

Updated 1/19/12

FEDERAL PROJECT

BIDDING INSTRUCTIONS

FOR ALL PROJECTS:

1. Use pen and ink to complete all paper Bids.
2. As a minimum, the following must be received prior to the time of Bid opening:

For a Paper Bid:

- a) a copy of the Notice to Contractors, b) the completed Acknowledgement of Bid Amendments form, c) the completed Schedule of Items, d) two copies of the completed and signed Contract Offer, Agreement & Award form, e) a Bid Guaranty, (if required), and f) any other certifications or Bid requirements listed in the Bid Documents as due by Bid opening.

For an Electronic Bid:

- a) a completed Bid using Expedite® software and submitted via the Bid Express™ web-based service, b) an electronic Bid Guaranty (if required) or a faxed copy of a Bid Bond (with original to be delivered within 72 hours), and c) any other Certifications or Bid requirements listed in the Bid Documents as due by Bid opening.
3. Include prices for all items in the Schedule of Items (excluding non-selected alternates).
4. Bid Guaranty acceptable forms are:
 - a) a properly completed and signed Bid Bond on the Department's prescribed form (or on a form that does not contain any significant variations from the Department's form as determined by the Department) for 5% of the Bid Amount or
 - b) an Official Bank Check, Cashier's Check, Certified Check, U.S. Postal Money Order or Negotiable Certificate of Deposit in the amount stated in the Notice to Contractors or
 - c) an electronic bid bond submitted with an electronic bid.
5. If a paper Bid is to be sent, "FedEx First Overnight" delivery is suggested as the package is delivered directly to the DOT Headquarters Building located at 16 Child Street in Augusta. Other means, such as U.S. Postal Service's Express Mail has proven not to be reliable.

IN ADDITION, FOR FEDERAL AID PROJECTS:

6. Complete the DBE Proposed Utilization form, and submit with your bid. If you are submitting your bid electronically, you must FAX the form to (207) 624-3431. This is a curable defect.

*If you need further information regarding Bid preparation, call the DOT
Contracts Section at (207) 624-3410.*

*For complete bidding requirements, refer to Section 102 of the Maine Department
of Transportation, Standard Specifications, Revision of December 2002.*

NOTICE

The Maine Department of Transportation is attempting to improve the way Bid Amendments/Addendums are handled, and allow for an electronic downloading of bid packages from our website, while continuing to maintain an optional planholders list.

Prospective bidders, subcontractors or suppliers who wish to download a copy of the bid package and receive a courtesy notification of project specific bid amendments, must provide an email address to Diane Barnes or David Venner at the MDOT Contracts mailbox at: MDOT.contracts@maine.gov. Each bid package will require a separate request.

Additionally, interested parties will be responsible for reviewing and retrieving the Bid Amendments from our web site, and acknowledging receipt and incorporating those Bid Amendments in their bids using the Acknowledgement of Bid Amendment Form.

The downloading of bid packages from the MDOT website is not the same as providing an electronic bid to the Department. Electronic bids must be submitted via <http://www.BIDX.com>. For information on electronic bidding contact Patrick Corum at patrick.corum@maine.gov , Rebecca Snowden at rebecca.snowden@maine.gov or Diane Barnes at diane.barnes@maine.gov.

NOTICE

For security and other reasons, all Bid Packages which are mailed, shall be provided in double (one envelope inside the other) envelopes. The *Inner Envelope* shall have the following information provided on it:

Bid Enclosed - Do Not Open

PIN:

Town:

Date of Bid Opening:

Name of Contractor with mailing address and telephone number:

In Addition to the usual address information, the *Outer Envelope* should have written or typed on it:

Double Envelope: Bid Enclosed

PIN:

Town:

Date of Bid Opening:

Name of Contractor:

This should not be much of a change for those of you who use Federal Express or similar services.

Hand-carried Bids may be in one envelope as before, and should be marked with the following information:

Bid Enclosed: Do Not Open

PIN:

Town:

Name of Contractor:

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
Bid Guaranty-Bid Bond Form

KNOW ALL MEN BY THESE PRESENTS THAT _____

_____, of the City/Town of _____ and State of _____

as Principal, and _____ as Surety, a

Corporation duly organized under the laws of the State of _____ and having a usual place of

Business in _____ and hereby held and firmly bound unto the Treasurer of

the State of Maine in the sum of _____ for payment which Principal and Surety bind

themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

The condition of this obligation is that the Principal has submitted to the Maine Department of

Transportation, hereafter Department, a certain bid, attached hereto and incorporated as a

part herein, to enter into a written contract for the construction of _____

_____ and if the Department shall accept said bid

and the Principal shall execute and deliver a contract in the form attached hereto (properly

completed in accordance with said bid) and shall furnish bonds for this faithful performance of

said contract, and for the payment of all persons performing labor or furnishing material in

connection therewith, and shall in all other respects perform the agreement created by the

acceptance of said bid, then this obligation shall be null and void; otherwise it shall remain in full

force, and effect.

Signed and sealed this _____ day of _____ 20____

WITNESS:

WITNESS

PRINCIPAL:

By _____

By: _____

By: _____

SURETY:

By _____

By: _____

Name of Local Agency: _____

NOTICE

Bidders:

Please use the attached “Request for Information” form when faxing questions and comments concerning specific Contracts that have been Advertised for Bid. Include additional numbered pages as required. Questions are to be faxed to the number listed in the Notice to Contractors. This is the only allowable mechanism for answering Project specific questions. Maine DOT will not be bound to any answers to Project specific questions received during the Bidding phase through other processes.

REQUEST FOR INFORMATION

Response By: _____ Date: _____

NOTICE

Disadvantaged Business Enterprise Proposed Utilization

The Apparent Low Bidder shall submit the Disadvantaged Business Enterprise Proposed Utilization form with their bid. This is a curable bid defect.

The Contractor's Disadvantaged Business Enterprise Proposed Utilization Plan form contains additional information that is required by USDOT.

The Contractor's Disadvantaged Business Enterprise Proposed Utilization Plan form should be used.

A copy of the new Contractor's Disadvantaged Business Enterprise Proposed Utilization Plan and instructions for completing it are attached.

Note: Questions about DBE firms, or to obtain a printed copy of the DBE Directory, contact The Office of Civil Rights at (207) 624-3066.

MDOTs DBE Directory of Certified firms can also be obtained at www.maine.gov/mdot/disadvantaged-business-enterprises/dbe-home.php

INSTRUCTIONS FOR PREPARING THE MaineDOT CONTRACTOR'S DBE/SUBCONTRACTOR UTILIZATION FORM

The Contractor Shall Extend equal opportunity to MaineDOT certified DBE firms (as listed in MaineDOT's DBE Directory of Certified Businesses) in the selection and utilization of Subcontractors and Suppliers.

SPECIFIC INSTRUCTIONS FOR COMPLETING THE FORM:

Insert Contractor name, the name of the person(s) preparing the form, and that person(s) telephone, fax number and e-mail address.

Calculate and provide percentage of your bid that will be allocated to DBE firms, Federal Project Identification Number, and location of the Project work.

In the columns, name each subcontractor, DBE and non-DBE firm to be used, provide the Unit/Item cost of the work/product to be provided by the subcontractor, give a brief description and the dollar value of the work.

Revised 1/12

DBE GOAL NOTICE
Maine Department of Transportation
Disadvantaged Business Enterprise Program

Notice is hereby given that in accordance with US DOT regulation 49 CFR Part 26, the Maine Department of Transportation has established a DBE Program for disadvantaged business participation in the federal-aid construction program; MaineDOT contracts covered by the program include consulting, construction, supplies, manufacturing, and service contracts.

For FFY 2012 (October 1, 2011 through September 30, 2012), MaineDOT has established a DBE participation goal of 5.9% to be achieved through race/gender neutral means. This goal remains in effect through September 30, 2012 unless otherwise determined by Federal Highway Administration.

MaineDOT submitted a new goal methodology and goal on August 1, 2011. That goal was sent to FHWA for approval. FHWA has not approved the most recent submittal. Per FHWA, a revised goal and methodology must be submitted by August 1, 2012.

Interested parties may view MaineDOT's DBE goal setting methodology posted on this website. If you have questions regarding this goal you may contact the Maine Department of Transportation, Civil Rights Office by telephone at (207) 624-3042 or by e-mail at: theresa.savoy@maine.gov.

**MaineDOT CONTRACTOR'S DBE/SUBCONTRACTOR
UTILIZATION FORM**

All Bidders must furnish this form with their bid on Bid Opening day

Contractor: _____ Telephone: _____ Ext. _____

Contact Person: _____ Fax: _____

E-mail: _____

BID DATE: ____/____/____

FEDERAL PROJECT PIN # _____ PROJECT LOCATION: _____

TOTAL ANTICIPATED DBE _____ % PARTICIPATION FOR THIS SUBMISSION

W B E•	D B E•	Non DBE	Firm Name	Item Number & Description of Work	Quantity	Cost per Unit/Item	Actual \$ Value
Subcontractor Total >							
DBE Total >							

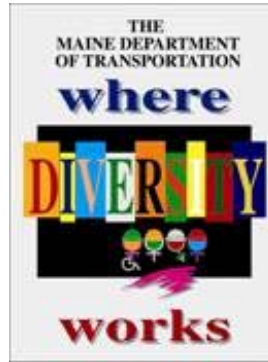
NOTE: THIS INFORMATION IS USED TO TRACK AND REPORT ANTICIPATED DBE PARTICIPATION IN ALL FEDERALLY FUNDED MAINE DOT CONTRACTS. THE ANTICIPATED DBE AMOUNT IS VOLUNTARY AND WILL NOT BECOME A PART OF THE CONTRACTUAL TERMS.

Equal Opportunity Use:

Form received: ____/____/____ Verified by: _____

cc: ☐ Contracts ☐ Other _____

**For a complete list of certified firms and company designation (WBE/DBE) go to
<http://www.maine.gov/mdot>**



Maine Department of Transportation Civil Rights Office

Directory of Certified Disadvantaged Business Enterprises

Listing can be found at:

**[www.maine.gov/mdot/disadvantaged-business-
enterprises/dbe-home.php](http://www.maine.gov/mdot/disadvantaged-business-enterprises/dbe-home.php)**

**For additional information and guidance contact: Civil
Rights Office at (207) 624-3066**

*It is the responsibility of the Contractor to access
the DBE Directory at this site in order to have
the most current listings.*

September 14, 2007

Vendor Registration

Prospective Bidders must register as a vendor with the Department of Administrative & Financial Services if the vendor is awarded a contract. Vendors will not be able to receive payment without first being registered. Vendors/Contractors will find information and register through the following link –

<http://www.maine.gov/purchases/venbid/index.shtml>

STATE OF MAINE DEPARTMENT OF TRANSPORTATION NOTICE TO CONTRACTORS

Sealed Bids addressed to the Maine Department of Transportation, Augusta, Maine 04333 and endorsed on the wrapper "Bids for Interstate 295 Northbound Highway Rehabilitation and Bridge Wearing Surface Replacement projects in the city of **SOUTH PORTLAND** and **PORTLAND**" will be received from contractors at the Reception Desk, Maine DOT Building, Capitol Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on February 22, 2012 and at that time and place publicly opened and read. Bids will be accepted from all bidders. The lowest responsive bidder must have completed, or successfully complete, a bridge, highway, or project specific prequalification to be considered for the award of this contract. **We now accept electronic bids for those bid packages posted on the bidx.com website. Electronic bids do not have to be accompanied by paper bids. Please note: the Department will accept a facsimile of the bid bond; however, the original bid bond must then be received at the MDOT Contract Section within 72 hours of the bid opening.** Until further notice, dual bids (one paper, one electronic) will be accepted, with the paper copy taking precedence.

Description: Maine Federal Aid Project No. IM-295-1792(910)E, WIN 017929.10

Location: In Cumberland County, project is located on Interstate 295 beginning approximately 0.4 mile east of the Scarborough town line preceding and extending over 8239E bridge, Westbrook Street bridge, Fore River bridge, PTRR (Fore River) bridge, Portland Connector Westbrook Arterial bridge and ramp work. Congress Street bridge and ramp work. St. James Street bridge and ramp work. PTRR St. John street bridge and ramp work. St. John Street bridge, Forest Avenue bridge and ramp work. Preble Street bridge, Franklin Arterial bridge, and Washington Avenue on ramp over East Commercial Street.

Scope of Work: Interstate 295 wearing surface replacement, bridge deck wearing surface replacements plus other incidental work.

For general information regarding Bidding and Contracting procedures, contact Scott Bickford at (207)624-3410. Our webpage at <http://www.maine.gov/mdot/contractors/> contains a copy of the schedule of items, Plan Holders List, written portions of bid amendments (not drawings), and bid results. For Project-specific information fax all questions to **Project Manager Nate Benoit** at (207)624-3431. Questions received after 12:00 noon of the Friday prior to bid date will not be answered. Bidders shall not contact any other Departmental staff for clarification of Contract provisions, and the Department will not be responsible for any interpretations so obtained. Hearing impaired persons may call the Telecommunication Device for the Deaf at 888-516-9364.

Plans, specifications and bid forms may be seen at the Maine DOT Building in Augusta, Maine and at the Department of Transportation's Regional Office in Scarborough. They may be purchased from the Department between the hours of 8:00 a.m. to 4:30 p.m. by cash, credit card (Visa/Mastercard) or check payable to Treasurer, State of Maine sent to Maine Department of Transportation, Attn.: Mailroom, 16 State House Station, Augusta, Maine 04333-0016. They also may be purchased by telephone at (207) 624-3536 between the hours of 8:00 a.m. to 4:30 p.m. Full size plans \$111.00 (\$118.00 by mail). Half size plans \$55.50 (\$59.25 by mail), Bid Book \$10 (\$13 by mail), Single Sheets \$2, payment in advance, all non-refundable.

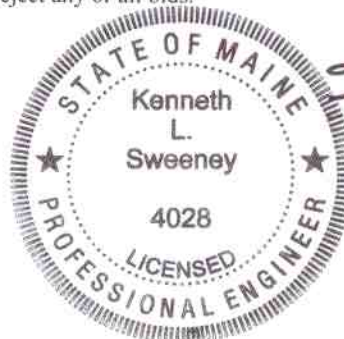
Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of \$230,000.00 payable to Treasurer, State of Maine as a Bid guarantee. A Contract Performance Surety Bond and a Contract Payment Surety Bond, each in the amount of 100 percent of the Contract price, will be required of the successful Bidder.

This Contract is subject to all applicable Federal Laws. This contract is subject to compliance with the Disadvantaged Business Enterprise program requirements as set forth by the Maine Department of Transportation.

All work shall be governed by "State of Maine, Department of Transportation, Standard Specifications, Revision of December 2002", price \$10 [\$13 by mail], and Standard Details, Revision of December 2002, price \$20 [\$25 by mail]. Standard Detail updates can be found at <http://www.maine.gov/mdot/contractors/publications/>.

The right is hereby reserved to the MDOT to reject any or all bids.

Augusta, Maine
February 1, 2012



Kenneth L. Sweeney
KENNETH L. SWEENEY P.E.
CHIEF ENGINEER

NOTICE

All bids for Federal Projects **shall** be accompanied by the DBE Proposed Utilization form. If you are submitting an electronic bid, the DBE Utilization Form may be faxed to 207-624-3431. Failure to submit the form with the bid will be considered a curable defect.

SPECIAL PROVISION 102.7.3
ACKNOWLEDGMENT OF BID AMENDMENTS

With this form, the Bidder acknowledges its responsibility to check for all Amendments to the Bid Package. For each Project under Advertisement, Amendments are located at <http://www.maine.gov/mdot/contractors/> . It is the responsibility of the Bidder to determine if there are Amendments to the Project, to download them, to incorporate them into their Bid Package, and to reference the Amendment number and the date on the form below. The Maine DOT will not post Bid Amendments any later than noon the day before Bid opening without individually notifying all the planholders.

Amendment Number	Date

The Contractor, for itself, its successors and assigns, hereby acknowledges that it has received all of the above referenced Amendments to the Bid Package.

CONTRACTOR

Date

Signature of authorized representative

(Name and Title Printed)

MAINE DEPARTMENT OF TRANSPORTATION

PAGE: 1

SCHEDULE OF ITEMS

DATE: 120123

REVISED:

CONTRACT ID: 017929.10

PROJECT(S): IM-295-1792(910)E

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS

SECTION 0001 PROJECT ITEMS

0010	202.202 REMOVING PAVEMENT SURFACE	SY	45440.000			
0020	203.2312 HEALTH AND SAFETY PLAN	LUMP	LUMP			
0030	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	CY	42.000			
0040	403.2081 12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	T	4657.000			
0050	403.2101 9.5 MM POLYMER MODIFIED HMA	T	600.000			
0060	403.211 HOT MIX ASPHALT (SHIMMING)	T	310.000			
0070	403.2131 12.5 MM POLYMER MODIFIED HMA BASE	T	818.000			
0080	409.15 BITUMINOUS TACK COAT - APPLIED	G	2502.000			
0090	424.3331 ASPHALT LOW MODULUS CRACK SEALER, APPLIED	LB	500.000			
0100	424.3333 LOW MODULUS JOINT SEALER, APPLIED	LF	25400.000			

MAINE DEPARTMENT OF TRANSPORTATION

SCHEDULE OF ITEMS

PAGE: 2
 DATE: 120123
 REVISED:

CONTRACT ID: 017929.10

PROJECT(S): IM-295-1792(910)E

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0110	429.34 GRID/ FABRIC FABRIC COMPOSITE PAVEMENT INTERLAYER	SF 840.000				
0120	502.70 BRIDGE DRAINS TYPE A	EA 10.000				
0130	502.70 BRIDGE DRAINS TYPE A MODIFIED	EA 3.000				
0140	502.70 BRIDGE DRAINS TYPE C	EA 20.000				
0150	502.702 REMOVE BRIDGE DRAIN	EA 5.000				
0160	506.144 FIELD PAINTING NEW AND EXISTING STRUCTURAL STEEL	LUMP	LUMP			
0170	506.17 SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	LUMP	LUMP			
0180	506.18 CONTAINMENT AND POLLUTION CONTROL	LUMP	LUMP			
0190	506.191 DISPOSAL OF SPECIAL WASTE OR HAZARDOUS WASTE MATERIAL	LUMP	LUMP			
0200	507.0926 FURNISH ALUMINUM BRIDGE RAIL COMPONENTS	LUMP	LUMP			

MAINE DEPARTMENT OF TRANSPORTATION

SCHEDULE OF ITEMS

PAGE: 3
DATE: 120123
REVISED:

CONTRACT ID: 017929.10

PROJECT(S): IM-295-1792(910)E

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0210	507.0927 ALUMINUM BRIDGE RAIL, 2 BAR POST REPLACEMENT	EA 3.000				
0220	507.0928 ALUMINUM BRIDGE RAIL, RAIL SECTION REPLACEMENT	LF 240.000				
0230	507.30 ALUMINUM RAIL BAR SPLICE RETROFIT	EA 53.000				
0240	507.31 ALUMINUM BRIDGE RAIL SPLICE INSPECTION	LUMP	LUMP			
0250	507.32 ALUMINUM BRIDGE RAIL TOGGLE BOLT REPLACEMENT	EA 48.000				
0260	508.14 HIGH PERFORMANCE WATERPROOFING MEMBRANE	LUMP	LUMP			
0270	510.40 SPECIAL DETOUR - APPROACH PAVEMENT	LUMP	LUMP			
0280	510.41 SPECIAL DETOUR - MEDIAN ISLAND REMOVAL & RECONSTRUCTION BRIDGE	LUMP	LUMP			
0290	510.42 SPECIAL DETOUR - MEDIAN ISLAND REMOVAL & RECONSTRUCTION HIGHWAY	LUMP	LUMP			
0300	515.21 PROTECTIVE COATING FOR CONCRETE SURFACES	LUMP	LUMP			
0310	518.391 REPAIRING GRANITE CURB JOINT AND BEDDING MORTAR	LF 1762.000				

MAINE DEPARTMENT OF TRANSPORTATION

SCHEDULE OF ITEMS

PAGE: 4
 DATE: 120123
 REVISED:

CONTRACT ID: 017929.10

PROJECT(S): IM-295-1792(910)E

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0320	518.50 REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL < 7.9 IN.	SF 6460.000				
0330	518.51 REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL < 7.9 IN.	SF 1475.000				
0340	518.52 REPAIR OF UPWARD FACING SURFACES > 7.9 IN.	CY 10.000				
0350	518.60 REPAIR OF VERTICAL SURFACES < 7.9 IN.	SF 200.000				
0360	518.61 REPAIR OF VERTICAL SURFACES > 7.9 IN.	CY 14.000				
0370	520.2421 BRIDGE JOINT MODIFICATION TYPE 2A	EA 3.000				
0380	520.243 BRIDGE JOINT MODIFICATION TYPE 3	EA 8.000				
0390	520.244 BRIDGE JOINT MODIFICATION TYPE 4	EA 9.000				
0400	520.245 BRIDGE JOINT MODIFICATION TYPE 5	EA 3.000				
0410	520.246 BRIDGE JOINT MODIFICATION TYPE 6	EA 2.000				

MAINE DEPARTMENT OF TRANSPORTATION
SCHEDULE OF ITEMS

PAGE: 5
DATE: 120123
REVISED:

CONTRACT ID: 017929.10

PROJECT(S): IM-295-1792(910)E

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0420	520.2471 BRIDGE JOINT MODIFICATION TYPE 7A	EA 2.000				
0430	520.2472 BRIDGE JOINT MODIFICATION TYPE 7B	EA 3.000				
0440	524.301 TEMPORARY STRUCTURAL SUPPORT	LUMP	LUMP			
0450	526.301 TEMPORARY CONCRETE BARRIER TYPE I	LUMP	LUMP			
0460	526.34 PERMANENT CONCRETE TRANSITION BARRIER	EA 46.000				
0470	527.34 WORK ZONE CRASH CUSHIONS	UN 15.000				
0480	604.167 ALTER CATCH BASIN GRATE TO CASCADE	EA 23.000				
0490	604.18 ADJUSTING MANHOLE OR CATCH BASIN TO GRADE	EA 2.000				
0500	604.182 CLEAN EXISTING CATCH BASIN AND MANHOLE	EA 32.000				
0510	606.1721 BRIDGE TRANSITION - TYPE 1	EA 46.000				
0520	606.24 GUARDRAIL TYPE 3D - SINGLE RAIL	LF 2000.000				

MAINE DEPARTMENT OF TRANSPORTATION

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SCHEDULE OF ITEMS

DATE: 120123

REVISED:

CONTRACT ID: 017929.10

PROJECT(S): IM-295-1792(910)E

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0530	606.363 GUARDRAIL REMOVE AND DISPOSE	LF 2874.000				
0540	610.08 PLAIN RIPRAP	CY 140.000				
0550	615.07 LOAM	CY 112.000				
0560	618.1401 SEEDING METHOD NUMBER 2 - PLAN QUANTITY	UN 18.000				
0570	619.1201 MULCH - PLAN QUANTITY	UN 18.000				
0580	620.58 EROSION CONTROL GEOTEXTILE	SY 280.000				
0590	627.18 12 " SOLID WHITE PAVEMENT MARKING	LF 6850.000				
0600	627.744 6" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	LF 68800.000				
0610	627.77 REMOVING PAVEMENT MARKINGS	SF 31810.000				
0620	627.781 TEMPORARY 6 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	LF 129900.000				
0630	629.05 HAND LABOR, STRAIGHT TIME	HR 180.000				

MAINE DEPARTMENT OF TRANSPORTATION

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SCHEDULE OF ITEMS

DATE: 120123

REVISED:

CONTRACT ID: 017929.10

PROJECT(S): IM-295-1792(910)E

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0640	631.10 AIR COMPRESSOR (INCLUDING OPERATOR)	HR 112.000				
0650	631.11 AIR TOOL (INCLUDING OPERATOR)	HR 112.000				
0660	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	HR 72.000				
0670	631.133 SKID STEER (INCLUDING OPERATOR)	HR 16.000				
0680	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	HR 72.000				
0690	631.21 ROAD BROOM (INCLUDING OPERATORS AND HAULER)	HR 24.000				
0700	631.32 CULVERT CLEANER (INCLUDING OPERATOR)	HR 24.000				
0710	639.18 FIELD OFFICE TYPE A	EA 1.000				
0720	643.72 TEMPORARY TRAFFIC SIGNAL	LUMP	LUMP			
0730	645.306 FLEXIBLE REFLECTORIZED DELINEATOR	EA 56.000				
0740	652.30 FLASHING ARROW BOARD	EA 11.000				

MAINE DEPARTMENT OF TRANSPORTATION

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SCHEDULE OF ITEMS

DATE: 120123

REVISED:

CONTRACT ID: 017929.10

PROJECT(S): IM-295-1792(910)E

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0750	652.312 TYPE III BARRICADE	EA 12.000				
0760	652.33 DRUM	EA 770.000				
0770	652.34 CONE	EA 190.000				
0780	652.35 CONSTRUCTION SIGNS	SF 8890.000				
0790	652.36 MAINTENANCE OF TRAFFIC CONTROL DEVICES	CD 224.000				
0800	652.38 FLAGGER	HR 192.000				
0810	652.381 TRAFFIC OFFICER	HR 672.000				
0820	652.382 TRAFFIC MONITOR	CD 224.000				
0830	652.41 PORTABLE CHANGEABLE MESSAGE SIGN	EA 9.000				
0840	652.415 PORTABLE CHANGEABLE MESSAGE SIGN - TRANSPORT & SETUP	EA 2.000				
0850	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP			

MAINE DEPARTMENT OF TRANSPORTATION
SCHEDULE OF ITEMS

PAGE: 9
DATE: 120123
REVISED:

CONTRACT ID: 017929.10

PROJECT(S): IM-295-1792(910)E

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0860	659.10 MOBILIZATION	LUMP	LUMP			
0870	660.21 ON-THE-JOB TRAINING (BID)	HR 2000.000				
	SECTION 0001 TOTAL					
	TOTAL BID					

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street, Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and

_____ a corporation or other legal entity organized under the laws of the State of _____, with its principal place of business located at _____

The Department and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, WIN **017929.10**, for the **Highway Rehabilitation & Bridge Wearing Surface Replacements** in the city of **South Portland and Portland**, County of **Cumberland**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before **November 1, 2012**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of December 2002 and related Special Provisions.

C. Price.

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is _____

\$_____ Performance Bond and Payment Bond each being 100% of the amount of this Contract.

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, Revision of December 2002, Standard Details Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in the Federal Contract Provisions Supplement, and the Contract are still complete and accurate as of the date of this Agreement.
2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications Revision of December 2002, Standard Details Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of: **WIN 017929.10 Highway Rehabilitation & Bridge Wearing Surface Replacements**, State of Maine, on which bids will be received until the time specified in the “Notice to Contractors” do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached “Schedule of Items”.

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached “Schedule of Items” in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached “Schedule of Items”, which may be ordered by the Resident, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the Standard Specifications, Revision of December 2002, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier’s check, certificate of deposit or U. S. Postal Money Order in the amount given in the “Notice to Contractors”, payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the Standard Specifications Revision of December 2002 and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor’s Disadvantaged Business Enterprise Utilization Plan with their bid.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

Date

(Signature of Legally Authorized Representative
of the Contractor)

Witness

(Name and Title Printed)

G. Award.

Your offer is hereby accepted.
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: David Bernhardt, Commissioner

Witness

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street, Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and

_____ a corporation or other legal entity organized under the laws of the State of _____, with its principal place of business located at _____

The Department and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, WIN **017929.10**, for the **Highway Rehabilitation & Bridge Wearing Surface Replacements** in the city of **South Portland and Portland**, County of **Cumberland**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before **November 1, 2012**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of December 2002 and related Special Provisions.

C. Price.

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is _____

\$_____ Performance Bond and Payment Bond each being 100% of the amount of this Contract.

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, Revision of December 2002, Standard Details Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in the Federal Contract Provisions Supplement, and the Contract are still complete and accurate as of the date of this Agreement.
2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications Revision of December 2002, Standard Details Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of: **WIN 017929.10 Highway Rehabilitation & Bridge Wearing Surface Replacements**, State of Maine, on which bids will be received until the time specified in the “Notice to Contractors” do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached “Schedule of Items”.

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached “Schedule of Items” in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached “Schedule of Items”, which may be ordered by the Resident, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the Standard Specifications, Revision of December 2002, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier’s check, certificate of deposit or U. S. Postal Money Order in the amount given in the “Notice to Contractors”, payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the Standard Specifications Revision of December 2002 and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor’s Disadvantaged Business Enterprise Utilization Plan with their bid.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

Date

(Signature of Legally Authorized Representative
of the Contractor)

Witness

(Name and Title Printed)

G. Award.

Your offer is hereby accepted.
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: David Bernhardt, Commissioner

Witness

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and

(Name of the firm bidding the job)

a corporation or other legal entity organized under the laws of the State of Maine, with its principal place of business located at **(address of the firm bidding the job)**

The Department and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, PDN No. **1224.00**, for the **Hot Mix Asphalt Overlay** in the town/city of **South Nowhere**, County of **Washington**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before **November 15, 2006**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of December 2002 and related Special Provisions.

C. Price.

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is (Place bid here in alphabetical form such as One Hundred and Two dollars and 10 cents)
\$ (repeat bid here in numerical terms, such as \$102.10) Performance Bond and Payment Bond each being 100% of the amount of this Contract.

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, Revision of December 2002, Standard Details, Revision of December 2002, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in Appendix A to Division 100 of the Standard Specifications Revision of December 2002 (Federal Contract Provisions Supplement), and the Contract are still complete and accurate as of the date of this Agreement.
2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications, Revision of December 2002, Standard Details Revision of December 2002, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

PIN 1234.00 South Nowhere, Hot Mix Asphalt Overlay

State of Maine, on which bids will be received until the time specified in the "Notice to Contractors" do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached "Schedule of Items".

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached "Schedule of Items" in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached "Schedule of Items", which may be ordered by the Resident, and to accept as full compensation the amount determined upon a "Force Account" basis as provided in the Standard Specifications, Revision of December 2002, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier's check, certificate of deposit or U. S. Postal Money Order in the amount given in the "Notice to Contractors", payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the Standard Specifications Revision of 2002 and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor's Disadvantaged Business Enterprise Utilization Plan with their bid.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

Date

(Witness Sign Here)
Witness

CONTRACTOR

(Sign Here)
(Signature of Legally Authorized Representative
of the Contractor)

(Print Name Here)
(Name and Title Printed)

G. Award.

Your offer is hereby accepted.
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: David Bernhardt, Commissioner

(Witness)

BOND # _____

CONTRACT PERFORMANCE BOND
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That _____
_____ **in the State of** _____, as principal,
and _____,
a corporation duly organized under the laws of the State of _____ and having a
usual place of business _____,
as Surety, are held and firmly bound unto the Treasurer of the State of Maine in the sum
of _____ **and 00/100 Dollars (\$** _____ **)**,
to be paid said Treasurer of the State of Maine or his successors in office, for which
payment well and truly to be made, Principal and Surety bind themselves, their heirs,
executors and administrators, successors and assigns, jointly and severally by these
presents.

The condition of this obligation is such that if the Principal designated as Contractor in
the Contract to construct Project Number _____ in the Municipality of
_____ promptly and faithfully performs the Contract, then this
obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the State
of Maine.

Signed and sealed this _____ day of _____, 20_____.

WITNESSES:

Signature.....
Print Name Legibly

Signature

Print Name Legibly

SURETY ADDRESS:

.....
.....
.....

TELEPHONE.....

SIGNATURES:

CONTRACTOR:

.....
Print Name Legibly

SURETY:

.....
Print Name Legibly

NAME OF LOCAL AGENCY:

ADDRESS

.....

BOND # _____

CONTRACT PAYMENT BOND
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That _____
_____ **in the State of** _____, as principal,
and _____
a corporation duly organized under the laws of the State of _____ and having a
usual place of business in _____,
as Surety, are held and firmly bound unto the Treasurer of the State of Maine for the use
and benefit of claimants as herein below defined, in the sum of
_____ **and 00/100 Dollars (\$** _____ **)**
for the payment whereof Principal and Surety bind themselves, their heirs, executors and
administrators, successors and assigns, jointly and severally by these presents.

The condition of this obligation is such that if the Principal designated as Contractor in
the Contract to construct Project Number _____ in the Municipality of
_____ promptly satisfies all claims and demands incurred for all
labor and material, used or required by him in connection with the work contemplated by
said Contract, and fully reimburses the obligee for all outlay and expense which the
obligee may incur in making good any default of said Principal, then this obligation shall
be null and void; otherwise it shall remain in full force and effect.

A claimant is defined as one having a direct contract with the Principal or with a
Subcontractor of the Principal for labor, material or both, used or reasonably required for
use in the performance of the contract.

Signed and sealed this _____ day of _____, 20 .. .

WITNESS:

SIGNATURES:

CONTRACTOR:

Signature.....

Print Name Legibly

Print Name Legibly

SURETY:

Signature.....

Print Name Legibly

Print Name Legibly

SURETY ADDRESS:

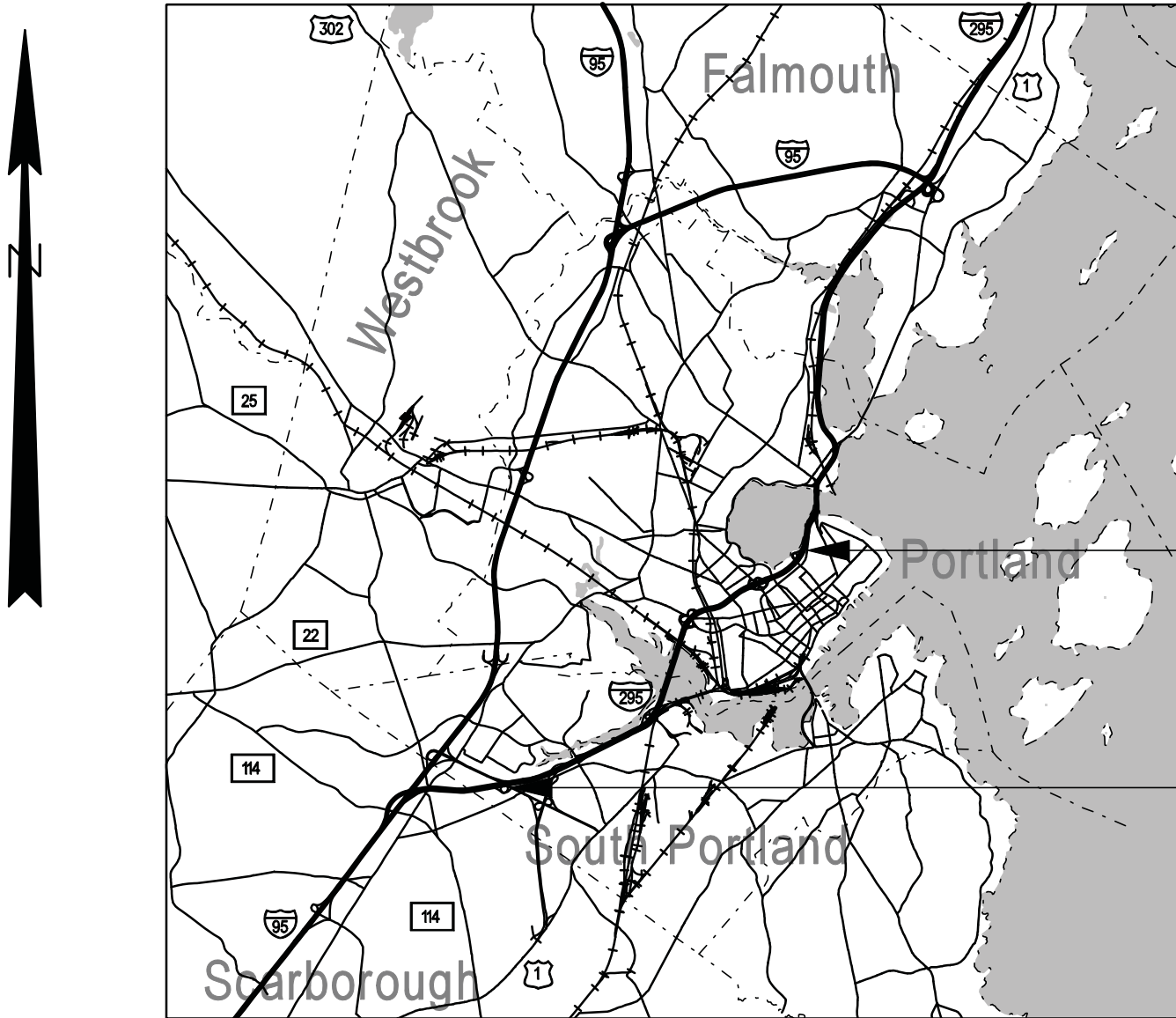
NAME OF LOCAL AGENCY:

ADDRESS

TELEPHONE

IM-1792(910)E

END PROJECT MAINLINE STA. 349+00.00



BEGIN PROJECT MAINLINE STA. 98+96.00

LOCATION MAP



Scale in Miles

South Portland - Portland
I-295 Northbound Rehabilitation
FORE RIVER BRIDGE
WIN 017929.10
January 23, 2012

General Decision Number: ME120018 01/06/2012 ME18

Superseded General Decision Number: ME20100029

State: Maine

Construction Type: Heavy

County: Cumberland County in Maine.

