Grade					9		9	EA
604.26	Catch Basin Type B5					10		10	EA
605.105	8 Inch Underdrain (Type B)					13		13	LF
606.1301	31" W-Beam Guardrail - Mid-Way Splice (Steel Post, 8" Offset Blocks, Single Faced)					3530		3,530	1 LF
606.1305	31" W-Beam Guardrail Mid-Way Splice Flared Terminal					3		3	EA
606.17333	Bridge Transition - Type III	2				2		4	EA
606.17333	Bridge Transition - Type III, Modified					1		1	EA
606.277	Terminal End - Anchored End					2		2	EA
606.352	Reflectorized Beam Guardrail Delineator						100	100	EA
606.353	Reflectorized Flexible Guardrail Marker					8		8	EA
606.356	Underdrain Delineator Post					2		2	EA
606.362	Guardrail, Adjust					1970		1,970	LF
606.363	Guardrail Remove And Dispose					8700		8,700	LF
606.569	Remove, Modify And Reset, Double Rail					65		65	LF
607.17	Chain Link Fence - 6 foot				700			700	LF
607.132	Protective Screening		120					120	1 LF
608.07	Plain Concrete Sidewalk	220						220	SY
609.312	Special Curb, Type 2	30				60		90	LF

TYLIN INTERNATIONAL

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	AC-IM-1927(000)E		WIN 019270.00		BRIDGE NOS. 6330	
KITTELY - PORTSMOUTH BRIDGE OVER PISCATAQUA RIVER KITTELY-PORTSMOUTH YORK COUNTY	DATE	BY	PROJ. MANAGER	LEONIE TIMBERLAKE	DATE	BY
	10/18	D. Myers	DESIGN-DETAILED	J. Legere	10/18	D. Myers
	10/18	B. Touchette	CHECKED-REVIEWED	D. Myers	10/18	B. Touchette
	11/18	JUL 521.32 & 607.432	DESIGN-DETAILED	REVISIONS	11/18	JUL 521.32 & 607.432
	12/18	DSM-Mec. Corrections	REVISIONS	REVISIONS	12/18	DSM-Mec. Corrections
ESTIMATED QUANTITIES SHEET 1 OF 2		SHEET NUMBER		2C		
				OF 232		

BID ALTERNATE 1										
508.1401	High Performance Waterproofing Membrane, Torch Applied	(50700 SY)		0.42	0.29	0.29			/	LS
BID ALTERNATE 2										
508.1402	High Performance Waterproofing Membrane, Spray Applied	(50700 SY)		0.42	0.29	0.29			/	LS

COMMON EXCAVATION FOR ESTIMATE

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

COMPUTATION OF COMMON BORROW FOR ESTIMATE

(3) Total Fill							871
Total Available Non-Rock Excav.	1306	x	0.85	=	1110		
Total Available Rock Excav.	0	x	1.33	=	0		
Total Available Str. Rock Excav.	0	x	1.33	=	0		
(4) Total Available Excavation							1110
Total Available Excavation minus Total Fill [(4)-(3)]							239
Total Surplus Material [(2)+(4)-(3)]							2314

ITEM 606.1305 - 31"W-BEAM GUARDRAIL - MID-WAY SPLICE FLARE TERMINAL (31" HEIGHT)				
STATION	OFFSET			
587+12.85	66.04' Rt			
598+86.03	74.12' Rt			
610+06.61	71.39' Rt			

ITEM 606.1733 - BRIDGE TRANSITION - TYPE III				
STATION	OFFSET			
569+45.85	51.95' Rt			
569+45.83	51.67' Lt			
523+82.76	75.23' Rt			
523+82.74	69.29' Lt			

ITEM 606.1733 - BRIDGE TRANSITION - TYPE III, MODIFIED				
STATION	OFFSET			
616+28.43	BL			

ITEM 606.1301 - 31"W-BEAM GUARDRAIL - MID-WAY SPLICE (STEEL POST, 8" OFFSET BLOCKS, SINGLE FACED)				
STATION	OFFSET	TO	STATION	OFFSET
569+66	52.35' Rt		579+21	60.57' Rt
569+66	52.24' Lt		580+20	65.46' Lt
587+50	62.07' Rt		596+91	70.23' Rt
599+23	70.11' Rt		599+95	70.42' Rt
610+44	68.47' Rt		615+49	76.51' Rt

ITEM 606.277 - TERMINAL END - ANCHORED END				
STATION	OFFSET			
596+91.49	70.23' Rt			
615+48.72	76.51' Rt			

ITEM 606.353 - REFLECTORIZED FLEXIBLE GUARDRAIL MARKER				
STATION	OFFSET			
587+13	66.04' Rt			
587+50	62.07' Rt			
596+91	70.23' Rt			
598+86	74.17' Rt			
599+23	70.11' Rt			
610+06	71.43' Rt			
610+44	68.47' Rt			
615+49	76.53' Rt			

ITEM 606.362 - GUARDRAIL ADJUST				
STATION	OFFSET	TO	STATION	OFFSET
579+21	60.57' Rt		582+47	66.43' Rt
580+20	65.46' Lt		582+97	72.34' Lt
583+44	67.98' Rt		585+44	71.57' Rt
583+97	76.11' Lt		587+34	88.78' Lt
587+27	92.08' Rt		587+62	116.31' Rt
591+48	65.69' Lt		596+77	89.90' Lt
599+95	70.42' Rt		602+47	88.39' Rt

ITEM 606.363 - GUARDRAIL REMOVE AND DISPOSE				
STATION	OFFSET	TO	STATION	OFFSET
569+47.99	51.78' Rt		579+20.90	60.57' Rt
569+48.44	51.00' Lt		580+19.58	65.46' Lt
587+12.89	65.23' Rt		596+00.44	61.05' Rt
598+84.90	68.36' Rt		599+94.62	70.42' Rt
611+97.47	65.43' Rt		615+48.59	76.50' Rt
569+48.22	1.19' Rt		581+90.36	2.49' Lt
583+90.22	3.33' Lt		617+10.17	5.00' Lt
584+07.61	2.96' Lt		585+31.26	5.64' Rt
599+96.03	4.35' Lt		602+32.99	4.47' Rt
612+71.08	4.16' Lt		616+32.79	4.48' Rt

ITEM 606.369 - REMOVE, MODIFY, AND RESET DOUBLE RAIL				
STATION	OFFSET	TO	STATION	OFFSET
616+49	0.98' Rt		617+10	4' Lt

ITEM 526.36 - MEDIAN BARRIER FIXED OBJECT BARRIER				
STATION	OFFSET	TO	STATION	OFFSET
614+46.21	BL		616+10.77	BL

LENGTH
164.56'

ITEM 526.50 - PRECAST CONCRETE BARRIER, MEDIAN				
STATION	OFFSET	TO	STATION	OFFSET
569+48.25	BL		581+88.25	1.98' Lt
583+71.26	2.44' Lt		585+51.09	3.77' Rt
585+00.13	6.91' Lt		601+81.73	3.09' Rt
601+66.14	7.59' Lt		614+46.21	BL
616+10.77	BL		616+30.77	BL

LENGTH
1240.00'
180.00'
1681.60'
1280.07'
20.00'

ITEM 610.08 - PLAIN RIPRAP	
STATION	LENGTH
574+00.00, LT	85.27'
590+50.00, RT	45.00'
594+00.00, RT	17.40'
597+50.00, RT	14.00'

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AC-IM-1927(000)E
BRIDGE NOS. 6330
WIN
019270.00
BRIDGE PLANS

PROJ. MANAGER
Leanne Timberlake

DESIGN-DETAILED
TSK

CHECKED-REVIEWED
BLT

DESIGNS-DETAILED
JUL

REVISIONS
3

BY
JTR

DATE
10/18

TSK

Items No.
01/19

DATE

FIELD CHANGES

KITTERY - PORTSMOUTH BRIDGE
OVER PISCATAQUA RIVER
KITTERY-PORTSMOUTH YORK COUNTY

CONSTRUCTION NOTES

SHEET NUMBER
11B
OF 232

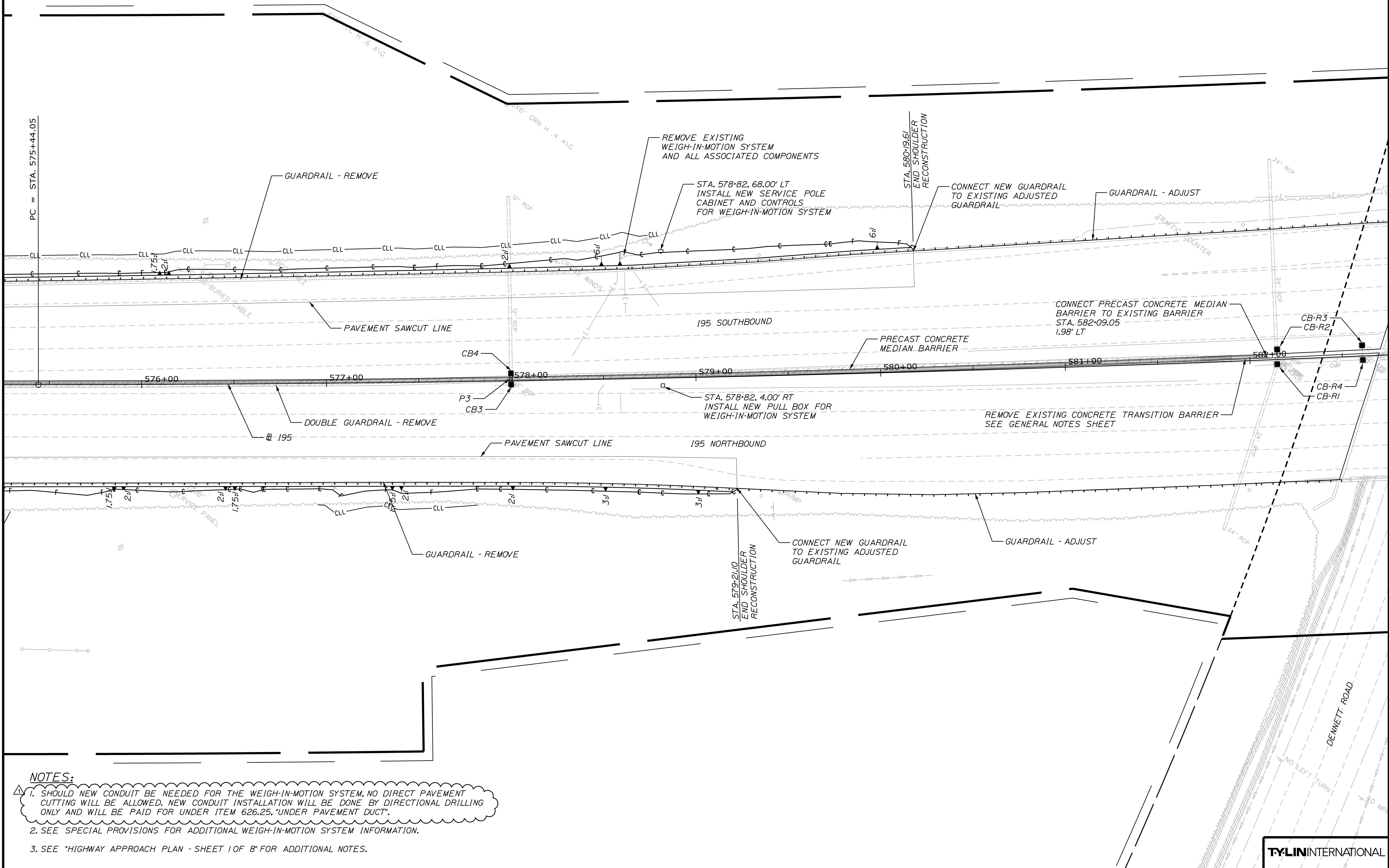
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Date:1/9/2019

Username:

Division: HIGHWAY

Filename: ...\\Highway\\STA\\013a_HPlan_02.dgn



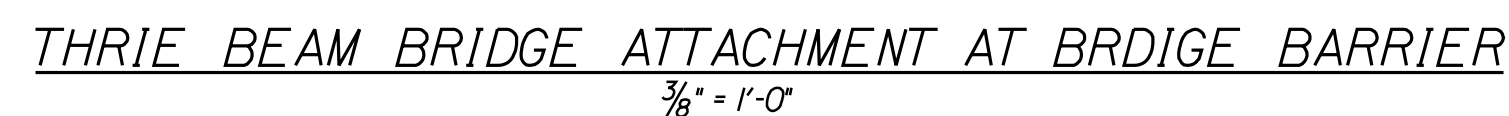
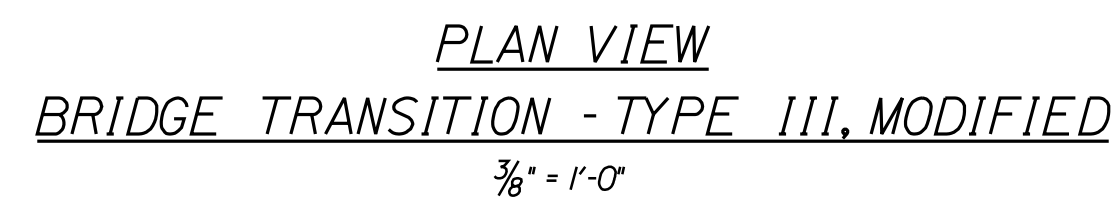
NOTES:

1. SHOULD NEW CONDUIT BE NEEDED FOR THE WEIGH-IN-MOTION SYSTEM, NO DIRECT PAVEMENT CUTTING WILL BE ALLOWED. NEW CONDUIT INSTALLATION WILL BE DONE BY DIRECTIONAL DRILLING ONLY AND WILL BE PAID FOR UNDER ITEM 626.25, "UNDER PAVEMENT DUCT".
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL WEIGH-IN-MOTION SYSTEM INFORMATION.
3. SEE "HIGHWAY APPROACH PLAN - SHEET 1 OF 8" FOR ADDITIONAL NOTES.