HEAVY CONSTRUCTION PROJECTS including Water and Sewer Lines

Modification Number	Publication Date
0	01/06/2012

* ELEC0567-005 09/01/2011

	Rates	Fringes
ELECTRICIAN.....	\$ 28.33	14.40

* SUME2011-013 03/16/2011

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 18.00	1.94
CONCRETE FINISHER.....	\$ 17.29	2.51
IRONWORKER, Reinforcing.....	\$ 20.00	0.00
LABORER: Asphalt Raker.....	\$ 16.93	1.91
LABORER: Common or General.....	\$ 13.56	1.99
LABORER: Concrete Worker (removing forms, demolition and removal of concrete, pouring and leveling of concrete).....	\$ 19.13	14.50
LABORER: Landscape.....	\$ 15.00	0.58
LABORER: Pipelayer.....	\$ 14.42	2.38

South Portland - Portland
I-295 Northbound Rehabilitation
FORE RIVER BRIDGE
WIN 017929.10
January 23, 2012

LABORER: Flagger.....	\$ 12.43	0.95
LABORER: Wheelman.....	\$ 18.74	2.86
OPERATOR: Asphalt Paver.....	\$ 18.16	2.30
OPERATOR: Asphalt Roller.....	\$ 15.70	1.62
OPERATOR: Backhoe.....	\$ 22.22	6.48
OPERATOR: Bulldozer.....	\$ 20.43	6.13
OPERATOR: Crane.....	\$ 22.60	9.29
OPERATOR: Drill.....	\$ 17.09	3.79
OPERATOR: Excavator.....	\$ 19.88	5.06
OPERATOR: Loader.....	\$ 16.93	3.51
OPERATOR: Mechanic.....	\$ 24.35	6.66
OPERATOR: Roller.....	\$ 15.99	6.31
TRUCK DRIVER: Low Bed Truck.....	\$ 16.43	3.07
TRUCK DRIVER.....	\$ 14.67	2.04

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

=====

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification
and wage rates that have been found to be prevailing for the
cited type(s) of construction in the area covered by the wage

determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters, PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rate.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an

interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

General Decision Number: ME120050 01/06/2012 ME50

Superseded General Decision Number: ME20100061

State: Maine

Construction Type: Highway

County: Cumberland County in Maine.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Modification Number	Publication Date
0	01/06/2012

SUME2011-045 09/14/2011

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 17.10	1.95
CEMENT MASON/CONCRETE FINISHER...	\$ 16.94	0.00
ELECTRICIAN.....	\$ 17.90	3.69
INSTALLER - GUARDRAIL.....	\$ 16.47	1.85
IRONWORKER, REINFORCING.....	\$ 18.79	0.00
IRONWORKER, STRUCTURAL.....	\$ 18.75	4.56
LABORER: Asphalt Raker.....	\$ 15.79	1.45
LABORER: Common or General.....	\$ 13.15	1.08
LABORER: Flagger.....	\$ 9.00	0.00
LABORER: Landscape.....	\$ 14.92	2.30

South Portland - Portland
I-295 Northbound Rehabilitation
WIN 017929.10
January 23, 2012

LABORER: Wheelman.....	\$ 18.76	4.93
OPERATOR: Backhoe.....	\$ 19.38	2.52
OPERATOR: Bobcat/Skid Loader....	\$ 17.64	4.50
OPERATOR: Bulldozer.....	\$ 18.57	3.88
OPERATOR: Crane.....	\$ 21.15	0.00
OPERATOR: Excavator.....	\$ 18.81	1.31
OPERATOR: Grader/Blade.....	\$ 27.40	8.46
OPERATOR: Loader.....	\$ 16.40	3.39
OPERATOR: Mechanic.....	\$ 23.27	6.28
OPERATOR: Milling Machine Reclaimer Combo.....	\$ 24.77	8.39
OPERATOR: Paver.....	\$ 18.16	4.74
OPERATOR: Roller excluding Asphalt.....	\$ 17.00	4.08
OPERATOR: Screed.....	\$ 19.98	5.46
OPERATOR: Sweeper.....	\$ 14.92	2.31
PILEDRIVERMAN.....	\$ 19.95	5.26
TRUCK DRIVER: Lowboy Truck.....	\$ 15.15	5.62
TRUCK DRIVER: All axles incl Dump Trucks.....	\$ 14.65	2.87

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

=====

Unlisted classifications needed for work not included within

the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rate.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued

as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor

200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

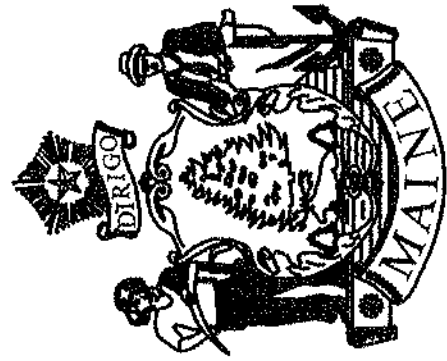
Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



S. PORTLAND TO PORTLAND

CUMBERLAND COUNTY

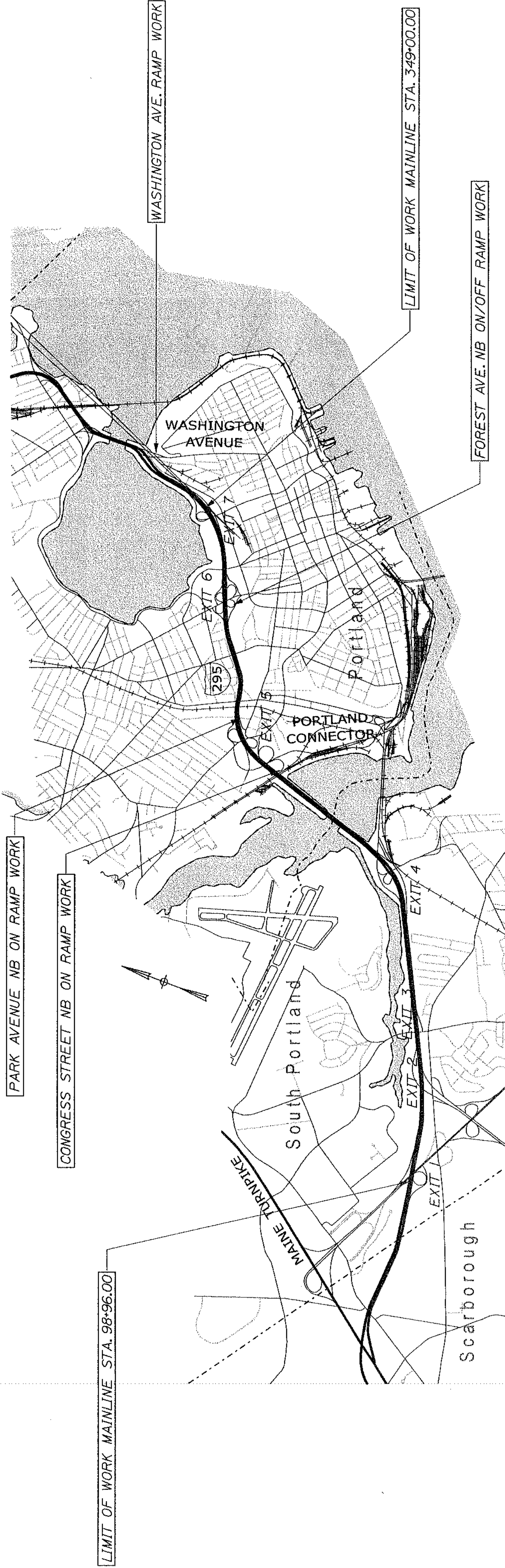
I-295 NORTHBOUND

IM-1792(910)E

PROJECT LENGTH : 5.3 mi.
HIGHWAY PRESERVATION

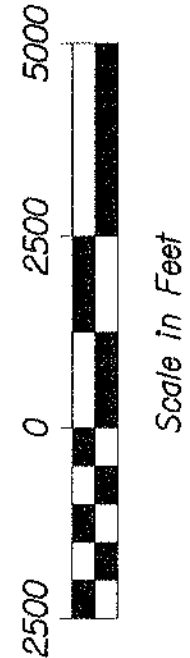
PLAN LEGEND

Town, County, State	Centerline-Existing
Property Lines	Centerline-Proposed
R/W Lines-Existing	Travelway-Existing
R/W Lines-Proposed	Travelway-Proposed
Culvert-Existing	Railroad
Culvert Proposed	Catch Basins
Curbing	Existing
Type 1	Proposed
Type 3	Manholes
Type 5	Existing
Outline of Bodies of Water	Proposed Underdrain
Ledge	Existing Ditch
Buildings	Utility Poles
Trees	Fire Hydrants
Conifer	Existing Water Line
Deciduous	Existing San. Sewer
Tree Line	Existing San. Sewer Manhole
Clearing Limit Line	Guardrail-Existing
	Guardrail-Proposed
	Guardrail-Cable, Other



TRAFFIC DATA		Exit 1 (SR 703) to Exit 3 (Westbrook St)	Exit 3 (Westbrook St) to Exit 5 (Congress St)	Exit 5 (Congress St) to Exit 6 (Forest Ave)	Exit 6 (Forest Ave) to Exit 7 (Franklin Arterial)
Current (2010) AADT:		29,100	40,800	36,100	36,900
Design Speed (mph):		55	55	50	50
Functional Class:		Principal Arterial Interstate			

PROJECT LOCATION:	S. Portland to Portland, from SR 703 bridge to Washington Avenue on ramp bridge
PROGRAM AREA:	Highway Improvements: Interstate
OUTLINE OF WORK:	Highway rehabilitation with bridge work, paving, drainage and safety improvements

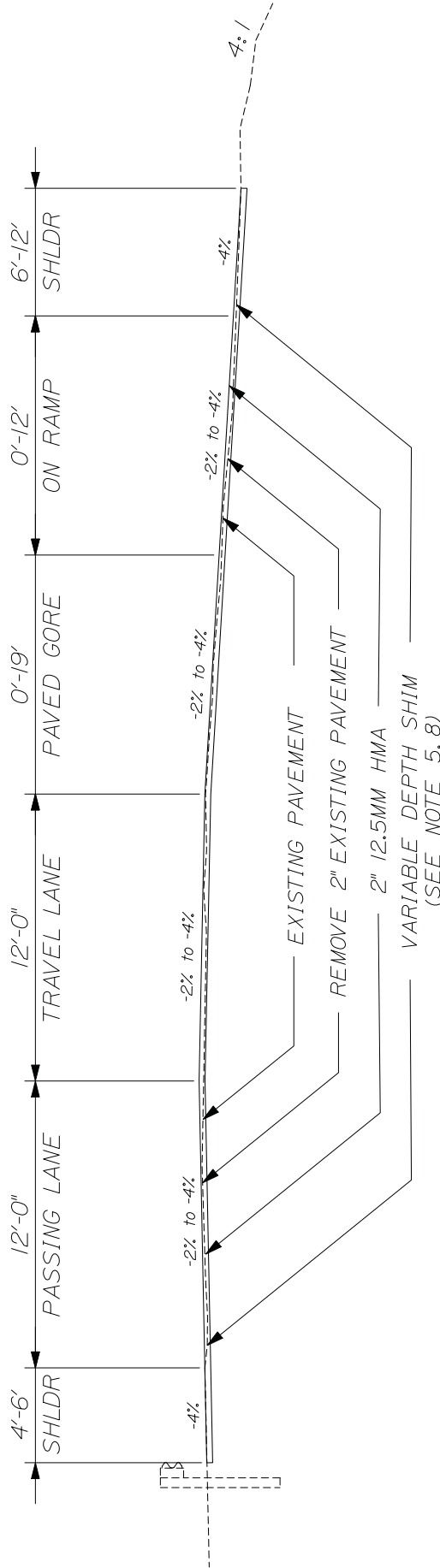


STATE OF MAINE DEPARTMENT OF TRANSPORTATION		CHIEF ENGINEER COMMISSIONER APPROVED DATE		1/17/12	
PROJECT INFORMATION		PROGRAM PROJECT MANAGER PROJECT RESIDENT DESIGNER HNTB DATE SIGNATURE P.E. NUMBER DATE		12/20/11 6452	
INTERSTATE 295 NORTHBOUND S. PORTLAND & PORTLAND CUMBERLAND COUNTY		TITLE SHEET		SHEET NUMBER 1 OF 5	

MAINLINE MILL & FILL FULL WIDTH 2" PAVEMENT MILLING 2" HOT MIX ASPHALT OVERLAY

NOTE:

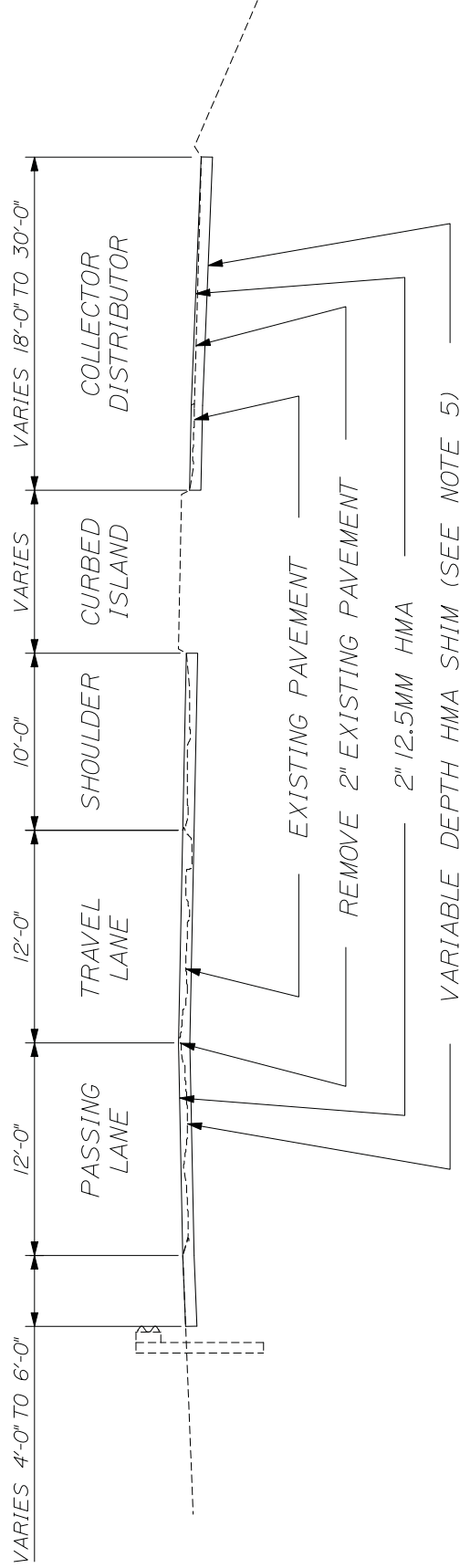
1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
4. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.
5. VARIABLE DEPTH SHIM IS TO BE PLACED IF DELAMINATION OCCURS DURING MILLING OPERATIONS OR AS DIRECTED BY THE RESIDENT.
6. MILLING WIDTHS AND DEPTHS MAY BE ADJUSTED IN THE FIELD BY THE RESIDENT.
7. MILLING WIDTHS AND DEPTHS ON BRIDGE DECKS TO BE DETERMINED FROM BRIDGE PLANS OR AS DIRECTED BY THE RESIDENT.
8. VARIABLE DEPTH SHIM IS REQUIRED IN AREAS OF EXCESSIVE ROADWAY SETTLEMENT. SETTLEMENT HAS BEEN IDENTIFIED AT I-295 NB FOREST AVENUE BRIDGE, PREBLE STREET BRIDGE AND FRANKLIN ARTERIAL BRIDGE. COORDINATE WORK WITH RESIDENT.



COLLECTOR DISTRIBUTOR MILL & FILL FULL WIDTH 2" PAVEMENT MILLING 2" HOT MIX ASPHALT OVERLAY

NOTE:

1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
4. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.
5. VARIABLE DEPTH SHIM IS TO BE PLACED IF DELAMINATION OCCURS DURING MILLING OPERATIONS OR AS DIRECTED BY THE RESIDENT.
6. MILLING WIDTHS AND DEPTHS MAY BE ADJUSTED IN THE FIELD BY THE RESIDENT.
7. MILLING WIDTHS AND DEPTHS ON BRIDGE DECKS TO BE DETERMINED FROM BRIDGE PLANS OR AS DIRECTED BY THE RESIDENT.
8. THE COLLECTOR DISTRIBUTOR RAMP AND SHOULDERS FROM APPROXIMATELY 500' SOUTH OF PTHR (FORE RIVER) BRIDGE TO THE ST. JAMES STREET BRIDGE SHALL BE MILLED 2" AND PAVED 2" PER THE DETAIL ON THIS SHEET.



GENERAL NOTES

1. Where directed by the Resident, winter sand (outside paved areas) shall be removed from the edges of shoulders and placed in designated areas or disposed of. Payment will be made under the appropriate hourly rental items. The disposal of all waste (including but not limited to obtaining waste permits, grading, mulching and seeding) shall be considered incidental to the related rental items.
2. Hot mix asphalt shall be placed along exposed joints at ramps (milled and paved surfaces) on a 12:1 taper to maintain traffic to the width specified by the Resident. Placement, maintenance and removal of these tapers will be considered incidental to 403 Items.
3. All joints between existing and proposed hot mix asphalt shall be butted. Payment shall be made under Item 202.202.
4. Any damage to the slopes caused by the Contractor's equipment, personnel, or operations shall be repaired to the satisfaction of the Resident. All work, equipment and materials required to make repairs shall be at the Contractor's expense.
5. Any necessary cleaning of existing pavement prior to paving shall be incidental to the related paving items.
6. When milling the lane adjacent to the newly placed pavement, the milling machine shall mill into the newly placed pavement by 3" +/- or as directed by the Resident.
7. All guardrail which is removed and not reused on the project shall become property of the Contractor. This shall include end treatments.
8. Holes created by guardrail removal will be filled and compacted with approved materials as directed by the Resident. Payment to be considered incidental to the guardrail items.
9. "Undetermined Locations" shall be determined by the Resident.
10. Stations referenced are approximate.
11. All work shall be done in accordance with the Maine Department of Transportation's Best Management Practices for Erosion & Sedimentation Control, February, 2008.
12. Reference to left or right is in the direction of stationing which runs south to north.
13. Interstate crossovers shall not be used by Contractor.
14. Milling widths/depths may be adjusted by the Resident.

GENERAL NOTES

15. The paved gore areas between the on/off ramps and the mainline shall have an edge line of 12 inch white pavement marking line, Item 627.18, as directed by the Resident.
16. No separate payment for superintendent or foreman will be made for the supervision of work paid under equipment rental items, however supervision is required.
17. Cleaning of the pavement following rental work will be considered incidental to the rental items. Cleaning will be done daily and to the satisfaction of the Resident prior to the Contractor leaving the project for the day.
18. Existing catch basins will be cleaned as directed by the Resident under the appropriate Pay Items. Catch basins shall use Item 631.32 where deemed appropriate.
19. All pavement grindings/millings will become property of the Contractor.
20. Weepers will be milled on shoulders to allow for water run-off as directed by the Resident. Payment will be made under item # 202.202.
21. Connections for proposed guardrail to existing guardrail will be considered incidental to Item 606.
22. Seeding Method No. 2 shall be utilized on all non-guardrail slopes.
23. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
24. No utility involvement is anticipated.

MAINLINE STATIONING

Station	Detail	Description
98+96	Begin Project	Limit of Work
99+22	State Route 703 On Ramp (End of Grass Gore)	Ramp
99+46	8239E, State Route 703 Bridge Joint South	Bridge
101+75	8239E, State Route 703 Bridge Joint North	Bridge
148+00	Westbrook Street Bridge Joint South	Bridge
149+10	Westbrook Street Bridge Joint North	Bridge
226+50	Fore River Bridge Joint South	Bridge
232+50	Fore River Bridge Joint North	Bridge
252+30	PTRR (Fore River) Bridge Joint South	Bridge
253+79	PTRR (Fore River) Bridge Joint North	Bridge
254+61	Portland Connector On Ramp (End of Grass Gore)	Ramp
258+20	Portland Connector, Westbrook Art. Bridge Joint South	Bridge
259+80	Portland Connector, Westbrook Art. Bridge Joint North	Bridge
261+73	Exit 5 Off Ramp (End of Grass Gore)	Ramp
265+90	Congress Street On Ramp (End of Grass Gore)	Ramp
268+60	Congress Street & Park Avenue Bridge Joint South	Bridge
270+63	Congress Street & Park Avenue Bridge Joint North	Bridge
276+49	St. James Street Bridge Joint South	Bridge
277+56	St. James Street Bridge Joint North	Bridge
279+70	PTRR, (St. John) Bridge Joint South	Bridge
280+82	PTRR, (St. John) Bridge Joint North	Bridge
280+82	Park Ave On Ramp, PTRR (St. John) Bridge Joint North	Ramp
282+23	St. John Street Bridge Joint South	Bridge
283+33	St. John Street Bridge Joint North	Bridge
314+94	Forest Avenue (1) On Ramp (End of Grass Gore)	Ramp
316+43	Forest Avenue Bridge Joint South	Bridge
317+68	Forest Avenue Bridge Joint North	Bridge
321+11	Forest Avenue Off Ramp (End of Grass Gore)	Ramp
325+44	Forest Avenue (2) On Ramp (End of Grass Gore)	Ramp
327+44	Preble Street Bridge Joint South	Bridge

MAINLINE STATIONING

Station	Detail	Description
328+56	Preble Street Bridge Joint North	Bridge
345+19	Franklin Arterial Bridge Joint South	Bridge
346+31	Franklin Arterial Bridge Joint North	Bridge
349+00	End Project	Limit of Work

Note: Stationing is approximate and is based on bridge joint stations from as-built drawings and working out from there.

RAMP STATIONING

Congress Street Northbound on ramp

STATION	DETAIL	DESCRIPTION
0+00	Begin ramp paving at intersection with Congress St. sidewalk (right side)	Limit of work
5+15=265+90	End ramp paving at grass gore	Limit of work

Note: Congress St. stationing is assumed, with origin as described above. Stationing is along ramp RT lane line.

Park Avenue Northbound on ramp

STATION	DETAIL	DESCRIPTION
0+00	Begin ramp paving at intersection with Park Avenue sidewalk (right side)	Limit of work
3+50	St. James Street ramp bridge joint south	Bridge
4+61	St. James Street ramp bridge joint north	Bridge
7+18	End ramp paving at PTRR (St. John street) bridge joint south	Bridge
8+19=280+82	PTRR (St. John street) bridge joint north	Bridge

Note: Park Avenue stationing is assumed, with origin as described above. Stationing is along ramp RT lane line.

RAMP STATIONING

Forest Avenue Northbound on ramp

STATION	DETAIL	DESCRIPTION
0+00	Begin ramp paving at intersection with Forest Avenue sidewalk (right side)	Limit of work
5+32=314+94	End ramp paving at grass gore	Limit of work

Note: Forest Avenue stationing is assumed, with origin as described above. Stationing is along ramp RT lane line.

Washington Avenue Northbound on ramp

STATION	DETAIL	DESCRIPTION
642+91	Begin ramp paving	Limit of work
643+41	Washington Avenue bridge joint south	Bridge
645+16	Washington Avenue bridge joint north	Bridge
645+46	End ramp paving	Limit of work

Note: Washington Avenue stationing is approximate based on as-built information.

Construction Notes

Item 202.202 Removing Pavement Surface

Mainline & Shoulders

Mainline milling will consist of milling travel (Right – slow lane) & passing (Left – high speed lane) approximately 24' +/- to a depth of 2" and to the limits noted below. It shall also include milling on ramp, off ramp, paved gores, and/or collector distributor lanes to a depth of 2". In addition to mainline milling, shoulders and ramps shall be milled as listed below. Areas near ramps shall be as directed by the Resident. The milling machine shall mill into the previously placed pavement by 3" +/- or as directed by the Resident. Mainline stations are in reference to As-built plans and run from south to north along the center of the median.

Station	to	Station	Depth	Remarks
98+96	-	99+46	2"	Lt 7' / Rt 11'
101+75	-	102+25	2"	Lt 4'-7' / Rt 4'-5'
147+50	-	148+00	2"	Lt 7' / Rt 8'-9'
149+10	-	149+60	2"	Lt 7' / Rt 8'-9'
226+00	-	226+50	2"	Lt 7' / Rt 11'
232+50	-	233+50	2"	Lt 7' / Rt 11'
251+80	-	252+30	2"	Lt 7' / Rt 10'
				12' Island, 18' Off Ramp
253+79	-	258+20	2"	Lt 7' / Rt 10'
				12' Island, 18' Off Ramp, 30' C.D. lane
259+80	-	268+60	2"	Lt 7' / Rt 10'
				0'-12' Island, 30' C.D. lane/ On Ramp
270+63	-	276+49	2"	Lt 7' / Rt 4'-8'
277+56	-	279+70	2"	Lt 7' / Rt 11'
280+82	-	282+23	2"	Lt 7' / Rt 2'
283+33	-	283+83	2"	Lt 6' / Rt 2'
313+79	-	316+43	Varies	Lt 7' / Rt 11'
			see mill table	
317+68	-	327+44	Varies	Lt 7' / Rt 2'
			see mill table	
328+56	-	331+19	Varies	Lt 7' / Rt 10'
			see mill table	
342+65	-	345+19	Varies	Lt 6' / Rt 9'-10'
			see mill table	
346+31	-	349+00	Varies	Lt 6' / Rt 9'
			see mill table	

Station	to	Station	Ramps Depth	Remarks
State Route 703 On Ramp				
99+22	-	99+46	2"	Mill full width including gore
Portland Connector On Ramp to Exit 5 Off Ramp				
254+61	-	261+73	2"	Mill full width including gore
Congress Street On Ramp				
0+00	-	5+15 (=265+90)	1.5"	Mill stripe to stripe
265+90	-	268+60	2"	Mill full width including gore
Park Avenue On Ramp				
0+00	-	3+50	1.5"	Mill stripe to stripe
4+61	-	7+18	1.5"	Mill stripe to stripe
8+19 (=280+82)	-	282+23	2"	Mill full width including gore
Forest Avenue (1) On Ramp				
0+00	-	5+32 (=314+94)	1.5"	Mill stripe to stripe
314+94	-	316+43	Varies see mill table	Mill full width including gore
Forest Avenue (2) On Ramp				
325+44	-	327+44	Varies see mill table	Mill full width including gore
Washington Avenue On Ramp				
642+91	-	643+41	3"	Mill stripe to stripe
645+16	-	645+46	1.5"	Mill full width

Above locations are estimates only and may be changed by the Resident. Note that for skewed bridge abutments, stationing shown reflects I-295 centerline median stationing. Stationing presented reflects minimum milling/paving distances from northbound I-295 bridge joints. Paving should be perpendicular to I-295 mainline. Above ramps may be changed to an overlay at the Residents discretion. Shoulder areas shall be milled as directed by Resident. See bridge plans for pavement removal on bridges.

Item 403.2081 Polymer Modified Hot Mix Asphalt 12.5mm Surface

This item is to be used on mainline & auxiliary lanes 2", including shoulder, and ramps 1.5" or as directed by the Resident.

Item 403.211 Hot Mix Asphalt shim 9.5mm

This item is to be used for possible de-lamination areas in the pavement removal areas, rutting areas, and as directed by the Resident.

Item 403.2131 Polymer Modified Hot Mix Asphalt 12.5mm Base

Variable depth pavement is required in areas of excessive roadway settlement. Settlement has been identified at I-295 NB Forest Ave. bridge, Preble St. bridge and Franklin Arterial Bridge. See mill and pavement tables. Coordinate locations with the Resident.

Item 424.3331 Low Modulus Crack Sealer

This item is to be used as directed by the Resident.

Item 424.3333 Low Modulus Joint Sealer, Applied

This item is to be used on all longitudinal joints in the entire project including bridge decks.

Item 604.18 Adjusting Catch Basin or Manhole to Grade

This item is to be used to adjust the catch basins to the proposed grade prior to shifting traffic onto the shoulders.

Item 604.182 Cleaning Catch Basin

There are an estimated 32 catch basins located on the project. Each catch basin will be inspected and cleaned as directed by the Resident.

Item 604.167 Alter Catch Basin Grates to Cascade Grates

This item is to be used to install replacement catch basin grates prior to shifting traffic onto the shoulders.

Item 606.1721 Bridge Transition – Type 1

This item is estimated for the leading and/or the trailing ends of bridges 6273, 6249, 6281, 6291, 6292, 6294, 6295, 6297, 6298, 6299, 6300, and 5915.

Item 606.24 Guardrail Type 3d – Single Rail

This item is estimated to connect Type 1 bridge transitions to the existing single rail guardrail.

Item 606.363 Guardrail Remove and Dispose

This item is to be used where the existing guardrail is being replaced.

Item 615.07 Loam

This item is estimated to back up edge of pavement as directed by the Resident.

Item 629.05 Hand Labor, Straight Time

This item to be used for plumbing existing delineator posts, cleaning culverts, clearing, removing winter sand from guardrail areas and paved areas under overpasses, and other tasks as directed by the Resident.

Item 627.781 Temporary 6” Painted Pavement Marking Line, White or Yellow

This item will be used on all milled surfaces on mainline and ramps and existing unmilled surfaces as required for traffic control. This item is also estimated to be used for first application prior to Item 627.744.

Items 631.12 APE, 631.133 Skid Steer, 631.172 Truck-Large, 631.21 Road Broom and Others

These items estimated for removing excess material from in-slopes, in-slopes behind guardrail areas, and other work as directed. Skid steer intended to be used under guardrail beam. Road Broom shall be used to clean the median shoulder prior to shifting traffic into the median. All equipment used for certain operations will be as directed by the Resident. Cleaning of pavement surface from all rental items, prior to end of shift, shall be considered incidental to the equipment item being used.

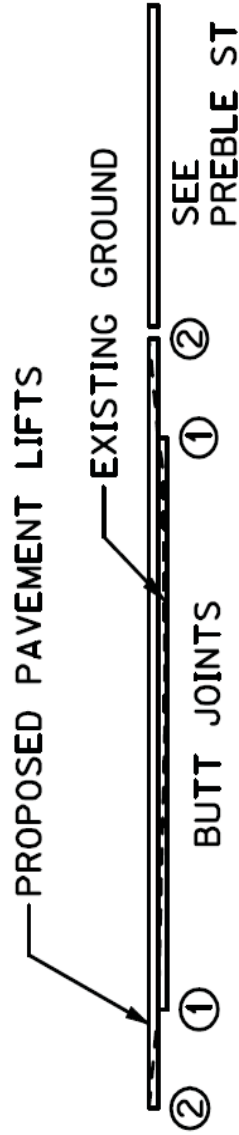
MILL AND PAVEMENT TABLE			
PIN 17929.10 - S. PORTLAND & PORTLAND			
FOREST AVENUE APPROACH			
STATION	MILL DEPTH	PAVING DEPTH	NOTES
LIMIT OF PAVING			
313+79	BUTT JOINT #3 - 2"	2"	1 - 2" LIFT
314+00	2"	2"	1 - 2" LIFT
314+25	1.5"	2"	1 - 2" LIFT
314+50	1"	2"	1 - 2" LIFT
314+69	0"	2"	1 - 2" LIFT
314+69	BUTT JOINT #2 - 2"	4"	2 - 2" LIFTS
315+00	0"	4"	2 - 2" LIFTS
315+00	BUTT JOINT #1 - 2"	6"	3 - 2" LIFTS
315+25	1"	6"	3 - 2" LIFTS
315+50	0.5"	6"	3 - 2" LIFTS
315+75	1"	6"	3 - 2" LIFTS
316+00	1"	6"	3 - 2" LIFTS
316+16	BUTT JOINT #1 - 2"	6"	3 - 2" LIFTS
316+16	0"	4"	2 - 2" LIFTS
316+31	BUTT JOINT #2 - 2"	4"	2 - 2" LIFTS
316+31	0"	2"	1 - 2" LIFT
316+43	BUTT JOINT #3 - 2"	2"	1 - 2" LIFT
SOUTH BRIDGE JOINT			



NOTES:

1. ABOVE DIAGRAM IS SCHEMATIC ONLY.
2. CONTRACTOR TO MAINTAIN EXISTING CROWN LOCATIONS.
3. DEPTHS MAY BE REVISED BY RESIDENT IN FIELD.
4. PAVEMENT SHALL BE HOT MIX ASPHALT 12.5MM
5. CONTRACTOR SHALL PAVE 3' BEYOND FACE OF GUARDRAIL FOR ALL PAVEMENT LIFTS EXCEPT SURFACE PAVEMENT. CONTRACTOR SHALL PAVE SURFACE PAVEMENT TO FACE OF GUARDRAIL POSTS. ALL LABOR, EQUIPMENT, AND MATERIALS ASSOCIATED WITH THE SUBBASE PREP WORK FOR PAVING 3' BEYOND FACE OF GUARDRAIL INCLUDING BUT NOT LIMITED TO LOAM REMOVAL, GRAVEL PREPARATION, AND FINE GRADING SHALL BE CONSIDERED INCIDENTAL TO THE 403 PAY ITEMS. COORDINATE WORK WITH THE RESIDENT.

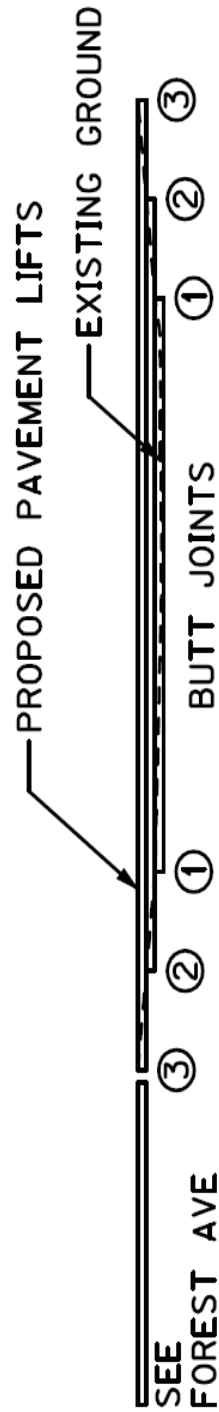
MILL AND PAVEMENT TABLE			
PIN 17929.10 - S. PORTLAND & PORTLAND			
FOREST AVENUE DEPARTURE			
STATION	MILL DEPTH	PAVING DEPTH	NOTES
NORTH BRIDGE JOINT			
317+68	BUTT JOINT #2 - 2"	2"	1 - 2" LIFT
317+92	0"	2"	1 - 2" LIFT
317+92	BUTT JOINT #1 - 1.5"	3.5"	1 - 1.5" LIFT & 1 - 2" LIFT
318+25	0"	3.5"	1 - 1.5" LIFT & 1 - 2" LIFT
318+50	0.5"	3.5"	1 - 1.5" LIFT & 1 - 2" LIFT
318+75	1"	3.5"	1 - 1.5" LIFT & 1 - 2" LIFT
319+00	1.5"	3.5"	1 - 1.5" LIFT & 1 - 2" LIFT
319+10	BUTT JOINT #1 - 1.5"	3.5"	1 - 1.5" LIFT & 1 - 2" LIFT
319+10	0"	2"	1 - 2" LIFT
319+25	0"	2"	1 - 2" LIFT
319+50	0"	2"	1 - 2" LIFT
319+75	0.5"	2"	1 - 2" LIFT
320+00	1.5"	2"	1 - 2" LIFT
320+19	BUTT JOINT #2 - 2"	2"	1 - 2" LIFT
325+13	2"	2"	1 - 2" LIFT



NOTES:

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3. DEPTHS MAY BE REVISED BY RESIDENT IN FIELD.
4. PAVEMENT SHALL BE HOT MIX ASPHALT 12.5MM
5. CONTRACTOR SHALL PAVE 3' BEYOND FACE OF GUARDRAIL FOR ALL PAVEMENT LIFTS EXCEPT SURFACE PAVEMENT. CONTRACTOR SHALL PAVE SURFACE PAVEMENT TO FACE OF GUARDRAIL POSTS. ALL LABOR, EQUIPMENT, AND MATERIALS ASSOCIATED WITH THE SUBBASE PREP WORK FOR PAVING 3' BEYOND FACE OF GUARDRAIL INCLUDING BUT NOT LIMITED TO LOAM REMOVAL, GRAVEL PREPARATION, AND FINE GRADING SHALL BE CONSIDERED INCIDENTAL TO THE 403 PAY ITEMS. COORDINATE WORK WITH THE RESIDENT.

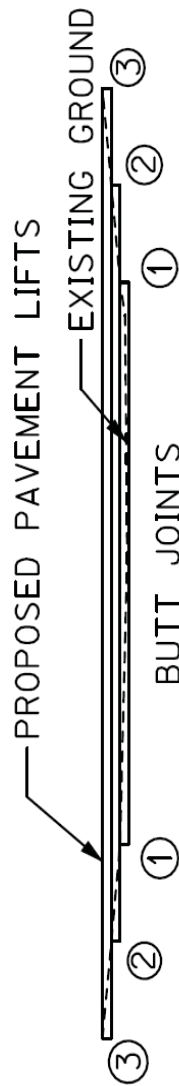
MILL AND PAVEMENT TABLE			
PIN 17929.10 - S. PORTLAND & PORTLAND			
PREBLE STREET APPROACH			
STATION	MILL DEPTH	PAVING DEPTH	NOTES
325+13	BUTT JOINT #3 - 2"	2"	1 - 2" LIFT
325+25	1.5"	2"	1 - 2" LIFT
325+50	1"	2"	1 - 2" LIFT
325+73	0"	2"	1 - 2" LIFT
325+73	BUTT JOINT #2 - 1.5"	3.5"	1 - 1.5" LIFT & 1 - 2" LIFT
326+00	0.5"	3.5"	1 - 1.5" LIFT & 1 - 2" LIFT
326+19	0"	3.5"	1 - 1.5" LIFT & 1 - 2" LIFT
326+19	BUTT JOINT #1 - 1.5"	5"	2 - 1.5" LIFTS & 1 - 2" LIFT
326+50	0.5"	5"	2 - 1.5" LIFTS & 1 - 2" LIFT
326+75	0"	5"	2 - 1.5" LIFTS & 1 - 2" LIFT
327+07	BUTT JOINT #1 - 1.5"	5"	2 - 1.5" LIFTS & 1 - 2" LIFT
327+07	0"	3.5"	1 - 1.5" LIFT & 1 - 2" LIFT
327+25	BUTT JOINT #2 - 1.5"	3.5"	1 - 1.5" LIFT & 1 - 2" LIFT
327+25	0"	2"	1 - 2" LIFT
327+44	BUTT JOINT #3 - 2"	2"	1 - 2" LIFT
SOUTH BRIDGE JOINT			



NOTES:

1. ABOVE DIAGRAM IS SCHEMATIC ONLY.
2. CONTRACTOR TO MAINTAIN EXISTING CROWN LOCATIONS.
3. DEPTHS MAY BE REVISED BY RESIDENT IN FIELD.
4. PAVEMENT SHALL BE HOT MIX ASPHALT 12.5MM
5. CONTRACTOR SHALL PAVE 3' BEYOND FACE OF GUARDRAIL FOR ALL PAVEMENT LIFTS EXCEPT SURFACE PAVEMENT. CONTRACTOR SHALL PAVE SURFACE PAVEMENT TO FACE OF GUARDRAIL POSTS. ALL LABOR, EQUIPMENT, AND MATERIALS ASSOCIATED WITH THE SUBBASE PREP WORK FOR PAVING 3' BEYOND FACE OF GUARDRAIL INCLUDING BUT NOT LIMITED TO LOAM REMOVAL, GRAVEL PREPARATION, AND FINE GRADING SHALL BE CONSIDERED INCIDENTAL TO THE 403 PAY ITEMS. COORDINATE WORK WITH THE RESIDENT.

MILL AND PAVEMENT TABLE			
PIN 17929.10 - S. PORTLAND & PORTLAND			
PREBLE STREET DEPARTURE			
STATION	MILL DEPTH	PAVING DEPTH	NOTES
NORTH BRIDGE JOINT			
328+56	BUTT JOINT #3 - 2"	2"	1 - 2" LIFT
328+73	0"	2"	1 - 2" LIFT
328+73	BUTT JOINT #2 - 2"	4"	2 - 2" LIFTS
328+92	0"	4"	2 - 2" LIFTS
328+92	BUTT JOINT #1 - 1.5"	5.5"	1 - 1.5" LIFT & 2 - 2" LIFTS
329+25	0.5"	5.5"	1 - 1.5" LIFT & 2 - 2" LIFTS
329+50	0"	5.5"	1 - 1.5" LIFT & 2 - 2" LIFTS
329+75	1"	5.5"	1 - 1.5" LIFT & 2 - 2" LIFTS
329+96	BUTT JOINT #1 - 1.5"	5.5"	1 - 1.5" LIFT & 2 - 2" LIFTS
329+96	0"	4"	2 - 2" LIFTS
330+25	1"	4"	2 - 2" LIFTS
330+43	BUTT JOINT #2 - 2"	4"	2 - 2" LIFTS
330+43	0"	2"	1 - 2" LIFT
330+75	1.5"	2"	1 - 2" LIFT
331+00	2"	2"	1 - 2" LIFT
331+19	BUTT JOINT #3 - 2"	2"	1 - 2" LIFT
LIMIT OF PAVING			



NOTES:

1. ABOVE DIAGRAM IS SCHEMATIC ONLY.
2. CONTRACTOR TO MAINTAIN EXISTING CROWN LOCATIONS.
3. DEPTHS MAY BE REVISED BY RESIDENT IN FIELD.
4. PAVEMENT SHALL BE HOT MIX ASPHALT 12.5MM
5. CONTRACTOR SHALL PAVE 3' BEYOND FACE OF GUARDRAIL FOR ALL PAVEMENT LIFTS EXCEPT SURFACE PAVEMENT. CONTRACTOR SHALL PAVE SURFACE PAVEMENT TO FACE OF GUARDRAIL POSTS. ALL LABOR, EQUIPMENT, AND MATERIALS ASSOCIATED WITH THE SUBBASE PREP WORK FOR PAVING 3' BEYOND FACE OF GUARDRAIL INCLUDING BUT NOT LIMITED TO LOAM REMOVAL, GRAVEL PREPARATION, AND FINE GRADING SHALL BE CONSIDERED INCIDENTAL TO THE 403 PAY ITEMS. COORDINATE WORK WITH THE RESIDENT.

MILL AND PAVEMENT TABLE				
PIN 17929.10 - S. PORTLAND & PORTLAND				
FRANKLIN ARTERIAL APPROACH				
STATION	MILL DEPTH	PAVING DEPTH	NOTES	
LIMIT OF PAVING				
342+65	BUTT JOINT 2"	2"	1 - 2" LIFT	
343+00	2.5"	2"	1 - 2" LIFT	
343+25	2"	2"	1 - 2" LIFT	
343+50	1.5"	2"	1 - 2" LIFT	
343+75	1"	2"	1 - 2" LIFT	
344+12	0"	2"	1 - 2" LIFT	
344+25	0"	2"	1 - 2" LIFT	
344+54	0"	2"	1 - 2" LIFT	
344+75	0.5"	2"	1 - 2" LIFT	
345+00	1"	2"	1 - 2" LIFT	
345+19	BUTT JOINT 2"	2"	1 - 2" LIFT	
SOUTH BRIDGE JOINT				



- NOTES:**
1. ABOVE DIAGRAM IS SCHEMATIC ONLY.
 2. CONTRACTOR TO MAINTAIN EXISTING CROWN LOCATIONS.
 3. DEPTHS MAY BE REVISED BY RESIDENT IN FIELD.
 4. PAVEMENT SHALL BE HOT MIX ASPHALT 12.5MM

MILL AND PAVEMENT TABLE			
PIN 17929.10 - S. PORTLAND & PORTLAND			
FRANKLIN ARTERIAL DEPARTURE			
STATION	MILL DEPTH	PAVING DEPTH	NOTES
NORTH BRIDGE JOINT			
346+31	BUTT JOINT - 2"	2"	1 - 2" LIFT
346+50	1.5"	2"	1 - 2" LIFT
346+75	0.5"	2"	1 - 2" LIFT
346+98	0"	2"	1 - 2" LIFT
347+25	0"	2.5"	1 - 2.5" LIFT
347+50	0"	2.5"	1 - 2.5" LIFT
347+75	0"	2"	1 - 2" LIFT
347+98	0"	2"	1 - 2" LIFT
348+25	0.5"	2"	1 - 2" LIFT
348+50	1.5"	2"	1 - 2" LIFT
348+75	2"	2"	1 - 2" LIFT
349+00	BUTT JOINT - 2"	2"	1 - 2" LIFT
LIMIT OF PAVING			



- NOTES:**
1. ABOVE DIAGRAM IS SCHEMATIC ONLY.
 2. CONTRACTOR TO MAINTAIN EXISTING CROWN LOCATIONS.
 3. DEPTHS MAY BE REVISED BY RESIDENT IN FIELD.
 4. PAVEMENT SHALL BE HOT MIX ASPHALT 12.5MM

DRAINAGE

PIN 17929.10 S. PORTLAND & PORTLAND I-295 NB

STATION	Inspect & Clean CB	Replace & Secure CB Grate	Adjust CB to Grade	REMARKS
107+95 RT	X			
158+30 RT GORE	X	X		
215+20 RT GORE	X	X		
250+70 RT	X	X		
254+17 RT	X	X		
254+27 RT AUX LANE SHOULDER	X	X		
257+21 RT	X	X		
260+20 RT	X	X		
262+19 RT	X	X		
264+14 RT	X	X		
267+97 RT RAMP SHOULDER	X	X		
271+00 RT	X	X	X	
274+74 RT	X	X		
277+85 RT	X	X		
281+81 RT RAMP SHOULDER	X	X		
328+82 RT	X	X	X	

- Notes: 1. Stations are approximate.
2. Basin grates shall be replaced and secured prior to shifting traffic onto shoulders.

DRAINAGE

PIN 17929.10 S. PORTLAND & PORTLAND I-295 NB

STATION	Inspect & Clean CB	Replace & Secure CB Grate	Adjust CB to Grade	REMARKS
Congress St. On Ramp				
0+02 RT	X			
1+38 RT	X			
Park Avenue On Ramp				
2+06 RT	X			
4+90 RT	X			
Forest Avenue (1) On Ramp				
0+15 RT	X			
3+74 RT	X			
Forest Avenue Off Ramp				
2+25 RT	X			
5+66 RT	X			
Washington Ave. On Ramp				
639+45 RT	X	X		City Owned ⁴
640+90 RT	X	X		City Owned ⁴
640+90 LT	X	X		City Owned ⁴
643+10 LT	X	X		City Owned ⁴
643+20 RT	X	X		City Owned ⁴
645+41 RT	X	X		Grade to CB
645+48 LT	X	X		Grade to CB
647+40 RT	X	X		Grade to CB

- Note:
1. See ramp stationing sheet for limits of work.
 2. All stations are approximate.
 3. Basin grates shall be replaced and secured prior to shifting traffic onto shoulders.
 4. For basins that are city owned the contractor shall coordinate with the resident and the city prior to construction. City owned basins shall be secured only and the existing grates shall be reused.

GUARDRAIL

PIN 17929.10 S. PORTLAND & PORTLAND I-295 NB

Northbound			Remarks
For Treatments See Remarks			
Station	to Station	Linear Feet	
99+14.5	99+27.0	RT	Replacement of existing guardrail – Type 3d
99+27.0	99+46.0	RT	Bridge Transition – Type 1 – Attach to State Route 703 Bridge
99+09.5	99+22.0	LT	Replacement of existing guardrail – Type 3d
99+22.0	99+41.0	LT	Bridge Transition – Type 1 – Attach to State Route 703 Bridge
101+75.0	101+94.0	RT	Bridge Transition – Type 1 – Attach to State Route 703 Bridge
101+94.0	102+06.5	RT	Replacement of existing guardrail – Type 3d
101+75.5	101+94.5	LT	Bridge Transition – Type 1 – Attach to State Route 703 Bridge
101+94.5	102+07.0	LT	Replacement of existing guardrail – Type 3d
147+68.5	147+81.0	RT	Replacement of existing guardrail – Type 3d
147+81.0	148+00.0	RT	Bridge Transition – Type 1 – Attach to Westbrook Street Bridge
147+65.0	147+77.5	LT	Replacement of existing guardrail – Type 3d
147+77.5	147+96.5	LT	Bridge Transition – Type 1 – Attach to Westbrook Street Bridge
149+09.0	149+28.0	RT	Bridge Transition – Type 1 – Attach to Westbrook Street Bridge
149+28.0	149+40.5	RT	Replacement of existing guardrail – Type 3d
149+09.5	149+28.5	LT	Bridge Transition – Type 1 – Attach to Westbrook Street Bridge
149+28.5	149+41.0	LT	Replacement of existing guardrail – Type 3d
226+13.0	226+25.5	RT	Replacement of existing guardrail – Type 3d
226+25.5	226+44.5	RT	Bridge Transition – Type 1 – Attach to Fore River Bridge
226+16.0	226+28.5	LT	Replacement of existing guardrail – Type 3d

Notes:

1. As-built mainline stationing reflects I-295 centerline of median. For skewed bridge abutments, joint stations are assumed constant along the length of joint (see mainline stationing sheet). Thus the above guardrail stationing does not reflect exact mainline stationing, rather stations in relation to bridge joints. For guidance regarding ramp stationing, refer to ramp stationing sheet.
2. Existing guardrail, between given stations, is being replaced with a Bridge Transition - Type 1 and new guardrail.
3. Existing guardrail shall be removed and disposed.