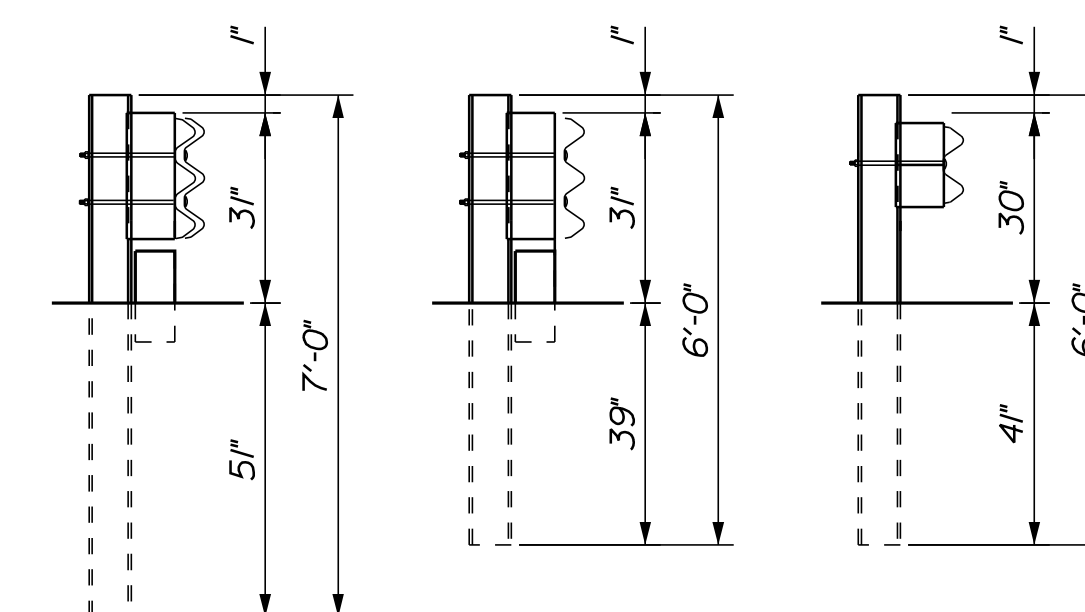
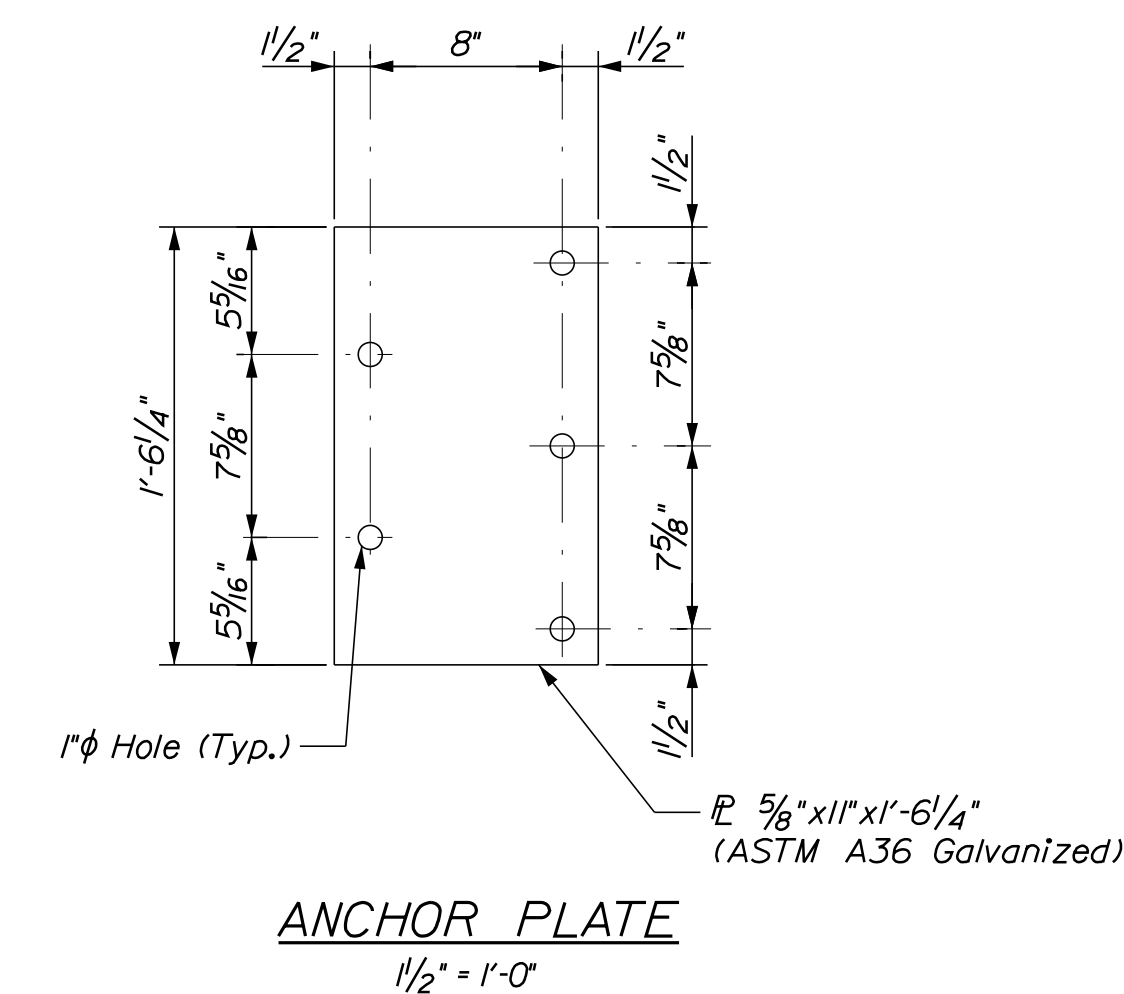
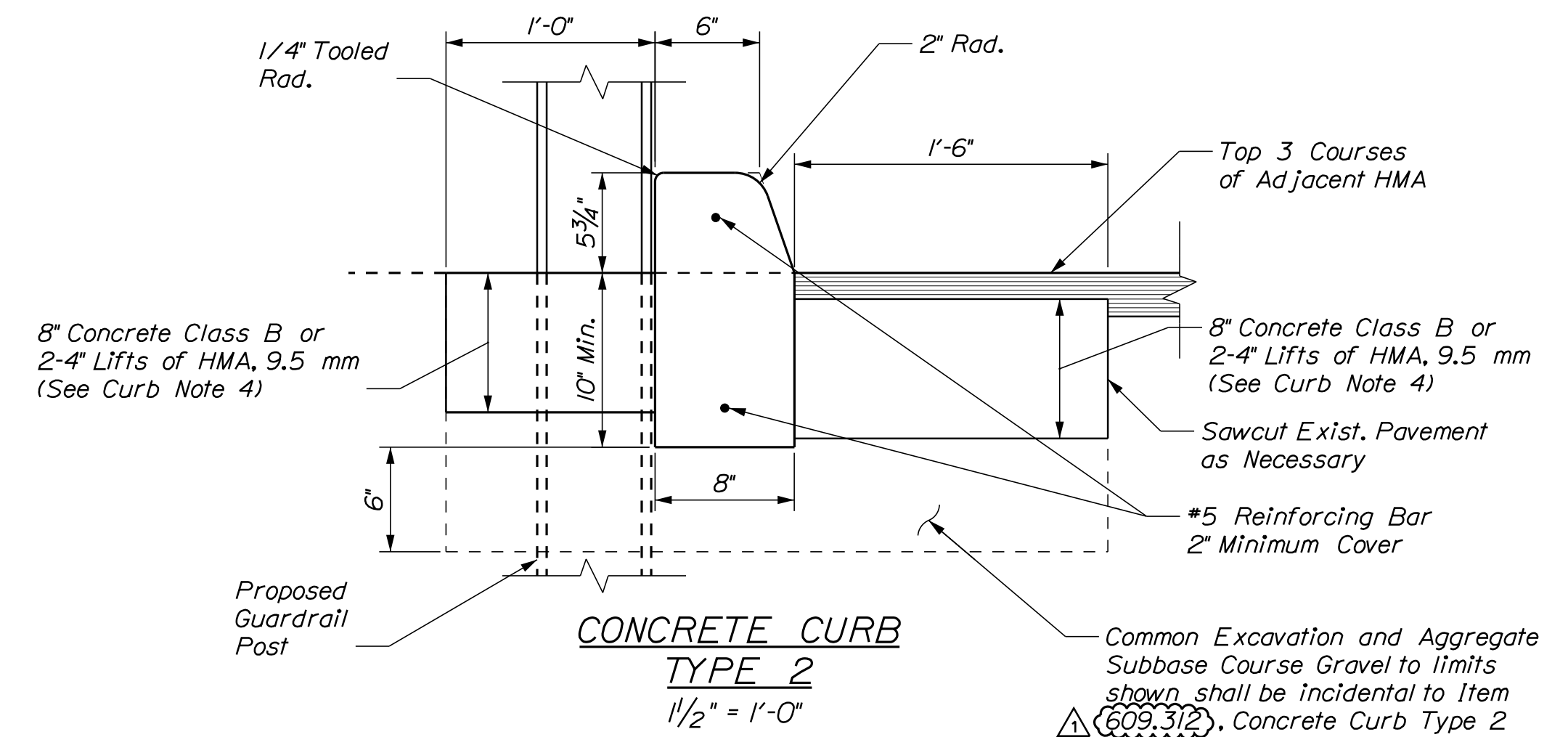
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
AC-IM-1927(000)E		BRIDGE NOS. 6330	
WIN		019270.00	
BRIDGE PLANS			
KITTERY - PORTSMOUTH BRIDGE OVER PISCATAQUA RIVER KITTERY-PORTSMOUTH YORK COUNTY		SHEET NUMBER 13A OF 232	
HIGHWAY APPROACH PLAN - SHEET 2 OF 8			
PROJ. MANAGER	LENNIE TIMBERLAKE	BY	DATE
DESIGN-DETAILED	TSK	MD	10/18
CHECKED-REVIEWED	HEC	KSD	10/18
DESIGN-DETAILED	HEC		
DESIGN-DETAILED	HEC		
REVISIONS	1	DSM - Note Modified	01/19
REVISIONS	2		
REVISIONS	3		
REVISIONS	4		
FIELD CHANGES			