GUARDRAIL

PIN 17929.10 S. PORTLAND & PORTLAND I-295 NB

Northbound			Remarks
For Treatments See Remarks			
Station	to Station	Linear Feet	
226+28.5	226+47.5	LT	Bridge Transition – Type 1 – Attach to Fore River Bridge
232+56.0	232+75.0	RT	Bridge Transition – Type 1 – Attach to Fore River Bridge
232+75.0	232+87.5	RT	Replacement of existing guardrail – Type 3d
232+53.0	232+72.0	LT	Bridge Transition – Type 1 – Attach to Fore River Bridge
232+72.0	232+84.5	LT	Replacement of existing guardrail – Type 3d
251+94.0	252+06.5	RT	Replacement of existing guardrail – Type 3d
252+06.5	252+25.5	RT	Bridge Transition – Type 1 – Attach to PTRR (Fore River) Bridge
251+95.0	252+07.5	LT	Replacement of existing guardrail – Type 3d
252+07.5	252+26.5	LT	Bridge Transition – Type 1 – Attach to PTRR (Fore River) Bridge
253+84.5	254+03.5	RT	Bridge Transition – Type 1 – Attach to PTRR (Fore River) Bridge
254+03.5	254+16.0	RT	Replacement of existing guardrail – Type 3d
253+79.0	253+98.0	LT	Bridge Transition – Type 1 – Attach to PTRR (Fore River) Bridge
253+98.0	254+10.5	LT	Replacement of existing guardrail – Type 3d
257+70.5	257+83.0	RT	Replacement of existing guardrail – Type 3d
257+83.0	258+02.0	RT	Bridge Transition – Type 1 – Attach to Portland Connector Bridge
257+91.0	258+03.5	LT	Replacement of existing guardrail – Type 3d
258+03.5	258+22.5	LT	Bridge Transition – Type 1 – Attach to Portland Connector Bridge
260+03.0	260+22.0	RT	Bridge Transition – Type 1 – Attach to Portland Connector Bridge
260+22.0	260+34.5	RT	Replacement of existing guardrail – Type 3d

Notes:

1. As-built mainline stationing reflects I-295 centerline of median. For skewed bridge abutments, joint stations are assumed constant along the length of joint (see mainline stationing sheet). Thus the above guardrail stationing does not reflect exact mainline stationing, rather stations in relation to bridge joints. For guidance regarding ramp stationing, refer to ramp stationing sheet.
2. Existing guardrail, between given stations, is being replaced with a Bridge Transition - Type 1 and new guardrail.
3. Existing guardrail shall be removed and disposed.

GUARDRAIL

PIN 17929.10 S. PORTLAND & PORTLAND I-295 NB

Northbound			Remarks
For Treatments See Remarks			
Station	to Station	Linear Feet	
259+78.0	259+97.0	LT	Bridge Transition – Type 1 – Attach to Portland Connector Bridge
259+97.0	260+09.5	LT	Replacement of existing guardrail – Type 3d
268+02.0	268+14.5	RT	Replacement of existing guardrail – Type 3d
268+14.5	268+33.5	RT	Bridge Transition – Type 1 – Attach to Congress/Park Bridge
268+25.5	268+38.0	LT	Replacement of existing guardrail – Type 3d
268+38.0	268+57.0	LT	Bridge Transition – Type 1 – Attach to Congress/Park Bridge
270+95.5	271+14.5	RT	Bridge Transition – Type 1 – Attach to Congress/Park Bridge
271+14.5	271+27.0	RT	Replacement of existing guardrail – Type 3d
270+63.5	270+82.5	LT	Bridge Transition – Type 1 – Attach to Congress/Park Bridge
270+82.5	270+95.0	LT	Replacement of existing guardrail – Type 3d
276+17.5	276+30.0	RT	Replacement of existing guardrail – Type 3d
276+30.0	276+49.0	RT	Bridge Transition – Type 1 – Attach to St. James Bridge
276+18.0	276+30.5	LT	Replacement of existing guardrail – Type 3d
276+30.5	276+49.5	LT	Bridge Transition – Type 1 – Attach to St. James Bridge
3+18.5	3+31.0	RT	Replacement of existing guardrail – Type 3d
3+31.0	3+50.0	RT	Bridge Transition – Type 1 – Attach to St. James Ramp Bridge
3+19.0	3+31.5	LT	Replacement of existing guardrail – Type 3d
3+31.5	3+50.5	LT	Bridge Transition – Type 1 – Attach to St. James Ramp Bridge
283+50.5	283+69.5	RT	Bridge Transition – Type 1 – Attach to St. John Street Bridge

Notes:

- As-built mainline stationing reflects I-295 centerline of median. For skewed bridge abutments, joint stations are assumed constant along the length of joint (see mainline stationing sheet). Thus the above guardrail stationing does not reflect exact mainline stationing, rather stations in relation to bridge joints. For guidance regarding ramp stationing, refer to ramp stationing sheet.
- Existing guardrail, between given stations, is being replaced with a Bridge Transition - Type 1 and new guardrail.
- Existing guardrail shall be removed and disposed.

GUARDRAIL

PIN 17929.10 S. PORTLAND & PORTLAND I-295 NB

Northbound			Remarks
For Treatments See Remarks			
Station	to Station	Linear Feet	
283+69.5	283+82.0	RT	Replacement of existing guardrail – Type 3d
283+32.5	283+51.5	LT	Bridge Transition – Type 1 – Attach to St. John Street Bridge
283+51.5	283+64.0	LT	Replacement of existing guardrail – Type 3d
314+11.5	315+86.5	RT	Replacement of existing guardrail – Type 3d
315+86.5	316+05.5	RT	Bridge Transition – Type 1 – Attach to Forest Avenue Bridge
314+08.0	316+20.5	LT	Replacement of existing guardrail – Type 3d
316+20.5	316+39.5	LT	Bridge Transition – Type 1 – Attach to Forest Avenue Bridge
318+06.0	318+25.0	RT	Bridge Transition – Type 1 – Attach to Forest Avenue Bridge
318+25.0	319+62.5	RT	Replacement of existing guardrail – Type 3d
317+68.0	317+87.0	LT	Bridge Transition – Type 1 – Attach to Forest Avenue Bridge
317+87.0	319+62.0	LT	Replacement of existing guardrail – Type 3d
325+20.0	327+07.5	RT	Replacement of existing guardrail – Type 3d
327+07.5	327+26.5	RT	Bridge Transition – Type 1 – Attach to Preble Street Bridge
325+22.5	327+22.5	LT	Replacement of existing guardrail – Type 3d
327+22.5	327+41.5	LT	Bridge Transition – Type 1 – Attach to Preble Street Bridge
328+74.0	328+93.0	RT	Bridge Transition – Type 1 – Attach to Preble Street Bridge
328+93.0	330+93.0	RT	Replacement of existing guardrail – Type 3d
328+55.5	328+74.5	LT	Bridge Transition – Type 1 – Attach to Preble Street Bridge
328+74.5	330+99.5	LT	Replacement of existing guardrail – Type 3d

Notes:

1. As-built mainline stationing reflects I-295 centerline of median. For skewed bridge abutments, joint stations are assumed constant along the length of joint (see mainline stationing sheet). Thus the above guardrail stationing does not reflect exact mainline stationing, rather stations in relation to bridge joints. For guidance regarding ramp stationing, refer to ramp stationing sheet.
2. Existing guardrail, between given stations, is being replaced with a Bridge Transition - Type 1 and new guardrail.
3. Existing guardrail shall be removed and disposed.

GUARDRAIL

PIN 17929.10 S. PORTLAND & PORTLAND I-295 NB

Northbound			Remarks
For Treatments See Remarks			
Station	to Station	Linear Feet	
344+53.0	344+65.5	RT	Replacement of existing guardrail – Type 3d
344+65.5	344+84.5	RT	Bridge Transition – Type 1 – Attach to Franklin Arterial Bridge
344+85.0	344+97.5	LT	Replacement of existing guardrail – Type 3d
344+97.5	345+16.5	LT	Bridge Transition – Type 1 – Attach to Franklin Arterial Bridge
346+64.0	346+83.0	RT	Bridge Transition – Type 1 – Attach to Franklin Arterial Bridge
346+83.0	346+95.5	RT	Replacement of existing guardrail – Type 3d
346+30.5	346+49.5	LT	Bridge Transition – Type 1 – Attach to Franklin Arterial Bridge
346+49.5	346+62.0	LT	Replacement of existing guardrail – Type 3d
642+98.0	643+10.5	RT	Replacement of existing guardrail – Type 3d
643+10.5	643+29.5	RT	Bridge Transition – Type 1 – Attach to Washington Avenue Ramp Bridge
642+98.0	643+10.5	LT	Replacement of existing guardrail – Type 3d
643+10.5	643+29.5	LT	Bridge Transition – Type 1 – Attach to Washington Avenue Ramp Bridge
645+28.0	645+47.0	RT	Bridge Transition – Type 1 – Attach to Washington Avenue Ramp Bridge
645+47.0	645+59.5	RT	Replacement of existing guardrail – Type 3d
645+28.0	645+47.0	LT	Bridge Transition – Type 1 – Attach to Washington Avenue Ramp Bridge
645+47.0	645+59.5	LT	Replacement of existing guardrail – Type 3d

Notes:

1. As-built mainline stationing reflects I-295 centerline of median. For skewed bridge abutments, joint stations are assumed constant along the length of joint (see mainline stationing sheet). Thus the above guardrail stationing does not reflect exact mainline stationing, rather stations in relation to bridge joints. For guidance regarding ramp stationing, refer to ramp stationing sheet.
2. Existing guardrail, between given stations, is being replaced with a Bridge Transition - Type 1 and new guardrail.
3. Existing guardrail shall be removed and disposed.

SPECIAL PROVISION
SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES
(Electronic Payroll Submission)
(Payment Tracking)

104.3.8.1 Electronic Payroll Submission The prime contractor and all subcontractors and lower-tier subcontractors will submit their certified payrolls electronically on this contract utilizing the Elation System web based reporting. There is no charge to the contracting community for the use of this service. The submission of paper payrolls will not be allowed or accepted. Additional information can be found at <http://www.maine.gov/mdot/comprehensive-list-projects/project-information.php> under the first “Notice”.

104.3.8.2 Payment Tracking The prime contractor and all subcontractors and lower-tier subcontractors will track and confirm the delivery and receipt of all payments through the Elation System

SPECIAL PROVISIONS
SECTION 104
Utilities

MEETING

A Preconstruction Utility Conference, as defined in Subsection 104.4.6 of the Standard Specifications **is** required.

GENERAL INFORMATION

These Special Provisions outline the arrangements that have been made by the Department for utility and/or railroad work to be undertaken in conjunction with this project. The following list identifies all known utilities or railroads having facilities presently located within the limits of this project or intending to install facilities during project construction.

Overview:

Utility/Railroad	Aerial	Underground	Railroad
Time Warner Cable	X		
Central Maine Power Company	X		
Fairpoint	X		
MaineCom Services	X		
Comcast	X		
MDOT		X	
Portland Sewer District		X	
Portland Water District		X	
Maine Turnpike Authority	X		
Oxford Networks	X		
Buckeye Partners L.P.		X	
Portland Pipe Line		X	
Pan Am Railroad			X
Unitil		X	
South Portland Sewer		X	

Temporary utility adjustments are **not** anticipated. If temporary relocation becomes necessary, sufficient time will need to be allowed prior to the construction for all required temporary relocation.

The Contractor shall not excavate around any pole, street light or guy anchor to a depth that compromises the stability of the pole.

Any times and dates mentioned are estimates only and are dependent upon favorable weather, working conditions, and freedom from emergencies. The Contractor shall have no claim against the Department if they are exceeded.

If the **Contractor** feels temporary relocation is necessary they must notify the **Department** of their concerns prior to construction and extra time may be required.

Utility working days are Monday through Friday, conditions permitting. Times are estimated on the basis of a single crew for each utility.

In all cases, the utilities shall be notified, by the Contractor, well in advance (three weeks) before work in any area is to commence.

Special note to Contractor and the Utilities: *The Contractor shall plan and schedule his work in such a manner that the utilities that are located on this project will not be harmed, damaged or impacted in any way. The Contractor and Utility will coordinate and communicate their work plans in an effort not to interfere with each other's progress or the completion of the project.*

AERIAL

No Aerial Utility adjustments are anticipated as part of this project. Should the scope of the project change in any way, to impact these lines, the Contractor shall contact the utilities as soon as possible. Any above ground utility locations not meeting the Department's Above Ground Pole Policy will require relocation to the proper offset.

Several utilities have aerial wires crossings over I-295. These locations are at every above grade bridge location and other random locations. These wires do not appear to be issue given the project scope. No relocation or involvement of any kind is anticipated by the aerial utilities as part of the work but the contractor should inspect these locations, prior to bid, and be aware of these lines when preparing their bid and using machines that are over legal heights.

SUBSURFACE

Unless otherwise specified, any underground utility facilities indicated in these project documents represent approximate locations gathered from available information. The Department cannot certify the level of accuracy of this data. If after utility lines have been marked and a possible conflict occurs the Contractor shall notify the Resident for layout adjustment. It is **not** the Departments intent to relocate any underground for this guard rail installation. The Contractor is required to notify the underground utility involved for more accurate layout of their facility.

Maine Department of Transportation

The **Maine Department of Transportation** has underground facilities in the form of highway lighting in and around all exits of the Interstate and Bridges. If guard rail is to be installed, the contractor shall contact MDOT for location and marking of the facilities. The contact persons shall be Ron Cote at 446-2305 or Sam Moore at 624-3602 for location and marking of the underground facilities. Hand digging may be required for some post installs if in the area of markings. There is also remote traffic warning speed signs and message boards on the project. Should any subsurface work be necessary in the vicinity of these sites, the contractor shall contact Debbie Morgan at 624-3606 for location and marking of the facilities. The contractor shall provide at least a five (5) working day notice before commencing any work in these areas.

The Portland Water District has lines that cross I-295 in various locations. Based on the proposed scope of work, these lines will not conflict with construction. Hand digging may be required for some post installs if in the area of markings. The contractor shall provide at least a five (5) working day notice before commencing any work in these areas. If the scope of work changes in these areas the Contractor must contact the Water District before executing the change. The contact for the **Portland Water District** is Ned Pierce at 774-5961.

Portland Sewer District has a 48" waste water interceptor that crosses I-295 on the north side of Tukey's from Baxter Blvd. to and along the causeway on the southerly side of the bridge. Based on the proposed scope of work these lines will not conflict with construction. The contractor shall provide at least a five (5) working day notice before commencing any work in these areas. If the scope of work changes in these areas the Contractor must contact the Sewer District before executing the change. The Contact for **Portland Sewer District** is John Emerson at 874-8468.

Unitil Gas Co has a gas main that runs across Back Cove on Tukey's Bridge. This pipe goes through both abutments and runs a short distance under the interstate then leaves the roadway into the slopes. Based on the proposed scope of work these lines will not conflict with construction. The contractor shall provide at least a five (5) working day notice before commencing any work in these areas. If the scope of work changes in these areas the Contractor must contact **Unitil** before executing the change. The Contact for **Unitil** is Rick Bellemare at 252-0488.

Maine Turnpike Authority

The Maine Turnpike Authority has facilities near the start of the project. All these facilities will not conflict with the proposed scope of the project. If the scope changes the Contractor must immediately notify the MTA. The contact for the MTA is William Franklin at 871-7771.

Portland Pipe Line

Town: **Portland-So Portland I-295 NB**
Project: **IM-295-1792(910)E Pin 17929.10**
Date: **December 7, 2011**

Portland Pipeline has pipe lines that cross the Interstate in the area between exit 3 and exit 4. The contractor shall contact Ken Brown at (207)767-0449 for location and marking of the facilities. The contractor shall provide at least a five (5) working day notice before commencing any work in these areas and have a PPL representative on site during work in that area.

Rail Road

The **Pan Am Railroad** operates a rail below two of the bridges we will be working on. The **Pan Am Railroad** has entered into an agreement with the Department for flagging costs, incurred by the Contractor, while under that bridge fixing the drains. This flagging cost will be paid by the Department but the Contractor must follow the PRTS agreement (see attached) when it relates to proof of Pan Am's insurance requirements and notification needed by the Rail Road. The contractor shall provide at least a five (5) working day notice before commencing any work in this area to allow the Rail Road to schedule a flagger. If the scope of work changes in this area the Contractor must contact **Pan Am Railroad** before executing the change. The contact for the **Pan Am Railroad** is Mike McDonough at (978) 663-1108.

UTILITY SIGNING

Any utility working within the construction limits of this project shall ensure that the traveling public is adequately protected at all times. All work areas shall be signed, lighted, and traffic flaggers employed as determined by field conditions. All traffic controls shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, as issued by the Federal Highway Administration.

SAFE PRACTICES AROUND UTILITY FACILITIES

The Contractor shall be responsible for complying with M.R.S.A. Title 35-A, Chapter 7-A Sections 751 -761 Overhead High-Voltage Line Safety Act. Prior to commencing any work that may come within ten (10) feet of any aerial electrical line; the Contractor shall notify the aerial utilities as per section 757 of the above act.

DIG SAFE

The Contractor shall be responsible for determining the presence of underground utility facilities prior to commencing any excavation work and shall notify utilities of proposed excavation in accordance with M.R.S.A. Title 23 §3360-A, Maine "Dig Safe" System. The contractor is also reminded that all utilities on the project may not be members of Dig Safe.

Town: **Portland-So Portland I-295 NB**
Project: **IM-295-1792(910)E Pin 17929.10**
Date: **December 7, 2011**

MAINTAINING UTILITY LOCATION MARKINGS

The Contractor will be responsible for maintaining the buried utility location markings following the initial locating by the appropriate utility or their designated representative.

The Contractor shall communicate with all utilities directly using the contact information provided below. Utility Coordinator will be available if communication problems occur.

Utility Contacts	Coordinator	Phone
State of Maine	Ron Cote	624-3602
	Debbie Morgan (Traffic)	624-3606
Central Maine Power Company	Gary Hawkes	828-2832
Fairpoint	Marty Pease	797-1911
Time Warner Cable	Don Johnson	253-2291
Portland Water District	Ned Pierce	774-5961
Maine Com Services	Mark Curtis	441-9532
Maine Turnpike Authority	William Franklin	871-7771
Comcast	Ken Blodgett	729-2623
Buckeye Partners L.P.	Gary Liebermann	767-2672
Portland Pipe Line	Ken Brown	767-0449
Portland Sewer District	John Emerson	874-8468
Oxford Networks	Scott Crocket	333-3471
Pan Am Railways	Mike McDonough	(978) 663-1108
Unitil	Sam Murray	(866) 933-3821
South Portland Sewer	Dave Thomas	767-7680

**SPECIAL PROVISION
PROTECTION OF RAILROAD TRAFFIC AND STRUCTURES**

1. GENERAL REQUIREMENTS

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

2. AMOUNT OF RAILROAD WORK

The estimated amount of work to be done within 50 feet of the Pan Am Railroad Company tracks is <1 % of the contract.

3. NUMBER OF TRAINS AND TRAIN SPEED

The Contractor is notified that a maximum speed of **40 kph (25 mph)** will be considered as prevailing for the operation of trains of the Railroad at this project and that the approximate number of trains per day at this project is **12 for each bridge**.

4. PRIORITY OF RAILROAD OPERATIONS

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

5. AUTHORITY OF RAILROAD TO STOP WORK

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

6. ENTRY UPON RAILROAD PROPERTY

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

7. NOTICE REQUIRED BEFORE ENTRY

The Contractor shall give written notice to the Railroad's Chief Engineer at least 7 calendar day(s) in advance of the time it proposes to do work within the limits of the Railroad right-of-way or perform operations that may create a Hazard as specified by this Special Provision. The Contractor shall give such notice regardless of whether the work may also be within the limits of a public highway.

8. HAZARDS

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

An operating track shall be considered fouled and subject to hazard when any object is brought nearer than (15 feet) to the gauge line of the near rail of the track.

A signal line or communication line shall be considered fouled and subject to hazard when any object is brought nearer than 10 feet to any wire or cable.

An electric supply line shall be considered fouled and subject to hazard when any object is brought nearer than 10 feet to any wire of the line.

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

Railroad operation will be considered subject to hazard when explosives are used in the vicinity of railroad premises, or during the driving or pulling of sheeting for any footing adjacent to a track, or when erecting structural steel adjacent to a track, or when performing work under, across or adjacent to a track, or when operations involve, swinging booms or chutes that could in any way come nearer then 10 feet to the gauge line of the near rail of the track, or when erection or removal of staging, false work or forms fouls a track or wire line.

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

9. MINIMUM CLEARANCES

During the construction of staging, false work or forms, the Contractor shall at all times maintain a minimum vertical clearance of 22.5 feet above the top of high rail and a minimum side clearance of 10 feet from the gauge line of the near rail where track is tangent. Additional side clearance must be maintained where track is on a curve.

10. WORK PLAN SUBMITTAL AND APPROVAL

The Contractor shall submit in writing to the Railroad's Chief Engineer or duly authorized representative, and the Department's Railroad Property Manager or his appointed representative, at least 14 calendar day(s) in advance of the start of the project, an outline of his plan for work within the Railroad right of way including contemplated method(s) of construction. This plan must meet with the approval of the Railroad's Chief Engineer and the Department's Railroad Property Manager in every respect. If the Contractor contemplates the use of "on the track equipment", it should so state and obtain from the Railroad the conditions pertaining to such operations. All Railroad costs included in this operation will be borne by the Contractor. In a like manner, any of the Contractor's equipment or material on cars for this project shall be handled in conformance with existing traffic rules with all costs borne by the Contractor.

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

11. EXCAVATIONS

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

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

12. EQUIPMENT

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

13. RAILROAD SERVICES - GENERALLY

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

14. INSPECTION / FLAGGING

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

(a) Responsibility for Cost. The Department will bear the cost of flagging or inspection (including travel time) or any combination thereof up to **10** man days of said flagging or inspection. If, in the opinion of the Railroad's Chief Engineer, further services of a flagger or inspector will be required due to the operations of the Contractor, the services will be furnished and the cost thereof (salary, expenses, insurance, taxes and vacation allowance, etc.) shall be paid to the Railroad by the Department, and will be recovered by the Department from the Contractor.

Town: **Portland**
Project/PIN: **017929.10**
11/15/2011

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

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

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

Date of estimate 3/2/2011.

Estimated daily rate for four (4) consecutive hours Monday-Friday (straight time): 183.60

Estimated daily rate for four (4) consecutive hours Saturday, Sunday, Holiday (overtime): 367.20

Estimated rate for hours worked in excess of eight (8) hours in any one day: 91.80

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

(d) Definitions.

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

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

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

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

15. OTHER CONTRACTOR RESPONSIBILITIES

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

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

16. EXTRA-CONTRACT SERVICES

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

17. INDEMNIFICATION

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

18. INSURANCE

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

(a) Railroad Protective Liability Insurance with limits not less than **\$2,000,000** per single occurrence and **\$6,000,000** per aggregate total occurrences.

(b) Comprehensive General Liability Insurance protecting against liability from bodily injury or property damage arising out of the Construction Project with limits of not less than **\$2,000,000** per single occurrence and **\$6,000,000** per aggregate total occurrences.

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

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

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

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

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

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

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

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

19. ROADWAY WORKER SAFETY REGULATION

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

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EXHIBIT A
ORIGINAL TO CONTRACTOR
MDOT/RAILROAD STOP WORK ORDER

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

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

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

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

(1) Category I - Catastrophic: The hazard may cause death or loss of a facility.

(2) Category II - Critical: May cause severe injury, severe occupational illness, or major property damage.

(3) Category III - Marginal: May cause minor injury, minor occupational illness, or minor property damage.

(4) Category IV - Negligible: Probably would not affect personnel safety or health, but is nevertheless in violation of a NAVOSH standard.

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

(1) Sub-category A - Likely to occur immediately or within a short period of time.

(2) Sub-category B - Probably will occur in time.

(3) Sub-category C - May occur in time.

(4) Sub-category D - Unlikely to occur.

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

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

SPECIAL PROVISION
SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES
(Coordination with the Maine Turnpike Authority)

The paragraph is added:

104.4.11 Coordination with Maine Turnpike Authority

The Contractor shall coordinate all operation to be conducted on the Maine Turnpike with the Maine Turnpike Authority. The Authority's point of contact is William Franklin, Deputy Director of Engineering & Building Maintenance, Maine Turnpike Authority, 2360 Congress Street, Portland, ME 04102. Phone (207) 871-7771 Ext. 129, or e-mail wfranklin@maineturnpike.com.

The following changes to the MaineDOT Standard Specification pertain to entry onto the Maine Turnpike Authority land by Contractors of the Maine Department of Transportation.

110.3.8 Administrative & General Provisions

A. Additional Insured

The Maine Turnpike Authority shall be named as an additional insured.

105.5.1 General Requirements

Subsection is amended by the addition of the following:

Prior to any work or installation of any facility on Maine Turnpike Authority land, a Contractor (Permittee) working for the Maine Department of Transportation is required to file application with the Authority for a Work Permit. Contractor must abide by the Maine Turnpike Authority agreement with the Maine Department of Transportation regarding Entry onto Maine Turnpike Authority Land by Contractors of the Maine Department of Transportation. All specific operational, safety, and environmental requirements of the Authority for a contractor will be followed.

The installation of construction signs and other traffic control devices on the Maine Turnpike shall be approved in advance by the Maine Turnpike Authority. The Contractor shall submit plans illustrating construction details and proposed locations. Signs shall be located behind guardrail or outside of the roadside recovery area or shall be installed on break away supports. The Contractor must contact the Maine Turnpike Authority Dig Safe vender to perform Dig Safe for Maine Turnpike Authority owned utilities on Maine Turnpike Authority property. The cost of this service is borne by the contractor.

This Subsection is amended by the addition of the following:

Change of Direction

The Contractor will not be allowed to use the median openings or the toll plaza on the Maine Turnpike to reverse direction unless the opening is located within a passing lane closures on both roadways.

The Contractor will not be allowed to change direction within the Toll Plaza area. The limits of this area extend from the terminals of the median guardrail north and south of the toll plaza.

The Contractor will be assessed a fine every time any employee of the Contractor, Subcontractor or Supplier is observed using a median opening or toll plaza area to change direction on the Maine Turnpike. (The fine will be deducted by MaineDOT from monies owed to the Contractor.)

The fines will be levied on a per occurrence basis as follows:

NUMBER OF Occurrences	Fine
First	\$150

For the second occurrence, and any occurrence thereafter, the fine is increased by \$150 per each occurrence. The number of occurrences is not specific to a Contract, an individual or a vehicle, but based solely on the number of times any employee of the Contractor, Subcontractor or Supplier is observed using a median opening anywhere on the Maine Turnpike.

107.4.2 Schedule of Work Required

This Subsection is amended by the addition of the following:

The Contractor shall submit a schedule that shows all work on the Maine Turnpike that is anticipated for the following week. This schedule shall be transmitted to the Resident Engineer by noon Thursday of the preceding week. The Resident Engineer shall transmit this information to the Maine Turnpike Authority. Any lane or shoulder closures are subject to approval by the Maine Turnpike Authority.

The Contractor shall submit a schedule that shows all work within 1500' of the toll plaza and all toll plaza lane closures that are anticipated for the following week. This schedule shall be transmitted to the Resident Engineer by noon Thursday of the preceding week. The Resident Engineer shall transmit this information to the Maine Turnpike Authority.

The following Subsections are added:

107.4.6 Prosecution of Work

The installation of permanently mounted signs, construction signs, or Portable Changeable Message Signs (PCMS) or other traffic control devices on the Maine Turnpike will require a shoulder closure in accordance with the MUTCD (Manual of Uniform Traffic Control Devices).

All work within 1500' of the toll plaza shall be coordinated with the Maine Turnpike Authority. Night work may be required to accommodate Turnpike operations. This work is required to be shown on the proposed schedule as noted in Section 107.4.2. The Engineer shall be responsible for coordinating the activities with the Maine Turnpike on site toll supervisor or his designee immediately prior to the operations. Restrictions in contractor operations may be required by the Maine Turnpike Authority.

652 Maintenance of Traffic

Subsection is amended by the addition of the following:

All vehicles shall be equipped with a revolving Amber light or amber strobe light with 360-degree visibility mounted on the top of the vehicle.

MAINE TURNPIKE AUTHORITY

WORK PERMIT RULES AND GUIDELINES

Prior to any work or installation of any facility on **Maine Turnpike Authority** land, a **Municipality, Contractor, or other Person requesting access (Permittee)** is required to file application with the **Authority** for a work permit. Said permit will be issued under the following terms and conditions;

Permittee indemnifies and holds harmless the **Maine Turnpike Authority** from any and all responsibility related to work on the aforesaid property or the presence thereon of **Permittee's** employees and agents. This includes, but is not limited to, any claims, losses damages and expenses (including attorney's fees and litigation costs) that arise from or are related to the presence of **Permittee's** employees or agents on the property. Nothing contained herein is intended to waive the defenses and immunities available to the **Authority** with respect to third parties under the provisions of State or Federal Law including, but not limited to, the defenses and immunities provided under the Maine Tort Claims Act.

Insurance

Prior to any entrance onto the **Authority's** land, **Permittee** will file with the **Authority** certificates of insurance evidencing public liability insurance and workers compensation insurance with such limits as the **Authority** shall require, which in all cases shall be a minimum of one million dollars (\$1,000,000), and the “**Maine Turnpike Authority**” shall be named as an additional insured.

Permittee shall maintain the insurance required by this paragraph with the **Authority** named as an additional insured, for so long as **Permittee's** employees or agents will be accessing **Authority** property whether the access is for construction or for routine maintenance and operation of this or any other installation.

Schedule

Permittee shall notify the **Authority** in advance of its work schedule. The **Authority** must approve of the schedule, including traffic control plan, and may decide to have an Inspector present while the work is being completed. Time of day restrictions may be enforced based on time of year and peak travel flow.

Costs

The **Permittee** shall be responsible for all costs incurred by the **Authority** acting in connection with the review, assessment, and negotiation of, and any necessary investigation into, any matters associated with this permit, including, but not limited to costs of reviewing any materials or documents submitted; any field work done in connection therewith, any dig safe, engineering, survey, personnel costs, or legal fees associated therewith, whether or not the project is ever carried to a successful conclusion. Prepayment of costs may be required at **Authority's** discretion.



Safety

The **Permittee** must abide by all applicable local, state, and federal regulations pertaining to workplace safety, including but not limited to high visibility clothing, signage, and warning lights. Median openings and toll plaza U-turns will not be permitted. Any traffic stoppages will be done with the **Authority's** approval and with State Police participation.

Revocation

The **Authority** further reserves the right to revoke the work permit in the event of a breach of its conditions as well as for any reason whatsoever that, in the sole judgment of the **Authority**, warrants such a revocation.

Contact

The **Permittee** shall make application to the **Authority** in writing. Said application will include, but is not limited to applicable plan sheets showing scope of work, traffic control plans, schedule, and insurance certificate. Applications may be submitted to:

Maine Turnpike Authority
Right of Way Department
2360 Congress Street
Portland, ME 04102

*For questions or additional information
contact the Right of Way Department at
(207) 871-7771 Ext. 370 or 350
row@maineturnpike.com*

At such time a work permit is issued by the Right of Way Department, the **Permittee** will be directed to the appropriate contact person for the duration of the project.

Dig Safe requests will be made to **Dig Safe** (1-888-DIG-SAFE or 811) and to the **Authority** for private utility identification. The dig safe job number and request is to be provided to:

William Franklin
Deputy Director of Engineering & Building Maintenance
2360 Congress Street
Portland, ME 04102
(207) 871-7771 Ext. 129
wfranklin@maineturnpike.com



MAINE TURNPIKE AUTHORITY

WORK PERMIT

The **Maine Turnpike Authority** grants permission to XXXXXXXXXXXXXXXX (Permittee) to enter upon the property of the Maine Turnpike Authority in XXXXXXXXXXXX, Maine as shown on Plans titled "XXXXXXXXXXXXXXXXXXXX" Sheets XX for the purpose of:

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Subject to a document titled "Maine Turnpike Authority - Work Permit Rules and Guidelines" and the following conditions:

- 1) **Permittee** indemnifies and holds harmless the **Maine Turnpike Authority** from any and all responsibility related to work on the aforesaid property or the presence thereon of **Permittee's** employees and agents. This includes, but is not limited to, any claims, losses damages and expenses (including attorney's fees and litigation costs) that arise from or are related to the presence of **Permittee's** employees or agents on the property. Nothing contained herein is intended to waive the defenses and immunities available to the **Maine Turnpike Authority** with respect to third parties under the provisions of State or Federal Law including, but not limited to, the defenses and immunities provided under the Maine Tort Claims Act.
- 2) Prior to any entrance onto the Authority's land, **Permittee** will file with the **Maine Turnpike Authority** certificates of insurance evidencing public liability insurance and workers compensation insurance with such limits as the **Maine Turnpike Authority** shall require, which in all cases shall be a minimum of one million (\$1,000,000) dollars, and the **Maine Turnpike Authority** shall be named as an additional insured.

Permittee shall maintain the insurance required by this paragraph with the Authority named as an additional insured, for so long as **Permittee's** employees or agents will be accessing Authority property whether the access is for construction or for routine maintenance and operation of this or any other installation.

- 3) **Permittee** shall notify the Authority in advance of its work schedule. The Authority must approve of the schedule and may decide to be present while the work is being completed. The **Permittee** acknowledges and agrees that the **Permittee** shall be responsible for all costs incurred by the **Maine Turnpike Authority** acting in connection with the review, assessment, and negotiation of, and any necessary investigation into, any matters associated with this permit, including, but not limited to costs of reviewing any materials or documents submitted; any field work done in connection therewith, and any engineering, dig safe, survey, or legal fees associated therewith, whether or not the project is ever carried to a successful conclusion.
- 4) The **Permittee** must abide by all applicable local, state, and federal regulations pertaining to workplace safety, including but not limited to high visibility clothing, signage, and warning lights. Median openings shall not be used.
- 5) The **Maine Turnpike Authority** further reserves the right to revoke this permit in the event of a breach of its conditions as well as for any reason whatsoever that, in the sole judgment of the **Authority**, warrants such a revocation.

Signed;

Stephen R. Tartre, PE
Maine Turnpike Authority

Date

XXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX

Date

SPECIAL PROVISION
SECTION 105
LEGAL RELATIONS WITH AND RESPONSIBILITY TO PUBLIC
(NPDES)

105.8.2 Permit Requirements This Section is revised by the addition of the following paragraph:

"The Contractor is advised that the Environmental Protection Agency has issued a final National Pollutant Discharge Elimination System (NPDES) General Permit for storm water discharges from construction sites disturbing more than 2 ha [5 acres]. This permit requires:

- Storm Water Pollution Prevention Plan
- Submission of a Notification of Intent (NOI) at least 48 hours before construction commences
- Submission of a Notification of Termination (NOT) when a site has been finally stabilized and all storm water discharges from construction activities are eliminated.

If the project's land disturbances is 2 ha [5 acres] or more, the Department will prepare the plan and submit the NOI (and NOT). The Contractor shall prepare plans and submit NOI's (and NOT's) for regulated construction activities beyond the project limits (e.g., borrow pits).

The Contractor shall be familiar with and comply with these regulations."

SPECIAL PROVISION 105
GENERAL SCOPE OF WORK
Equal Opportunity and Civil Rights
(Disadvantaged Business Enterprises Program)

105.10.1.1 Disadvantaged Business Enterprises Program The Maine Department of Transportation (MaineDOT) has established a Disadvantaged Business Enterprise (DBE) program in accordance with regulations of the United States Department of Transportation (USDOT), 49 CFR Part 26. The MaineDOT receives federal financial assistance from USDOT, and as a condition of receiving this assistance, the Department has signed an assurance that it will comply with 49 CFR Part 26. The MaineDOT is responsible for determining the eligibility of and certifying DBE firms in Maine.

A DBE is defined as a for-profit business that is owned and controlled by one or more socially and economically disadvantaged person(s). For the purpose of this definition:

1. "Socially and economically disadvantaged person" means an individual who is a citizen or lawful permanent resident of the United States and who is Black, Hispanic, Native American, Asian, Female; or a member of another group or an individual found to be disadvantaged by the Small Business Administration pursuant to Section 3 of the Small Business Act.
2. "Owned and controlled" means a business which is:
 - a. A sole proprietorship legitimately owned and controlled by an individual who is a disadvantaged person.
 - b. A partnership or limited liability company in which at least 51% of the beneficial ownership interests legitimately are held by a disadvantaged person(s).
 - c. A corporation or other entity in which at least 51% of the voting interest and 51% of the beneficial ownership interests legitimately are held by a disadvantaged person(s).

The disadvantaged group owner(s) or stockholder(s) must possess control over management, interest in capital, and interest in earnings commensurate with the percentage of ownership. If the disadvantaged group ownership interests are real, substantial and continuing and not created solely to meet the requirements of this program, a firm is considered a bona fide DBE.

105.10.1.2 Commercially Useful Function MaineDOT will count expenditures of a DBE contractor toward DBE goals only if the DBE is performing a commercially useful function on that contract. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. Credit will only be given when the DBE meets all conditions for a CUF. Credit for labor will be in accordance with the responsibilities outlined in the contract. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the Contract, for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, MaineDOT will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the Contract is commensurate with the work it is actually performing and DBE credit claimed for its performance of the work, and other relevant factors.

Rented equipment used by the DBE must not be rented from the Prime Contractor on a job that the DBE is subcontracted with that Prime Contractor for regular course of business.

A current listing of certified DBEs that may wish to participate in the highway construction program and the scope of work for which they are certified can be found at <http://www.maine.gov/mdot/disadvantaged-business-enterprises/pdf/directory.pdf>. Credit will be given for the value described by a DBE performing as:

- A. A prime contractor; 100% of actual value of work performed by own workforces.
- B. An approved subcontractor; 100% of work performed by own workforces.
- C. An owner-operator of construction equipment; 100% of expenditures committed.
- D. A manufacturer; 100% of expenditures committed. The manufacturer must be a firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Contractor. Brokers and packagers shall not be regarded as manufacturers.
- E. A regular dealer; 60% of expenditures committed. A regular dealer is defined as a firm that owns, operates, or maintains a store, warehouse or other establishment in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold to the public. For purposes of this provision a “Broker” is a DBE that has entered into a legally binding relationship to provide goods or services delivered or performed by a third party. Brokers and packagers shall not be regarded as regular dealers.
- F. A bona fide service provider; 100% of reasonable fees or commissions. Eligible services include professional, technical, consultant, or managerial, services and assistance in the procurement of essential personnel, facilities, equipment, materials or supplies required for the performance of the contract. Eligible services also include agencies providing bonding and insurance specifically required for the performance of the contract.
- G. A trucking, hauling or delivery operation. 100% of expenditures committed when trucks are owned, operated, licensed and insured by the DBE and used on the contract and, if applicable, includes the cost of the self supplied materials and supplies. 100% of expenditures committed when the DBE leases trucks from another DBE firm including an owner-operator. 100% of reasonable fees or commissions the DBE receives as a result of a lease arrangement for trucks from a non-DBE, including an owner-operator.
- H. Any combination of the above.

105.10.1.3 Race-neutral Goals The Maine DOT is required to set an annual goal (approved on a three year basis) for DBE participation in Federal-aid projects. In order to fulfill that goal, bidders are encouraged to utilize DBE businesses certified by the MaineDOT. MaineDOT seeks to meet the established DBE goal solely through race-neutral means. *Race-neutral* DBE participation occurs when a DBE is awarded a prime contract through customary competitive procurement procedures, is awarded a subcontract on a contract that does not carry a DBE contract goal, or wins a subcontract from a prime contractor that did not consider its DBE status in making the award. A DBE/subcontractor Utilization Proposed Form is required to be included in bid documents.

MaineDOT will analyze each project and create a Project Availability Target (PAT), based on a number of factors including project scope, available DBE firms, firms certified in particular project work, etc. Each bid will request that the contractor attempt to meet the PAT. This PAT is developed to assist contractors to better understand what the MaineDOT expectations are for a

specific project. The PAT is NOT a mandate but an assessment of what this particular project can bear for DBE participation. The Department anticipates that each contractor will make the best effort to reach or exceed this PAT for the project.

105.10.1.4 Race-conscious Project Goals If it is determined by the Department that the annual DBE goal will not be met through *race-neutral* means, the Department may implement *race-conscious contract goals* on some projects. Race-conscious contract goals are goals that are enforceable by the Department and require that the prime contractor use good faith effort to achieve the goal set by the Department for that particular project. If race conscious means are implemented on a project, the Prime must comply with the requirements of 49 CFR.

At the time of the bid opening, all Bidders shall submit with their bid a Disadvantaged Business Enterprise (DBE) Commitment Form provided by the Department. This form will list the DBE and non-DBE firms that are proposed to be used during the execution of the Work. The list shall show the name of the firm, the item/material/type of work involved and the dollar amount of work to be performed. The dollar total of each commitment shall be totaled and a percentage determined.

If the project goal is not met, acceptable documentation showing all good faith efforts made to obtain participation may be required in order to award the project. Failure to provide the required listing with the dollar participation total or acceptable documentation of good faith efforts to obtain DBE participation within 3 days after the bid opening date will be considered a lack of responsiveness on the part of the low bidder. Rejection of the low bid under these circumstances will require the low bidder to surrender the Proposal Guaranty to the Department. The submission and approval of the above forms does not constitute a formal subcontract.

If for any reason during the progress of the Work the Contractor finds that DBEs included on the list are unable to perform the proposed work, the Contractor, with written release by the committed DBE or approval of the Department, may substitute other DBE firms for those named on the list. If the Contractor is able to clearly document their inability to find qualified substitute firms to meet the project goal, the Contractor may request in writing approval to substitute the DBE with a non-DBE firm. If at any time during the life of the Contract it is determined that the Contractor is not fulfilling the goal or commitment(s) and is not making a good faith effort to fulfill the DBE requirement, the Department may withhold progress payments. If good faith effort is determined by the Department, failure to meet the DBE contract goal will not be a detriment to the bid award. Fulfillment of the goal percentage shall be determined by dividing the dollars committed to the DBEs by the actual contract dollars. These requirements are in addition to all other Equal Employment Opportunity requirements on Federal-aid contracts.