1. Additional holes may be made in the three-beam panels by drilling, punching, or other means that produce a neat, clean hole. Burning holes will not be allowed.
2. Thrie beam shall be placed with the composite blockout face in front of or directly above the curb face.
3. Rail element shall meet all requirements of AASHTO M-180 except as modified on the plans. The thrie beam transition to w-beam shall be of the same material, but shall not be less than 10 gauge.
4. All bolts shall have double nuts.

5. Standard barrier hardware has been used to develop these guardrail attachments. Designations provided in parenthesis relate to standard elements detailed in "A Guide to Standardized Highway Barrier Hardware," 1995 AASHTO-AGC-ARTBA joint committee.



1. Curbing shall be either precast concrete, cast-in-place concrete, or granite to meet dimensions shown on the plans. Curbing shall be paid under Item ~~609.312, Special Curb, Type 2.~~
2. Concrete curbs used in conjunction with three-beam bridge transitions shall be Type 2. See details this sheet. Concrete curbs shall be continuous without drainage cuts.
3. Curb transitions shall be included for payment under Item ~~609.312.~~
4. Sawcutting existing pavement, concrete fill, and pavement to limits shown shall be incidental to Item ~~609.312.~~



SECTION A-A SECTION B-B SECTION C-C

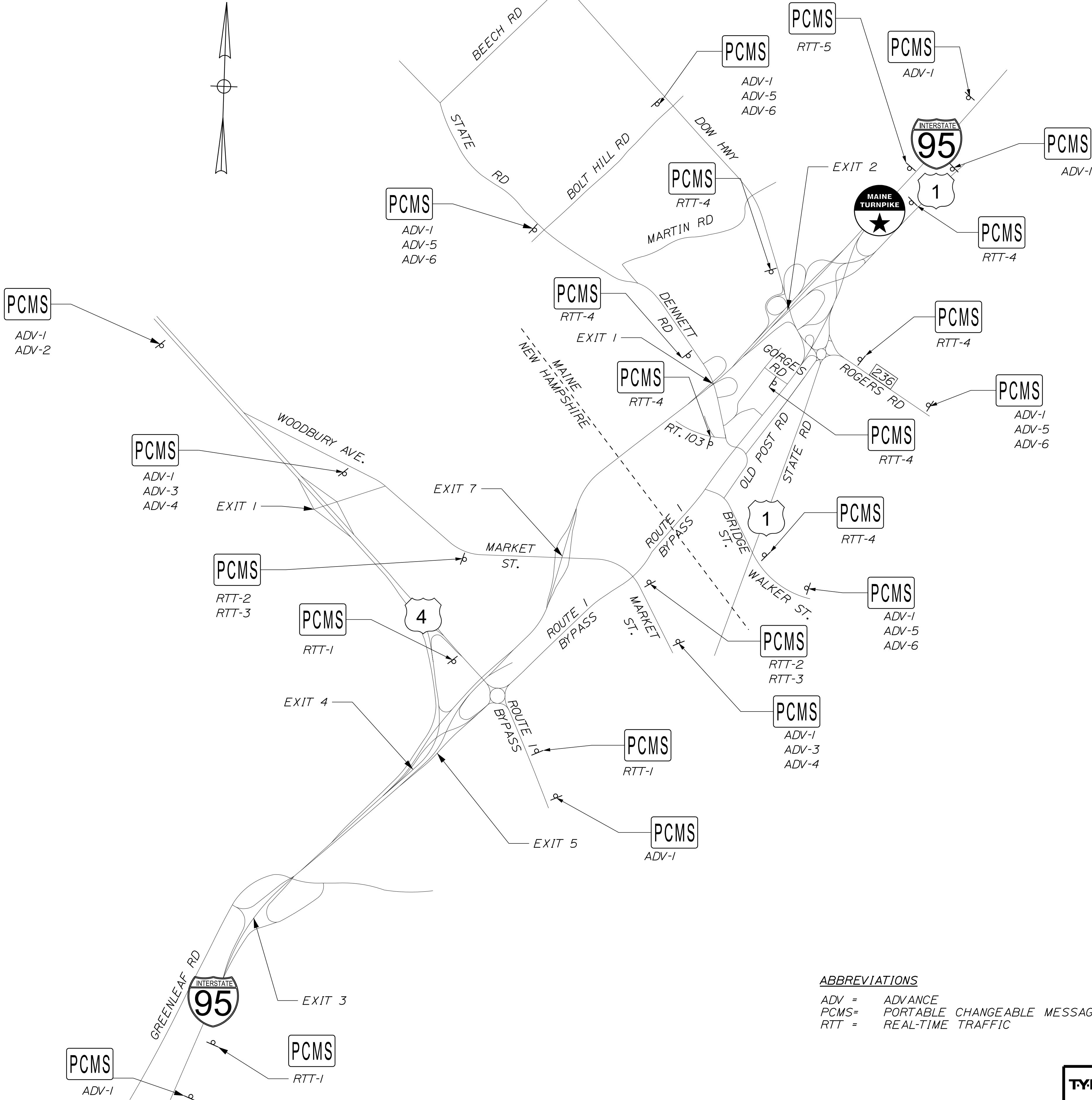
MESSAGES:			
PCMS	SCREEN 1	SCREEN 2	REMARKS:
RTT-1	ME VIA I-95 XX MIN	ME VIA 1 BYPASS XX MIN	ALL PHASES
RTT-2	ME VIA I-95 XX MIN	ME VIA 1 BYPASS XX MIN	SEE NOTE 5
RTT-3	ME VIA I-95 SB XX MIN	ME VIA 1 BYPASS XX MIN	SEE NOTE 4
RTT-4	NH VIA I-95 XX MIN	NH VIA 1 BYPASS XX MIN	ALL PHASES
RTT-5	XX MIN TO NH		ALL PHASES