105.10.1.5 Certification of DBE attainment on Contracts The MaineDOT must certify that it has conducted post-award monitoring of all contracts to ensure that DBEs had done the work for which credit was claimed. The certification is for the purpose of ensuring accountability for monitoring which the regulation already requires. The MaineDOT will certify these contracts through review of CUF forms, Elations sub-contract payment tracking as well as occasional on-site reviews of projects and through the project's final closeout documentation provided by our Contracts Section.

105.10.1.6 Bidders' List Survey Pursuant to 49 CFR 26.11 the MaineDOT is required to "create and maintain" a bidders list and gather bidder information on our construction/consultant projects, Contractors will maintain information on all subcontract bids submitted by DBE and Non-DBE firms and provide that information to the Department. The Following information is required:

Firm Name

Firm Address

Firm status (DBE or non-DBE)

Age of firm (years)

And the annual gross receipts amount as indicated by defined brackets, i.e. \$500,000 to \$800,000, rather than requesting exact figures.

Not only is this information critical in determining the availability of DBE businesses relative to other businesses that do similar work, but the Federal Highway Administration requires that we obtain this information.

MaineDOT DBE Project Attainment Target (PAT) for this Project is <u>.043 %</u>

The MaineDOT seeks to meet the specified annual Disadvantaged Business Enterprise (DBE) usage goal set out by 49 CFR 26.45 through the efforts of contractors seeking to employ qualified DBE subcontractors. We seek to meet this goal by race neutral means and do not, at this time, use contract specific requirements for each project. We do however, understand the capacity of Maine's DBE community and the unique characteristics a project may have that would differ from the broad annual goal.

Taking this into consideration, the MaineDOT will review each project and develop an anticipated attainment or Project Attainment Target (PAT) based on several factors that are project specific. Those factors include:

- ☐ Scope of Work
- ☐ DBE availability according to Specification Item
- ☐ Geographic location
- ☐ DBE capacity

This PAT is developed to assist contractors to better understand the DBE participation that the MaineDOT can reasonably expect for a specific project. The PAT is NOT a mandate but an assessment of the DBE opportunities that this project could meet or exceed. MaineDOT anticipates that each contractor will make the best effort to reach or exceed the PAT for this project.

SPECIAL PROVISION 105
CONSTRUCTION AREA

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

- (a) The section of highway under construction in the city of South Portland and city of Portland, Cumberland County on Interstate 295 beginning approximately 0.4 mile east of the Scarborough town line preceding and extending over 8239E bridge, Westbrook Street bridge, Fore River bridge, PTRR (Fore River) bridge, Portland Connector Westbrook Arterial bridge and ramp work. Congress Street bridge and ramp work. St. James Street bridge and ramp work. PTRR St. John street bridge and ramp work. St. John Street bridge, Forest Avenue bridge and ramp work. Preble Street bridge, Franklin Arterial bridge, and Washington Avenue on ramp over East Commercial Street.

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

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

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

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

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

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

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

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

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

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

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

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

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

SPECIAL PROVISION 105
OVERLIMIT PERMITS

Title 29-A § 2382 MRSA Overlimit Movement Permits.

1. Overlimit movement permits issued by State. The Secretary of State, acting under guidelines and advice of the Commissioner of Transportation, may grant permits to move nondivisible objects having a length, width, height or weight greater than specified in this Title over a way or bridge maintained by the Department of Transportation

2. Permit fee. The Secretary of State, with the advice of the Commissioner of Transportation, may set the fee for single trip permits, at not less than \$6, nor more than \$30, based on weight, height, length and width. The Secretary of State may, by rule, implement fees that have been set by the Commissioner of Transportation for multiple trip, long-term overweight movement permits. Rules established pursuant to this section are routine technical rules pursuant to Title 5, chapter 375, subchapter II-A.

3. County and municipal permits. A county commissioner or municipal officer may grant a permit, for a reasonable fee, for travel over a way or bridge maintained by that county or municipality

4. Permits for weight. A vehicle granted a permit for excess weight must first be registered for the maximum gross vehicle weight allowed for that vehicle.

5. Special mobile equipment. The Secretary of State may grant a permit, for no more than one year, to move pneumatic-tire equipment under its own power, including Class A and Class B special mobile equipment, over ways and bridges maintained by the Department of Transportation. The fee for that permit is \$15 for each 30-day period.

6. Scope of permit. A permit is limited to the particular vehicle or object to be moved, the trailer or semitrailer hauling the overlimit object and particular ways and bridges.

7. Construction permits. A permit for a stated period of time may be issued for loads and equipment employed on public way construction projects, United States Government projects or construction of private ways, when within construction areas established by the Department of Transportation. The permit:

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

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

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

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

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

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

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

8. Gross vehicle weight permits. The following may grant permits to operate a vehicle having a gross vehicle weight exceeding the prescribed limit:

A. The Secretary of State, with the consent of the Department of Transportation, for state and state aid highways and bridges within city or compact village limits;

B. Municipal officers, for all other ways and bridges within that city and compact village limits; and

C. The county commissioners, for county roads and bridges located in unorganized territory.

9. Pilot vehicles. The following restrictions apply to pilot vehicles.

A. Pilot vehicles required by a permit must be equipped with warning lights and signs as required by the Secretary of State with the advice of the Department of Transportation.

B. Warning lights may be operated and lettering on the signs may be visible on a pilot vehicle only while it is escorting a vehicle with a permit on a public way.

With the advice of the Commissioner of Transportation and the Chief of the State Police, the Secretary of State shall establish rules for the operation of pilot vehicles.

9-A. Police escort. A person may not operate a single vehicle or a combination of vehicles of 125 feet or more in length or 16 feet or more in width on a public way unless the vehicle or combination of vehicles is accompanied by a police escort. The Secretary of State, with the advice of the Commissioner of Transportation, may require a police escort for vehicles of lesser dimensions.

A. The Bureau of State Police shall establish a fee for state police escorts to defray the costs of providing a police escort. A county sheriff or municipal police department may establish a fee to defray the costs of providing police escorts.

B. The Bureau of State Police shall provide a police escort if a request is made by a permittee. A county sheriff or municipal police department may refuse a permittee's request for a police escort.

C. A vehicle or combination of vehicles for which a police escort is required must be accompanied by a state police escort when operating on the interstate highway system.

10. Taxes paid. A permit for a mobile home may not be granted unless the applicant provides reasonable assurance that all property taxes, sewage disposal charges and drain and sewer assessments applicable to the mobile home, including those for the current tax year, have been paid or that the mobile home is exempt from those taxes. A municipality may waive the requirement that those taxes be paid before the issuance of a permit if the mobile home is to be moved from one location in the municipality to another location in the same municipality for purposes not related to the sale of the mobile home.

11. Violation. A person who moves an object over the public way in violation of this section commits a traffic infraction.

Section History:

PL 1993, Ch. 683, §A2 (NEW).

PL 1993, Ch. 683, §B5 (AFF).

PL 1997, Ch. 144, §1,2 (AMD).

PL 1999, Ch. 117, §2 (AMD).

PL 1999, Ch. 125, §1 (AMD).

PL 1999, Ch. 580, §13 (AMD).

PL 2001, Ch. 671, §30 (AMD).

PL 2003, Ch. 166, §13 (AMD).

PL 2003, Ch. 452, §Q73,74 (AMD).

PL 2003, Ch. 452, §X2 (AFF).

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Buy America Certification)

105.11 Federal Requirements Add the following as the third and subsequent paragraphs:

“Prior to payment by the Department, the Contractor shall provide a certification from the producer of steel or iron, or any product containing steel or iron as a component, stating that all steel or iron furnished or incorporated into the furnished product was manufactured in the United States in accordance with the requirements of the Buy America provisions of 23 CFR 635.410, as amended. Such certification shall also include (1) a statement that the iron or steel product or component was produced entirely within the United States, or (2) a statement that the iron or steel product or component was produced within the United States except for minimal quantities of foreign steel and iron valued at \$ (actual value).

All manufacturing processes must take place domestically. Manufacturing begins with the initial melting and mixing, and continues through the coating stage. Any process which modifies the chemical content, the physical size and shape, or the final finish is considered a manufacturing process. These processes include rolling, extruding, machining, bending, grinding, drilling, and coating. “Coating” includes epoxy coating, galvanizing, painting, or any other coating that protects or enhances the value of the material.

A Buy America Certification is required from each manufacturer, fabricator, supplier, subcontractor, etc. that meets the “manufacturing” definition above.

Buy America does not apply to raw materials (iron ore and alloys), scrap, pig iron, or processed, pelletized, and reduced iron ore.”

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Limitations of Operations)
(Penalty)

The Limitations of Operations noted in this section are related to bridge work only. See also bridge phasing plans and bridge traffic control plans for supporting documentation.

1. The Contractor shall complete the bridge phasing work as shown on the bridge phasing and bridge traffic control plans. Modifications to the bridge phasing work or associated traffic control will not be permitted unless noted herein or approved by the Resident.
2. For the State Route 703 Bridge work area, the Contractor will be allowed to utilize long term lane closures, as defined in the bridge phasing and traffic control plans, to complete the bridge work. Two lanes of traffic (one lane for the mainline and one lane for the I-295 northbound on ramp (SR 703) traffic, separated by temporary concrete barrier) must be maintained during the daytime, in accordance with note 32. Contractor is allowed to close one mainline lane while the long term lane closures are in use. Contractor shall pave the grass gore area prior to Phase I construction.
3. For the Westbrook Street Bridge work area, the Contractor will be allowed to utilize long term lane closures, as defined in the bridge phasing and traffic control plans, to complete the bridge work. Three lanes of traffic (two lanes for the mainline and one lane for the I-295 northbound on ramp traffic) must be maintained during the daytime, in accordance with note 32.
4. For the Fore River Bridge work area, the Contractor will be allowed to utilize long term lane closures, as defined in the bridge phasing and traffic control plans, to complete the bridge work. Two lanes of traffic must be maintained during the daytime, in accordance with note 32.
5. For the PTRR (Fore River) Bridge work area, the Contractor will be allowed to utilize long term lane closures, as defined in the bridge phasing and traffic control plans, to complete the bridge work. Three lanes of traffic (two lanes for the mainline and one lane for Exit 5 off-ramp, separated by temporary concrete barrier) must be maintained during the daytime, in accordance with note 32. Contractor shall remove the median island prior to Phase I construction and reconstruct the median island after Phase III construction.
6. For the Portland Connector Bridge work area, the Contractor will be allowed to utilize long term lane closures, as defined in the bridge phasing and traffic control plans, to complete the bridge work. Four lanes of traffic (two lanes for the mainline and two lanes for the collector distributor road, separated by concrete barrier) must be maintained during the daytime, in accordance with note 32. Contractor shall remove the median

island prior to Phase I construction and reconstruct the median island after Phase III construction.

7. For the Congress St. and Park Ave Bridge work area, the Contractor will be allowed to utilize long term lane closures, as defined in the bridge phasing and traffic control plans, to complete the bridge work. Two mainline lanes of traffic must be maintained during the daytime for Phase I construction, in accordance with note 32. Two mainline lanes of traffic plus the collector distributor on-ramp lane taper must be maintained during the daytime for Phase II and III construction, in accordance with note 32. Contractor shall remove the approach median island prior to Phase I construction and reconstruct the approach median island after Phase III construction.
8. For the St. James Street Bridge, PTRR (St. John Street) Bridge and St. John Street Bridge work areas, the Contractor will be allowed to utilize long term lane closures, as defined in the bridge phasing and traffic control plans, to complete the bridge work. Two mainline lanes of traffic must be maintained during the daytime, in accordance with note 32. The Park Ave on-ramp shall remain closed for the duration of these long term lane closures.
9. For the Forest Ave Bridge work area, the Contractor will be allowed to utilize long term lane closures, as defined in the bridge phasing and traffic control plans, to complete the bridge work. Two mainline lanes of traffic must be maintained during the daytime, in accordance with note 32. The adjacent Forest Ave on-ramp and off-ramp shall remain closed for the duration of the long term lane closures.
10. For the Preble Street Bridge work area, the Contractor will be allowed to utilize long term lane closures, as defined in the bridge phasing and traffic control plans, to complete the bridge work. Three lanes of traffic (two lanes for the mainline and one lane for the Forest Ave on-ramp traffic, separated by concrete barrier) must be maintained during the daytime, in accordance with note 32.
11. For the Franklin Arterial Bridge work area, the Contractor will be allowed to utilize long term lane closures, as defined in the bridge phasing and traffic control plans, to complete the bridge work. Two mainline lanes of traffic must be maintained during the daytime, in accordance with note 32.
12. For the Washington Ave NB on-ramp work area, the Contractor will be allowed to utilize long term lane closures, as defined in the bridge phasing and traffic control plans, to complete the bridge work. One lane of ramp traffic must be maintained day and night for the duration of the bridge work. The bridge will be closed with a signed detour for the surface paving work to be completed at night.
13. All roadways and ramps shall remain open at all times unless otherwise noted herein or approved by the Resident. The contractor will be permitted to have short term complete stoppages, up to 5 minutes, during night time work windows. Said stoppages will require proper advanced notification, signage and State Trooper Detail. Night time short term

complete stoppages will only be allowed for switching work zone phasing or mobilizing of construction materials and equipment.

14. The bridge work is separated into the following work zones:
 - a. Work Zone 1 – SR 703 Bridge
 - b. Work Zone 2 – Westbrook Street
 - c. Work Zone 3 – Fore River, PTRR (Fore River), Portland Connector, Congress Street, St James Street (mainline and ramp) PTRR (St. John) and St John Street bridges
 - d. Work Zone 4 – Forest Ave, Preble Street and Franklin Arterial bridges
 - e. Work Zone 5 – Washington Avenue Northbound On-ramp bridge
15. The grouping of bridges into the above referenced Work Zones, as shown on the traffic control plans, is required.
16. The Congress Street/ I-295 northbound on-ramp and Park Ave/ I-295 northbound on-ramp shall be closed once Work Zone 3, Phase I construction begins. These ramps shall remain closed for all three phases of bridge repair work. The signed detours as noted in the traffic control plans shall be implemented. Contractor shall setup portable changeable message sign(s) (PCMS) at least 7 days in advance of the planned ramp closures notifying traffic of the planned closures and detour routes. See traffic control plans for PCMS locations and see Special Provision 652 for sign message(s).
17. The Forest Avenue eastbound/ I-295 northbound on ramp and the I-295 northbound/ Forest Avenue westbound off ramp shall be closed once Work Zone 4, Phase III construction begins. The ramp shall remain closed for phases III, II and I of bridge repair work. The signed detours as noted in the traffic control plans shall be implemented. Contractor shall setup portable changeable message sign(s) (PCMS) at least 7 days in advance of the planned ramp closures notifying traffic of the planned closures and detour routes. See traffic control plans for PCMS locations and see Special Provision 652 for sign message(s).
18. The sequencing of bridge work shall be in accordance with the bridge phasing and traffic control plans. The Contractor may implement and concurrently work in all work zones, unless otherwise noted on the bridge phasing plans, traffic control plans or noted below:
 - a. Contractor shall complete Phase I work in Work Zone 3 before any activities occur in Work Zone 4.
 - b. Contractor shall complete Phase II work in Work Zone 3 concurrent with Phase O work in Work Zone 4.
 - c. Contractor shall complete Phase III work in Work Zone 3 concurrent with Phase III work in Work zone 4.
 - d. The sequence of work for Work Zone 4 shall be as follows; Phase O, Phase III, Phase II, Phase I.
 - e. Contractor shall complete Phase II and Phase I work in Work Zone 4 after Phase III work is complete in Work Zones 3 and 4.

- f. With the exception of Work Zones 3 and 4, the phasing for the other work zones can be independent from each other.
 - g. Contractor shall remove the median island in Work Zone 3 prior to Phase I construction and reconstruct the median island after Phase III construction. Temporary shoulder closures are permitted to complete the median island work. Daytime lane closures shall not be permitted.
 - h. Contractor shall install the temporary structural support system on the Portland Connector bridge in Work Zone 3 prior to starting the median island removal work. Contractor shall remove the temporary structural support system after reconstruction of the median island.
 - i. Contractor shall complete Phase IA work in Work Zone 3 and remove temporary concrete barrier at Phase IA work area before starting Phase IB work.
 - j. Contractor shall pave the grass gore area in Work Zone 1 prior to Phase I construction. Temporary shoulder closures and mainline daytime lane closures (one lane) are permitted to pave the gore area.
 - k. The highway pavement shim work proposed at Forest Ave and Preble Street shall be completed prior to starting Phase O in Work Zone 4. Pavement shim work to occur as a nighttime activity. Daytime lanes closures shall not be permitted.
19. Contractor access to the Phase II work zones shall be from the mainline right travel lane only, unless otherwise noted on the phasing or traffic control plans.
20. Contractor access to the Phase III work zones shall be from the mainline left travel lane only, unless otherwise noted on the phasing or traffic control plans.
21. Nighttime lane closures are permitted during the nighttime work windows noted below. One lane of mainline traffic must be maintained during the nighttime lane closures. If a nighttime lane closure occurs, it shall be consistent thru the length of the work zone.
22. The surface paving of numerous bridges shall occur as a nighttime activity after completion of the long term lane closure work. See bridge phasing plans.
23. The contractor shall avoid nighttime lane closures of the mainline right travel lane during Phase II construction in areas where entrance or exit ramps are present.
24. For the duration of the project, Contractor shall setup portable changeable message signs (PCMS) at locations defined in the bridge traffic control plans and PCMS shall display the messages identified in Special Provision 652. The Resident may request changes to the locations of the signs and the associated messages, as required for the project.
25. The Contractor shall complete the catch basin adjustment work, replacement and sealing of catch basin grates prior to beginning the bridge work and moving traffic onto the existing paved shoulders.

26. Ramps must remain open at all times unless otherwise noted herein or approved by the Resident.
27. The Contractor may utilize multiple bridge repair crews and multiple milling/paving crews, as long as applicable sections of Special Provision 652 are met and the Resident is given 72 hours notice.
28. Deliveries between 6 a.m. and 8 p.m. to work zones protected by temporary concrete barrier will be permitted only if there is no infringement upon mainline or ramp traffic.
29. Construction phasing in overlapping and adjacent bridge work zones shall be coordinated to ensure uniformity. The bridge traffic control plans shall be implemented.
30. Interstate crossovers shall not be used to change direction, store materials or park vehicles/equipment at any time. Existing crossovers (if any) 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. Crossovers shall not be blocked from the normal use by MaineDOT maintenance or State Police forces.
31. The Permitted Work Days are Monday through Saturday. The Contractor shall not work on Sundays and Holidays. The working hours shall start Sunday at 7:00 p.m. and run through Saturday at 9:00 p.m.
 - a. Work can occur behind temporary concrete barrier in bridge work zones at all times except Sundays and Holidays. Sundays are defined as 9:00 p.m. Saturday evening until 7:00 p.m. Sunday evening. Holidays are defined in the standard specifications.
 - b. Work can occur in temporary closed lanes except Sundays and Holidays during the nighttime work windows listed below.
 - c. No temporary lane closures will be allowed on the Holiday weekend dates defined in the Special Provision 107, Contract Time.
32. In addition to the long term lane closures, the Contractor may enter the roadway and close one lane (nighttime lane closure) during the following hours (lane closure setup and removal time are included in this time):
 - a. Monday beginning 8:00 p.m.; ending Tuesday 6:00 a.m.
 - b. Tuesday beginning 8:00 p.m.; ending Wednesday 6:00 a.m.
 - c. Wednesday beginning 8:00 p.m.; ending Thursday 6:00 a.m.
 - d. Thursday beginning 8:00 p.m.; ending Friday 6:00 a.m.
 - e. Friday beginning 10:00 p.m.; ending Saturday 8:00 a.m.
 - f. Sunday beginning 8:00 p.m.; ending Monday at 6:00 a.m.

33. The Contractor shall be assessed a penalty at the rate of Five Thousand U.S. Dollars (\$5000.00) per every 15 minutes that a lane is closed beyond the times allowed for nighttime lane closures. The fee shall be assessed starting 1 minute beyond the allowed times above and added cumulatively every 15 minutes thereafter.

The Limitations of Operations noted in this section are related to highway work only. All of the restrictions for bridge work outlined above apply to highway work as well, unless otherwise noted herein.

34. The bridge work shall be completed and the bridge work zone temporary concrete barrier removed prior to completing the highway milling and pavement work, unless otherwise noted herein.
35. The Contractor may complete the highway milling and pavement work between adjacent bridges in a work zone provided the pavement joints can be paved in their final position during the phased construction.
36. The Contractor shall complete the highway pavement shim work proposed at Forest Ave and Preble Street prior to starting Phase O bridge work in Work Zone 4. Contractor shall remove the guardrail in this area and install temporary concrete barrier in order to complete the shim work. Contractor shall install new guardrail concurrently with the bridge work activities.
37. All final highway pavement work shall occur only after the bridge joint work is complete.
38. The Contractor shall utilize nighttime lane closures to complete the highway milling and pavement work. Temporary daytime lane closures for highway work will not be permitted.
39. The surface paving of the bridge decks on Westbrook Street, Fore River, St. James Street, PTRR (St. John), St. John Street and Franklin Arterial Bridges to align pavement joints with the final pavement markings shall be completed with the highway milling and pavement work. See bridge phasing plans and typical sections.
40. All drainage pipe work, catch basin adjustments, and rental items shall be completed in an area prior to the contractor commencing surface paving in a given area.
41. The Contractor shall provide the Resident with survey information for existing pavement grades on all bridge approaches at least two weeks prior to highway milling and pavement work. The survey shall include edge of pavements, lane and shoulder lines at ten foot intervals for a distance of approx. 200 ft. from each bridge joint and approx. 100 ft. onto each bridge deck.
42. Traffic will be allowed to travel on milled surfaces on the mainline. After 7 calendar days, any milled areas not covered, in need of extra repair or maintenance (see Special

Provision 202) shall be repaired to the satisfaction of the Resident. All work, equipment and materials required to make repairs shall be at the Contractor's expense. Failure to adequately maintain milled areas will also result in violation of Special Provision 652. Lanes will need to be matched up each shift. Uneven lanes will not be permitted. The Contractor shall plan and conduct their work accordingly.

43. All temporary pavement ramps for transitioning to milled surfaces and for transitioning from bridge joints to the base pavement on bridge decks (bridges where surface paving will be completed with highway paving work) shall be tapered at 20 ft. horizontally for every 1 inch vertical change.

SPECIAL PROVISION

SECTION 107

TIME

(Scheduling of Work and Truck Hauling Routes)

Description: The Contractor shall submit, at the time of their bid, a schedule of work and proposed locations of Hot Mix Asphalt Plants and proposed haul route for major construction material (such as hot mix asphalt, pavement millings, and gravel).

In this submittal the Contractor shall also give the location(s) for all intended stockpiles for pavement millings from this project.

SPECIAL PROVISION
SECTION 107
PROSECUTION AND PROGRESS
(Incentive/Disincentive, Supplemental Liquidated Damages, Contract Time)

1. Definitions:

- a. Bridge Work Complete is defined as having all work in Phase O to Phase IV complete in all Work Zones including: All bridge repairs; bridge joint, bridge membrane and paving (base and wearing course); bridge transition barriers; bearing repairs; aluminum bridge rail; guardrail; all temporary concrete barrier and work zone crash cushions being out of the roadway; all related bridge construction signage removed or covered; all related non-construction signage uncovered; and all temporary striping being in place.
 - b. For the Westbrook Street, Fore River, St. James Street, PTRR (St. John), St. John Street and Franklin Arterial Bridges, surface paving of the bridge decks necessary to align the pavement joints with the final traffic lane markings is not required for Bridge Work Complete.
 - c. Highway Paving Work is defined as non-bridge pavement milling, pavement shimming as necessary, paving of the wearing course and placing the final traffic lane markings.
 - d. Permitted Work Days are defined in Section 105, General Scope of Work (limitations of Operations).
2. The Contractor will be allowed to commence work immediately after the contract execution provided that all applicable documents required under this contract have been submitted and approved and a preconstruction meeting has been held.
 3. The Department anticipates awarding the contract within one week of the bid opening contingent on the Contractor providing the required documentation necessary for bid award.
 4. The Contractor shall receive an incentive of ten thousand U.S. Dollars (\$10,000) per Day for each Calendar Day prior to October 10, 2012 that Bridge Work Complete is finished. The maximum incentive is four hundred thousand U.S. Dollars (\$400,000).
 5. The Contractor shall pay a disincentive of ten thousand U.S. Dollars (\$10,000) per Day for each Calendar Day after October 10, 2012 that Bridge Work Complete is not finished. The maximum disincentive is two hundred fifty thousand U.S. Dollars (\$250,000).
 6. No daytime or long term lane or shoulder closures may occur after Bridge Work Complete.

7. After Bridge Work Complete is finished, the Contractor is allowed to utilize nighttime lane closures per Section 105, General Scope of Work (Limitations of Operations), to finish the Highway Paving Work and the final surface paving work needed for the Westbrook Street, Fore River, St. James Street, PTRR (St. John), St. John Street and Franklin Arterial Bridges necessary to align the pavement joints with the final traffic lane markings.
8. The Contractor will not be allowed to have any temporary lane closures, except for emergency repairs, on the following dates:
 - a. May 25th, beginning at 6 am through May 29th at 7 pm
 - b. July 3rd, beginning at 6 am through July 5th at 7 pm
 - c. August 31st, beginning at 6 am through September 4th at 7 pm
 - d. October 5th, beginning at 6 am through October 8th at 7 pm

SPECIAL PROVISION
SECTION 107
PROSECUTION AND PROGRESS
(Contract Time)

The specified completion date is November 1, 2012

**SPECIAL PROVISION
SECTION 107
TIME**

107.4.2 Schedule of Work Required. This Section is amended by the following:

In addition to the Contractors initial CPM Schedule, the Department will require the Contractor to update the schedule monthly to show current progress. The submittal date for monthly updates shall be determined by the Resident.

SPECIAL PROVISION

SECTION 107

TIME

(Scheduling of Work – Projected Payment Schedule)

Description The Contractor shall also provide the Department with a Quarterly Projected Payment Schedule that estimates the value of the Work as scheduled, including requests for payment of Delivered Materials. The Projected Payment Schedule must be in accordance with the Contractor's Schedule of Work and prices submitted by the Contractor's Bid. The Contractor shall submit the Projected Payment Schedule as a condition of Award.

SPECIAL PROVISION
SECTION 108
PAYMENT
(Asphalt Escalator)

108.4.1 Price Adjustment for Hot Mix Asphalt: For all contracts with hot mix asphalt in excess of 500 tons total, a price adjustment for performance graded binder will be made for the following pay items:

- Item 403.206 Hot Mix Asphalt - 25 mm
- Item 403.207 Hot Mix Asphalt - 19 mm
- Item 403.2071 Hot Mix Asphalt - 19 mm (Polymer Modified)
- Item 403.2072 Hot Mix Asphalt - 19 mm (Asphalt Rich Base)
- Item 403.2073 Warm Mix Asphalt - 19 mm
- Item 403.208 Hot Mix Asphalt - 12.5 mm
- Item 403.2081 Hot Mix Asphalt - 12.5 mm (Polymer Modified)
- Item 403.2083 Warm Mix Asphalt - 12.5 mm
- Item 403.209 Hot Mix Asphalt - 9.5 mm (sidewalks, drives, & incidentals)
- Item 403.210 Hot Mix Asphalt - 9.5 mm
- Item 403.2101 Hot Mix Asphalt - 9.5 mm (Polymer Modified)
- Item 403.2102 Hot Mix Asphalt - 9.5 mm (Asphalt Rich Base)
- Item 403.2103 Warm Mix Asphalt - 9.5 mm
- Item 403.211 Hot Mix Asphalt – Shim
- Item 403.2111 Hot Mix Asphalt – Shim (Polymer Modified)
- Item 403.2113 Warm Mix Asphalt - Shim
- Item 403.212 Hot Mix Asphalt - 4.75 mm (Shim)
- Item 403.2123 Warm Mix Asphalt - 4.75 mm (Shim)
- Item 403.213 Hot Mix Asphalt - 12.5 mm (base and intermediate course)
- Item 403.2131 Hot Mix Asphalt - 12.5 mm (base and intermediate course Polymer Modified)
- Item 403.2132 Hot Mix Asphalt - 12.5 mm (Asphalt Rich Base and intermediate course)
- Item 403.2133 Warm Mix Asphalt - 12.5 mm (base and intermediate course)
- Item 403.214 Hot Mix Asphalt - 4.75 mm (Surface)
- Item 403.2143 Warm Mix Asphalt - 4.75 mm (Surface)
- Item 461.13 Maintenance Surface Treatment

Price adjustments will be based on the variance in costs for the performance graded binder component of hot mix asphalt. They will be determined as follows:

The quantity of hot mix asphalt for each pay item will be multiplied by the performance graded binder percentages given in the table below times the difference in price between the base price and the period price of asphalt cement. Adjustments will be made upward or downward, as prices increase or decrease.

Item 403.206: 4.8%

Item 403.207–5.2%	Item 403.2071–5.2%	Item 403.2072–5.8%	Item 403.2073–5.2%
Item 403.208–5.6%	Item 403.2081–5.6%		Item 403.2083–5.6%
Item 403.209–6.2%			
Item 403.210–6.2%	Item 403.2101–6.2%	Item 403.2102–6.8%	Item 403.2103–6.2%

Item 403.211-6.2%	Item 403.2111-6.2%	Item 403.2113-6.2%
Item 403.212-6.8%		Item 403.2123-6.8%
Item 403.213-5.6%	Item 403.2131-5.6%	Item 403.2132-6.2%
Item 403.214-6.8%		Item 403.2133-5.6%
Item 461.13-6.4%		Item 403.2143-6.8%

Hot Mix Asphalt: The quantity of hot mix asphalt will be determined from the quantity shown on the progress estimate for each pay period.

Base Price: The base price of performance graded binder to be used is the price per standard ton current with the bid opening date. This price is determined by using the average New England Selling Price (Excluding the Connecticut market area), as listed in the Asphalt Weekly Monitor.

Period Price: The period price of performance graded binder will be determined by the Department by using the average New England Selling Price (Excluding the Connecticut market area), listed in the Asphalt Weekly Monitor current with the paving date. The maximum Period Price for paving after the adjusted Contract Completion Date will be the Period Price on the adjusted Contract Completion Date.

SPECIAL PROVISIONS
SECTION 202
REMOVING STRUCTURES AND OBSTRUCTIONS
(Removing Pavement Surface)

The December 2002 Revision of the Standard Specifications, Section 202-Removing Structures and Obstructions, subsection 202.061-Removing Pavement Surface, has been removed and replaced in it's entirety by the following:

202.061 Removing Pavement Surface The equipment for removing the bituminous surface shall be a power operated milling machine or grinder capable of removing bituminous concrete pavement to the required depth, transverse cross slope, and profile grade by the use of an automated grade and slope control system. The controls shall automatically increase or decrease the pavement removal depth as required, and readily maintain desired cross slope, to compensate for surface irregularities in the existing pavement course. The equipment shall be capable of accurately establishing profile grades by referencing from a fixed reference such as a grade wire, or from the existing pavement surface using a 30 foot (9m) minimum contact ski (floating beam), or 24 foot (8m) non-contact grade control beam.

The Contractor shall locate and remove all objects in the pavement through the work area that would be detrimental to the planing or grinding machine. Any structures or obstructions left within the travel lane or shoulders shall have tapers installed according to Standard Detail 202(01).

The finished milled surface will be inspected before being accepted, and any deviations in the profile exceeding 12 mm [1/2 inch] under a 5 meter [16 foot] string line or straightedge placed parallel to the centerline will be corrected. Any deviations in the cross-slope that exceed 10 mm [3/8 inch] under a 3 meter [10 foot] string line or straightedge placed transversely to centerline will be corrected. All corrections will be made with approved methods and materials. Any areas that require corrective measures will be subject to the same acceptance tolerances. Excess material that becomes bonded to the milled surface will be removed to the Resident's satisfaction before the area is accepted.

Any areas of concern, such as delamination or pot-holing shall be identified on a continuous basis as the milling progresses. Proper corrective action will be determined by the Resident and paid for under appropriate contract items, and if required, completed prior to opening lane to traffic. Any issues that arise **up to** 7 days after being milled will be the responsibility of the MaineDOT as noted in Special Provision 105 – Limitations of Operations.

SPECIAL PROVISION
DIVISION 400
PAVEMENTS

SECTION 401 - HOT MIX ASPHALT PAVEMENT

401.01 Description The Contractor shall furnish and place one or more courses of Hot Mix Asphalt Pavement (HMA) on an approved base in accordance with the contract documents and in reasonably close conformity with the lines, grades, thickness, and typical cross sections shown on the plans or established by the Resident. The Department will accept this work under Quality Assurance provisions, in accordance with these specifications and the requirements of Section 106 – Quality, the provisions of AASHTO M 323 except where otherwise noted in sections 401 and 703 of these specifications, and the Maine DOT Policies and Procedures for HMA Sampling and Testing.

401.02 Materials Materials shall meet the requirements specified in Section 700 - Materials:

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

401.021 Recycled Asphalt Materials Recycled Asphalt Pavement (RAP) may be introduced into the mixture at percentages approved by the Department. If approved by the Department, the Contractor shall provide documentation stating the source, test results for average residual asphalt content, and stockpile gradations showing RAP materials have been sized to meet the maximum aggregate size requirements of each mix designation. The Department will obtain samples for verification and approval prior to its use.

For specification purposes, RAP will be categorized as follows:

Classified RAP – RAP consisting of processed millings from federal, state or municipal roadways that is free of materials not generally considered to be asphalt pavement. Millings from other sources that have been fractionated or otherwise processed so as to improve the consistency of the RAP may be considered Classified RAP if approved by the Department.

Unclassified RAP – RAP from unknown sources, from excavated or reclaimed pavements, millings from repaired areas or other sources.

In the event that RAP source or properties change, the Contractor shall notify the Department of the change and submit new documentation stating the new source or properties a minimum of 72 hours prior to the change to allow for obtaining new samples and approval.

401.03 Composition of Mixtures 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 20 percent Classified RAP in any base, binder, surface, or shim course. For Unclassified RAP stockpiles no more than 15 percent shall be used. The Contractor may be allowed to use more than 20 percent Classified RAP, up to a maximum of 25 percent Classified RAP, in a base, binder, or shim course provided that PG 58-34 asphalt binder is used in the mixture. A PG 52-34 may be used when approved by the Department.

The Contractor shall submit for Department approval a JMF to the Central Laboratory in Bangor for each mixture to be supplied. The Department may approve 1 active design per nominal maximum size, per traffic level, per plant, plus a 9.5mm “fine” mix for shimming and where required, a non-RAP design for bridge decks. The Department shall then have 15 calendar days in which to process a new design before approval. The JMF shall establish a single percentage of aggregate passing each sieve size within the limits shown in section 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 703.09. The JMF shall state the original source, gradation, and percentage to be used of each portion of the aggregate including RAP when utilized, 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
- 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 asphalt contents
- Design Aggregate Structure for at least three trial blends
- Test results for the selected aggregate blend at a minimum of three binder contents
- Specific Gravity and temperature/viscosity charts for the PGAB to be used
- Recommended mixing and compaction temperatures from the PGAB supplier
- Material Safety Data Sheets (MSDS) 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 Mg [150 ton] for stone stockpiles, 75 Mg [75 ton] for sand stockpiles, and 50 Mg [50 ton] of blend sand before the Department will sample. The Department shall obtain samples for laboratory testing. The Contractor shall also make available to the Department the PGAB proposed for use in the mix in sufficient 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 Department shall split a production sample for evaluation. The Contractor shall test its split of the sample and determine if the results meet the requirements of the Department’s written policy for mix design verification (See Maine DOT Policies and Procedures for HMA Sampling and Testing available at the Central Laboratory in Bangor). If the results are found to be acceptable, the Contractor will forward their results to the Department’s Lab, which will test the Department’s split of the sample. The results of the two split samples will be compared and shared between the Department and the Contractor. If the Department finds the mixture acceptable, an approved JMF will be forwarded to the Contractor and 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. 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%. Adjustments will be allowed on GMM of up to 0.010.

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 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. The cold feed percentage for RAP may be adjusted up to 5

percentage points from the amount listed on the JMF but shall not exceed the maximum allowable percentage for RAP 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)					Voids Filled with Binder (VFB) (Minimum %)	Fines/Eff. Binder Ratio
				Nominal Maximum Aggregate Size (mm)						
	N _{initial}	N _{design}	N _{max}	25	19	12.5	9.5	4.75		
<0.3	≤91.5	96.0	≤98.0	13.0	14.0	15.0	16.0	16.0	70-80	0.6-1.2**
0.3 to <3	≤90.5								65-80	
3 to <10	≤89.0								65-80*	
10 to <30										
> 30										

*For 9.5 mm nominal maximum aggregate size mixtures, the maximum VFB is 82.

*For 4.75 mm nominal maximum aggregate size mixtures, the maximum VFB is 84.

**For 4.75 mm nominal maximum aggregate size mixtures, the Fines/Effective Binder Ratio is 0.6-1.4.

401.04 Temperature Requirements After the JMF is established, the temperatures of the mixture shall conform to the following tolerances:

In the truck at the mixing plant – allowable range 135° to 163°C [275 to 325°F]

At the Paver – allowable range 135° to 163°C [275 to 325°F]

The JMF and the mix subsequently produced shall meet the requirements of Tables 1 and Section 703.07.

401.05 Performance Graded Asphalt Binder Unless otherwise noted in Special Provision 403 - Hot Mix Asphalt Pavement, the PGAB shall be 64-28, except that for mixtures containing greater than 20 percent but no more than 25 percent RAP the PGAB shall be PG 58-34 (or PG 52-34 when approved by the Department). The PGAB shall meet the applicable requirements of AASHTO M320 - Standard Specification for PGAB. The Contractor shall provide the Department with an approved copy of the Quality Control Plan for PGAB in accordance with AASHTO R 26 Certifying Suppliers of PGAB.

The Contractor shall request approval from the Department for a change in PGAB supplier or source by submitting documentation stating the new supplier or source a minimum of 24 hours prior to the change. In the event that the PGAB supplier or source is changed, the Contractor shall make efforts to minimize the occurrence of PGAB co-mingling.

401.06 Weather and Seasonal Limitations The State is divided into two paving zones as follows:

a. Zone 1 Areas north of US Route 2 from Gilead to Bangor and north of Route 9 from Bangor to Calais.

b. Zone 2 Areas south of Zone 1 including the US Route 2 and Route 9 boundaries.

The Contractor may place Hot Mix Asphalt Pavement for use other than a traveled way wearing course in either Zone between the dates of April 15th and November 15th, provided that the air temperature as determined by an approved thermometer (placed in the shade at the paving location) is 4°C [40°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 in Zone 1 between the dates of May 1st and the Saturday following October 1st and in Zone 2 between the dates of April 15th and the Saturday following October 15th, provided the air temperature determined as above is 10°C [50°F] or higher. For the purposes of this Section, the traveled way includes truck lanes, ramps, approach roads and auxiliary lanes. The atmospheric temperature for all courses on bridge decks shall be 10°C [50°F] or higher.

Hot Mix Asphalt Pavement used for curb, driveways, sidewalks, islands, or other incidentals is not subject to seasonal limitations, except that conditions shall be satisfactory for proper handling and finishing of the mixture. All mixtures used for curb, driveways, sidewalks, islands, or other incidentals shall conform to section 401.04 - Temperature Requirements. Unless otherwise specified, the Contractor shall not place Hot Mix Asphalt Pavement on a wet or frozen surface and the air temperature shall be 4°C [40°F] or higher.

On all sections of overlay with wearing courses less than 25 mm [1 in] thick, the wearing course for the travelway and adjacent shoulders shall be placed between the dates of May 15th and the Saturday following September 15th.

On all sections of overlay with wearing courses less than 1 inch thick, the wearing course for the travelway and adjacent shoulders shall be placed between the dates of June 1st and the Saturday following September 1st if the work is to be performed, either by contract requirement, or Contractor option, during conditions defined as “night work”.

401.07 Hot Mix Asphalt Plant

401.071 General Requirements HMA plants shall conform to AASHTO M156.

a. Truck Scales When the hot mix asphalt is to be weighed on scales meeting the requirements of Section 108 - Payment, the scales shall be inspected and sealed by the State Sealer as often as the Department deems necessary to verify their accuracy.

Plant scales shall be checked prior to the start of the paving season, and each time a plant is moved to a new location. Subsequent checks will be made as determined by the Resident. The Contractor will have at least ten 20 Kg [50 pound] masses for scale testing.

401.072 Automation of Batching Batch plants shall be automated for weighing, recycling, and monitoring the system. In the case of a malfunction of the printing system, the requirements of Section 401.074 c. of this specification will apply.

The batch plant shall accurately proportion the various materials in the proper order by weight. The entire batching and mixing cycle shall be continuous and shall not require any manual operations. The batch plant shall use auxiliary interlock circuits to trigger an audible alarm whenever an error exceeding the acceptable tolerance occurs. Along with the alarm, the printer shall print an asterisk on the delivery slip in the same row containing the out-of-tolerance weight. The automatic proportioning system shall be capable of consistently delivering material within the full range of batch sizes. When RAP is being used, the plant must be capable of automatically compensating for the moisture content of the RAP.

All plants shall be equipped with an approved digital recording device. The delivery slip load ticket shall contain information required under Section 108.1.3 - Provisions Relating to Certain Measurements, Mass and paragraphs a, b, and c of Section 401.073

401.073 Automatic Ticket Printer System on Automatic HMA Plant An approved automatic ticket printer system shall be used with all approved automatic HMA plants. The requirements for delivery slips for payment of materials measured by weight, as given in the following Sections, shall be waived: 108.1.3 a., 108.1.3 b., 108.1.3 c., and 108.1.3 d. The automatic printed ticket will be considered as the Weight Certificate.

The requirements of Section 108.1.3 f. - Delivery Slips, shall be met by the weigh slip or ticket, printed by the automatic system, which accompanies each truckload, except for the following changes:

- a. The quantity information required shall be individual weights of each batch or total net weight of each truckload.
- b. Signatures (legible initials acceptable) of Weighmaster (required only in the event of a malfunction as described in 401.074 c.).
- c. The MDOT designation for the JMF.

401.074 Weight Checks on Automatic HMA Plant At least twice during each 5 days of production either of the following checks will be performed:

a. A loaded truck may be intercepted and weighed on a platform scale that has been sealed by the State Sealer of Weights and Measures within the past 12 months. Whenever the discrepancy in net weights is greater than 1.0%, but does not exceed 1.5%, the plant inspector will notify the producer to take corrective action; payment will still be governed by the printed ticket.