ADV-1	I-95 CONST AHEAD	AT ME-NH BORDER	SEE NOTES 2 AND 6
ADV-2	I-95 NB EXIT 7 CLOSED	SEEK ALT ROUTE	SEE NOTE 4
ADV-3	I-95 NB RAMP CLOSED	XX/XX TO XX/XX	ONE WEEK PRIOR TO CLOSURE
ADV-4	I-95 NB RAMP CLOSED	SEEK ALT ROUTE	SEE NOTE 4
ADV-5	I-95 SB DENNETT CLOSED	XX/XX TO XX/XX	ONE WEEK PRIOR TO CLOSURE
ADV-6	I-95 SB DENNETT CLOSED	SEEK ALT ROUTE	SEE NOTE 3

NOTES:

- ALL TEMPORARY LANE CLOSURES SHALL BE COORDINATED ACCORDING TO THE SPECIFICATIONS PRIOR TO IMPLEMENTING.
- PCMS SHALL BE IN PLACE AND OPERATIONAL FOR ALL PHASES UNLESS OTHERWISE NOTED.
- ALL REFERENCES TO THIS NOTE ARE FOR PHASES 1, 2, 5, AND 6 ONLY.
- ALL REFERENCES TO THIS NOTE ARE FOR PHASES 3 AND 5 ONLY. SEE TRAFFIC CONTROL DETAILS SHEET 1 OF 3 FOR ADDITIONAL SIGNS NEEDED.
- ALL REFERENCES TO THIS NOTE ARE FOR PHASES 1, 2, 4, AND 6 ONLY.
- PCMS (ADV-1) FOR SOUTHBOUND I-95 TRAFFIC SHALL BE INSTALLED NEAR MILE MARKER 6, JUST SOUTH OF THE YORK RIVER.

7. PCMS DESIGNATED "RTT" THAT ARE LOCATED IN MAINE WILL BE RETAINED BY THE DEPARTMENT AND WILL BE PAID FOR UNDER ITEM 652.41, "PORTABLE CHANGEABLE MESSAGE SIGN - RTT RETAINED BY DEPARTMENT".