The producer will be allowed a period of two days to make any needed repairs to the plant and/or platform scales so that the discrepancy in net weights between the two is less than 1.0%. If the discrepancy exceeds 1.5%, the plant will be allowed to operate as long as payment is determined by truck platform scale net weight. Effective corrective action shall be taken within two working days.

b. Where platform scales are not readily available, a check will be made to verify the accuracy and sensitivity of each scale within the normal weighing range and to assure that the interlocking devices and automatic printer system are functioning properly.

c. In the event of a malfunction of the automatic printer system, production may be continued without the use of platform truck scales for a period not to exceed the next two working days, providing total weights of each batch are recorded on weight tickets and certified by a Licensed Public Weighmaster.

401.08 Hauling Equipment Trucks for hauling Hot Mix Asphalt Pavement shall have tight, clean, and smooth metal dump bodies, which have been thinly coated with a small amount of approved release agent to prevent the mixture from adhering to the bodies. Solvent based agents developed to strip asphalts from aggregates will not be allowed as release agents.

All truck dump bodies shall have a cover of canvas or other water repellent material capable of heat retention, which completely covers the mixture. The cover shall be securely fastened on the truck, unless unloading.

All truck bodies shall have an opening on both sides, which will accommodate a thermometer stem. The opening shall be located near the midpoint of the body, at least 300 mm [12 in] above the bed.

401.09 Pavers Pavers shall be self-contained, self-propelled units with an activated screed (heated if necessary) capable of placing courses of Hot Mix Asphalt Pavement in full lane widths specified in the contract on the main line, shoulder, or similar construction.

On projects with no price adjustment for smoothness, pavers shall be of sufficient class and size to place Hot Mix Asphalt Pavement over the full width of the mainline travel way with a 3 m [10 ft] minimum main screed with activated extensions.

The Contractor shall place Hot Mix Asphalt Pavement on the main line with a paver using an automatic grade and slope controlled screed, unless otherwise authorized by the Department. The controls shall automatically adjust the screed and increase or decrease the layer thickness to compensate for irregularities in the preceding course. The controls shall maintain the proper transverse slope and be readily adjustable so that transitions and superelevated curves can be properly paved. The controls shall operate from a fixed or moving reference such as a grade wire or ski type device (floating beam) with a minimum length of 10 m [30 ft], a non-contact grade control with a minimum span of 7.3 m [24 ft], except that a 12 m [40 ft] reference shall be used on Expressway projects.

The Contractor shall operate the paver in such a manner as to produce a visually uniform surface texture and a thickness within the requirements of Section 401.101 - Surface Tolerances. The paver shall have a receiving hopper with sufficient capacity for a uniform spreading operation and a distribution system to place the mixture uniformly, without segregation in front of the screed. The screed assembly shall produce a finished surface of the required evenness and texture without tearing, shoving, or gouging the mixture. Pavers with extendible screeds shall have auger extensions and tunnel extenders as per the manufacturer's recommendations, a copy of which shall be available if requested.

The Contractor shall have the paver at the project site sufficiently before the start of paving operations to be inspected and approved by the Department. The Contractor shall repair or replace any paver found worn or defective, either before or during placement, to the satisfaction of the Department. Pavers that produce an unevenly textured or non-uniform mat will be repaired or replaced before continuing to place HMA on MaineDOT projects.

On a daily basis, the Contractor shall perform nuclear density testing across the mat being placed, prior to being compacted by equipment., at 300 mm [12 in] intervals, If the density values vary by more than 2.0% from the mean, the Contractor shall make adjustments to the screed until the inconsistencies are remedied.

Failure to replace or repair defective placement equipment may result in a letter of suspension of work and notification of a quality control violation resulting in possible monetary penalties as governed by Section 106 - Quality

401.10 Rollers Rollers shall be static steel, pneumatic tire, or approved vibrator type. Rollers shall be in good mechanical condition, capable of starting and stopping smoothly, and be free from backlash when reversing direction. Rollers shall be equipped and operated in such a way as to prevent the picking up of hot mixed material by the roller surface. The use of rollers, which result in crushing of the aggregate or in displacement of the HMA will not be permitted. Any Hot Mix Asphalt Pavement that becomes loose, broken, contaminated, shows an excess or deficiency of Performance Graded Asphalt Binder, or is in any other way defective shall be removed and replaced at no additional cost with fresh Hot Mix Asphalt Pavement, which shall be immediately compacted to conform to the adjacent area.

The Contractor shall repair or replace any roller found to be worn or defective, either before or during placement, to the satisfaction of the Department. Rollers that produce grooved, unevenly textured or non-uniform mat will be repaired or replaced before continuing to place HMA on MaineDOT projects.

The type of rollers to be used and their relative position in the compaction sequence shall generally be the Contractor's option, provided specification densities are attained and with the following requirements:

- a. On variable-depth courses, the first lift of pavement over gravel, reclaimed pavement, an irregular surface, or on bridges, at least one roller shall be 14.5 Mg [16 ton] pneumatic-tired. Unless otherwise allowed by the Resident, pneumatic-tired rollers shall be equipped with skirting to minimize the pickup of

HMA materials from the paved surface. When required by the Resident, the roller shall be ballasted to 18.1 Mg [20 ton].

b. Compaction with a vibratory or steel wheel roller shall precede pneumatic-tired rolling, unless otherwise authorized by the Department.

c. Vibratory rollers shall not be operated in the vibratory mode when checking or cracking of the mat occurs, or on bridge decks.

d. Any method, which results in cracking or checking of the mat, will be discontinued and corrective action taken.

The maximum operating speed for a steel wheel or pneumatic roller shall not exceed the manufacturer's recommendations, a copy of which shall be available if requested.

401.101 Surface Tolerances The Department will check surface tolerance utilizing the following methods :

- a.) A 5 m [16 ft] straightedge or string line placed directly on the surface, parallel to the centerline of pavement.
- b.) A 3 m [10 ft] straightedge or string line placed directly on the surface, transverse to the centerline of pavement.

The Contractor shall correct variations exceeding 6 mm [$\frac{1}{4}$ in] by removing defective work and replacing it with new material as directed by the Department. The Contractor shall furnish a 10 foot straightedge for the Departments use.

401.11 Preparation of Existing Surface The Contractor shall thoroughly clean the surface upon which Hot Mix Asphalt Pavement is to be placed of all objectionable material. When the surface of the existing base or pavement is irregular, the Contractor shall bring it to uniform grade and cross section. All surfaces shall have a tack coat applied prior to placing any new HMA course. Tack coat shall conform to the requirements of Section 409 – Bituminous Tack Coat, Section 702 – Bituminous Material, and all applicable sections of the contract.

401.12 Hot Mix Asphalt Documentation The Contractor and the Department shall agree on the amount of Hot Mix Asphalt Pavement that has been placed each day.

401.13 Preparation of Aggregates The Contractor shall dry and heat the aggregates for the HMA to the required temperature. The Contractor shall properly adjust flames to avoid physical damage to the aggregate and to avoid depositing soot on the aggregate.

401.14 Mixing The Contractor shall combine the dried aggregate in the mixer in the amount of each fraction of aggregate required to meet the JMF. The Contractor shall measure the amount of PGAB and introduce it into the mixer in the amount specified by the JMF.

The Contractor shall produce the HMA at the temperature established by the JMF.

The Contractor shall dry the aggregate sufficiently so that the HMA will not flush, foam excessively, or displace excessively under the action of the rollers. The Contractor shall introduce the aggregate into the mixer at a temperature of not more than 14°C [25°F] above the temperature at which the viscosity of the PGAB being used is 0.150 Pa·s.

The Contractor shall store and introduce into the mixer the Performance Graded Asphalt Binder at a uniformly maintained temperature at which the viscosity of the PGAB is between 0.150 Pa·s and 0.300 Pa·s. The aggregate shall be coated completely and uniformly with a thorough distribution of the PGAB. The Contractor shall determine the wet mixing time for each plant and for each type of aggregate used.

401.15 Spreading and Finishing On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impracticable, the Contractor shall spread, rake, and lute the HMA with hand tools to provide the required compacted thickness. Solvent based agents developed to strip asphalts from aggregates will not be allowed as release agents.

On roadways with adjoining lanes carrying traffic, the Contractor shall place each course over the full width of the traveled way section being paved that day, unless otherwise noted by the Department in Section 403 - Hot Bituminous Pavement.

401.16 Compaction Immediately after the Hot Mix Asphalt Pavement has been spread, struck off, and any surface irregularities adjusted, the Contractor shall thoroughly and uniformly compact the HMA by rolling.

The Contractor shall roll the surface when the mixture is in the proper condition and when the rolling does not cause undue displacement, cracking, or shoving. The Contractor shall prevent adhesion of the HMA to the rollers or vibrating compactors without the use of fuel oil or other petroleum based release agents. Solvents designed to strip asphalt binders from aggregates will not be permitted as release agents on equipment, tools, or pavement surfaces.

The Contractor shall immediately correct any displacement occurring as a result of the reversing of the direction of a roller or from other causes to the satisfaction of the Department. Any operation other than placement of variable depth shim course that results in breakdown of the aggregate shall be discontinued. Any new pavement that shows obvious cracking, checking, or displacement shall be removed and replaced for the full lane width as directed by the Resident at no cost to the Department.

Along forms, curbs, headers, walls, and other places not accessible to the rollers, the Contractor shall thoroughly compact the HMA with mechanical vibrating compactors. The Contractor shall only use hand tamping in areas inaccessible to all other compaction equipment. On depressed areas, the Contractor may use a trench roller or cleated compression strips under a roller to transmit compression to the depressed area.

Any HMA that becomes unacceptable due to cooling, cracking, checking, segregation or deformation as a result of an interruption in mix delivery shall be removed and replaced, with material that meets contract specifications at no cost to the Department.

401.17 Joints The Contractor shall construct wearing course transverse joints in such a manner that minimum tolerances shown in Section 401.101 - Surface Tolerances are met when measured with a straightedge.

The paver shall maintain a uniform head of HMA during transverse and longitudinal joint construction.

The HMA shall be free of segregation and meet temperature requirements outlined in section 401.04. Transverse joints of the wearing course shall be straight and neatly trimmed. The Contractor may form a vertical face exposing the full depth of the course by inserting a header, by breaking the bond with the underlying course, or by cutting back with hand tools. The Department may allow feathered or "lap" joints on lower base courses or when matching existing base type pavements.

Longitudinal joints shall be generally straight to the line of travel, and constructed in a manner that best ensure joint integrity. Methods or activities that prove detrimental to the construction of straight, sound longitudinal joints will be discontinued.

The Contractor shall apply a coating of emulsified asphalt immediately before paving all joints to the vertical face and 75 mm [3 in] of the adjacent portion of any pavement being overlaid except those formed by pavers operating in echelon. The Contractor shall use an approved spray apparatus designed for covering a narrow surface. The Department may approve application by a brush for small surfaces, or in the event of a malfunction of the spray apparatus, but for a period of not more than one working day.

Where pavement under this contract joins an existing pavement, or when the Department directs, the Contractor shall cut the existing pavement along a smooth line, producing a neat, even, vertical joint. The Department will not permit broken or raveled edges. The cost of all work necessary for the preparation of joints is incidental to related contract pay items.

401.18 Quality Control Method A, B & C The Contractor shall operate in accordance with the approved Quality Control Plan (QCP) to assure a product meeting the contract requirements. The QCP shall meet the requirements of Section 106.6 - Acceptance and this Section. The Contractor shall not begin paving operations until the Department approves the QCP in writing.

Prior to placing any mix, the Department and the Contractor shall hold a Pre-paving conference to discuss the paving schedule, source of mix, type and amount of equipment to be used, sequence of paving pattern, rate of mix supply, random sampling, project lots and sublots and traffic control. A copy of the QC random numbers to be used on the project shall be provided to The Resident. The Departments' random numbers for Acceptance testing shall be generated and on file with the Resident and the Project Manager. All field and plant supervisors including the responsible onsite paving supervisor shall attend this meeting.

The QCP shall address any items that affect the quality of the Hot Mix Asphalt Pavement including, but not limited to, the following:

- a. JMF(s)
- b. Hot mix asphalt plant details
- c. Stockpile Management (to include provisions for a minimum 2 day stockpile)
- d. Make and type of paver(s)
- e. Make and type of rollers including weight, weight per inch of steel wheels, and average contact pressure for pneumatic tired rollers
- f. Name of QCP Administrator, and certification number
- g. Name of Process Control Technician(s) and certification number(s)
- h. Name of Quality Control Technicians(s) and certification number(s)
- i. Mixing & transportation including process for ensuring that truck bodies are clean and free of debris or contamination that could adversely affect the finished pavement
- j. Testing Plan
- k. Laydown operations including longitudinal joint construction, procedures for avoiding paving in inclement weather, type of release agent to be used on trucks tools and rollers, compaction of shoulders, tacking of all joints, methods to ensure that segregation is minimized, procedures to determine the maximum rolling and paving speeds based on best engineering practices as well as past experience in achieving the best possible smoothness of the pavement. Solvent based agents developed to strip asphalts from aggregates will not be allowed as release agents.
- l. Examples of Quality Control forms including a daily plant report and a daily paving report

- m. Silo management and details (can show storage for use on project of up to 36 hours)
- n. Provisions for varying mix temperature due to extraordinary conditions.
- o. Name and responsibilities of the Responsible onsite Paving Supervisor.
- p. Method for calibration/verification of Density Gauge
- q. A note that all testing will be done in accordance with AASHTO and the Maine DOT Policies and Procedures for HMA Sampling and Testing.
- r. A detailed description of RAP processing, stockpiling and introduction into the plant as well as a note detailing conditions under which the percent of RAP will vary from that specified on the JMF.
- s. A detailed procedure outlining when production will be halted due to QC or Acceptance testing results.
- t. A plan to address the change in PGAB source or supplier and the potential co-mingling of differing PGAB's.
- u. A procedure to take immediate possession of acceptance samples once released by MaineDOT and deliver said samples to the designated acceptance laboratory.

The QCP shall include the following technicians together with following minimum requirements:

- a. QCP Administrator - A qualified individual shall administer the QCP. The QCP Administrator must be a full-time employee of or a consultant engaged by the Contractor or paving subcontractor. The QCP Administrator shall have full authority to institute any and all actions necessary for the successful operation of the QCP. The QCP Administrator (or its designee in the QCP Administrator's absence) shall be available to communicate with the Department at all times. The QCP Administrator shall be certified as a Quality Assurance Technologist certified by the New England Transportation Technician Certification Program (NETTCP).
- b. Process Control Technician(s) (PCT) shall utilize test results and other quality control practices to assure the quality of aggregates and other mix components and control proportioning to meet the JMF(s). The PCT shall inspect all equipment used in mixing to assure it is operating properly and that mixing conforms to the mix design(s) and other Contract requirements. The QCP shall detail how these duties and responsibilities are to be accomplished and documented, and whether more than one PCT is required. The Plan shall include the criteria to be utilized by the PCT to correct or reject unsatisfactory materials. The PCT shall be certified as a Plant Technician by the NETTCP.
- c. Quality Control Technician(s) (QCT) shall perform and utilize quality control tests at the job site to assure that delivered materials meet the requirements of the JMF(s). The QCT shall inspect all equipment utilized in transporting, laydown, and compacting to assure it is operating properly and that all laydown and compaction conform to the Contract requirements. The QCP shall detail how these duties and responsibilities are to be accomplished and documented, and whether more than one QCT is required. The QCP shall include the criteria utilized by the QCT to correct or reject unsatisfactory materials. The QCT shall be certified as a Paving Inspector by the NETTCP.

The QCP shall detail the coordination of the activities of the Plan Administrator, the PCT and the QCT. The Project Superintendent shall be named in the QCP, and the responsibilities for successful implementation of the QCP shall be outlined.

The Contractor shall sample, test, and evaluate Hot Mix Asphalt Pavement in accordance with the following minimum frequencies:

TABLE 2 : MINIMUM QUALITY CONTROL FREQUENCIES

Test or Action	Frequency	Test Method
Temperature of mix	6 per day at street and plant	-
Temperature of mat	4 per day	-
%TMD (Surface)	1 per 125 Mg [125 ton] (As noted in QC Plan)	ASTM D2950
%TMD (Base)	1 per 250 Mg [250 ton] (As noted in QC Plan)	AASHTO T269
Fines / Effective Binder	1 per 500 Mg [500 ton]	AASHTO T 312*
Gradation	1 per 500 Mg [500 ton]	AASHTO T30
PGAB content	1 per 500 Mg [500 ton]	AASHTO T164 or T308
Voids at N_{design}	1 per 500 Mg [500 ton]	AASHTO T 312*
Voids in Mineral Aggregate at N_{design}	1 per 500 Mg [500 ton]	AASHTO T 312*
Rice Specific Gravity	1 per 500 Mg [500 ton]	AASHTO T209
Coarse Aggregate Angularity	1 per 5000 Mg [5000 ton]	ASTM D5821
Flat and Elongated Particles	1 Per 5000 Mg [5000 ton]	ASTM D4791
Fine Aggregate Angularity	1 Per 5000 Mg [5000 ton]	AASHTO T304

*Method A and B only

The Contractor may utilize innovative equipment or techniques not addressed by the Contract documents to produce or monitor the production of the mix, subject to approval by the Department.

The Contractor shall submit all Hot Mix Asphalt Pavement plant test reports, inspection reports and updated pay factors in writing, signed by the appropriate technician and present them to the Department by 1:00 P.M. on the next working day, except when otherwise noted in the QCP due to local restrictions. The Contractor shall also retain splits of the previous 5 QC tests, with QC results enclosed for random selection and testing by The Department during QA inspections of the HMA production facility. Test results of splits that do not meet the Dispute Resolution Variance Limits in Table 10 shall trigger an investigation by the MDOT Independent Assurance Unit, and may result in that lab losing NETTCP certification and the ability to request a dispute [Section 401.223 - Process for Dispute Resolution (Methods A , B and C only)].

The Contractor shall make density test results, including randomly sampled densities, available to the Department onsite. Summaries of each day's results, including a daily paving report, shall be recorded and signed by the QCT and presented to the Department by 1:00 p.m. the next working day.

The Contractor shall have a testing lab at the plant site, equipped with all testing equipment necessary to complete the tests in Table 2. The Contractor shall locate an approved Gyratory Compactor at the plant testing lab or within 30 minutes of the plant site.

The Contractor shall fill all holes in the pavement resulting from cutting cores by the Contractor or the Department with a properly compacted, acceptable mixture no later than the following working day. Before filling, the Contractor shall carefully clean the holes and apply a coating of emulsified asphalt. On surface courses, cores shall not be cut except for Verification of the Nuclear Density Gauge, at a rate not to exceed 3 per day or 2 per 1000 Mg [1000 ton] placed.

The Contractor shall monitor plant production using running average of three control charts as specified in Section 106 - Quality. Control limits shall be as noted in Table 3 below. The UCL and LCL, shall not exceed the allowable control points for the particular type of mixture as outlined in Table 1 of section 703.09

TABLE 3: Control Limits

Property	UCL and LCL
Passing 4.75 mm and larger sieves	Target +/-4.0
Passing 2.36 mm sieve	Target +/-2.5
Passing .075 mm sieve	Target +/-1.2
PGAB Content*	Target +/-0.3
Voids in the Mineral Aggregate	LCL = LSL + 0.2
% Voids at N_{design}	JMF Target +/-1.3

*Based on AASHTO T 308

The Contractor shall cease paving operations whenever one of the following occurs on a lot in progress:

- Method A: The Pay Factor for VMA, Voids @ N_d , Percent PGAB, composite gradation, VFB, fines to effective binder or density using all Acceptance or all Quality Control tests for the current lot is less than 0.85.
- Method B: The Pay Factor for VMA, Voids @ N_d , Percent PGAB, composite gradation, VFB, fines to effective binder or density using all Acceptance or all Quality Control tests for the current lot is less than 0.90.
- Method C: The Pay Factor for VMA, Voids @ N_d , Percent PGAB, percent passing the nominal maximum sieve, percent passing 2.36 mm sieve, percent passing 0.300 mm sieve, percent passing 0.075 mm sieve or density using all Acceptance or all available Quality Control tests for the current lot is less than 0.85.
- The Coarse Aggregate Angularity or Fine Aggregate Angularity value falls below the requirements of Table 3: Aggregate Consensus Properties Criteria in Section 703.07 for the design traffic level.
- Each of the first 2 control tests for a Method A or B lot fall outside the upper or lower limits for VMA, Voids @ N_d , or Percent PGAB; or under Method C, each of the first 2 control tests for the lot fall outside the upper or lower limits for the nominal maximum, 2.36 mm, 0.300 mm or 0.075 mm sieves, or percent PGAB.
- The Flat and Elongated Particles value exceeds 10% by ASTM D4791.
- There is any visible damage to the aggregate due to over-densification other than on variable depth shim courses.
- The Contractor fails to follow the approved QCP.

The Contractor shall notify the Resident in writing as to the reason for shutdown, as well as the proposed corrective action, by the end of the work day. Failure to do so will be treated as a second incident under 106.4.6 QCP Non-compliance. The Department will consider corrective action acceptable if the pay factor for the failing property increases, based on samples already in transit, or a verification sample is tested and the property falls within the specification limits.

In cases where the corrective action can be accomplished immediately, such as batch weight or cold feed changes, the Contractor may elect to resume production once the corrective action is completed. Additional QC testing shall be performed to verify the effectiveness of the corrective action. Subsequent occurrences of shutdown for the same property in a Lot in progress will require paving operations to cease. Paving operations shall not resume until the Contractor and the Department determines that material meeting the Contract requirements will be produced. The Department may allow the Contractor to resume production based upon a passing QC sample, with a split of the sample being sent to the Department for verification testing. If the submitted verification sample test results fall outside the specification limits, the Contractor shall cease production until a verification sample is submitted to the Department has been tested by the Department and found to be within specification limits.

If the Contractor's control chart shows the process to be out of control (defined as a single point outside of the control limits on the running average of three chart) on any property listed in Table 3: Control Limits, the Contractor shall notify the Resident in writing of any proposed corrective action by 1:00 PM the next working day.

The Department retains the exclusive right, with the exception of the first day's production of a new JMF, to determine whether the resumption of production involves a significant change to the production process. If the Department so determines, then the current lot will be terminated, a pay factor established, and a new lot will begin.

401.19 Quality Control Method D For Items covered under Method D, the Contractor shall submit a modified QC Plan detailing, how the mix is to be placed, what equipment is to be used, and what HMA plant is to be used. All mix designs (JMF) shall be approved and verified by MDOT prior to use. Certified QC personnel shall not be required. The Contractor shall certify the mix and the test results for each item by a Certificate of Compliance.

401.20 Acceptance Method A, B & C These methods utilizes Quality Level Analysis and pay factor specifications.

For Hot Mix Asphalt Pavement designated for acceptance under Quality Assurance provisions, the Department will sample once per subplot on a statistically random basis, test, and evaluate in accordance with the following Acceptance Criteria:

TABLE 4: ACCEPTANCE CRITERIA

PROPERTIES	POINT OF SAMPLING	TEST METHOD
Gradation	Paver Hopper	AASHTO T30
PGAB Content	Paver Hopper	AASHTO T308
%TMD (Surface)	Mat behind all Rollers	AASHTO T269
%TMD (Base or Binder)	Mat behind all Rollers	AASHTO T269
Air Voids at N_d	Paver Hopper	AASHTO T 312
%VMA at N_d	Paver Hopper	AASHTO T 312
Fines to Effective Binder	Paver Hopper	AASHTO T 312
%VFB	Paver Hopper	AASHTO T 312

In the event the Department terminates a Lot prematurely but fails to obtain the required number of acceptance samples to calculate the volumetric property pay factor under the test method specified in the contract, the pay factor shall be calculated using the number of samples actually obtained from the contract. Should the number of acceptance samples taken total less than three, the resulting pay factor shall be 1.0 for volumetric properties. A minimum of three cores will be used for a density pay factor, if applicable, for quantities placed to date.

Should the Contractor request a termination of the Lot in progress prior to three acceptance samples being obtained, and the Department agrees to terminate the Lot, then the pay factor for mixture properties shall be 0.80. A minimum of three cores will be used to determine a density pay factor, if applicable, for quantities placed to date.

Lot Size For purposes of evaluating all acceptance test properties, a lot shall consist of the total quantity represented by each item listed under the lot size heading.

Sublot size - Refer to section 401.201, 401.202, and 401.203 for minimum size and number of sublots. The quantity represented by each sample will constitute a sublot.

If there is less than one-half of a sublot remaining at the end, then it shall be combined with the previous sublot. If there is more than one-half sublot remaining at the end, then it shall constitute the last sublot and shall be represented by test results. If it becomes apparent partway through a Lot that, due to an underrun, there will be insufficient mix quantity to obtain the minimum number of sublots needed, the Resident may adjust the size of the remaining sublots and select new sample locations based on the estimated quantity of material remaining in the Lot.

Acceptance Testing The Department will obtain samples of Hot Mix Asphalt Pavement in conformance with AASHTO T168 Sampling Bituminous Paving Mixtures, and the Maine DOT Policies and Procedures for HMA Sampling and Testing, which will then be transported by the Contractor to the designated MDOT Laboratory within 48 hours (except when otherwise noted in the project specific QCP due to local restrictions), as directed by MDOT in approved transport containers to be provided by the Department, unless otherwise directed by the Resident. Failure to deliver an acceptance sample to the designated acceptance laboratory will be considered the second incident under 106.4.6—QCP Non-Compliance.

The Department will take the sample randomly within each sublot. Target values shall be as specified in the JMF. The Department will use Table 5 for calculating pay factors for gradation, PGAB Content, Air Voids at N_{design} , VMA, Fines to Effective Binder and VFB. The Department will withhold reporting of the test results for the Acceptance sample until 7:00 AM, on the second working day of receipt of the sample, or after receipt of the Contractors results of the Acceptance sample split. Upon conclusion of each lot, where there is a minimum of four sublots, results shall be examined for statistical outliers, as stated in Section 106.7.2 - Statistical Outliers.

Isolated Areas During the course of inspection, should it appear that there is an isolated area that is not representative of the lot based on a lack of observed compactive effort, excessive segregation or any other questionable practice, that area may be isolated and tested separately. An area so isolated that has a calculated pay factor below 0.80, based on three random tests shall be removed and replaced at the expense of the Contractor for the full lane width and a length not to be less than 50 m [150 ft].

Pavement Density The Department will measure pavement density using core samples tested according to AASHTO T-166. The Department will randomly determine core locations. The Contractor shall cut 6 inch diameter cores at no additional cost to the Department by the end of the working day following the day the pavement is placed, and immediately give them to the Department. Cores for Acceptance testing shall be cut such that the nearest edge is never within 0.225 m (9 inches) of any joint. The cores will be placed in a transport container provided by the Department and transported by the Contractor to the designated MDOT Lab as directed by the Department. Pre-testing of the cores will not be allowed. At the time of sampling, the Contractor and the Department shall mutually determine if a core is damaged. If it is determined that the core(s) is damaged, the Contractor shall cut new core(s) at the same offset and within 1 m [3 ft] of the initial sample. At the time the core is cut, the Contractor and the Department will mutually determine if saw cutting of the core is needed, and will mark the core at the point where sawing is needed. The core may be saw cut by the Contractor in the Department's presence onsite, or in an MDOT Lab by The Department, without disturbing the layer being tested to remove lower layers of Hot Mix Asphalt Pavement, gravel, or RAP. No recuts are allowed at a test location after the core has been tested. Upon conclusion of each lot, density results shall be examined for statistical outliers as stated in Section 106.7.2.

On all sections of overlay with wearing courses designed to be 19 mm [3/4 in] or less in thickness, there shall be no pay adjustment for density otherwise noted in Section 403 - Hot Bituminous Pavement. For overlays designed to be 19 mm [3/4 in] or less in thickness, density shall be obtained by the same rolling train and methods as used on mainline travelway surface courses with a pay adjustments for density, unless otherwise directed by the Department.

There shall be no pay adjustment for density on shoulders unless otherwise noted in Section 403 - Hot Bituminous Pavement. Density for shoulders shall be obtained by the same rolling train and methods as used on mainline travelway, unless otherwise directed by the Department. Efforts to obtain optimum compaction will not be waived by the Department unless it is apparent during construction that local conditions make densification to this point detrimental to the finished pavement surface course.

401.201 Method A Lot Size will be the entire production per JMF for the project, or if so agreed at the Pre-paving Conference, equal lots of up to 4500 Mg [4500 tons], with unanticipated over-runs of up to 1500 Mg [1500 ton] rolled into the last lot. Sublot sizes shall be 750 Mg [750 ton] for mixture properties, 500 Mg [500 ton] for base or binder densities and 250 Mg [250 ton] for surface densities. The minimum number of sublots for mixture properties shall be 4, and the minimum number of sublots for density shall be five.

TABLE 5: METHOD A ACCEPTANCE LIMITS

Property	USL and LSL
Passing 4.75 mm and larger sieves	Target +/-7%
Passing 2.36 mm to 1.18 mm sieves	Target +/-4%
Passing 0.60 mm	Target +/-3%
Passing 0.30 mm to 0.075 mm sieve	Target +/-2%
PGAB Content	Target +/-0.4%
Air Voids	4.0% +/-1.5%
Fines to Effective Binder	0.6 to 1.2
Voids in the Mineral Aggregate	LSL Only from Table 1
Voids Filled with Binder	Table 1 values plus a 4% production tolerance for USL only
% TMD (In place density)	95.0% +/- 2.5%

**For 4.75 mm nominal maximum aggregate size mixtures, the Fines/Effective Binder Ratio is 0.6-1.4.

401.202 Method B Lot Size will be the entire production per JMF for the project and shall be divided into 3 equal sublots for Mixture Properties and 3 equal sublots for density.

TABLE 6: METHOD B ACCEPTANCE LIMITS

Property	USL and LSL
Percent Passing 4.75 mm and larger sieves	Target +/-7
Percent Passing 2.36 mm to 1.18 mm sieves	Target +/-5
Percent Passing 0.60 mm	Target +/-4
Percent Passing 0.30 mm to 0.075 mm sieve	Target +/-3
PGAB Content	Target +/-0.5
Air Voids	4.0% +/-2.0
Fines to Effective Binder	0.6 to 1.4
Voids in the Mineral Aggregate	LSL from Table 1
Voids Filled with Binder	Table 1 plus a 4% production tolerance for USL.
% TMD (In-place Density)	95.0% +/- 2.5%

401.203 Testing Method C Lot Size will be the entire production per JMF for the project, or if so agreed at the Pre-paving Conference, equal lots of up to 4500 Mg [4500 tons], with unanticipated over-runs of up to 1500 Mg [1500 ton] rolled into the last lot. Sublot sizes shall be 750 Mg [750 ton] for mixture properties, 500 Mg [500 ton] for base or binder densities and 250 Mg [250 ton] for surface densities. The minimum number of sublots for mixture properties shall be 4, and the minimum number of sublots for density shall be five.

TABLE 7: METHOD C ACCEPTANCE LIMITS

Property	USL and LSL
Passing 4.75 mm and larger sieves	Target +/-7%
Passing 2.36 mm to 1.18 mm sieves	Target +/-5%
Passing 0.60 mm	Target +/-4%
Passing 0.30 mm to 0.075 mm sieve	Target +/-2%
PGAB Content	Target +/-0.4%
Air Voids	4.0% +/-1.5%
Fines to Effective Binder	0.6 to 1.2
Voids in the Mineral Aggregate	LSL Only from Table 1
Voids Filled with Binder	Table 1 values plus a 4% production tolerance for USL only
% TMD (In place density)	95.0% +/- 2.5%

**For 4.75 mm nominal maximum aggregate size mixtures, the Fines/Effective Binder Ratio is 0.6-1.4.

401.204 Testing Method D For hot mix asphalt items designated as Method D in Section 403 - Hot Bituminous Pavement, one sample will be taken from the paver hopper or the truck body per 250 Mg [250 ton] per pay item. The mix will be tested for gradation and PGAB content. Disputes will not be allowed. If the mix is within the tolerances listed in Table 8: Method D Acceptance Limits, the Department will pay the contract unit price. If the test results for each 250 Mg [250 ton] increment are outside these limits, the following deductions (Table 8b) shall apply to the HMA quantity represented by the test.

TABLE 8: METHOD D ACCEPTANCE LIMITS

Property	USL and LSL
Percent Passing 4.75 mm and larger sieves	Target +/-7
Percent Passing 2.36 mm to 1.18 mm sieves	Target +/-5
Percent Passing 0.60 mm	Target +/-4
Percent Passing 0.30 mm to 0.075 mm sieve	Target +/-3
PGAB Content	Target +/-0.5
% TMD (In-place Density)	95.0% +/- 2.5%

TABLE 8b Method "D" Price Adjustments

PGAB Content	-5%
2.36 mm sieve	-2%
0.30 mm sieve	-1%
0.075 mm sieve	-2%
Density	-10%*

*Only applies when called for in Section 403 - Hot Bituminous Pavement. Contractor shall cut two 150 mm [6 in] cores, which shall be tested for percent TMD per AASHTO T-269. If the average for the two tests falls below 92.5% the disincentive shall apply.

401.21 Method of Measurement The Department will measure Hot Mix Asphalt Pavement by the Mg [ton] in accordance with Section 108.1 - Measurement of Quantities for Payment.

401.22 Basis of Payment The Department will pay for the work, in place and accepted, in accordance with the applicable sections of this Section, for each type of HMA specified.

The Department will pay for the work specified in Section 401.11, for the HMA used, except that cleaning objectionable material from the pavement and furnishing and applying bituminous material to joints and contact surfaces is incidental.

Payment for this work under the appropriate pay items shall be full compensation for all labor, equipment, materials, and incidentals necessary to meet all related contract requirements, including design of the JMF, implementation of the QCP, obtaining core samples, transporting cores and samples, filling core holes, applying emulsified asphalt to joints, and providing testing facilities and equipment.

The Department will make a pay adjustment for quality as specified below.

401.221 Pay Adjustment The Department will sample, test, and evaluate Hot Mix Asphalt Pavement in accordance with Section 106 - Quality and Section 401.20 - Acceptance, of this Specification.

401.222 Pay Factor (PF) The Department will use the following criteria for pay adjustment using the pay adjustment factors under Section 106.7 - Quality Level Analysis:

Density If the pay factor for Density falls below 0.80 for Method A or C or 0.86 for Method B, all of the cores will be randomly re-cut by Sublot. A new pay factor will be calculated that combines all initial and retest results. If the resulting pay factor is below 0.80 for Method A or C or below 0.86 for Method B, the entire Lot shall be removed and replaced with material meeting the specifications at no additional cost to the Department, except that the Department may, when it appears that there is a distinct pattern of defective material, isolate any defective material by investigating each mix sample subplot and require removal of defective mix sample sublots only, leaving any acceptable material in place if it is found to be free of defective material. Pay factors equal to or greater than the reject level will be paid accordingly.

Gradation For HMA evaluated under Acceptance Method A or B, the Department will determine a composite pay factor (CPF) using applicable price adjustment factors "f" from Table 9: Table of Gradation Composite "f" Factors, and Acceptance limits from Table 5: Method A Acceptance Limits, for Method A or Table 6: Method B Acceptance Limits, for Method B. The Department will not make price adjustments for gradation on Methods A and B, but will monitor them as shutdown criteria.

TABLE 9: TABLE OF GRADATION COMPOSITE "f" FACTORS (Methods A and B)

Constituent		"f" Factor			
		19 mm	12.5 mm	9.5 mm	4.75 mm
Gradation	25 mm	-	-	-	-
	19 mm	4	-	-	-
	12.5 mm		4	4	-
	9.50 mm				4
	2.36 mm	6	6	6	8
	1.18 mm				
	0.60 mm	2	2	2	2
	0.30 mm	2	2	2	2
	0.075 mm	6	6	6	8

For HMA evaluated under Acceptance Method C, the Department will determine a pay factor using acceptance limits from Table 7: Method C Acceptance Limits.

VMA, Air Voids, VFB and Fines to Effective Binder The Department will determine a pay factor (PF) using the applicable Acceptance Limits.

The following variables will be used for pay adjustment:

- PA = Pay Adjustment
- Q = Quantity represented by PF in Mg [ton]
- P = Contract price per Mg [ton]
- PF = Pay Factor

Pay Adjustment Method A

The Department will use the following criteria for pay adjustment: density, Performance Graded Asphalt Binder content, voids @N_d, VMA, VFB, F/B_{eff}, and the screen sizes listed in Table 9 for the type of HMA represented in the JMF. If any single pay factor for PGAB Content, VMA, or Air Voids falls below 0.80, then the composite pay factor for PGAB Content, VMA, and Air Voids shall be 0.55.

Density: For mixes having a density requirement, the Department will determine a pay factor using Table 5: Method A Acceptance Limits:

$$PA = (\text{density PF} - 1.0)(Q)(P) \times 0.50$$

PGAB Content, VMA and Air Voids: The Department will determine a pay adjustment using Table 5: Method A Acceptance Limits as follows:

$$PA = (\text{voids @ } N_d \text{ PF} - 1.0)(Q)(P) \times 0.20 + (\text{VMA @ } N_d \text{ PF} - 1.0)(Q)(P) \times 0.20 + (\text{PGAB PF} - 1.0)(Q)(P) \times 0.10$$

VFB and Fines to Effective Binder The Department will determine a pay factor (PF) using Table 5: Method A Acceptance Limits. The Department will not make price adjustments for VFB or Fines to Effective Binder, but will monitor them as shutdown criteria.

Pay Adjustment Method B

The Department will use the following criteria for pay adjustment: density, Performance Graded Asphalt Binder content, voids @N_d, VMA, VFB, F/B_{eff}, and the screen sizes listed in Table 9 for the type of HMA represented in the JMF. If any single pay factor for PGAB Content, VMA, or Air Voids falls below 0.86, then the composite pay factor for PGAB Content, VMA, and Air Voids shall be 0.70.

Density: For mixes having a density requirement, the Department will determine a pay factor using Table 6: Method B Acceptance Limits:

$$PA = (\text{density PF} - 1.0)(Q)(P) \times 0.50$$

PGAB Content, VMA and Air Voids: The Department will determine a pay adjustment using Table 6: Method B Acceptance Limits as follows:

$$PA = (\text{voids @ } N_d \text{ PF} - 1.0)(Q)(P) \times 0.20 + (\text{VMA @ } N_d \text{ PF} - 1.0)(Q)(P) \times 0.20 + (\text{PGAB PF} - 1.0)(Q)(P) \times 0.10$$

VFB and Fines to Effective Binder The Department will determine a pay factor (PF) using Table 6: Method B Acceptance Limits. The Department will not make price adjustments for VFB or Fines to Effective Binder, but will monitor them as shutdown criteria.

Pay Adjustment Method C

The Department will use density, Performance Graded Asphalt Binder content, and the percent passing the nominal maximum, 2.36 mm, 0.300 mm and 0.075 mm sieves for the type of HMA represented in the JMF. If the PGAB content falls below 0.80, then the PGAB pay factor shall be 0.55.

Density: For mixes having a density requirement, the Department will determine a pay factor using Table 7: Method C Acceptance Limits:

$$PA = (\text{density PF} - 1.0)(Q)(P) \times 0.50$$

PGAB Content and Gradation The Department will determine a pay factor using Table 7: Method C Acceptance Limits. The Department will calculate the price adjustment for Mixture Properties as follows:

$$PA = (\% \text{ Passing Nom. Max PF} - 1.0)(Q)(P) \times 0.05 + (\% \text{ passing 2.36 mm PF} - 1.0)(Q)(P) \times 0.05 + (\% \text{ passing 0.30 mm PF} - 1.0)(Q)(P) \times 0.05 + (\% \text{ passing 0.075 mm PF} - 1.0)(Q)(P) \times 0.10 + (\text{PGAB PF} - 1.0)(Q)(P) \times 0.25$$

VMA, Air Voids, VFB and Fines to Effective Binder The Department will determine a pay factor (PF) using Table 7: Method C Acceptance Limits. The Department will not make price adjustments for VMA, Air Voids, VFB or Fines to Effective Binder, but will monitor them as shutdown criteria.

Pay Adjustment Method D

The Department will use density, Performance Graded Asphalt Binder content, and the screen sizes listed in Table 8b for the type of HMA represented in the JMF. If test results do not meet the Table 8 requirements, deducts as shown in Table 8b shall be applied to the quantity of mix represented by the test.

401.223 Process for Dispute Resolution (Methods A B & C only)

a. Dispute Resolution sampling At the time of Hot-Mix Asphalt sampling, the Department will obtain a split sample of each Acceptance test random sample for possible dispute resolution testing. The Contractor shall also obtain a split sample of the HMA at this same time. If the Contractor wishes to retain the option of requesting dispute testing of the initial Acceptance sample, the Contractor will test their split of the

Acceptance sample and shall report their results to the Resident, with a copy to the QA Engineer at the Central Laboratory in Bangor by 7:00 AM, on the second working day from time of QA sampling, otherwise dispute resolution will not be initiated. The Department's dispute resolution split sample will be properly labeled and stored for a period of not more than two weeks, or until the sample is tested.

b. Disputing Acceptance results The Contractor may dispute the Department's Acceptance results and request (Methods A, B, & C) that the dispute resolution split sample be tested by notifying the Department's Resident and the QA Engineer at the Central Laboratory in Bangor in writing within two working days after receiving the results of the Acceptance test. The following shall be provided in the request:

- Acceptance sample reference number
- The specific test result(s) or property(ies) being disputed, and
- The complete, signed report of the Contractor's testing (In a lab certified by the NETTCP and MDOT) of their split of the Acceptance sample indicating that the variances in Table 10: Dispute Resolution Variance Limits, for the specific test result(s) or property(ies) were exceeded.

c. Disputable items The Contractor may dispute any or all of the following Method A or B test results when the difference between the Department's value and the Contractor's value for that test equals or exceeds the corresponding allowable variation in Table 10: Dispute Resolution Variance Limits, PGAB content, G_{mb} , and G_{mm} . In addition, if the allowable variation for these tests is not met or exceeded, the Contractor may dispute either or both of the following material properties provided the difference between results for them equals or exceeds the corresponding allowable variation in Table 10: Voids at N_{design} , and VMA.

For Method C only: The results for PGAB content and the screen sizes used for pay adjustment may be disputed.

d. Outcome The value of any disputed result or property reported for the initial Acceptance sample shall stand if the value reported for the dispute resolution sample is not closer to the value the Contractor reported for their split sample than to the value reported for the initial Acceptance sample. If the value reported for the dispute resolution falls precisely half-way between the other two values the value reported for the dispute resolution will replace the original acceptance value. Otherwise, the value reported for the dispute resolution sample will replace the value reported for the initial Acceptance sample, and will be used to re-calculate any other affected results or properties.