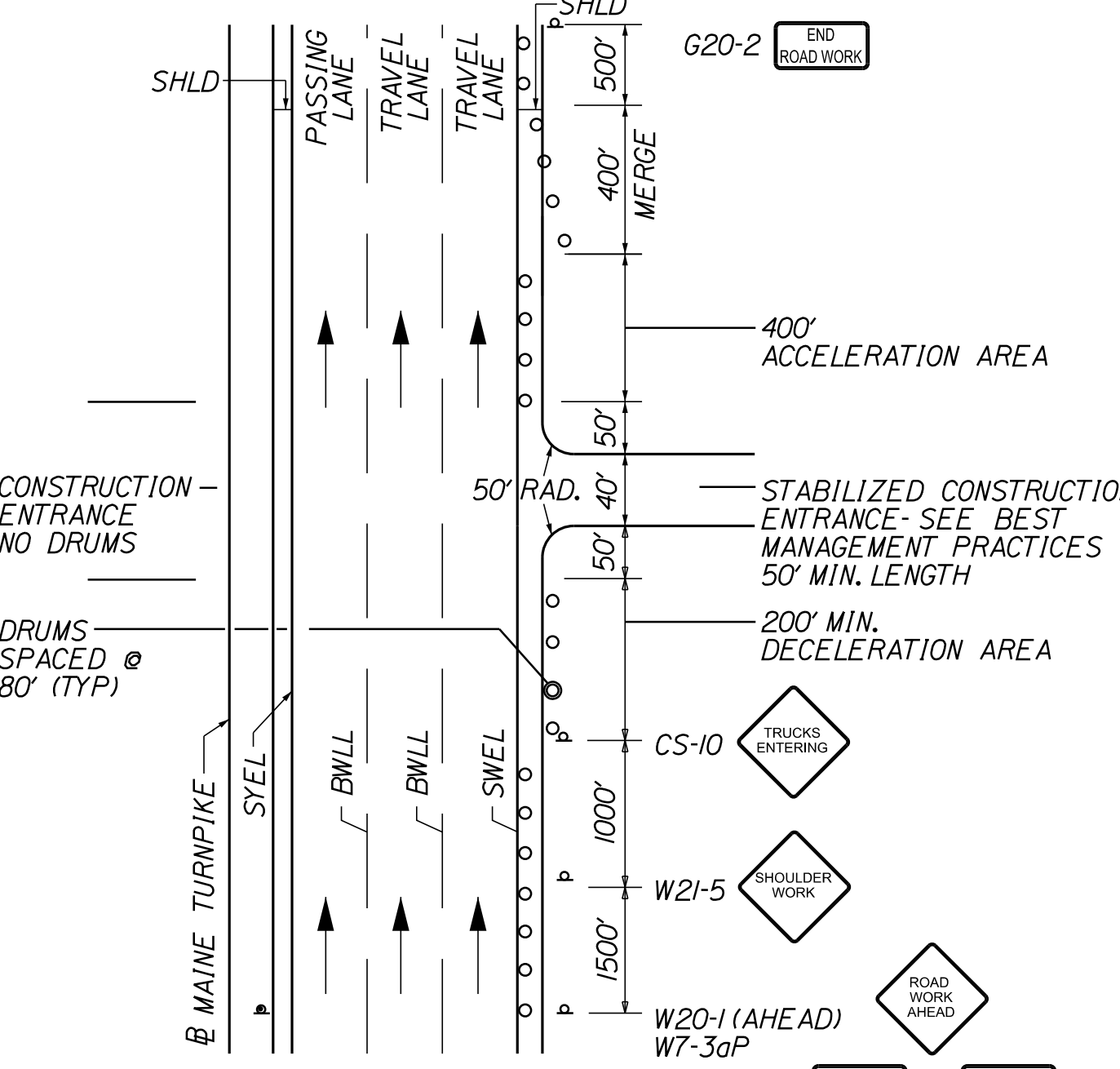
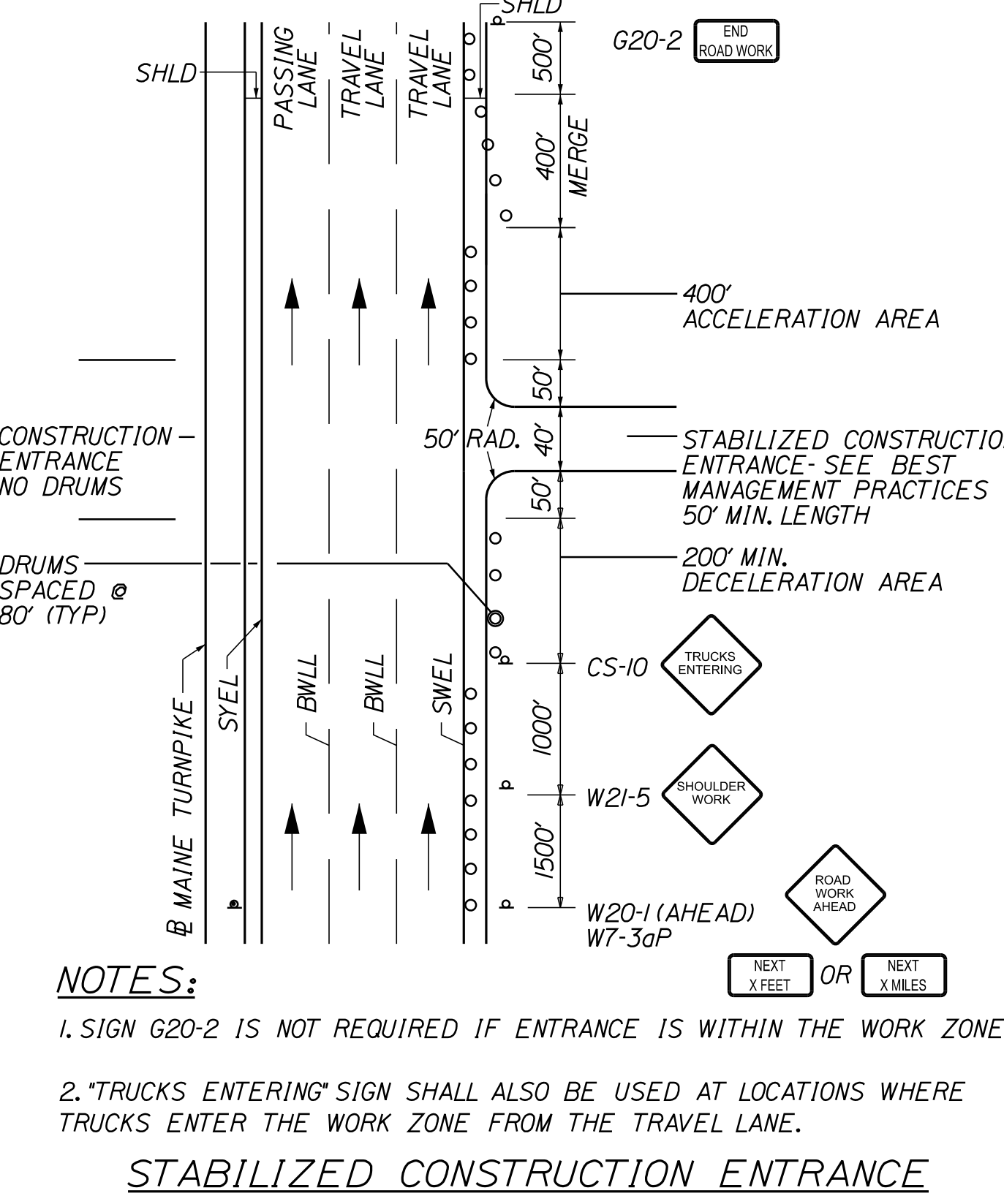
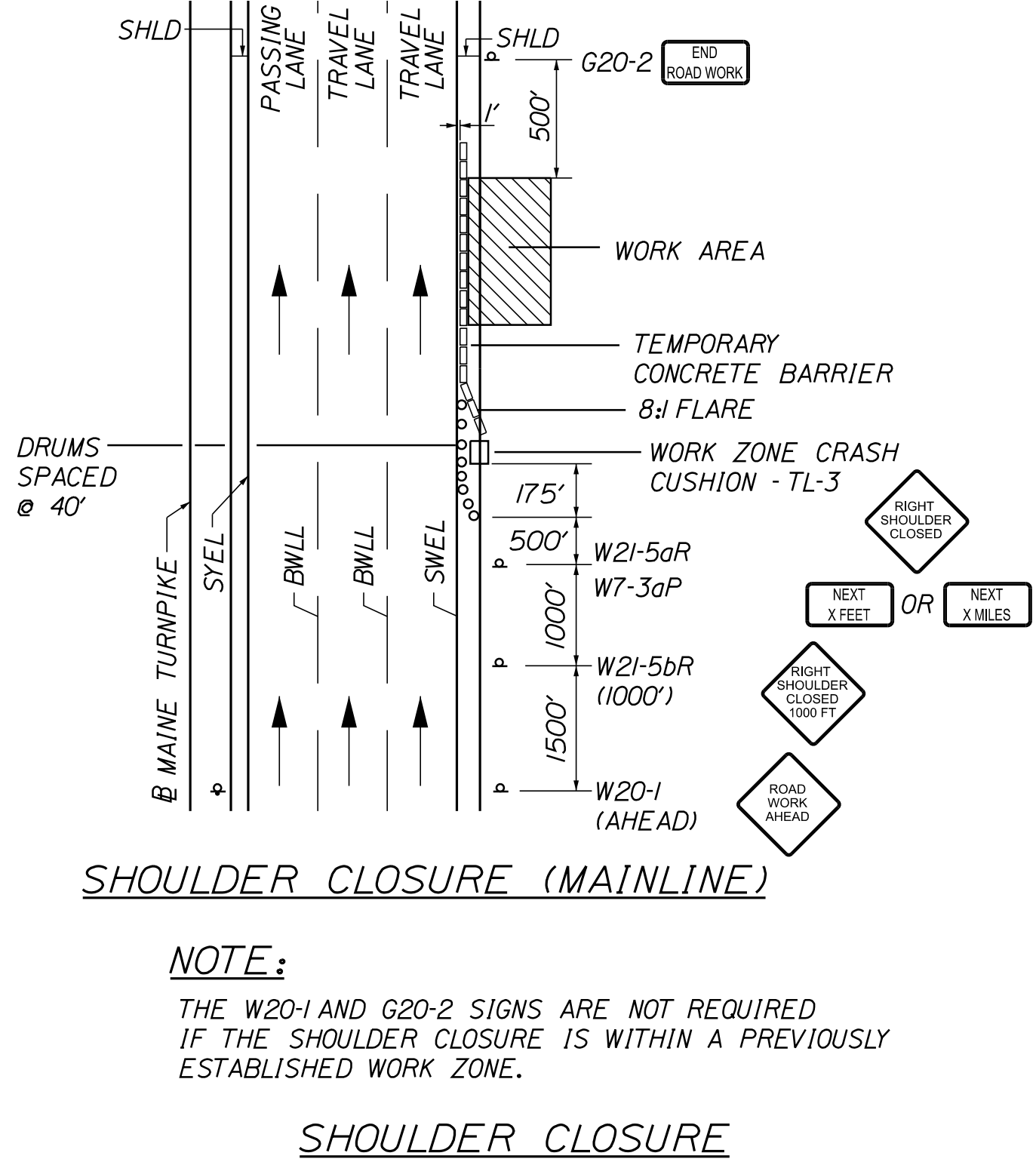
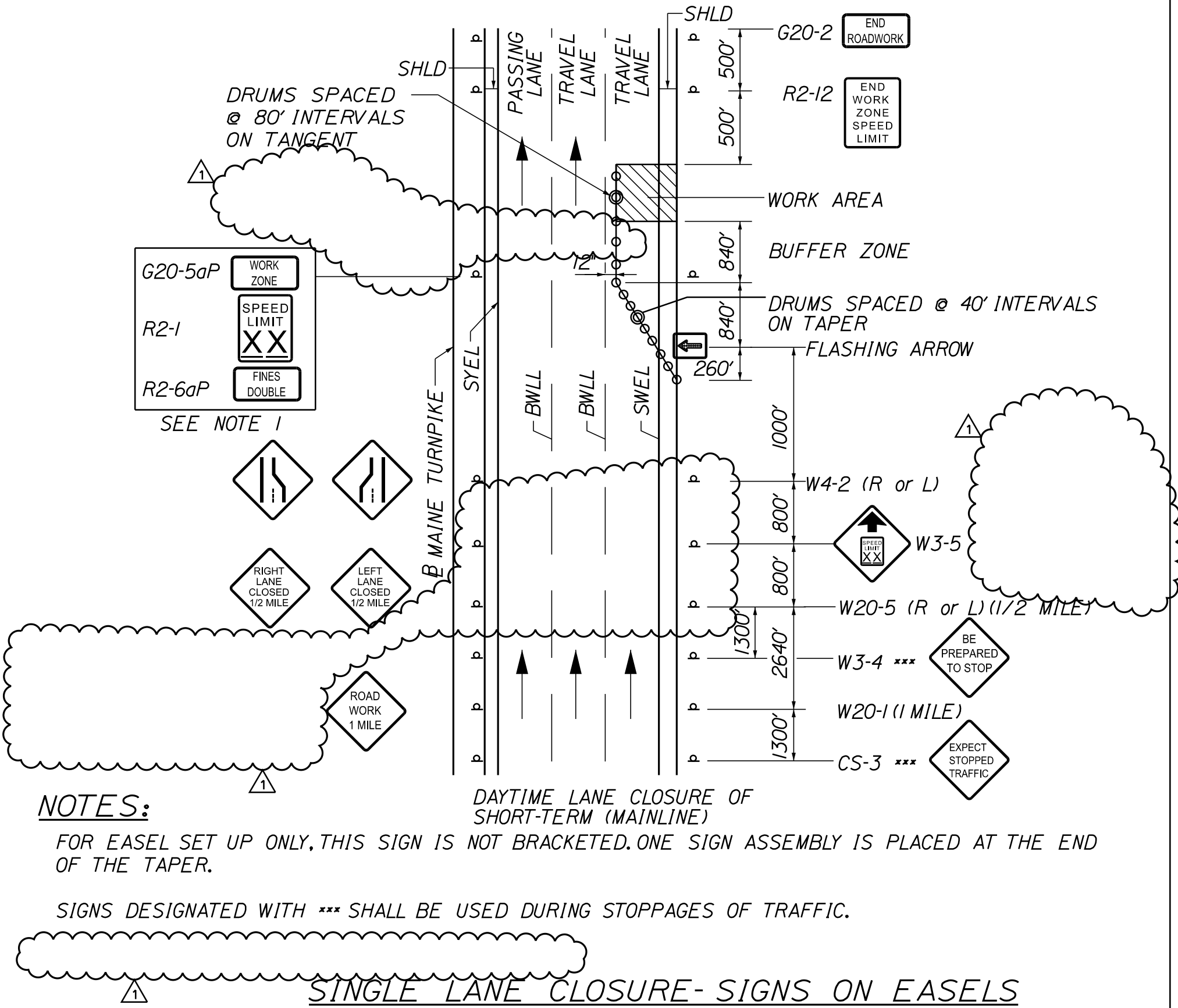
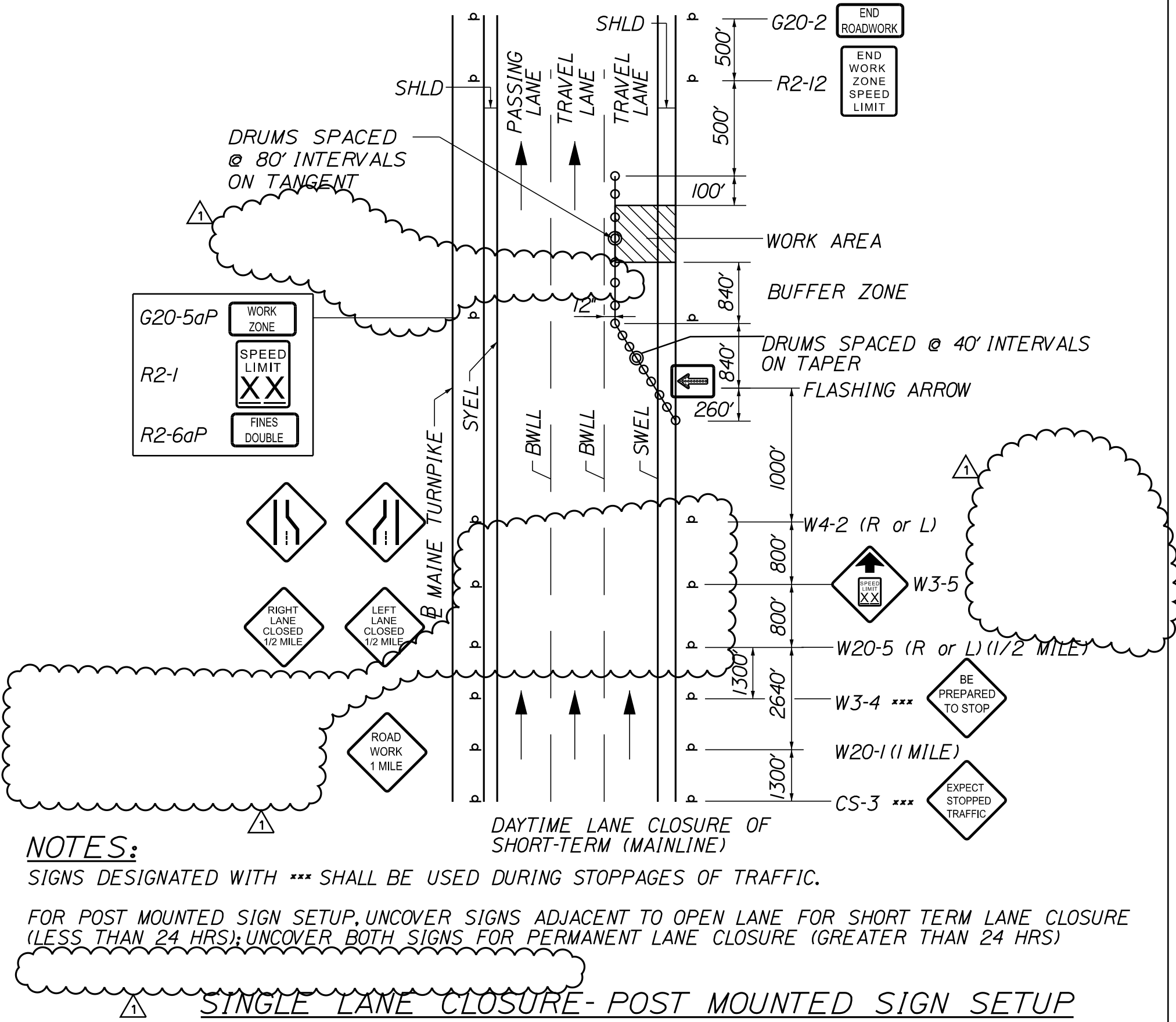