TABLE 10: DISPUTE RESOLUTION VARIANCE LIMITS

PGAB Content	+/-0.4%
G_{mb}	+/-0.030
G_{mm}	+/-0.020
Voids @ N_d	+/-0.8%
VMA	+/-0.8%
Passing 4.75 mm and larger sieves	+/- 4.0%
Passing 2.36 mm to 0.60 mm sieves	+/- 3.0%
Passing 0.30 mm to 0.15	+/- 2.0 %
0.075 mm sieve	+/- 1.0%

SECTION 402 - PAVEMENT SMOOTHNESS

402.00 Smoothness Projects Projects to have their pavement smoothness analyzed in accordance with this Specification will be so noted in Special Provision 403 - Bituminous Box

402.01 Pavement Smoothness The final pavement surface shall be evaluated for smoothness using a Class I or Class II profiler as defined by ASTM E950 (94). Smoothness measurements will be expressed in terms of the International Roughness Index (IRI) as defined by the World Bank, in units of inches/mile.

402.02 Lot Size Lot size for smoothness will be 1000 lane-meters [3000 lane-feet]. A subplot will consist of 20 lane-meters [50 lane-feet]. Partial lots will be included in the previous lot if less than one-half the size of a normal lot. If equal to or greater than one-half the normal lot size, it will be tested as a separate lot.

402.03 Acceptance Testing The Department will conduct Acceptance testing following completion of the surface course. Sections to be excluded from testing include the following:

- Bridge decks and joints (no smoothness measurements will be taken within 30 m [100 ft] of bridge joints)
- Acceleration and deceleration lanes
- Shoulders and ramps
- Side streets and roads
- Within 30 m [100 ft] of transverse joints at the beginning and end of the project
- Within 30 m [100 ft] of railroad crossings
- Urban areas with speed limits of 50 kph [30 mph] or lower

Each lot shall have 2 measurements made in each wheel path. The average of the 4 measurements will determine the smoothness for that lot.

The smoothness measurements will be statistically evaluated for pay factors as described in Subsection 106.7 - Quality Level Analysis, using the specification limits shown below.

ACCEPTANCE LIMITS	
Level	USL
I	0.95 m/km [60 in/mile]
II	1.10 m/km [70 in/mile]
III	1.25 m/km [80 in/mile]

Computation of Smoothness Pay Adjustment:

$$PA = (PF-1.0)(Q)(P)$$

where:

Q = Quantity of surface course in the Lot (excluding shoulders, side streets, bridge decks, ramps, acceleration and deceleration lanes)

PF = smoothness pay factor for the Lot

P = Contract unit price for surface pavement

PA = pay adjustment

402.04 Unacceptable Work In the event that any Lot is found to have a pay factor less than 0.80, the Contractor shall take whatever remedial action is required to correct the pavement surface in that Lot at no additional expense to the Department. Such remedial action may include but is not limited to removal and replacement of the unacceptable pavement. In the event remedial action is necessary, the Contractor shall submit a written plan to the Resident outlining the scope of the remedial work. The Resident must approve this plan before the remedial work can begin. Following remedial work, the Lot shall be retested, and will be subject to the specification limits listed above. The resulting pay factor, if within the acceptable range, will be used in the final pay adjustment. The Contractor shall pay the cost of retesting the pavement following corrective action.

Localized surface tolerance defects will be subject to the provisions outlined in Section 401.101 Surface Tolerances.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
402.10 Incentive/Disincentive - Pavement Smoothness	Lump Sum

SECTION 403 - HOT BITUMINOUS PAVEMENT

403.01 Description This work shall consist of constructing one or more courses of bituminous pavement on an approved base in accordance with these specifications, and in reasonably close conformity with the lines, grades, thickness and typical cross sections shown on the plans or established.

The bituminous pavement shall be composed of a mixture of aggregate, filler if required, and bituminous material.

403.02 General The materials and their use shall conform to the requirements of Section 401 - Hot Mix Asphalt Pavement.

403.03 Construction The construction requirements shall be as specified in Section 401 - Hot Mix Asphalt Pavement.

In addition, hot bituminous pavement placed on bridges shall also conform to the following requirements.

- a. The mixture shall be composed of aggregate, PGAB and mineral filler but no recycled asphalt pavement and placed in courses as specified in the Special Provisions.
- b. The bottom course shall be placed with an approved rubber mounted bituminous paver of such type and operated in such a manner that the membrane waterproofing will not be damaged in any way.
- c. The top course shall not be placed until the bottom course has cooled sufficiently to provide stability.
- d. The Contractor will not be required to cut sample cores from the compacted pavement on the bridge deck.
- e. After the top course has been placed, the shoulder areas shall be sealed 1 meter [3 ft] wide with two applications of an emulsified bituminous sealer meeting the requirements of Section 702.12 - Emulsified Bituminous Sealing Compound. The first application shall be pre-mixed with fine, sharp sand, similar to mortar sand, as needed to fill all voids in the mix in the area being sealed. The second application may be applied without sand. The sealer shall be carried to the curb at the gutter line in sufficient quantity to leave a bead or fillet of material at the face of the curb. The area to be sealed shall be clean, dry and the surface shall be at ambient temperature.
- f. The furnishing and applying of the required quantity of sealer for the bridge shoulder areas shall be incidental to placing the hot bituminous pavement.
- g. The atmospheric temperature for all courses on bridge decks shall be 10°C [50°F] or higher.

403.04 Method of Measurement Hot bituminous pavement will be measured as specified in Section 401.21- Method of Measurement.

403.05 Basis of Payment The accepted quantities of hot bituminous pavement will be paid for at the contract unit price per Megagram [ton] for the bituminous mixtures, including bituminous material complete in place.

Method A, Method B, Method C and Method D shall be used for acceptance as specified in Section 401 - Hot Mix Asphalt Pavements. (See Complementary Notes, Section 403 - Hot Bituminous Pavement, for Method location).

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
403.102 Hot Mix Asphalt Pavement for Special Areas	MG [Ton]
403.206 Hot Mix Asphalt, 25 mm Nominal Maximum Size	MG [Ton]
403.207 Hot Mix Asphalt, 19.0 mm Nominal Maximum Size	MG [Ton]
403.2071 Hot Mix Asphalt , 19.0 mm Nominal Maximum Size	MG [Ton]
403.2072 Asphalt Rich Hot Mix Asphalt, 19.0 mm Nominal Maximum Size (Asphalt Rich Base and Intermediate course)	MG [Ton]
403.208 Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	MG [Ton]
403.2081 Hot Mix Asphalt - 12.5 mm Nominal Maximum Size (PG 70-28)	MG [Ton]
403.209 Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (sidewalks, drives, islands & incidentals)	MG [Ton]
403.210 Hot Mix Asphalt, 9.5 mm Nominal Maximum Size	MG [Ton]
403.2101 Hot Mix Asphalt - 9.5 mm Nominal Maximum Size (PG 70-28)	MG [Ton]
403.2102 Asphalt Rich Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Asphalt Rich Intermediate course)	MG [Ton]
403.211 Hot Mix Asphalt (shimming)	MG [Ton]
403.212 Hot Mix Asphalt, 4.75 mm Nominal Maximum Size	MG [Ton]
403.2131 Hot Mix Asphalt, 12.5 mm Nominal Maximum Size, (PG 70-28) (Base and Intermediate Base course)	MG [Ton]
403.2132 Asphalt Rich Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base course)	MG [Ton]

SPECIAL PROVISION
SECTION 400
HOT MIX ASPHALT PAVEMENTS
(Polymer Modified PGAB for HMA)

401.05 Performance Graded Asphalt Binder This section and Special Provision 403 has been amended as follows:

The Contractor shall compose the Hot Mix Asphalt Pavement with aggregate, Performance Graded Asphalt Binder (PGAB), and mineral filler if required. Performance Graded Asphalt Binder shall be polymer modified as detailed below and shall conform to the requirements of AASHTO M 320. The required PGAB shall be a storage-stable, pre-blended, homogeneous, polymer modified asphalt binder that meets a **PG 70-28** to **PG 76-28** grading.

The Contractor shall ensure that the binder's rolling thin film oven test (AASHTO T 240) residue has a minimum elastic recovery (ASTM D 6084, Procedure A) of 60 percent when tested for at 25 °C. The Contractor shall provide the Department with documentation and test results from the asphalt binder provider showing that the PGAB meets the requirements of this special provision. The Department may take an informational sample of the polymer modified PGAB at any time to evaluate its elastic recovery value.

Payments will be made under the appropriate mixture type used:

Pay Item

<u>Pay Unit</u>		
403.2071	19.0 mm Polymer Mod. Hot Mix Asphalt Base	Ton
403.2081	12.5 mm Polymer Mod. Hot Mix Asphalt Surface	Ton
403.2101	9.5 mm Polymer Mod. Hot Mix Asphalt	Ton
403.2111	9.5 mm Polymer Mod. Hot Mix Asphalt Shim	Ton
403.2121	4.75 mm Polymer Mod. Hot Mix Asphalt Shim	Ton
403.2131	12.5 mm Polymer Mod. Hot Mix Asphalt Base	Ton

SPECIAL PROVISION
SECTION 401
PLANT MIX PAVEMENTS - GENERAL
(Material Transfer Vehicle)

The hot bituminous mix for all leveling, base, binder and wearing courses shall be transferred to the paver by a material transfer vehicle (MTV) on main line paving.

The MTV shall operate as an independent unit not attached to the paver. It shall be a commercially manufactured unit specifically designed to transfer the hot mix from haul trucks to the paver without depositing the mix on the roadway.

Also required is a separate hopper with a capacity of 18 Mg [20 ton] that shall be inserted into the regular paver hopper.

The MTV or the hopper insert shall be designed so that the mix receives additional mixing action either in the MTV unit or the paver hopper.

The MTV and the hopper insert will not be paid for directly, but will be considered incidental to the related contract pay items.

SPECIAL PROVISION

SECTION 403

HOT MIX ASPHALT

Desc. Of Course	Grad Design.	Item Number	Bit Cont. % of Mix	Total Thick	No. Of Layers	Comp. Notes
<u>2" Mill with 2" HMA Overlay Areas</u>						
<u>Mainline Travel Lanes, Auxiliary Lanes, and Shoulders</u>						
Wearing	12.5 mm	403.2081	N/A	2"	1	1,6,7,12,19
Shim	9.5 mm	403.211	N/A	variable	1	2,6,8,11
<u>1.5" Mill with 1.5" HMA Overlay Areas</u>						
<u>On and Offramp Travel Lanes</u>						
Wearing	12.5 mm	403.2081	N/A	1 ½"	1	5,8,12
<u>6" HMA Rebase Areas</u>						
<u>Forest Avenue Approach</u>						
<u>Mainline Travel Lanes, Auxiliary Lanes, and Shoulders</u>						
Wearing	12.5 mm	403.2081	N/A	2"	1	1,6,7,12,19
Base	12.5 mm	403.2131	N/A	4"	2	1,6,8
<u>3 ½" HMA Rebase Areas</u>						
<u>Forest Avenue Departure</u>						
<u>Mainline Travel Lanes, Auxiliary Lanes, and Shoulders</u>						
Wearing	12.5 mm	403.2081	N/A	2"	1	1,6,7,12,19
Base	12.5 mm	403.2131	N/A	1 ½"	1	1,6,8
<u>5" HMA Rebase Areas</u>						
<u>Preble Street Approach</u>						
<u>Mainline Travel Lanes, Auxiliary Lanes, and Shoulders</u>						
Wearing	12.5 mm	403.2081	N/A	2"	1	1,6,7,12,19
Base	12.5 mm	403.2131	N/A	3"	2	1,6,8
<u>5 ½" HMA Rebase Areas</u>						
<u>Preble Street Departure</u>						
<u>Mainline Travel Lanes, Auxiliary Lanes, and Shoulders</u>						
Wearing	12.5 mm	403.2081	N/A	2"	1	1,6,7,12,19
Base	12.5 mm	403.2131	N/A	3 ½"	2	1,6,8
<u>Spot Shims - Delaminated Areas as Directed</u>						
Shim	9.5 mm	403.211	N/A	variable	1	2,6,8,11

COMPLEMENTARY NOTES

1. The required PGAB for this mixture will meet a **PG 70-28** to **PG 76-28** grading. Refer to Special Provision 400 – Polymer Modified PGAB for HMA, for additional testing and documentation requirements. The use of Recycled Asphalt Pavement (RAP) will not be permitted in mixtures utilizing modified PGAB's.
2. The density requirements are waived. The use of an oscillating steel roller shall be required to compact all HMA pavements placed on bridge decks in addition to the normal roller train.

5. The aggregate qualities shall meet the design traffic level of 3 to <10 million ESALS for mix placed under this contract. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **75 gyrations**.
6. The design traffic level for mix placed shall be 10 to <30 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **75 gyrations**.
7. Section 106.6 Acceptance, (1) Method A.
8. Section 106.6 Acceptance, (2) Method B.
11. The combined aggregate gradation required for this item shall be classified as a 9.5mm “**fine graded**” mixture, (using the Primary Control Sieve control point) as defined in 703.09.
12. The combined aggregate gradation required for this item shall be classified as a 12.5mm “**fine graded**” mixture (using the Primary Control Sieve control point) as defined in 703.09.
19. The use of a Material Transfer Vehicle (MTV) shall be required on this layer.

Tack Coat

A tack coat of emulsified asphalt, RS-1, Item #409.15 shall be applied to any existing pavement at a rate of approximately 0.025 G/SY, and on milled pavement approximately 0.05 G/SY, prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim / intermediate course and the surface course at a rate of 0.025 G/SY.

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

SPECIAL PROVISION

SECTION 403

HOT MIX ASPHALT OVERLAY

Desc. of Course	Grad Design	Item Number	Bit Cont. % of Mix	Total Thick	No. Of Layers	Comp. Notes
<u>Fore River, PTRR Bridges, Portland Connector, Congress and Park Avenue, St. James Street, St. John Street, Preble Street, Forest Avenue, and Franklin Arterial Bridge</u>						
<u>2 ½" HMA Resurfacing Travel Lanes and Shoulders</u>						
Wearing	12.5mm	403.2081	N/A	1 ½"	1	1,2,6,7,12
Base	9.5mm	403.2101	N/A	1"	1	1,2,6,8
<u>Westbrook Street and Route 703 Bridge</u>						
<u>3" HMA Resurfacing Travel Lanes and Shoulders</u>						
Wearing	12.5mm	403.2081	N/A	1 ½"	1	1,2,6,7,12
Base	12.5mm	403.2131	N/A	1 ½"	1	1,2,6,8
<u>Washington Ave On Ramp Bridge</u>						
<u>3" Minimum Varying Depth HMA Resurfacing Travel Lanes and Shoulders</u>						
Wearing	12.5mm	403.2081	N/A	1 ½"	1	1,2,6,7,12
Base	12.5mm	403.2131	N/A	1 ½"	1	1,2,6,8
Shim	9.5mm	403.211	N/A	Varies	2/more	2,6,8,11

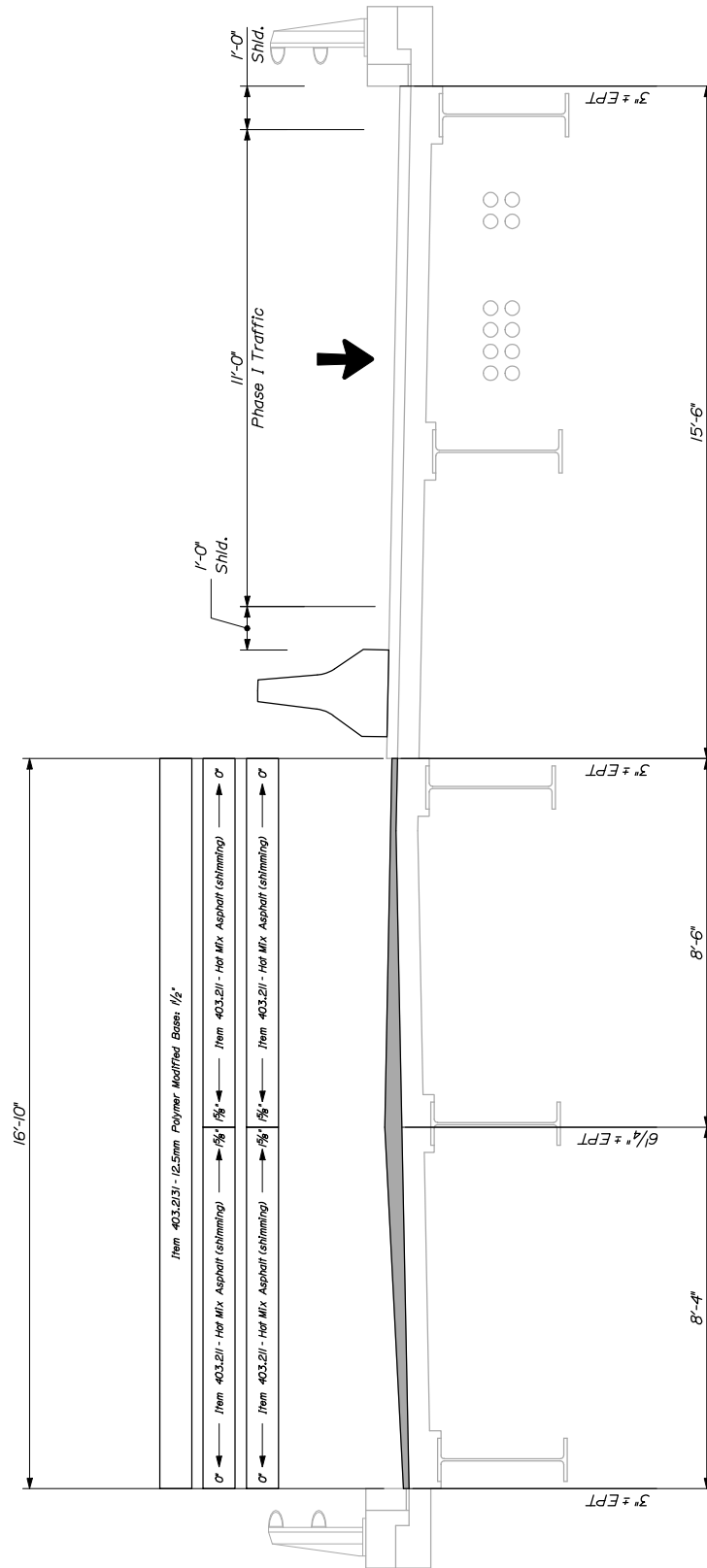
COMPLEMENTARY NOTES

1. The required PGAB for this mixture will meet a **PG 70-28** to **PG 76-28** grading. Refer to Special Provision 400 – Polymer Modified PGAB for HMA, for additional testing and documentation requirements. The use of Recycled Asphalt Pavement (RAP) will not be permitted in mixtures utilizing modified PGAB's.
2. The density requirements are waived. The use of an oscillating steel roller shall be required to compact all HMA pavements placed on bridge decks in addition to the normal roller train.
6. The design traffic level for mix placed shall be 10 to <30 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **75 gyrations**.
7. Section 106.6 Acceptance, (1) Method A.
8. Section 106.6 Acceptance, (2) Method B.
11. The combined aggregate gradation required for this item shall be classified as a 9.5mm "**fine graded**" mixture, (using the Primary Control Sieve control point) as defined in 703.09.
12. The combined aggregate gradation required for this item shall be classified as a 12.5mm "**fine graded**" mixture (using the Primary Control Sieve control point) as defined in 703.09.

Tack Coat

A tack coat of emulsified asphalt, RS-1, Item #409.15 shall be applied to any existing pavement at a rate of approximately 0.025 G/SY, and on milled pavement approximately 0.05 G/SY, prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim / intermediate course and the surface course, at a rate not to exceed 0.025 G/SY.

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



PHASE I - PAVEMENT LIFT THICKNESSES
WASHINGTON AVENUE NORTHBOUND ON RAMP OVER EAST COMMERCIAL STREET
N.T.S.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-295 NB Portland (12 Bridges)

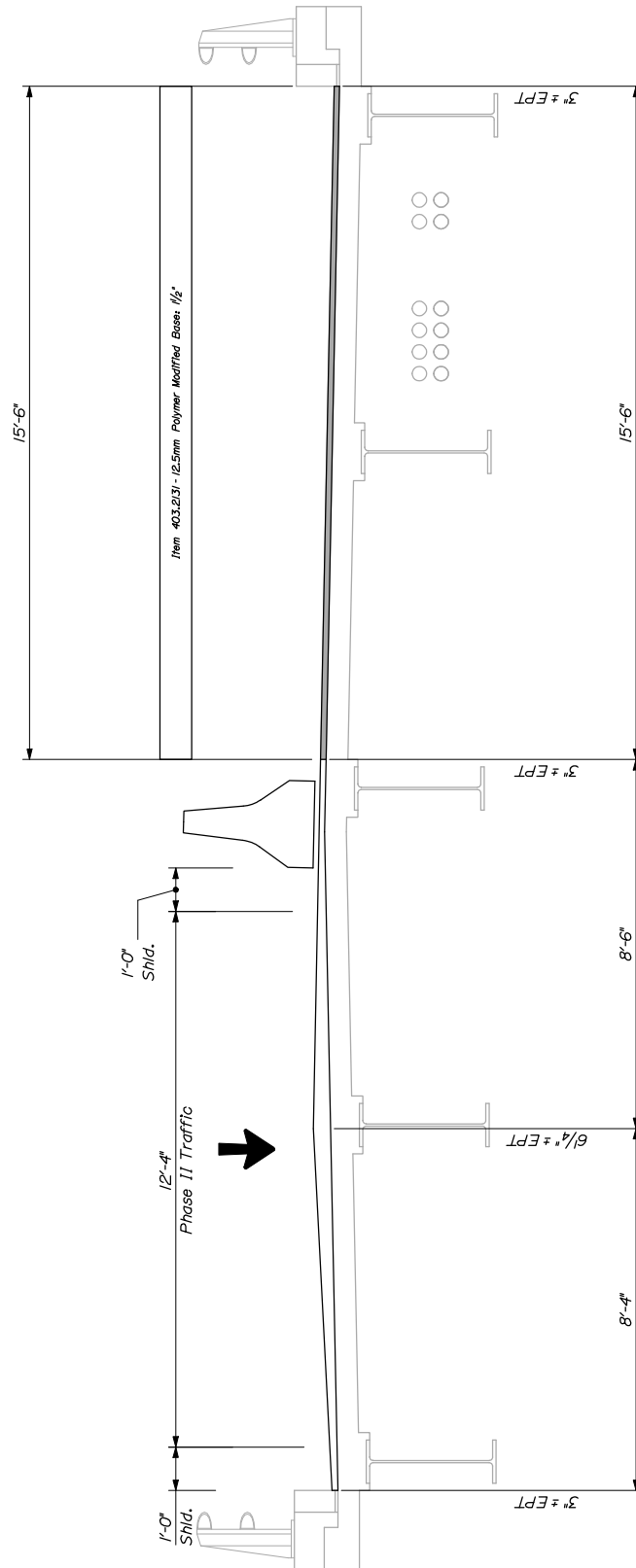
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STAGED CONSTRUCTION PHASING DETAILS

SHEET NUMBER

1 144

OF 3



PHASE II - PAVEMENT LIFT THICKNESSES
WASHINGTON AVENUE NORTHBOUND ON RAMP OVER EAST COMMERCIAL STREET
N.T.S.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

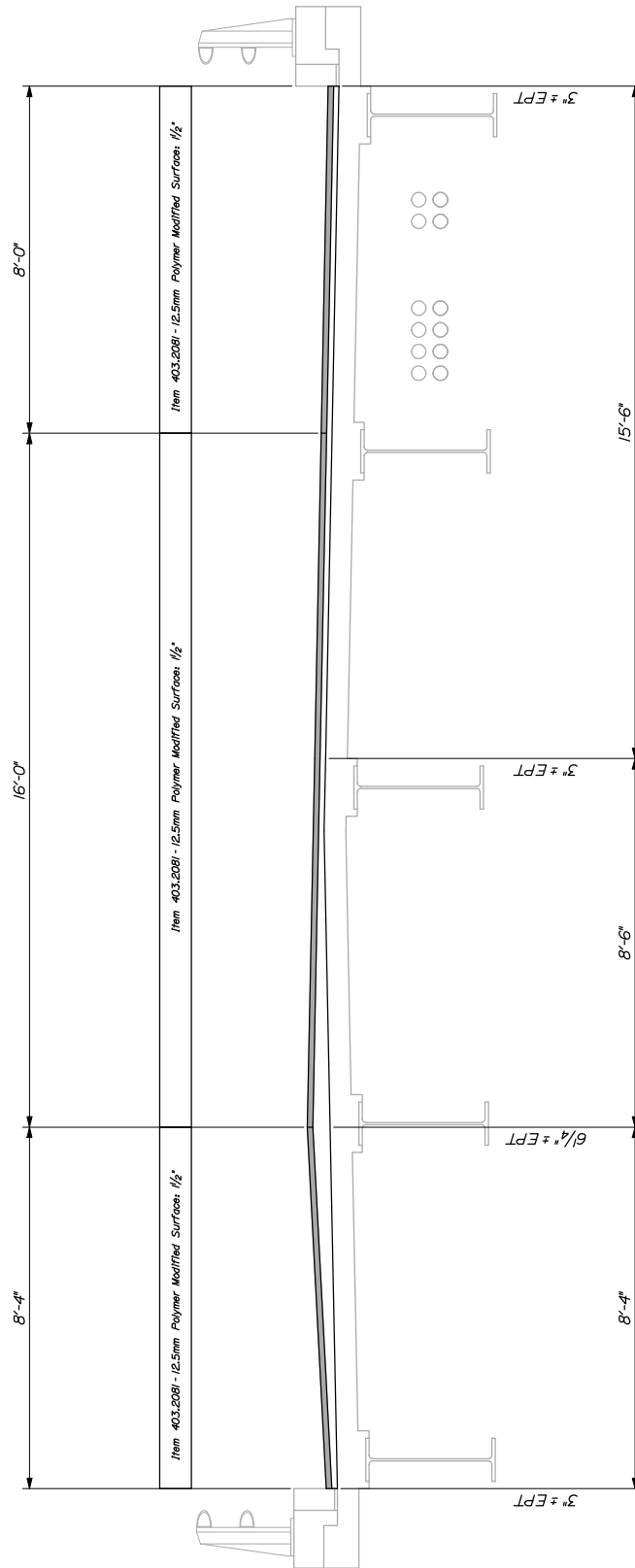
I-295 NB Portland (12 Bridges)

17929.10

STAGED CONSTRUCTION PHASING DETAILS

SHEET NUMBER

2 145
OF 3



SURFACE PAVEMENT LIFT THICKNESSES
WASHINGTON AVENUE NORTHBOUND ON RAMP OVER EAST COMMERCIAL STREET
N.T.S.

NOTES:
1. Surface pavement shall be done as night work.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-295 NB Portland (12 Bridges)

SHEET NUMBER

3 146

17929.10

STAGED CONSTRUCTION PHASING DETAILS

OF 3

SPECIAL PROVISION
SECTION 424
ASPHALT LOW MODULUS CRACK SEALER

Description This work shall consist of the furnishing and placement of crack sealing material in the cracks of existing bituminous concrete pavement in accordance with these Special Provisions. Placement shall consist of: 1) crack cleaning and drying, 2) material preparation and application, 3) material finishing and shaping and 4) barrier material and application.

Materials low modulus crack sealant material shall conform to ASTM D-3405 and the following specification.

Cone Penetration	90 - 150
Flow @ 60°C [140°F]	< 3.0mm [$\frac{1}{8}$ in]
Bond, non-immersed	Three 12.7mm [$\frac{1}{2}$ in] 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 60°C [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 Crack Sealer shall not be applied on a wet surface or when the atmospheric temperature is below 10°C [50°F] in a shaded area at the job site, or when weather conditions are otherwise unfavorable to proper construction procedures.

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

(a) Air Compressor: Air compressors shall be portable and capable of furnishing not less than 3 m³ [4 yd³] of air per minute at not less than 620 kPa [90 psi] pressure at the nozzle. The

compressor shall be equipped with traps that will maintain the compressed air free of oil and water.

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

(c) Hot Air Lance: Should operate with propane and compressed air in combination at 1100°C - 1650°C [2000°F - 3000°F], exit air heated at 310 m/s [1000 ft/s]. The lance should draw propane from no smaller than a 45 Kg [100 lb] tank using separate hoses for propane and air draw. The hoses shall be wrapped together with reflectorized wrap to keep them together and to protect workers in low light situations.

(d) Hand Tools: Shall consist of V-shaped squeegee, brooms, shovels, metal bars with chisel shaped ends, and any other tools which may be satisfactorily used to accomplish this work.

(e) 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 320°C [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 94°C [200°F] and 290°C [550°F].

(f) Application Wand: The application wand shall apply a controlled flow of material via an insulated or heated hose. The nozzle shall distribute the material as called for in this specification. A pressure regulator shall be provided to regulate pressure at the nozzle. A bypass line into the holding tank is required for use when the nozzle is shut off.

Preparation All cracks greater than 5 mm [$\frac{1}{4}$ in] shall be blown free of loose material, dirt, vegetation, and other debris by high pressure air. Material removed from the crack shall be removed from the pavement surface by means of a power sweeper or appropriate hand tools as required. Cracks showing evidence of vegetation after being blown out shall be additionally cleaned by appropriate hand tools and additionally blown out. All cracks must be blown and heated via the hot air lance 10 minutes prior to the crack being sealed. Distance between the hot air lance and the crack sealing unit should be no more than 15 m [50 ft] to eliminate reinvasion of water, debris, and other incompressibles. All debris, vegetation, and water shall be removed to enhance adhesion of the crack sealing material. THIS WORK SHALL NOT BE DONE IN INCLEMENT WEATHER.

Preparation and Placement of Sealer The low modulus crack sealer material shall be heated and applied at the temperature specified by the manufacturer and approved by the Resident or authorized representative. Any material that has been heated above the manufacturer's specification shall not be used. Material that is reheated or held at temperature for an extended

period of time may be used as allowed by the manufacturer's specification and approval of the Resident or authorized representative. The Contractor shall provide the Resident or authorized representative with a suitable device for verifying the sealant temperature in the kettle and at the application site.

Any over application or spills are to be removed to the satisfaction of the Resident or authorized representative. Any sealed areas with damaged or contaminated sealer or visible voids are to be removed, prepared and resealed.

Sealer shall be delivered to the crack while the cracks are still hot from the hot air lance preparation through a pressure hose line and applicator shoe. The shoe width and the sealer overbanding area shall vary from 50 mm - 100 mm [2 in - 4 in] depending on the severity of the cracks. The applicator shall be followed by a V-shaped squeegee to minimize the thickness of the overband. Any loose material on the surface or in the crack, which may contaminate the crack sealer or impede bonding of the sealant to the pavement, is to be removed by hand tools prior to crack filling. No crack filling material shall be applied in a crack that is wet or where frost, snow, or ice is present. The ambient air temperature must be 10°C [50°F] or higher.

If the sealed area is to be opened to traffic immediately, a barrier material such as Glenzoi or an equivalent approved by the Resident shall be provided by the Contractor and shall be applied to the crack sealer to prevent pickup as directed by the Resident or authorized representative. **Areas which are designated by the Department to be overlaid shall have a cure time of 7 days.**

Quality of Work Excess of spilled 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 or authorized representative.

Method of Measurement Asphalt Low Modulus Crack Sealer will be measured by the pound of sealant used. The manufacturer's weights of the sealant will be accepted as the basis for measurement.

Basis of Payment. The accepted quantity of Low Modulus Crack Sealer will be paid for at the contract unit price per pound complete in place. This price shall be full compensation for furnishing and placing crack sealer, including cleaning cracks and furnishing and placing barrier materials if necessary.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
424.3331 Asphalt Low Modulus Crack Sealer, Applied	Pound

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-3405 and the following specification.

Cone Penetration	90 - 150
Flow @ 60°C [140°F]	< 3.0mm [? in]
Bond, non-immersed	Three 12.7mm [½ in] 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 60°C [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 10°C [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 2°C [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 170°C - 200°C [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 and the sealer**

overbanding area shall include the entire vertical height of the joint and vary from 25 mm+- [1 in] on the horizontal surface. The sealer shall be applied at a rate that produces a coating thickness of 3 mm [1/8 in], 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 320°C [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 94°C [170°F] and 290°C [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 429
PAVEMENT REINFORCING SYSTEM
 (Grid/Paving Fabric Composite Pavement Interlayer)

Description This work shall consist of furnishing and placing a grid/paving fabric reinforcement composite as a strip interlayer in the HMA base layers prior to the placement of the final HMA base layer. The composite shall be installed over the initial HMA base layer placed, as indicated on the plans and as manufacturer's recommendations.

Materials The composite paving material shall consist of a non-woven paving fabric bonded to an epoxy coated glass fiber structural grid. The composite paving material shall meet the physical properties as specified in the following tables.

Composite

Property	Test Method	Requirement
Unit Weight of Grid/Fabric - oz/yd ² [g/m ²]	ASTM D-5261-92	16 [550]
Tensile Strength by single strand method ¹ - lbs/in [kN/m]	ASTM D-6637-01	560 [100]
Ultimate Elongation - %	ASTM D-6637-01	< 5
Strength @ 2% Strain ¹ - lbs/in [kN/m]	ASTM D-6637-01	280 [50]
Grid Junction Strength ¹ - lbs [N]	GSI/GG-2	18 [80]
Peel Strength ¹ - lbs/in [kN/m]	ASTM D-413	10 [146]
Aperture Size ² - MD/XD - in [mm]	-----	.80/.80 [20/20]
Melting Point - ° F [° C]	ASTM D-276	> 425 [> 218]

Nonwoven Paving Fabric

Property	Test Method	Requirement
Grab Tensile ¹ - lbs [N]	ASTM D-4632	101 [450]
Elongation ¹ - %	ASTM D-4632	50
Asphalt Retention - gal/yd ² [l/m ²]	ASTM D-6140	0.20 [0.90]
Weight - oz/yd ² [g/m ²]	ASTM D-5261	4.1 [140]

Notes: 1- Minimum average roll values, 2 - tested with grid adhered to fabric

Tack Coat A PGAB 64-28, or product recommended by the manufacturer shall be applied in accordance with manufacturer's recommendations. The use of cutbacks or emulsions that contain solvents shall not be permitted.

CONSTRUCTION REQUIREMENTS

Shipping and Storage The paving composite shall be kept dry and protected from the elements during shipping and storage. If stored outdoors, the composite shall be elevated and protected with a waterproof cover.

Weather Limitations The air and pavement temperatures shall be at least 50°F [10°C] and rising for the placement of the PG 64-28 asphalt binder. The paving composite or the asphalt tack coat shall not be placed in wet weather conditions.

Surface Preparation The membrane shall be applied between the Hot Mix Asphalt (HMA) base course and binder course. The area being repaired shall first be cleaned by sweeping or with compressed air and maintained free of accumulation of debris such as dirt, dust, gravel, grass, and other material. Non-compressible objects shall be removed from the pavement joints prior to repair.

PGAB Tack Coat Application The PGAB tack coat shall be applied using a calibrated distributor spray bar, hand spraying, squeegee or brush. The tack coat shall be uniformly applied at a rate sufficient to saturate the paving fabric and to bond the fabric to the HMA base pavement surface. The PGAB tack coat application rate 0.232 to 0.27 gallons per square yard [1.05 to 1.2 liters per square meter] as required by the roadway surface and environmental conditions. The temperature of the PGAB tack coat shall be sufficiently high to permit a uniform spray pattern. PGAB tack coat shall be sprayed between 290° F to 325° F [144° C to 163°C]. The target width of the tack coat application shall be equal to the paving fabric width plus 4" to 6" [101 mm to 152 mm]. Traffic shall not be allowed on the tack coat. Excess tack coat shall be cleaned from the pavement.

Paving Composite Placement The paving composite shall be placed onto the tack coat using mechanical or manual laydown equipment capable of providing a smooth installation with a minimum amount of wrinkling or folding. The minimum thickness of HMA over the composite shall be 1.5 inches [38 mm]. Composite wrinkles severe enough to cause folds shall be slit and laid flat. Brooming and/or rubber-tire rolling will be required to maximize paving composite contact with the HMA base layer surface. Additional hand-placed tack may be required at overlays or repair areas as determined by the Resident. No traffic except necessary construction traffic for the installation of the composite shall be allowed to drive on the paving composite. Turning and braking of the paver and other construction vehicles shall be done gradually and kept to a minimum to avoid damaging or moving the composite. Damaged composite shall be removed and replaced with the same composite and tack coat as per the requirements of this special provision. All paving composite shall be paved the same day it is placed.

Joints and Overlaps At joints, composite rolls shall overlap 2” to 6” [50 mm to 150 mm]. End joints and joints from repairs of wrinkles should be made to overlay or “shingle” in the direction that the final HMA base layer is placed. Excess material shall be cut and removed to ensure that overlaps do not exceed 6” [150 mm]. A uniform application of tack coat shall be applied between all fabric overlaps.

HMA Final Base Layer Placement The HMA base layer shall be placed on the same day that the paving composite is placed. Excess tack coat that bleeds through the composite shall be removed by broadcasting sand on the paving composite. Excess sand shall be removed before the beginning of the paving operation. In the event of rainfall on the composite occurs prior to the placement of the final HMA base layer, the paving composite must be allowed to dry completely before the final base layer is placed. The minimum compacted thickness of the first lift on HMA over the paving composite shall be 1.5” [38 mm].

Method of Measurement The membrane system shall be measured by the square foot [square meter] in place.

Basis of Payment The accepted quantity of Grid/Fabric Fabric Composite Pavement Interlayer will be paid for at the contract unit price per square foot (m²). Payment will be full compensation for furnishing and placing the paving composite and for all labor and other incidentals necessary to complete the work.

Payment shall be made under:

<u>Pay Items</u>	<u>Pay Unit</u>
429.34 Grid/Fabric Fabric Composite Pavement Interlayer	square foot (square meter)

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(QC/QA Acceptance Methods)

CLASS OF CONCRETE	ITEM NUMBER	DESCRIPTION	P	METHOD
LP	502.70	Bridge Drain – Type A		C
LP	502.70	Bridge Drain – Type A (Modified)		C
LP	502.70	Bridge Drain – Type C		C
LP	502.702	Remove Bridge Drain		C
LP	510.41	Special Detour – Median Island Removal & Reconstruction, Bridge		
A	518.50	Repair of Upward Facing Surfaces – To Reinforcing Steel < 7.9 IN		C
A	518.51	Repair of Upward Facing Surfaces – Below Reinforcing Steel < 7.9 IN		C
A	518.52	Repair of Upward Facing Surfaces > 7.9 IN		
A	518.60	Repair of Vertical Surfaces < 7.9 IN		C
A	518.61	Repair of Vertical Surfaces > 7.9 IN		C
LP	520.243	Bridge Joint Modification Type 3		C
LP	520.245	Bridge Joint Modification Type 5		C
LP	520.246	Bridge Joint Modification Type 6		C
LP	526.34	Permanent Concrete Transition Barrier		C

P values listed above reflect the price per cubic yard (YD³) for all pay adjustment purposes.

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(Quality Level Analysis)

502.01 Description In second sentence, replace "...METHOD B Small Quantity Product Verification..." with "...METHOD B Statistical Acceptance..."

502.05 Composition and Proportioning Delete Table 1 and replace with the following;

TABLE 1- Methods A, B, and C

Concrete CLASS	Compressive Strength (PSI)		Permeability (COULOMBS)		Entrained Air (%)		Notes
	LSL	USL	LSL	USL	LSL	USL	
S	2,900	N/A	N/A	N/A	6.0	8.5	1, 5
A	4,350	-----	-----	2,400	6.0	8.5	1,2,5,6
P	-----	-----	-----	-----	5 ½	7 ½	1,2,3,4,5
LP	5,075	-----	-----	2,000	6.0	8.5	1,2,5,6
Fill	2,900	N/A	N/A	N/A	N/A	N/A	6

502.503 Delete and replace with the following;

"502.0503 Quality Assurance METHOD B The Department will determine the acceptability of the concrete through a quality assurance program.

The Department will take Quality Assurance samples a minimum of once per subplot on a statistically random basis. Quality Assurance tests will include compressive strength, air content and permeability.

Concrete sampling for quality assurance tests will be taken at the discharge point, with pumped concrete sampling taken at the discharge end of the pump line.

Lot Size A lot size shall consist of the total quantity represented by each class of concrete in the Contract, except in the case when the same class of concrete is paid for under both lump sum items and unit price items in the Contract; in this case, the lump sum item quantities shall comprise 1 lot and the unit price item quantities shall comprise a separate lot. A lot shall consist of a minimum of 3 and a maximum of 10 sublots. If a lot is comprised of more than 10 sublots, sized in accordance with Table #3, then this quantity shall be divided equally into 2, or more, lots such that there is a minimum of 3 and a maximum of 10 sublots per lot. If there is insufficient quantity in a lot to meet the recommended minimum subplot size, then the lot shall be divided into 3 equal sublots.

Sublot Size, General The size of each sublot shall be determined in accordance with Table #3. The Resident may vary sublot sizes based on placement sizes and sequence.

Sublot Size, Unit Price Items Sublot sizes will initially be determined from estimated quantities. When the actual final quantity of concrete is determined: If there is less than one-half the estimated sublot quantity in the remaining quantity, then this quantity shall be combined with the previous sublot, and no further Acceptance testing will be performed; if there is more than one-half the estimated sublot quantity in the remaining quantity, then this quantity shall constitute the last sublot and shall be represented by Acceptance test results. If it becomes apparent part way through a lot that, due to an underrun in quantity, there will be an insufficient quantity of concrete to comprise three sublots, then the Resident may adjust the sizes of the remaining sublots and select new sample locations based on the revised estimated quantity of concrete remaining in the lot.

Sublot Size, Lump Sum Items Each lot shall be divided into sublots of equal size, based on the estimated quantity of concrete.

TABLE 3

Quantity m ³ [cy]	Recommended Sublot Size m ³ [cy]
0-400 [0-500]	40 [50]
401-800 [501-1000]	60 [75]
801-1600 [1001-2000]	80 [100]
1601 [2001] or greater	200 [250]

Determination of the concrete cover over reinforcing steel for structural concrete shall be made prior to concrete being placed in the forms. Bar supports, chairs, slab bolsters, and side form spacers shall meet the requirements of Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Practice, Chapter 3 Section 2.5 Class 1, Section 2.6 Class 1A, or Section 4. All supports shall meet the requirements for type and spacing as stated in the CRSI Manual of Standard Practice, Chapter 3. Concrete will not be placed until the placing of the reinforcing steel and supports have been approved by the Resident. If the Contractor fails to secure Department approval prior to placement, the Contractor's failure shall be cause for removal and replacement at the Contractor's expense. The Contractor shall notify the Resident, at least 48 hours prior to the placement, when the reinforcing steel will be ready for checking. Sufficient time must be allowed for the checking process and any needed repairs.

Evaluation of materials will be made using the specification limits in Table 1.

Compressive strength tests will be completed by the Department in accordance with AASHTO-T22 at ≥ 28 days, except that no slump will be taken. The average of two concrete cylinders per sublot will constitute a test result and this average will be used to determine the compressive strength for pay adjustment computations.

Testing for Entrained Air in concrete, at the rate of one test per subplot, shall be in accordance with AASHTO T152.

Rapid Chloride Permeability test specimens will be completed by the Resident in accordance with AASHTO T-277 at an age ≥ 56 days. Two 100 mm x 200 mm [4 in x 8 in] cylinders will be taken per subplot placed.

Surface Tolerance, Alignment and Trueness, Plumb and Batter, and Finish will be measured as described in Section 502.0502.

Rejection by Resident For an individual subplot with a calculated pay factor of less than 0.80, the Department will, at its sole discretion:

A. Require the Contractor to remove and replace the entire affected placement with concrete meeting the Contract requirements at no additional expense to the Department, or

B. Accept the material, at a reduced payment as determined by the Department. (See also Section 502.191)

For a lot in progress, the Contractor shall discontinue operations whenever one or more of the following occurs:

A. The pay factor for any property drops below 1.00 and the Contractor is taking no corrective action

B. The pay factor for any property is less than 0.90

C. The Contractor fails to follow the QC Plan”

502.18 Method of Measurement Under Section E. make the following change from “...Method A, and under Section 502.19...” to “...Method A, Section 502.0503- Quality Assurance Method B, and under Section 502.19...”

502.19 Basis of Payment Modify the first sentence of the seventh paragraph from “...accepted under Method A.” to “...accepted under Method A and Method B.”

502.191 Pay Adjustment for Compressive Strength Add the following as the second sentence to the first paragraph; “Pay factors (PF) for pay adjustments for compressive strength will be determined using the Quality Level Analysis as specified in Section 106.”

502.192 Pay Adjustment for Chloride Permeability Delete and replace with the following;

“Pay factors (PF) for pay adjustments for Chloride Permeability will be determined using the Quality Level Analysis as specified in Section 106.

Values greater than 4000 coulombs shall be subject to rejection and replacement at no additional cost to the Department.”

502.193 Pay Adjustment for Air Content Delete and replace with the following;

“Pay factors (PF) for pay adjustments for air content will be determined using the Quality Level Analysis as specified in Section 106.”

Add the following Section;

“502.195 Pay Adjustments for Compressive Strength, Chloride Permeability and Air Content The Composite Pay Factor (CPF) for each lot of concrete shall be computed as follows:

$$\text{CPF} = [(\text{Compressive Strength PF}-1)(0.20)] + [(\text{Air Content PF}-1)(0.40)] \\ + [(\text{Chloride Permeability PF}-1)(0.40)]$$

The pay adjustment for each lot of concrete shall be computed as follows:

$$\text{Lot Pay Adjustment} = P \times \text{CPF} \times \text{Lot Size}$$

There will be no positive pay adjustments for Method B Concrete.”

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(Bridge Drain – Type A)
(Bridge Drain – Type A (Modified))
(Bridge Drain – Type C)
(Remove Bridge Drain)

502.01 Description

The following sentences are added:

The work also consists of removing existing, and fabricating, galvanizing, and installing replacement bridge drains, Type A, Type A (Modified), and Type C, where noted on the Plans and as detailed on the Plans.

The work also consists of removing existing bridge drains and patching bridge decks where noted on the Plans and as detailed on the Plans.

502.03 Materials

The following sentences are added:

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

All structural concrete removed shall be replaced with Class LP concrete, per Section 502 – Structural Concrete. A bonding agent from the Departments pre approved products list shall be used for bonding fresh concrete or patching material to existing hardened concrete.

As an alternative to the standard Class LP concrete, the contractor may propose the use of an accelerated Class LP concrete. Acceptable methods for rapid strength gain shall include, but are not limited to, additional cementitious content, non chloride chemical accelerators, Type III Portland Cement, and heated mix water and aggregates. Trial batches shall be performed and submitted to the Department indicating a minimum of 4000 PSI compressive strength in 24 hours.

The use of rapid setting cement may be substituted for normal Portland Cement and must obtain a minimum of 5000 PSI compressive strength in 24 hours. Rapid set cement products proposed for use must have a history of long term durability and be used in strict accordance with the manufacturer's recommendations.

502.17 Bridge Drains and Incidental Drainage

The following sentences are added:

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

The existing bridge drains shall be removed by chisel, grinder, cut off wheel or other mechanical means which minimize damage to the adjacent concrete to remain. After removal of the existing bridge drain(s), the concrete deck shall be removed as required to allow installation of the proposed bridge drain or to allow for patching of the bridge deck. The limit of demolition shall extend to the limits shown on the plans. The demolition limit shall be extended as required to remove any adjacent areas of loose, disintegrated, poorly bonded and otherwise unsound concrete. Concrete shall be removed by means of hammer and chisel, stone hammer, pick or other approved method down to good, sound, clean concrete. The limits of concrete removal shall be vertical or dovetailed. After chipping the existing reinforcing steel and concrete bonding surfaces to remain shall be sandblasted to remove all corrosion, dust, or loose concrete.

If installing new drains, install the top of the new bridge drains depressed below the proposed deck pavement elevation, as noted on the details. On steel girder bridges install the new support assembly to the existing steel girders and secure prior to forming the drop pipe tight to the underside of the deck. Install the specified reinforcing steel, apply a concrete bonding agent and fully grout the perimeter of the new bridge drain(s) with structural concrete to the surface of the existing deck. Touch-up the damaged galvanizing with two coats of zinc-rich chromate paint after wire brushing and solvent cleaning the damaged area.

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

When existing bridge drains are to be removed and not replaced with new drains, the contractor shall remove the detailed portions of the bridge drain and patch the concrete deck in accordance with the details and procedures noted on the Plans.

502.53 Method of Measurement

Bridge Drain – Type A, Bridge Drain – Type A (Modified), and Bridge Drain – Type C will be measured per each by the actual number of bridge drains furnished and installed, complete in place and accepted.

Remove Bridge Drain will be measured per each by the actual number of bridge drains removed with deck patched, complete in place and accepted. Drains that are removed and replaced with new drains at the same station and offset will not be

measured under this item. Note the replacement drain may be larger and/or on the opposite side of the fascia girder.

504.54 Basis of Payment

Bridge Drain – Type A will be paid for at the Contract unit price per each, which price shall be full compensation for removing and disposing of the existing bridge drain, concrete and reinforcing steel and for fabrication, delivery and installation including all materials, labor, tools, equipment and incidentals necessary for furnishing and installing the Bridge Drain – Type A in accordance with the Plans and Specifications.

Bridge Drain – Type A (Modified) will be paid for at the Contract unit price per each, which price shall be full compensation for removing and disposing of the existing bridge drain, concrete and reinforcing steel and for fabrication, delivery and installation including all materials, labor, tools, equipment and incidentals necessary for furnishing and installing the Bridge Drain – Type A (Modified) in accordance with the Plans and Specifications.

Bridge Drain – Type C will be paid for at the Contract unit price per each, which price shall be full compensation for removing and disposing of the existing bridge drain, concrete and reinforcing steel and for fabrication, delivery and installation including all materials, labor, tools, equipment and incidentals necessary for furnishing and installing the Bridge Drain – Type C in accordance with the Plans and Specifications.

Remove Bridge Drain will be paid for at the Contract unit price per each, which price shall be full compensation for removing and disposing of portions of the existing bridge drain and for patching the bridge deck including all materials, labor, tools, equipment and incidentals necessary for completing the work in accordance with the Plans and Specifications.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
502.70 Bridge Drain – Type A	Each
502.70 Bridge Drain – Type A (Modified)	Each
502.70 Bridge Drain – Type C	Each
502.702 Remove Bridge Drain	Each

SPECIAL PROVISION
SECTION 506
Lead Abatement and Coating Application

506.01 Description

This specification covers the field cleaning and painting of the following areas of structural steel: the girders - 5 feet from the end of the girders and bearings at the abutments. This specification also covers touch up painting after the reinstallation of the bearings. The work shall consist of furnishing all supervisory personnel, including competent person(s), labor, tools, equipment, containment, scaffolding, protection of public and private property, Quality Control activities, materials, and incidentals necessary for satisfactory completion of the Work.

506.02 General

The existing areas of structural steel require the removal of existing rust, mill scale and coatings which may contain lead and hexavalent chromium. It is the responsibility of the Contractor to test the existing coating to determine the toxic metal content and based on those results, design and implement the appropriate plans for containment, environmental protection, waste disposal and worker safety.

All lead abatement shall be in compliance with all applicable federal, state and local regulations, including the current OSHA 1926 Lead Health and Safety Standards.

In reference to surface preparation, cleanliness, coating application, containment measures and waste management, the following references are hereby made a part of the Contract:

- A. SSPC Steel Structures Painting Manual, Volumes 1 and 2 (Good Painting Practice and Systems and Specifications).
- B. SSPC Vis 3, Visual Standard for Power and Hand-Tool Cleaned Steel.
- C. SSPC Guide 6, Guide for Containing Surface Preparation Debris Generated During Paint Removal Operations.
- D. SSPC Guide 7, Guide to the Disposal of Lead-Contaminated Surface Preparation Debris.
- E. Maine Department of Environmental Protection's *Hazardous Waste Management Rules*.
- F. Department of Environmental Protection's *Handbook for Hazardous Waste Generators*.

The new bearing anchor bolts shall be Hot-dip galvanized. The Hot-dip galvanizing shall meet the requirements of AASHTO M 111M/M 111 (ASTM A 123/A 123M) including any applicable requirements from AASHTO M 111M/M 111 (ASTM A 123/A 123M) Section 2-Referenced Documents. The minimum average coating thickness grade shall conform to Table 1. The Quality Assurance Inspector shall verify Quality Control thickness test results using the same test method used by the Quality Control Inspector.

Certification of compliance and written test results shall be provided to The Department in accordance with AASHTO M 111M/M 111 (ASTM A 123/A 123M).

506.03 Quality Control

The Contractor is responsible for all aspects of the quality of the Work, including labor, equipment, materials, incidentals, processes, construction methods and Quality Control. Quality Control (QC) is the planned and specified actions or operations necessary to produce an end product that Conforms to the requirements of the Contract and includes inspections and testing for process control to the extent determined necessary by the Contractor. All costs associated with QC activities shall be considered incidental to related Pay Items.

506.031 Submittals

All Plans and submittals from the Contractor will be reviewed by the Department in accordance with Section 105.7, Working Drawings, of the Standard Specifications.

506.032 Quality Control Qualifications

The Contractor shall provide QC personnel with experience in surface preparation and painting of existing structural steel.

506.033 Quality Control Plan

The Contractor shall submit a QC Plan to the Department for review at least 10 days prior to the beginning of any removal of paint. The QC plan shall include: The names of all of the Contractor's on-site representatives; the definition of hold points; the format and submittal process for daily work reports and coating/DFT reports; and the process for rework. Violation of the QC Plan may result in a suspension of work. If the Department orders a suspension, work shall not resume until the Contractor provides a plan, which is acceptable to the Department, describing how compliance will be restored and maintained. A suspension resulting from the Contractor's failure to adhere to the QC Plan shall be considered an Inexcusable Delay.

506.034 Surface Preparation/Painting Plan

The Contractor shall provide written procedures for the surface preparation and coating application and repair. The plan shall include a description of the equipment that will be used for surface preparation and painting. The Contractor is responsible for any damage caused by surface preparation.

506.035 Containment Plan

The Contractor shall provide a containment plan to the Department for review and acceptance prior to the erection of the containment system. The erection of containment enclosure(s), or conducting any paint disturbance activities, shall not begin until review by the Department has been completed. The Contractor shall be responsible for any damage caused by the containment system.

506.036 Environmental Protection Plan

At least two weeks prior to the beginning of the removal of the existing coating, the Contractor shall submit to the Department for review and comment an Environmental Protection Plan to address Final Cleaning/Clearance Evaluations. Procedures and methods that will be used to conduct and document final Project clean-up, and final visual cleanliness inspections and evaluations. This process is to assure that the Project area and surrounding equipment, structures and soil have not been negatively impacted by Project activities.

506.037 RESERVED.

506.04 Quality Assurance

The Department will perform Quality Assurance (QA). QA may be accomplished by reviewing QC reports provided by the Contractor, by performing random inspections of work previously inspected by the Contractor and/or by randomly accompanying the Contractor's inspector during QC inspections and testing.

The Contractor shall provide the Department with the opportunity to perform QA inspections of the Work at the following hold points, as a minimum:

- A. Prior to start of work.
- B. Immediately following surface preparation.
- C. Immediately prior to application of the first coat.
- D. Prior to application of additional coats.
- E. After final coat is applied and cured.

QA inspections are the prerogative of the Department. As such, the Department may, or may not, choose to perform inspections at hold points. If performed, QA inspections will be unsystematic and are not intended to be all encompassing. Consequently, if any QA inspections performed at hold points result in no rework being identified or, if no QA inspections are performed at any hold points, this does not constitute Acceptance of the Work by the Department. If the Department discovers Unacceptable Work at any time prior to Final Acceptance, the Contractor shall repair, replace, or otherwise bring into conformance with the Contract, the Unacceptable Work, at no additional cost to the Department. Refer to Standard Specification Section 107.9, Project Closeout, for procedures leading up to Final Acceptance.

The Contractor shall facilitate QA as required, by providing ample notice to the Department of availability for QA (minimum of ½ hour notice), adequate time for QA and by providing access to the work, along with all necessary safety equipment needed by the Department to perform the QA.

The Contractor shall provide all of the inspection and testing equipment needed to verify the quality of the surface preparation and coating process, including mirrors, flashlights and wet film thickness gauges. This equipment shall be made available for use by the Department at all times. All equipment shall be properly maintained and kept in working order by the Contractor.

The Contractor shall provide access and railing in compliance with OSHA standards for representatives of the Department to all work locations where cleaning or coating application may be in progress, for the purpose of QA. The Contractor is also responsible for providing adequate lighting for QA purposes, at no additional cost to the Department.

If the Contractor is dissatisfied in any way with the Department's management of its QA program, the Contractor shall bring this issue immediately to the attention of the Resident or, at the latest, to the next scheduled Progress Meeting.

506.05 Protective Measures

During surface preparation and field painting of the existing structural steel, the Contractor shall provide adequate safety measures for the protection of the public and surrounding area against damage due to paint drippings, paint spatter, over-spray, falling objects, etc. The Contractor is fully responsible for property damage or personal injury which may result from operations incidental to surface preparation of the structural steel and the field application of the coating system. The coating system shall be protected at all times during application and curing to prevent contamination caused by construction or traffic activities. No coating material shall be stored on the bridge structure, or under the bridge structure.

506.06 Surface Preparation

Existing structural steel shall be cleaned as follows: Remove and properly dispose of accumulated winter sand/salt, bird droppings, dirt and debris from all areas to be prepared and painted prior to undertaking any paint removal or surface preparation operations; prior to surface preparation, solvent cleaning shall be performed to remove oil and grease, in accordance with SSPC-SP 1; prepare surfaces using SSPC-SP 12, Low Pressure Water Cleaning; prepare surfaces by hand and power tool cleaning, in accordance with SSPC-SP 2 and SSPC-SP 3.

506.061 RESERVED.

506.062 RESERVED.

506.063 RESERVED.

506.064 RESERVED.

506.065 Compressed Air Cleanliness

Provide compressed air that is free from moisture and oil contamination. Conduct a white blotter test in accordance with ASTM D 4285 to verify the cleanliness of the compressed air. Conduct the test at least once per shift for each compressor system. Sufficient freedom from oil and moisture is confirmed if soiling or discoloration is not visible on the paper. If air contamination is identified, suspend operations and make adjustments as necessary to achieve clean, dry air.

506.07 Mixing

Thoroughly mix the coating according to the manufacturer's recommendations. Thinning, if necessary, shall be per the manufacturer's recommendations.

506.08 RESERVED.

506.09 Paint Application

Prepared steel shall be coated with one of the paint systems listed in the appended Coatings Schedule, or an approved equal. The Contractor shall supply the Resident with the applicable product data sheets and material safety data sheets (MSDS) before any coating work is performed. Apply and cure all coatings in accordance with the manufacturer's recommendations.

The primer, intermediate and topcoat colors shall be contrasting colors. The finish topcoat color shall be green and match Federal Standard 595B, color number 14272. Dry film thickness (DFT) measurements shall be taken between each coat and after the final coat in accordance with SSPC-PA 2, including appendices, and recorded using a format acceptable to Department. The DFT of each coat, primer to topcoat, shall be between the minimum and maximum DFT recommended by the manufacturer. Any coat in excess of the maximum value recommended by the manufacturer shall be remedied to an acceptable condition at no additional cost to the Department, by methods acceptable to the coating manufacturer and the Department.

Each coat of paint shall be applied in a neat and workmanlike manner. All coating shall take place inside the approved containment. The coating shall be applied smoothly and uniformly without film defects, in conformance with these specifications and applicable provisions of SSPC-PA 1 and SSPC-PA 2.

Skips, thin areas or other deficiencies shall be corrected before each succeeding coat is applied. The surface of the paint receiving additional coating shall be free from dust, grease, oil or any other contaminant that would prevent bonding.

Brushes, when used, shall be of good quality so as not to leave bristles in the coating and have sufficient body and length of bristle to spread the coating in a uniform flow.

Rollers, when used, shall be of a type which will not leave a stippled texture or roller particles on the coated surface.

Coating, when applied with spray equipment, shall be immediately followed by brushing when necessary, to eliminate runs, sags and other film defects.

Repair damaged coating or defectively applied coating (runs, sags, skips, misses, etc.). Remove the affected coating layers and reapply. If all coating layers are damaged or defective, remove all coating layers to the specified degree of cleanliness. Feather the edges of the remaining coating to create a smooth transition from the repaired area to the remaining coating. Reapply all affected coating layers. Costs for all repairs shall be incidental to the Work.

506.10 RESERVED.

506.11 Waste Management

The Contractor shall collect, store and dispose of all hazardous, special and solid waste in compliance with relevant federal, state and local laws and requirements. The procedures used for management and disposal of lead paint and related waste shall conform to the latest requirements of SSPC Guide 7, *Guide for the Disposal of Lead-Contaminated Surface Preparation Debris*. The Contractor shall have a copy of this guide available on site at all times. The Contractor shall also have a copy of the Maine Department of Environmental Protection's (DEP's) *Handbook for Hazardous Waste Generators* and a copy of the *State of Maine Hazardous Waste Management Rules*, 06-096 CMR Chapters 850-857, on site at all times. Thirty days prior to generating any waste, the Contractor shall submit their Waste Management Plan which shall include the Spill Prevention Control and Countermeasure Plan (SPCCP), to the Department for review and comment. Work shall not proceed until the Department has reviewed and commented on this plan.

The Department has "Small Quantity Generator-Plus (SQG-Plus)" hazardous waste status for all hazardous waste activities associated with this Contract, as defined by DEP in the *Handbook for Hazardous Waste Generators*. The Contractor shall perform all work on behalf of the Department and comply with all federal, state and local regulations. Except for an accumulation limit and site specific identification number, all requirements associated with SQG-Plus status apply. Given the temporary nature of the work, DEP has excluded the SQG-Plus accumulation rate restriction and permanent identification number for these bridge maintenance efforts as long as all other SQG-Plus requirements are fully complied with.

The Contractor shall place impervious tarps under all equipment, storage areas and structures used for storage that are associated with hazardous/special waste.

All hazardous waste shall be managed in US DOT approved containers and stored in an approved locking security structure (e.g., lockable container box) which has a firm, impervious, floor surface and secondary containment that is either 110% of the size of the largest container or 20% of the size of all containers, whichever is larger. All waste containers must be labeled with the words "Hazardous Waste", the hazard (e.g., Toxic, flammable, etc.), the start date, full date, site location and generator information. The lockable security structure must be labeled "Danger-Unauthorized Personnel Keep Out" and shall be locked at all times when not being accessed. No more than three 55-gallon containers of hazardous waste, not to exceed a maximum total weight of 1,320 pounds, may be stored at the site at any time. Waste containers in the waste storage security structure must be inspected each operating day and a log must be maintained by the Contractor, and provided to the Department at the end of the Project. The Contractor shall store all hazardous waste, in conformance with all other DEP and Federal Rules, including Chapter 851, Section 13, Part C(7)(i) and 40 CFR 2674.14. Hazardous wastes are limited to an on-site storage time of 180 days following the filling of a container.

The Contractor shall test paint debris to determine the degree of lead and/or chromium hazard for disposal at a licensed Treatment/Storage/Disposal (TSD) Facility. A minimum of one composite sample representative of each waste type must be collected and tested for Toxicity Characteristic Leaching Procedure (TCLP) constituents, in accordance with the procedures outlined in EPA SW846 Method 1311. The Department must be notified at least one week in advance of the date of sampling activities and

provided the proposed protocol for sample collection. The Department shall witness the sampling. Chain-of-custody must be adhered to for sample removal. Certified TCLP test results shall be provided to the Department upon receipt by the Contractor.

The Contractor shall inform the Department at least one week in advance of planned date(s) for removal of hazardous waste from the job site. The Department shall obtain a provisional Environmental Protection Agency Identification Number prior to shipping any hazardous waste for disposal. This provisional number must be used by the Contractor to ship hazardous waste off site. The Contractor shall secure a Department approved transporter (e.g., Enpro Environmental Services, Inc., or Environmental Projects, Inc. (EPI)) licensed by DEP for transportation of hazardous waste. Preparation of all necessary transportation forms is the responsibility of the Contractor. The Hazardous Waste Manifest must be approved and signed by the Department. A six part, pre-numbered Uniform Hazardous Waste Manifest (EPA Form 8700-22) shall be prepared when shipping hazardous waste. The appropriate original sheets of the multi-part hazardous waste manifest must be provided to the Department and must be sent to the Department's Manager of the Groundwater and Hazardous Waste Division, Environmental Office, State House Station #16, Augusta, Maine, 04333-0016.

The Contractor shall select a Department approved TSD facility (using Enpro or EPI), as soon as the waste has been tested and the results are known. The Contractor shall also obtain approval for acceptance of the waste from the selected facility prior to transport.

Hazardous/special paint debris and other waste shall not be placed or accumulated on unprotected ground or released to waters of the State of Maine. Work areas shall be adequately shielded at all times to prevent dispersion of debris by wind or rain. All of the Contractor's equipment and storage areas used for the handling and storage of hazardous waste and hazardous materials shall have impervious tarps placed under them. Any evidence of improper storage and handling shall be cause for immediate suspension of work in progress, and work will not be allowed until corrective actions are taken. Emergency procedures to be taken in the event of a release of hazardous/special waste or hazardous matter to the environment shall be part of the Contractor's Spill Prevention, Control and Countermeasures Plan that is required as part of the Contractor's Waste Management Plan and by the Department's Supplemental Specifications and Supplemental Standard Details for Construction, Section 656.3.4, f. Spill Prevention.

The Contractor shall have Aid Agreements with the local fire department, police department, hospital and hazardous waste spill responder. Copies of these agreements shall be provided to the department prior to generating any waste, in conformance with the DEP Rules, Chapter 851, Section 13, Part C (7)(c)(ii) and 40 CFR 264.37.

Failure of the Contractor to comply with this section shall result in the following:

- A. First finding of non-conformity shall be a written warning which will include a deadline for compliance.

- B. Second finding of non-conformity shall be documented in writing, and all operations by the Contractor, except those needed to restore compliance, will be immediately suspended, until full compliance has been restored.
- C. Third and subsequent findings of non-conformity will be documented in writing and all operations shall be immediately suspended, except those needed to restore compliance, until full compliance has been fully restored, and the Contractor assessed a penalty of \$10,000.00 per incident. If the Contractor fails to restore the Project into compliance, additional fines shall be assessed.

All penalties assessed shall be in addition to any fines assessed by DEP/EPA for failing to comply with the Federal, State, or local regulations. The Contractor shall not be granted additional time for suspensions of work due to noncompliance.

506.12 Method of Measurement

Surface Preparation of Existing Structural Steel shall be measured for payment as one lump sum, complete and accepted.

Field Painting of Existing and New Structural Steel shall be measured for payment as one lump sum, complete and accepted.

Containment and Pollution Control Measures shall be measured for payment as one lump sum, complete and accepted.

Disposal of Special Waste or Hazardous Waste materials shall be measured for payment as one lump sum.

506.13 Basis of Payment

The accepted quantity of Surface Preparation of Existing Structural Steel will be paid at the respective Contract lump sum price, which shall be full compensation for furnishing all materials, labor, tools, equipment, scaffolding, QC activities, and any other incidentals necessary for the satisfactory performance of the work.

The accepted quantity of Field Painting of Existing and New Structural Steel will be paid at the Contract lump sum price, which shall be full compensation for furnishing all material, labor, equipment, scaffolding, QC activities, and incidentals necessary for the satisfactory performance of the work.

Containment and pollution control will be paid for at the Contract lump sum price, which price shall be compensation for furnishing all materials, labor, equipment, and incidentals necessary for the satisfactory performance of the work.

Disposal of Special Waste or Hazardous Waste materials will be paid at the Contract lump sum price, which price shall be full compensation for all permits, tests, transportation, tipping fees and incidentals necessary for the satisfactory performance of the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
506.144 Field Painting of Existing and New Structural Steel	Lump Sum
506.17 Surface Preparation of Existing Structural Steel	Lump Sum
506.18 Containment and Pollution Control Measures	Lump Sum
506.191 Disposal of Special Waste or Hazardous Waste	Lump Sum

COATING SCHEDULE

One of the following coating systems shall be used; alternately, an equivalent system may be proposed and used by the Contractor, subject to approval by the Department:

Manufacturer	Wasser Corporation	
Primer	MC-Miozinc 2.8 moisture-cure urethane	3-5 mils DFT
Intermediate	MC-Miomastic 2.8 moisture-cure urethane	3-5 mils DFT
Finish	MC-Shieldcoat 2.8 moisture-cure urethane	1.5-2 mils DFT

Manufacturer	The Sherwin-Williams Company	
Primer	Corothane I- PrePrime moisture-cure urethane	1-1.5 mils DFT
Intermediate	Corothane I-MIO Aluminum moisture-cure urethane	2-3 mils DFT
Finish	Corothane I-MIO Aluminum moisture-cure urethane	2-3 mils DFT

Manufacturer	Xymax Coatings, Inc.	
Primer	Mono Lock PP moisture-cure polyurethane	1.5-2 mils DFT
Intermediate	Mono Ferro PUR moisture-cure polyurethane	3-4 mils DFT
Finish	Bridge Finish moisture-cure polyurethane	2-3 mils DFT

SPECIAL PROVISION
SECTION 507
RAILINGS

(Aluminum Bridge Rail Toggle Bolt Replacement)

Description This work shall consist of replacing all original corroded (cadmium plated steel) Type J Bridge Rail toggle bolts at locations shown on the plans or as directed by the Resident. Only non-corroded Type J Bridge Rail toggle bolts may remain in place.

Materials: Unless otherwise noted, materials for work specified under this section will come from the stockpile furnished to the Department under this contract. The Contractor is advised the Department has no inventory of these components so all components to be installed on this Project are being furnished to the Department under this contract.

Materials to be furnished by the Department (provided to the Department under Item 507.0926 Furnish Aluminum Bridge Rail Components):

- Replacement toggle bolts for Type J posts

Construction The existing Type J Bridge Rail bare steel toggle bolts shall be removed in a manner that does not damage the existing bridge rail or the bridge rail post. Damaged bridge rail or bridge post, either existing or caused by the contractor's bolt removal method, shall be brought to the Resident's attention prior to proceeding with the toggle bolt replacement work.

The toggle bolts shall be replaced individually unless concrete barrier is on the bridge deck to prevent traffic from crossing into the work zone.

The replacement toggle bolt shall be installed with a lock washer between the flat washer and the hex nut and shall be torqued to the manufacturer's recommendation. A digital torque wrench shall be used.

Method of Measurement Aluminum Bridge Rail Toggle Bolt Replacement will be measured per each by the actual number of toggle bolts replaced, complete in place and accepted.

The replacement of toggle bolts required to reset rail or posts for the installation of new Permanent Concrete Transition Barriers is not measured and paid under this item, but is measured and paid under Item 526.34 Permanent Concrete Transition Barrier.

Basis of Payment The accepted quantity of Aluminum Bridge Rail Toggle Bolt Replacement will be paid for at the contract unit price per each, complete in place and accepted.

Pay Item

507.32 Aluminum Bridge Rail Toggle Bolt Replacement

Pay Unit

Each

SPECIAL PROVISION
SECTION 507
RAILINGS

(Aluminum Bridge Rail, 2 Bar Post Replacement)

Description This work shall consist of removing existing damaged 2 bar Type J or Type Z aluminum bridge rail posts and installing replacement 2 bar aluminum bridge rail posts, matching the rail post type removed, at locations shown on the plans or as directed by the Resident.

This work excludes the relocation of undamaged 2 bar Type J or Type Z aluminum bridge rail posts required for the installation of new Permanent Concrete Transition Barrier.

Materials Unless otherwise noted, materials will be furnished by the Department. The contractor shall load and transport the required materials from the Maine Department of Transportation Maintenance Facility at Dunstan Corner in Scarborough, Maine and transport them to the replacement site(s).

The following materials shall be furnished by the contractor when required:

- Anchor bolts for attaching the replacement posts to the existing curb when existing anchor bolts are not suitable for reuse.
- Replacement nuts and washers for anchor bolts used to attach the posts to the existing curb when existing nuts and washers bolts are not suitable for reuse.
- Anchoring material, from the MaineDOT's Prequalified Products List, for installing contractor furnished anchor bolts for attaching the posts to the existing curb when existing anchor bolts are not suitable for reuse.

All anchor bolts, nuts and washers supplied by the Contractor shall conform to the requirements of MaineDOT Standard Specification, Section 716.

Construction Damaged bridge rail posts shall be removed and disposed by the contractor. Anchor bolts, not reused or suitable for reuse, shall be cut off and ground flush with the top of the curb and coated with two coats of zinc rich cold galvanizing paint.

Method of Measurement Aluminum Bridge Rail, 2 Bar Post Replacement, whether Type J or Type Z, will be measured as the number of 2 bar aluminum rail posts replaced. All work necessary to load and transport posts, remove and treat existing anchor bolts, furnish replacement anchor bolts, nuts and washers, drill and grout anchor bolts, and install replacement clamp bars (furnished by the Department when required), etc. will be incidental and will not be measured for payment.

The relocation of undamaged 2 bar Type J or Type Z aluminum bridge rail posts required for the installation of new Permanent Concrete Transition Barriers, including replacement

clamp bars and toggle bolts, anchor bolts, nuts and washers, is not measured and paid under this item, but is measured and paid under Item 526.34 Permanent Concrete Transition Barrier.

Basis of Payment The accepted quantity of Aluminum Bridge Rail, 2 Bar Post Replacement, whether Type J or Type Z, will be paid for at the contract unit price per each, complete in-place and accepted.

<u>Pay Item</u>	<u>Pay Unit</u>
507.0927 Aluminum Bridge Rail, 2 Bar Post Replacement	Each

SPECIAL PROVISION

SECTION 507

RAILINGS

(Aluminum Bridge Rail Splice Inspection)

Description This work shall consist of inspecting all existing Type J or Type M/Z aluminum bridge rail splices to determine the bridge rail splices are properly centered and secured.

Construction For each existing bridge rail splice, whether Type J or Type M/Z, the contractor shall inspect and document whether the rail splice is properly centered and secured.

Prior to verifying if the Type J rail splice is properly centered the contractor shall visually assess whether the Type J rail splice is properly secured by looking at the rail splice attachment devices and comparing them to the Type J Bridge Rail Splice Modification Detail in SP 507 Railings (Aluminum Bridge Rail Splice Retrofit). If the contractor concludes the Type J rail splice is properly secured with two set screws no additional inspection of that rail splice is required.

If the Type J rail splice is not properly secured with two set screws the contractor shall determine if the existing 2'-0" tube splice is centered on the opening (+/- 1.0 inch) by one of the following techniques: 1) visually checking the open tapped hole/ holes for the set screws and observing the 1/4 inch diameter hole/ holes drilled into the splice tube are directly behind the open tapped hole/ holes for the set screws; 2) drilling small "inspection holes" (1/4" to 5/16" diameter) left and right of the splice tube's theoretical limits (13.0" left and 13.0" right of the splice opening centerline) to determine there is only one thickness of aluminum tube at those locations; or 3) developing and demonstrating a sounding technique that differentiates the sound of one thickness of aluminum tube (the rail) or two thicknesses of aluminum tube (the rail and the rail splice tube).

Prior to verifying if the Type M/Z rail splice is properly centered the contractor shall visually assess whether the Type M/Z rail splice is properly secured by looking at the rail splice attachment devices and comparing them to the Type M/Z Bridge Rail Splice Modification Detail in SP 507 Railings (Aluminum Bridge Rail Splice Retrofit). If the contractor concludes the Type M/Z rail splice is properly secured with two set screws no additional inspection of that rail splice is required.

If the Type M or Type Z rail splice is not properly secured with two set screws the contractor shall determine if the existing 3'-0" splice bar is centered on the opening (+/- 1.0 inch) by one of the following techniques: 1) visually checking the open drilled hole/ holes for the set screws in the bridge rail and observing the previously tapped hole/ holes drilled into the splice bar are directly behind the open drilled hole/ holes in the bridge rails; 2) visually checking the splice bar between the two rail sections and observing the

original pressed pin, hole for the original pressed pin, or suitable replacement fastener is still visible between the rail sections. previously tapped hole/ holes drilled into the splice bar are directly behind the open drilled hole/ holes in the bridge rails; 3) drilling small “inspection holes” (5/16” diameter) left and right of the splice bar’s theoretical limits (19.0” left and 19.0” right of the splice opening centerline) to determine there is only the thickness of elliptical aluminum railing at those locations; or 4) developing and demonstrating a sounding technique that differentiates the sound of the thickness of the elliptical aluminum railing (the rail) or two thicknesses of aluminum material (the elliptical aluminum railing and the extruded rail splice).

Documentation For each bridge in the project the contractor shall document on an electronic spreadsheet the findings of the inspection. The spreadsheet would identify the bridge structure, which curb the splice was on, the splice distance from the north or south abutment, whether the splice was on the upper or lower rail along with whether the rail splice was properly secured and properly centered.

Method of Measurement Aluminum Bridge Rail Splice Inspection will be measured as one lump sum for inspecting and documenting all the rail splices on the fourteen bridge structures (12 mainline bridges/ 2 ramp bridges) in the project.

Centering of rail splice tubes or bars that are not centered; and/ or securing rail splice tubes or bars that are not secure will be paid under Item 507.30 Aluminum Bridge Rail Splice Retrofit.

Basis of Payment The accepted quantity of Aluminum Bridge Rail Splice Inspection will be paid for at the contract lump sum price, completed and accepted.

<u>Pay Item</u>	<u>Pay Unit</u>
507.31 Aluminum Bridge Rail Splice Inspection	Lump Sum

SPECIAL PROVISION
SECTION 507
RAILINGS

(Aluminum Bridge Rail, Rail Section Replacement)

Description This work shall consist of removing existing damaged Type J or Type Z aluminum bridge rail sections and installing replacement aluminum bridge rail sections, matching the rail shape removed, at locations shown on the plans or as directed by the Resident.

This work excludes the relocation or modification of undamaged 2 bar Type J or Type Z aluminum bridge rail required for the installation of new Permanent Concrete Transition Barrier.

Materials Unless otherwise noted, materials will be furnished by the Department. The contractor shall load and transport the required materials from the Maine Department of Transportation Maintenance Facility at Dunstan Corner in Scarborough, Maine and transport them to the replacement site(s).

The following materials shall be furnished by the contractor when required:

- $\frac{3}{8}$ "Ø x 1", Type F, stainless steel hex washer head tapping screws (to reattach the splice bar to one side of the rail bar joint, as shown on the Standard Aluminum Bridge Rail Splice Bar Detail)

Construction Damaged bridge rail sections and components shall be removed and disposed by the contractor. At the Resident's option damaged rail sections may be replaced "full length" or an additional field splice may be added provided each completed rail section spans at least two bridge rail posts and all splices are 2'-0" o.c. off the centerline of a bridge rail post. Field cuts of the existing and replacement bridge rail sections shall be clean, square and free of burrs and sharp edges. The contractor shall recover and reuse the existing splice bars and rail clamp bars where feasible.

Method of Measurement Aluminum Bridge Rail, Rail Section Replacement, whether Type J or Type Z, will be measured as the number of linear feet of rail section replaced. All work necessary to load and transport rail, remove existing rail, furnish replacement stainless steel hex washer head tapping screws, field cut and de-burr existing and replacement rail sections, install Aluminum Bridge Rail Splice Retrofits on existing and new bridge rail splices, and install clamp bars (replacement bridge rail splice bars and bridge rail clamp bars shall come from the Department's stockpile furnished under this contract when required), etc. will be incidental and will not be measured for payment.

The relocation of undamaged 2 bar Type J or Type Z aluminum bridge rail posts required for the installation of new Permanent Concrete Transition Barriers, including replacement clamp bars and toggle bolts, anchor bolts, nuts and washers, is not measured and paid

under this item, but is measured and paid under Item 526.34 Permanent Concrete Transition Barrier.

Basis of Payment The accepted quantity of Aluminum Bridge Rail, Rail Section Replacement, whether Type J or Type Z, will be paid for at the contract unit price per linear foot, complete in-place and accepted.

<u>Pay Item</u>	<u>Pay Unit</u>
507.0928 Aluminum Bridge Rail, Rail Section Replacement	Linear Foot

SPECIAL PROVISION
SECTION 507
RAILINGS
(Aluminum Bridge Rail Splice Retrofit)

Description This work shall consist of re-centering, if required, and securing existing Type J or Type Z aluminum bridge rail splices located in the rail splice inspection or as directed by the Resident.

Construction Re-centering of the existing Type J splice tube or Type Z splice bar shall be accomplished in a non-destructive manner which moves the splice tube or splice bar back to the center of the splice opening (+/- 1.0") as detailed on the attached Type J Bridge Rail Splice Modification Detail and Type Z Bridge Rail Splice Modification Detail.

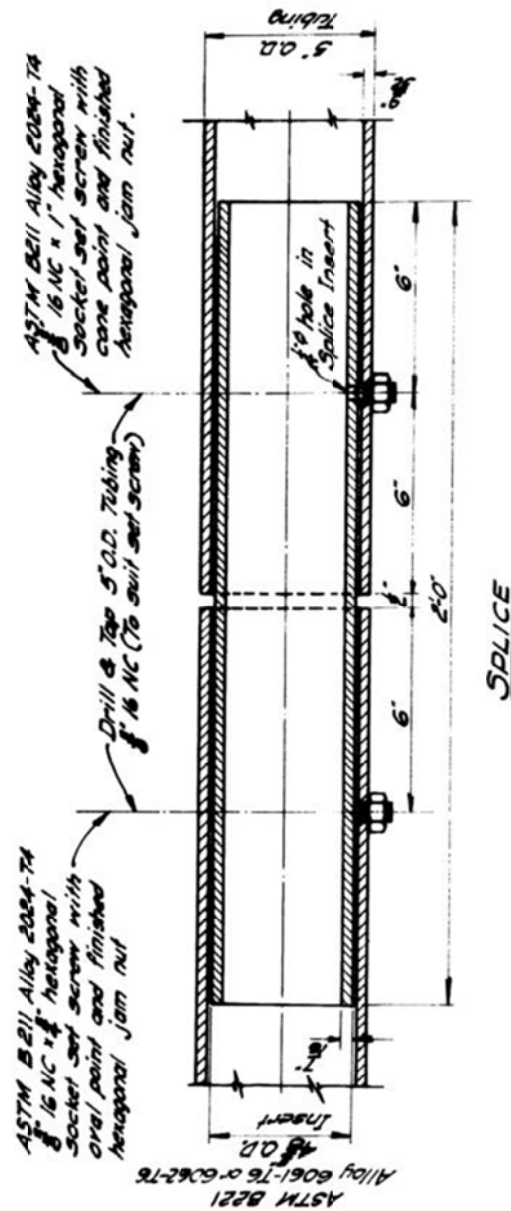
After re-centering, if required, the contractor shall secure the splice tube or splice bar by installing two $\frac{3}{8}$ " $\varnothing$ x 1", Type F, hex washer head tapping screws, in two 5/16" $\varnothing$ holes, field drilled through the rail and splice tube, or rail and splice bar, on one side of the rail splice joint. Tapping screw shall be stainless steel conforming to the requirements of Section 716.01(e). As an alternate, hex head tapping screws with appropriate washers may be used.

Method of Measurement Aluminum Bridge Rail Splice Retrofit, whether Type J or Type Z, will be measured per each for re-centering, if required, and securing rail splice tubes or splice bars in conformance with this specification.

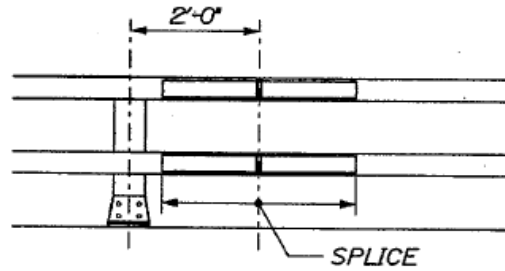
All work necessary for re-centering of the existing splice tubes or splice bars and modification of the splices, including but not limited to the disassembly and subsequent reassembly of rail bars to allow retrieval of splice tubes or splice bars that have slid into a rail bar, and any staging deemed necessary for access to the back of the rail splices, will be incidental to the rail splice retrofit and will not be measured for payment.

Basis of Payment The accepted quantity of Aluminum Bridge Rail Splice Retrofit, whether Type J or Type Z, will be paid for at the contract unit price for each, complete in-place, and accepted.

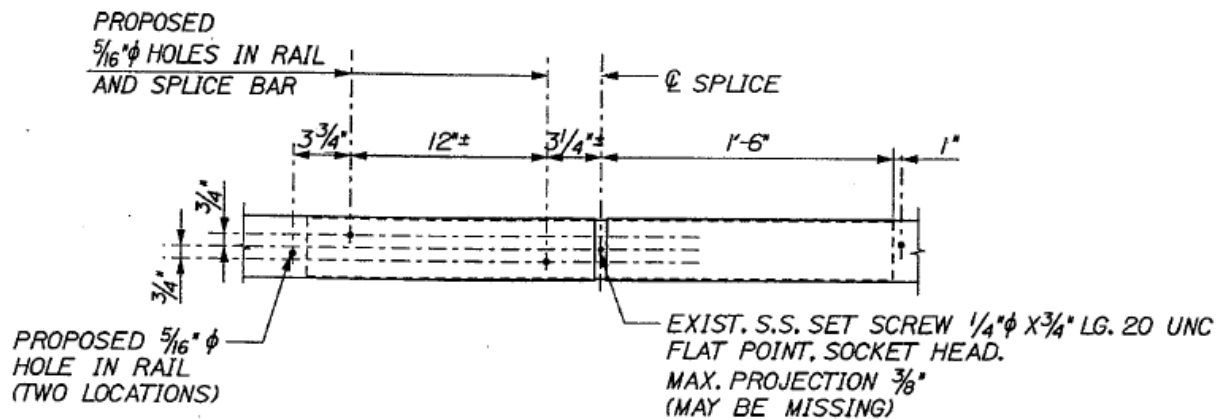
<u>Pay Item</u>	<u>Pay Unit</u>
507.30 Aluminum Bridge Rail Splice Retrofit	Each



TYPE J BRIDGE RAIL SPLICE MODIFICATION DETAIL



RAILING - ELEVATION



SPLICE MODIFICATION DETAIL
(ELEVATION VIEW FROM BACK SIDE OF RAIL)

TYPE Z BRIDGE RAIL SPLICE MODIFICATION DETAIL

SPECIAL PROVISION
SECTION 507
RAILINGS
(Furnish Aluminum Bridge Rail Components)

507.01 Description

This subsection is amended by the addition of the following:

This work shall consist of furnishing, unloading and stacking the materials listed below at the Maine Department of Transportation Maintenance Facility at Dunstan Corner in Scarborough, Maine.