ABBREVIATIONS

ADV = ADVANCE
 PCMS= PORTABLE CHANGEABLE MESSAGE SIGN
 RTT = REAL-TIME TRAFFIC

PROJ. MANAGER	LENNIE TIMBERLAKE	BY	DATE
DESIGN-DETAILED	TWA	SAM	10/18
CHECKED-REVIEWED	KSD	KSD	10/18
DESIGN-DETAILED	DSM	- Add note	01/19
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

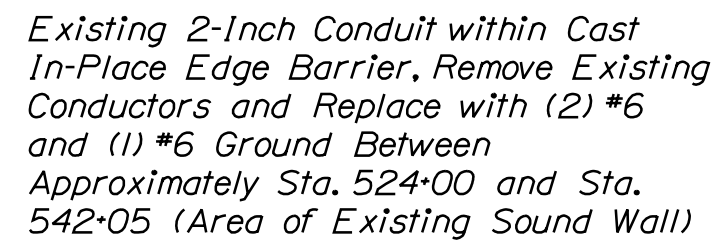
KITTERY - PORTSMOUTH BRIDGE OVER PISCATAQUA RIVER KITTERY-PORTSMOUTH YORK COUNTY	DYNAMIC SIGNING
--	-----------------



- GENERAL PAVING MAINTENANCE OF TRAFFIC NOTES:**
- ALL PAVEMENT STRIPING & SIGNING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", U.S.D.O.T., F.H.W.A., LATEST EDITION. NOTE THERE IS A 2009 EDITION OF MUTCD.
 - ALL SPEED LIMIT, STOP, YIELD, AND E5-2 SIGNS SHALL BE MOUNTED 5 FEET ABOVE THE PAVEMENT SURFACE
 - THESE PLANS SHOW THE GENERAL CONDITION FOR TURNPIKE MAINLINE TRAFFIC CONTROL DURING CONSTRUCTION. SLIGHT MODIFICATIONS IN CONSTRUCTION PROCEDURE MAY OCCUR AND MAY REQUIRE SOME MINOR ADJUSTMENTS TO BE MADE IN THE FIELD. ALL PROCEDURES MUST BE APPROVED BY THE RESIDENT.
 - THE CONTRACTOR SHALL REMOVE ALL PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED PAVEMENT MARKINGS IN ACCORDANCE WITH THE SPECIFICATIONS AND MUTCD. PAYMENT SHALL BE MADE UNDER ITEM 627.77 - REMOVING PAVEMENT MARKINGS.
 - EXPOSED BARRIER ENDS SHALL BE PROTECTED BY A WORK ZONE CRASH CUSHION. PAYMENT WILL BE UNDER ITEM 527.341 - WORK ZONE CRASH CUSHION - TL-3.
 - NO SIGNS SHALL BE PLACED ON 4' SHOULDERS WITH GUARDRAIL. SIGNS REQUIRED AT THESE LOCATIONS SHALL BE PLACED ON TALLER EASELS ON THE MEDIAN SIDE OF THE GUARDRAIL.
 - IF RUMBLE STRIPS ARE USED THEY SHALL BE PLACED IN ONE OF THE FOLLOWING CONFIGURATIONS:
 - ADJACENT TO THE WORK ZONE (1 UNIT)
 - UPSTREAM FROM THE TAPER FOR THE WORKZONE (2 UNITS)
 - BOTH ADJACENT TO THE WORKZONE AND PRIOR TO THE TAPER (3 UNITS)W8-1 SIGNS SHALL BE PLACED ADJACENT TO THE FIRST RUMBLE STRIP AT ANY LOCATION. ONLY ONE SET OF W8-24a SIGNS ARE REQUIRED FOR ANY OF THE ABOVE CONFIGURATIONS.
 - RUMBLE STRIPS MAY BE PLACED UPSTREAM OF THE TAPER BETWEEN THE W3-5 SIGNS AND THE W4-2 SIGNS. IF RUMBLE STRIPS ARE INSTALLED PRIOR TO TAPER, W8-1 SIGNS SHALL BE PLACED ADJACENT TO THE FIRST STRIP AND THE W8-24a SIGNS SHALL BE MOVED TO 400' AFTER THE W20-5 SIGNS.

ABBREVIATIONS FOR ALL M.O.T. PLANS:

BWLL = BROKEN WHITE LANE LINE
SWEL = SOLID WHITE EDGE LINE
SYEL = SOLID YELLOW EDGE LINE
TBWLL = TEMPORARY BROKEN WHITE LANE LINE
TSWEL = TEMPORARY SOLID WHITE EDGE LINE
TSYEL = TEMPORARY SOLID YELLOW EDGE LINE



-  *Channel Center Light, 360° Green*
 *Channel Margin Light, 180° Red*
 *Roadway Lighting Pole and Luminaire*
 *Aircraft Obstruction
Lighting Control Panel*
 *Pull Box 12"x12"x8" DEEP, NEMA 4X*
 *Splice Box 8"X8"X6" DEEP, NEMA 4X*
 *Lighting Control Panel*

 *2-Inch Conduit unless
Indicated Otherwise*

 *Conduit Down*

 *OZ Gedney Type AX-8 Conduit
Expansion Fitting to Accomodate
Movement at Expansion Joint Locations.
See Deck Drawings for Locations
of Expansion Joints*

1. In general, the scope of work will include the installation of a complete roadway lighting system; navigation lighting system; and providing a new power supply circuit to the existing aircraft obstruction lighting controller. Light standards will be paid for under Item 634.210, "Conventional Light Standard". The remainder of the lighting system as described herein, including (but not limited to) demolition and new conduit and installation, will be paid for under Item 634.160, "Highway Lighting".

2. Work includes for example, (but not limited to) electric services; conduit; expansion/deflection provisions; conductors; pull boxes; handholes (where required) lighting standards and arms; luminaires; controls; and required miscellaneous/incidental materials all in general conformance with the work indicated in Specifications and on plans, details, notes and schedules.

3. All materials and workmanship shall conform to the current edition of the National Electrical Code (NFPA-70); Maine Department of Transportation (MaineDOT) Specifications for Miscellaneous Construction, Section 634 - Highway Lighting and Standard Details for Division 600 Miscellaneous Construction; New Hampshire Department of Transportation (NHDOT) Standards; Utility Company Standards and Federal Highway Administration (FHWA) Guidelines, unless noted otherwise.

4. Prior to the starting of construction work at grade level in the area of the existing Eversource electric service and riser pole the Contractor shall contact Dig Safe to locate all existing underground utilities within the work area and take all necessary precautions for protection of these utilities.

5. The Contractor will coordinate this work with all other Contractors and Utility Companies working on this project. Coordination with Eversource shall include maintaining the operation of the existing 480 volt service for temporary lighting utilizing existing in-place poles and luminaires while at the same time providing new 120-240 volt single phase service to accommodate new lighting system.
6. Installation of all underground conduit will comply with MaineDOT Standard Detail 626 (07). Where conduits are required to pass over drainage lines or other obstructions, and the specified burial depth is not possible, the Contractor shall provide concrete protection of conduit in accordance with NEC Table 300.5.
7. At each pole hand hole provide a two-pole fuse holder with two 5 ampere, 250 volt fuses to isolate a faulty luminaire from the respective lighting circuit. Fuse holder shall be Bussman Hey series with insulating boots. Provide sufficient length slack conductor at each hand hole to allow withdrawing fuseholders two feet from face of hand hole.
8. Anchor bolts shall be hot dip galvanized, diameter and length as recommended and supplied by pole Manufacturer.
9. The Contractor shall field verify the proposed electric service equipment location to avoid any unknown sub-surface utilities, natural and built site features such as but not limited to drainage structures, swales and such features that would interfere with the proper installation of equipment foundation. The Contractor shall visit the site prior to bidding to ensure that he is fully aware of the site conditions that may affect his means and methods of construction.
10. The Contractor is advised and cautioned that existing Eversource energized overhead conductors cross the south approach roadway near the work area. Any work or movement of construction equipment within the proximity of this area must comply with all Eversource regulations for work within such area.
11. The lighting system design basis is on American Electric Lighting luminaires with catalog numbers as indicated on the drawings. Luminaires represent the standard NHDOT roadway luminaire. Any proposed substitution of luminaires require approval by the NHDOT.
12. In general, all exposed conduit, fittings and pull boxes on the bridge structure shall be Type FRP with the exception of conduits and boxes required to support luminaires such as navigation lighting fixtures which shall be PVC coated rigid steel with PVC coated fittings. Conduit cast in-place into concrete shall be PVC with PVC coated rigid conduit installed where conduit exits the concrete. Conduits at service riser pole and where run on the surface of anchor pier column shall be rigid steel.
13. All conductors shall be copper with Type XHHW insulation. Provide an equipment grounding conductor with green colored insulation in all conduits. Grounding conductor size shall be equal to other circuit conductors in the respective conduit.
14. Navigation lighting shall be B&B Roadway Model CM (Channel Margin) and Model CC (Center Channel) with medium base 120V, 100,000 hour LED lamp in a color to match lens.
15. For method of attachment of conduit to walkway handrail see original construction as-builts drawings.