Material List The following materials shall be furnished in the quantities listed:

	Type J	Type M/Z
Bridge rail posts	1 each	2 each
Bridge rail post preformed pads	2 each	4 each
Bridge rail (40 LF sections)	2 each	4 each
Bridge rail splice bars	2 each	4 each
Bridge rail toggle bolts with nut and washer	48 each	na
Bridge rail clamp bars	na	72 each
Bridge rail clamp bar bolts - (1/2" – 13UNC * 1" stainless steel hex head cap screws)	na	144 each
Bridge rail clamp bar washers - (1 1/16" OD* 17/32" ID * 3/32" thick stainless steel washers	na	144 each

507.02 Materials

This subsection is amended by the addition of the following:

All materials shall meet the applicable requirements outlined in MaineDOT Standard Specifications, Section 507.02 "Materials".

All Type J rail components shall be of the type and dimensions shown on MaineDOT Standard Details BD 108-64, dated October 1964, except that the toggle bolts, washers, and nuts shall be fabricated in substantial conformance with the AASHTO-AGC-ARTBA

Joint Committee/ Subcommittee on New Highway Materials/ Task Force 13/ A Guide to Standardized Highway Barrier Hardware/ FBT12 Toggle Bolt Detail and Specifications, dated May, 1995.

All Type M/Z rail components shall be of the type and dimensions shown on MaineDOT Standard Details BD 114-81 including Revision #1: 7-83; Revision #2: 8-84; and Revision #3: 12-84.

507.08 Method of Measurement

This subsection is amended by the addition of the following:

Aluminum Bridge Rail Components of the type, size, and quantity noted and satisfactorily furnished by the Contractor will be measured for payment by the lump sum.

Materials needed to relocate existing bridge rail posts or bridge rail (anchor bolts, fabreeka pads, toggle bolts, clamp bars and fasteners, etc.) for constructing Permanent Concrete Transition Barriers, if required, are not furnished or paid under this item, but are furnished by the Contractor and paid under Item 526.34 Permanent Concrete Transition Barrier.

507.09 Basis of Payment

This subsection is amended by the addition of the following:

The accepted quantity of Aluminum Bridge Rail Components furnished by the Contractor will be paid for at the contract lump sum price. This payment shall be considered full compensation for furnishing, unloading and stacking the materials at the MaineDOT Dunstan Corner Maintenance Facility.

<u>Pay Item</u>	<u>Pay Unit</u>
507.0926 Furnish Aluminum Bridge Rail Components	Lump Sum

SPECIAL PROVISION

SECTION 510

SPECIAL DETOUR

(Special Detour – Approach Pavement)

(Special Detour - Median Island Removal and Reconstruction, Bridge)

(Special Detour - Median Island Removal and Reconstruction, Highway)

510.01 Description

The following sentences are added:

The work also consists of paving the grass gore area between the travel lanes and on-ramp lane at the south end of the SR 703 bridge to facilitate the phasing of the bridge work, as noted and detailed on the Plans, and directed by the Resident.

The work also consists of temporarily removing the existing median island between the travel lanes and the Portland Connector/ Congress Street ramps, from the north end of the Fore River bridge to the south end of the Congress and Park Street bridge to facilitate the phasing of the bridge work, and replacing the median island in-kind upon completion of the phased bridge work, as noted and detailed on the Plans, and directed by the Resident. The work includes both bridge mounted and highway median islands.

The Contractor shall complete the phased installation of the bridge joint modifications; high performance membrane; and deck pavement, concurrently with the reconstruction of the median islands.

510.02 Materials

The following sentences are added:

Gravel for grass gore paving, temporary roadways, and the reconstructed highway median island shall be Aggregate Base Course, Type B or better.

Pavement for the grass gore (SR 703) work shall meet the requirements defined on the details sheet and the 403 pavement specification.

Pavement for the temporary roadway (median islands) shall meet the MaineDOT specifications for base (19.0 mm), binder (12.5 mm) and surface (9.5 mm/ 12.5 mm) and shall be subject to Method D acceptance.

Pavement for the replacement median island shall meet the 403 pavement specification for 403.09 Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (sidewalks, drives, islands & incidentals).

Structural concrete for the replacement median island shall be Class LP concrete, per Section 502 – Structural Concrete. A bonding agent from the MaineDOT Qualified Products’ List shall be used for bonding fresh concrete or patching material to existing hardened concrete.

As an alternative to the standard Class LP concrete, the contractor may propose the use of an accelerated Class LP concrete. Acceptable methods for rapid strength gain shall include, but are not limited to, additional cementitious content, non chloride chemical accelerators, Type III Portland Cement, and heated mix water and aggregates. Trial batches shall be performed and submitted to the Department indicating a minimum of 4000 PSI compressive strength in 24 hours.

The use of rapid setting cement may be substituted for normal Portland Cement and must obtain a minimum of 5000 PSI compressive strength in 24 hours. Rapid set cement products proposed for use must have a history of long term durability and be used in strict accordance with the manufacturer’s recommendations.

Reinforcing steel for the replacement median island shall be plain and meet all requirements of Section 503 of the Standard Specification.

Reinforcing steel anchoring material for the replacement median island shall be selected from the MaineDOT Qualified Products’ List for anchoring materials.

The Portland Connector bridge preformed expansion joint filler material, and preformed elastic joint sealer material shall be selected from the MaineDOT Qualified Products’ List.

Clear protective coating for the replacement median island (bridge) shall meet all requirements of Section 515 of the Standard Specification.

Acrylic latex color finish for the replacement median island (highway) shall meet all requirements of Section 658 of the Standard Specification.

The following subsection is added:

510.021 Construction

Prior to beginning the work, the Contractor shall establish horizontal and vertical survey controls, and survey the existing median island location so it can be reconstructed in its’ current location.

The temporary structural support system required on the Portland Connector bridge shall be installed and certified prior to I-295 traffic being shifted onto the special detour.

The existing bituminous pavement and concrete shall be sawcut to facilitate the removal and salvage of the existing granite curbing. The existing granite curbing shall be marked, as required, and temporarily stacked offsite. Reinstallation of the granite curb shall meet the construction requirements of Section 515 of the Standard Specification.

The deck mounted longitudinal concrete shear key under the easterly portion of the Portland Connector median island may need to be removed flush with the deck surface. The shear key removal shall not reduce the clear cover over the existing deck reinforcing to less than 1 ½ inches.

Reconstruction of the median island connector on the Portland Connector bridge shall include the installation of the longitudinal construction joint; and installation of the longitudinal construction joint seal. See attached details for additional information (information from Drawing 22 of 26 of the Interstate 295 over Westbrook Arterial (Portland Connector) construction drawings, March 1972 (MaineDOT microfilm/fiche reel 149-200).

Upon completion of the reinstallation of the median island - bridge; and curing of the materials, the Contractor shall seal the median island - bridge with clear protective coating in accordance with the construction requirements of Section 658 of the Standard Specification.

Upon completion of the reinstallation of the median island – highway; and curing of the materials, the Contractor shall seal the median island – highway with an acrylic latex color finish – green in accordance with the construction requirements of Section 658 of the Standard Specification.

The Contractor shall complete the phased installation of the bridge joint modifications; high performance membrane; and deck pavement, concurrently with the reconstruction of the median islands.

510.08 Method of Measurement

The following sentences are added:

Special Detour – Approach Pavement will be measured for payment by the lump sum.

Special Detour - Median Island Removal and Reconstruction, Bridge will be measured for payment by the lump sum.

Special Detour – Median Island Removal and Reconstruction, Highway will be measured for payment by the lump sum.

The temporary structural support required for the Portland Connector bridge is not measured under this item, but is measured under Item 524.301, Temporary Structural Support.

The phased installation of the bridge joint modifications; high performance membrane; and deck pavement, required for the reconstruction of the median islands are not measured under these items, but are measured under the appropriate bridge pay items.

The phased installation of the highway pavement (outside the curb limits), required for the reconstruction of the median islands is not measured under this item, but is measured under the appropriate highway pay item.

504.54 Basis of Payment

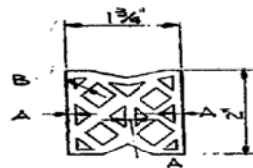
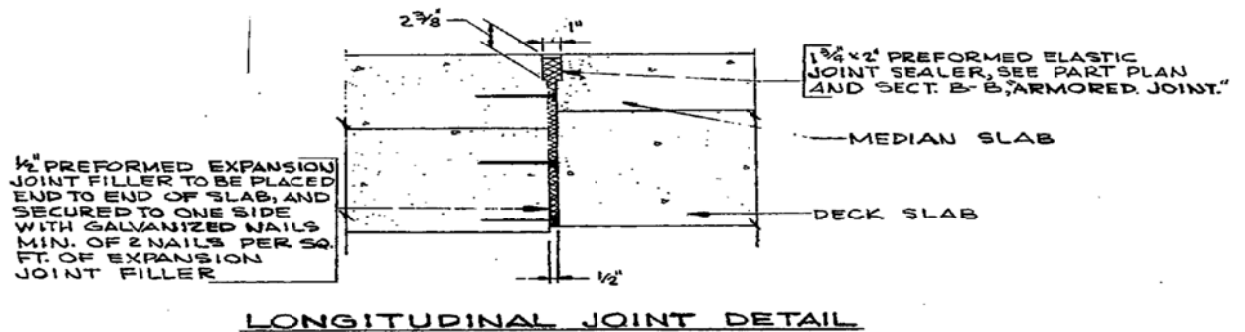
Special Detour – Approach Pavement will be paid for at the Contract lump sum unit price, which price shall be full compensation for saw cutting and removing existing bituminous pavement; Removing and preparation of the subgrade, removing furnishing and installing gravel and pavement; grading, loam, seed and mulch etc.; including all materials, labor, tools, equipment and incidentals necessary for installing the Special Detour – Approach Pavement in accordance with the Plans and Specifications.

Special Detour - Median Island Removal and Reconstruction, Bridge will be paid for at the Contract lump sum unit price, which price shall be full compensation for saw cutting and removing existing and temporary bituminous pavement; saw cutting existing concrete; removing, stacking and resetting existing bridge curb; removing, disposal and replacing existing median island concrete and reinforcing steel; furnishing and installing temporary pavement; furnishing and installing the longitudinal construction joint seal (Portland Connector); furnishing and installing concrete sealer; etc.; including all materials, labor, tools, equipment and incidentals necessary for installing and removing the Special Detour - Median Island Removal and Reconstruction, Bridge in accordance with the Plans and Specifications.

Special Detour - Median Island Removal and Reconstruction, Highway will be paid for at the Contract lump sum unit price, which price shall be full compensation for saw cutting and removing existing and temporary bituminous pavement; removing and resetting existing signs and sign foundations, furnishing and installing gravel and temporary and median island pavement; removing, stacking and resetting existing highway curb; furnishing and installing concrete sealer; etc.; including all materials, labor, tools, equipment and incidentals necessary for installing and removing the Special Detour - Median Island Removal and Reconstruction, Highway in accordance with the Plans and Specifications.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
510.40	Special Detour – Approach Pavement	Lump Sum
510.41	Special Detour - Median Island Removal and Reconstruction, Bridge	Lump Sum
510.42	Special Detour - Median Island Removal and Reconstruction, Highway	Lump Sum



NOTE:

THE CONFIGURATION OF THE PREFORMED ELASTIC JOINT SEALER MAY BE CHANGED FROM THAT SHOWN IN ORDER TO CONFORM WITH SHAPES AS PRODUCED BY VARIOUS MANUFACTURERS. HOWEVER, THE CROSS-SECTIONAL DIMENSIONS, INCLUDING THOSE OF THE INTERNAL ELEMENTS AND THE SHELLS (A & B) SHALL BE APPROVED BY THE ENGINEER BEFORE ORDERING THE PREFORMED ELASTIC JOINT SEALER.

PREFORMED ELASTIC JOINT SEALER SHALL BE FABRICATED, DELIVERED AND INSTALLED ACCORDING TO THE SUPPLEMENTAL SPECIFICATIONS AND AS SHOWN ON PLANS.

SPECIAL PROVISION
SECTION 518
STRUCTURAL CONCRETE REPAIR
(Repairing Granite Curb Joint and Bedding Mortar)

Description: This work shall consist of the removal and replacement of existing deteriorated granite curb joint mortar and granite curb bedding mortar as shown on the plans or as directed by the Resident.

Materials: Mortar shall be an approved epoxy resin mortar or an approved polymer modified cementitious repair mortar.

Construction Requirements: The Resident will, after the existing wearing surface is removed, designate areas where the existing granite curb joint mortar and the existing granite curb bedding mortar is to be repaired.

In areas designated for granite curb joint mortar repair, the existing granite curb joint mortar shall be removed between curb sections to a min. depth of 25 mm [1 in] from the face of curb. Any loose mortar shall also be removed. The repair area shall be re-pointed with new mortar and tooled concave at the face of curb. The mortar shall be proportioned, mixed, and applied in accordance with the Manufacturer's recommendations.

In areas designated for granite curb bedding mortar repaired, the existing granite bedding mortar shall be removed under the curb to a min. depth of 25 mm [1 in] from the face of curb. Any loose mortar shall also be removed. The mortar shall be replaced with new mortar and finished with a 45° bevel at the face of curb. The mortar shall be proportioned, mixed, and applied in accordance with the Manufacturer's recommendations.

Method of Measurement: Repairing Granite Curb Joint and Bedding Mortar will be measured for payment by the linear foot along the face of the curb, horizontally and vertically, complete and accepted.

Basis of Payment: Repairing Granite Curb Joint and Bedding Mortar will be paid for at the contract unit price per linear foot, which will include all materials, labor, equipment, and incidentals necessary to complete the work including removal of existing mortar.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
518.391 Repairing Granite Curb Joint and Bedding Mortar	Linear Foot

SPECIAL PROVISION
SECTION 520
EXPANSION DEVICES
(Header Concrete – Elastomeric Concrete)

Materials: When called for in the plans or specifications, Elastomeric Concrete shall be one of the products listed on the Maine Department of Transportation's Qualified Product List for Elastomeric Concrete.

The Elastomeric Concrete materials furnished, and equipment and installation procedures used shall be in strict accordance with the manufacturer's/ supplier's published product data and installation guidelines. Product data, installation guidelines, test data and reports, and material certifications shall be submitted for review and approval.

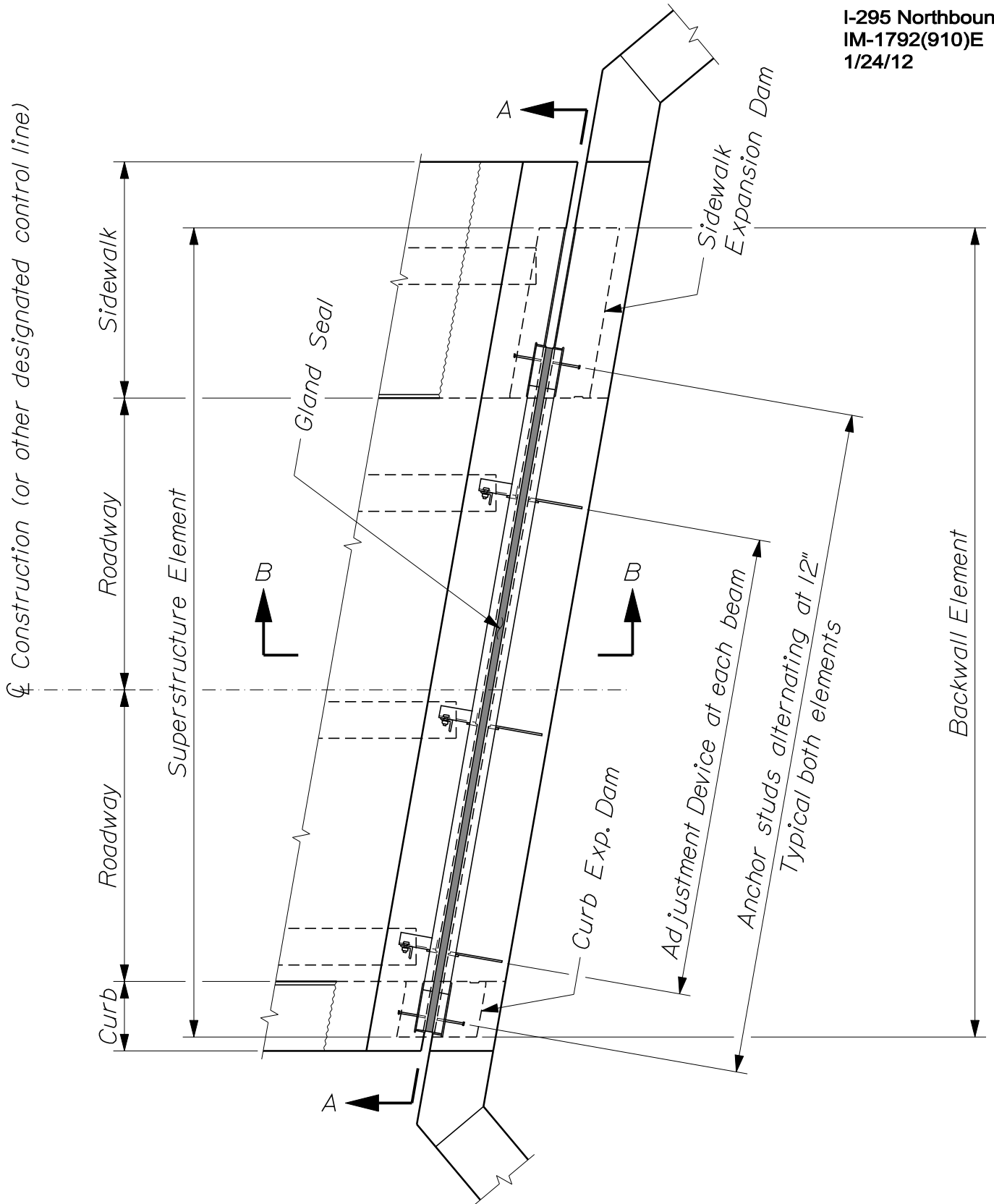
The concrete surface preparation requirements shall be submitted for review and approval.

The installers (Contractors personnel) shall have a factory trained lead person(s) onsite during the Elastomeric Concrete installation, or the approved manufacturer/supplier shall provide a qualified technical representative(s) to supervise the Contractor's personnel in the proper methods of installation of Elastomeric Concrete. The manufacturer's technical representative(s) shall be onsite for the first placement and shall provide training to the Contractors personnel.

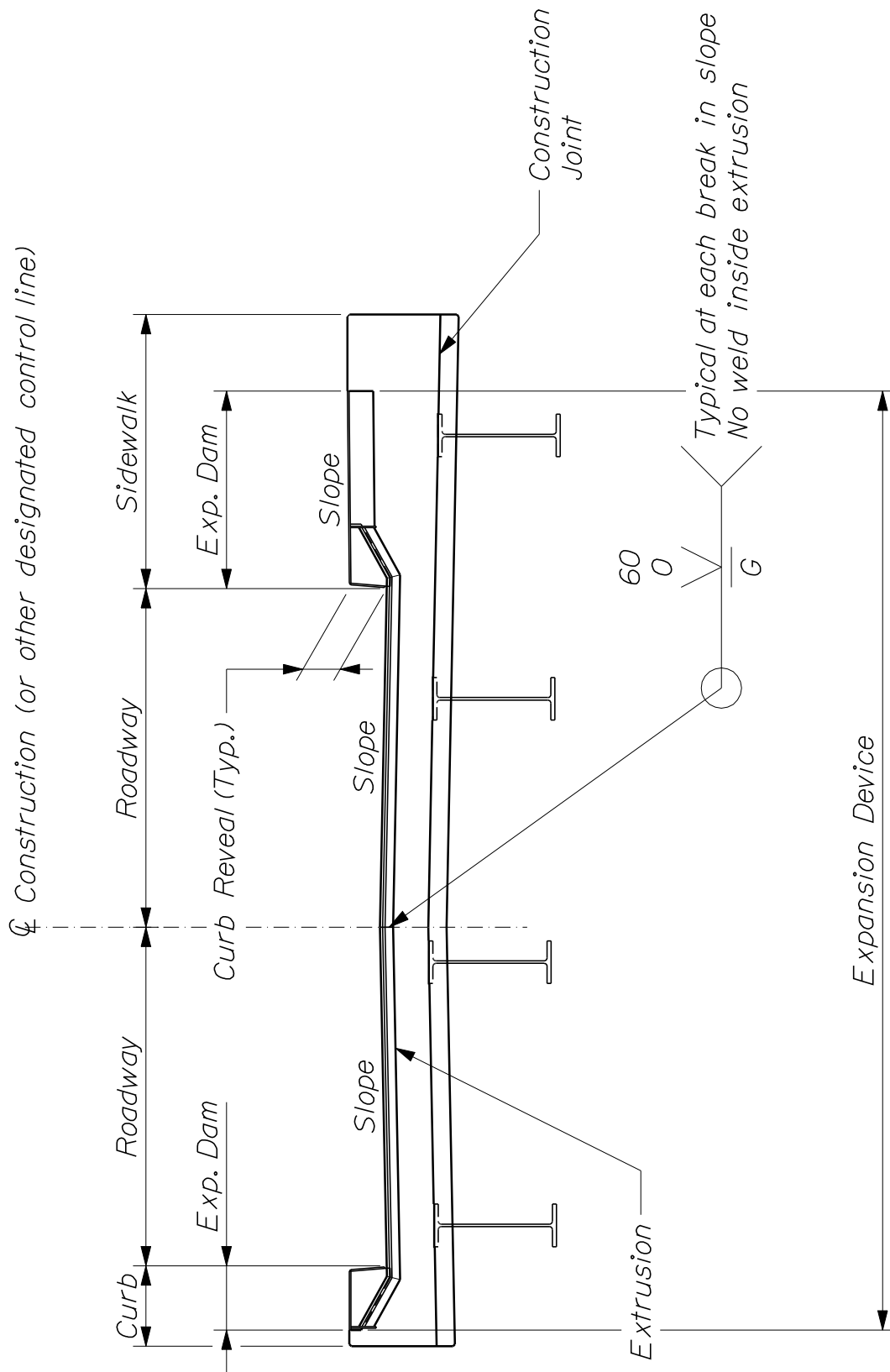
SPECIAL PROVISION
SECTION 520
EXPANSION DEVICES

The following shall be added to section 520.06, Installation, of the 2002 Revision of the Standard Specifications:

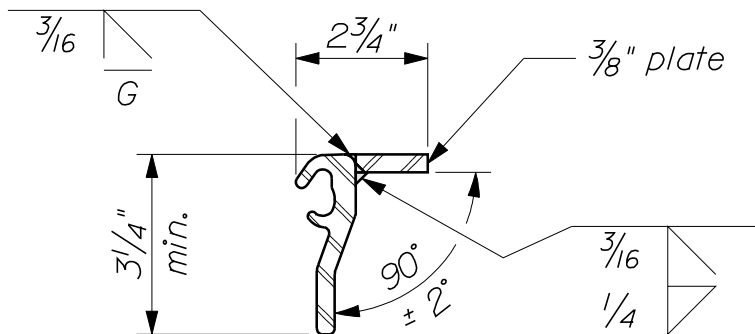
The attached Expansion Device - Gland Seal drawing shall be used on the project.



~ EXPANSION DEVICE PLAN ~
(Typical installation)



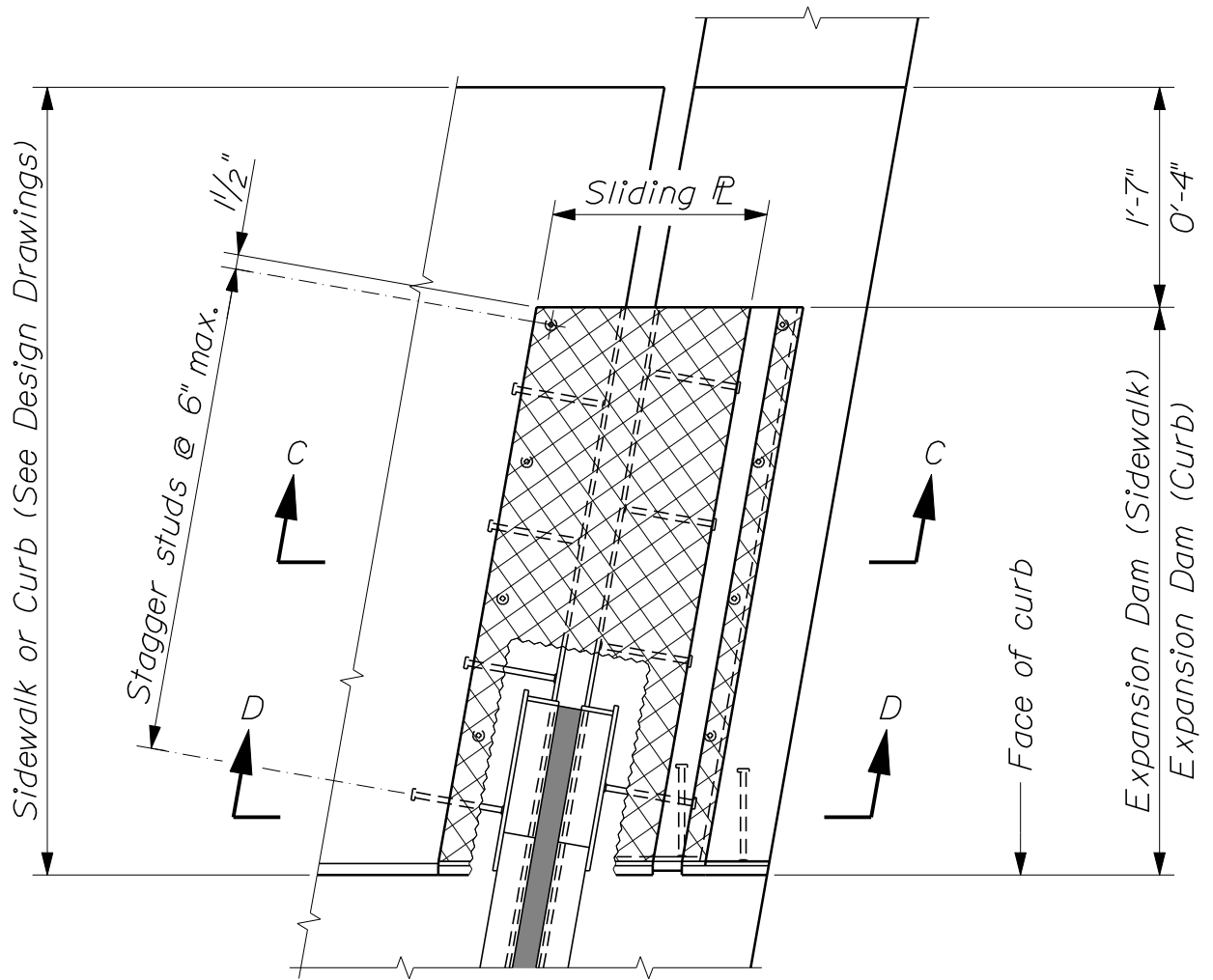
~ SECTION A - A ~



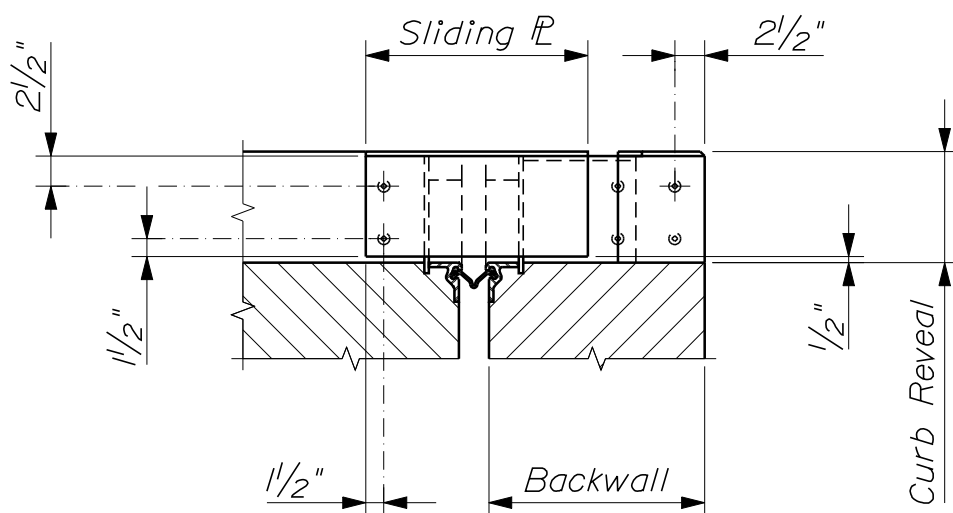
~ WELDED EXTRUSION ~



195

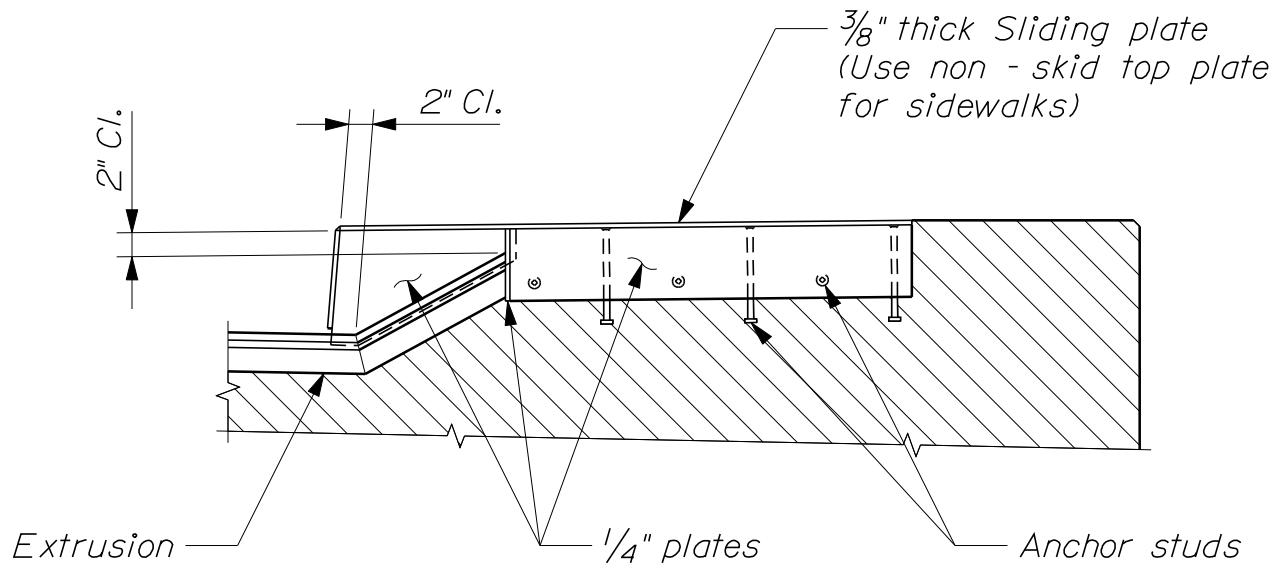


~ EXPANSION DAM PLAN ~

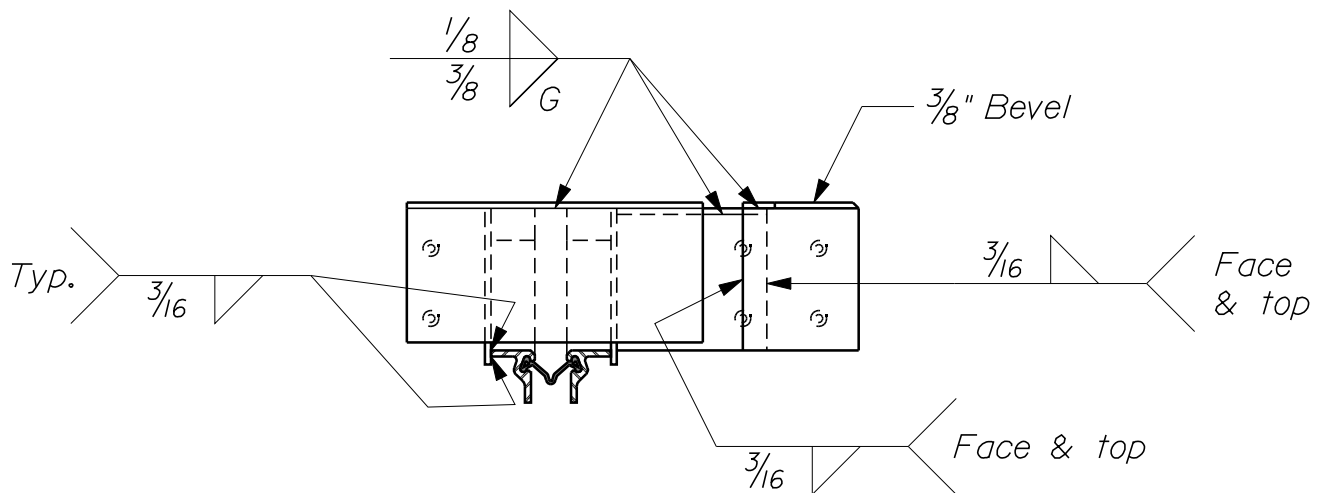


~ EXPANSION DAM ELEVATION ~

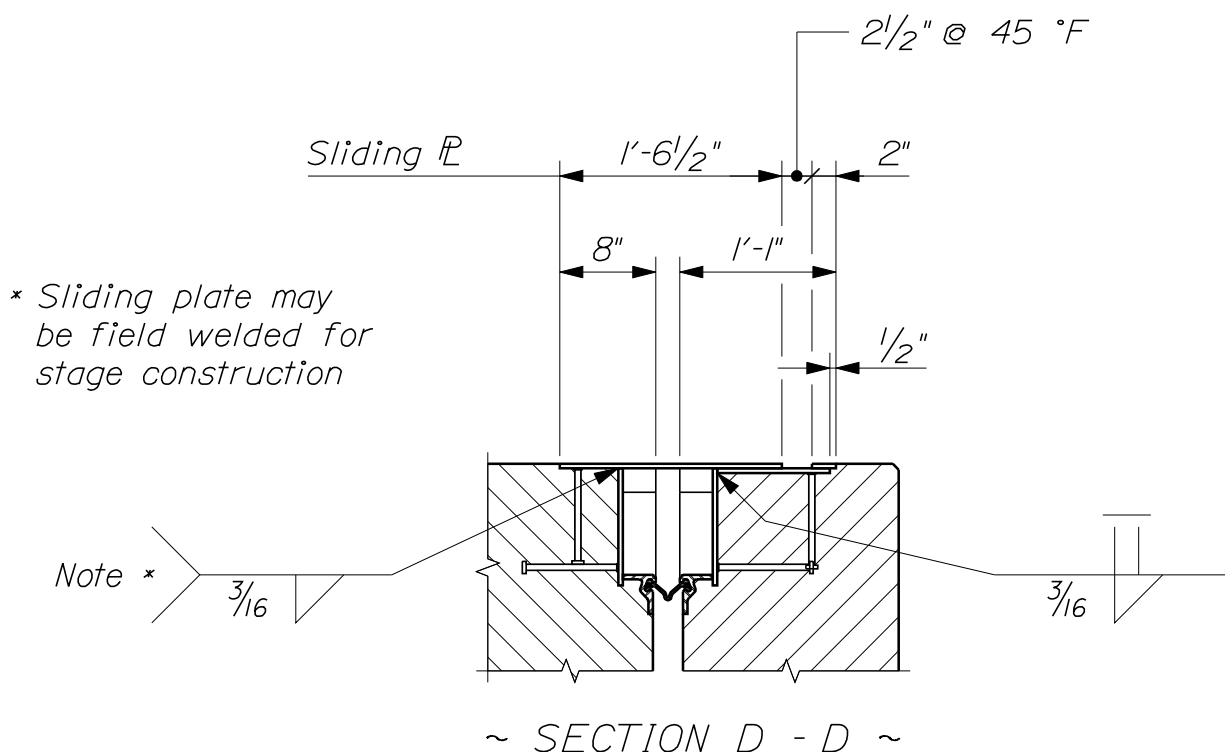
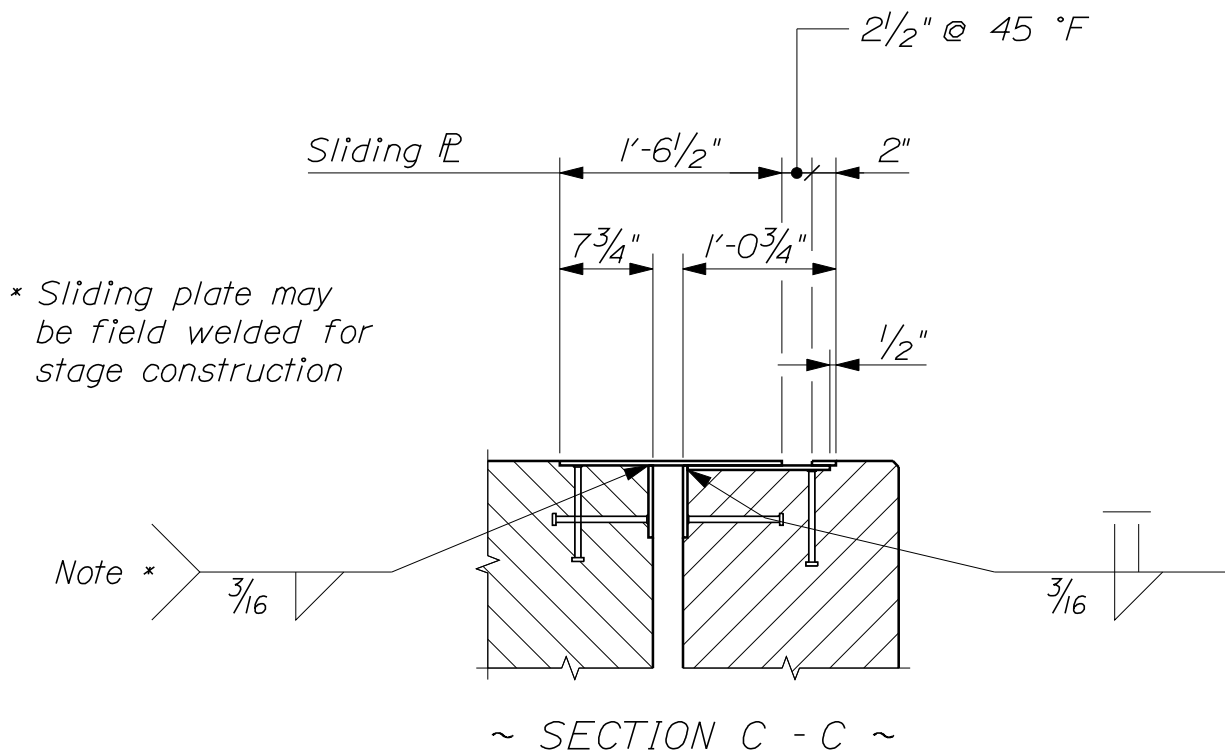
EXPANSION DEVICE - GLAND SEAL 520(05)



~ EXPANSION DAM SECTION ~



~ WELDING DETAIL ~



NOTES:

1. Each "Expansion Device - Gland Seal" consists of one backwall element and one superstructure element (or two superstructure elements over piers) with expansion dams as required.

2. Refer to Design Drawings for dimensions, slopes, skew and all other information necessary to fabricate and install each Expansion Device.

3. The Expansion Device shall be fabricated to be installed normal to grade.

4. The Expansion Device shall be set to an opening of two inches in the fabrication shop. The joint opening shall be adjusted for temperature in the field at the time of installation using the following formula:

$$0.00008 \times "D" \times "\Delta T" = \text{Adjustment (in inches)}$$

"D" is the distance in feet between the backwall and the nearest fixed bearings (for joints at abutments) or between the fixed bearings at either side of the expansion joint (for joints at piers). " ΔT " is the difference between the temperature of the structure and 45 °F.

A structure temperature above 45 °F will result in a smaller joint opening.

5. Welding to reinforcing steel will be allowed in the top of the abutment backwall above the block - out joint.

6. The slab and backwall concrete shall be in place before the Expansion Device is fixed in position. No allowance for movement due to dead load deflection is necessary.

7. The concrete in the block - out may be placed with the curb / sidewalk concrete. An approved epoxy bonding agent shall be applied to all vertical surfaces of the block - out before making the final concrete placement.

8. If there is a conflict between these Standard Details and the Design Drawings, the requirements of the Design Drawings shall be followed.

MATERIALS:

All shapes and plates AASHTO M 270M/M 270, Grade 36

SPECIAL PROVISION
SECTION 520
EXPANSION DEVICES
(Bridge Joint Modifications)

Description This work shall consist of removal, adjustment, repair, modification, and replacement of bridge joints, as indicated on the plans, and in accordance with the specifications.

Materials All structural concrete removed shall be replaced with Class LP concrete, per Section 502. A bonding agent from the Maine Department of Transportation's Qualified Product List shall be used for bonding fresh concrete or patching material to existing hardened concrete.

As an alternative to the standard Class LP concrete, the contractor may propose the use of an accelerated Class LP concrete. Acceptable methods for rapid strength gain shall include, but are not limited to, additional cementitious content, non chloride chemical accelerators, Type III Portland Cement, and heated mix water and aggregates. Trial batches shall be performed and submitted to the Department indicating a minimum of 4000 PSI compressive strength in 24 hours.

The use of rapid setting cement may be substituted for normal Portland Cement and must obtain a minimum of 5000 PSI compressive strength in 24 hours. Rapid set cement products proposed for use must have a history of long term durability and be used in strict accordance with the manufacturer's recommendations.

When called for in the plans or specifications, Elastomeric Concrete shall be one of the products listed on the Maine Department of Transportation's Qualified Product List for Elastomeric Concrete.

The Joint and Seals, as required, shall be the type indicated on the plans and shall meet the material, fabrication, and construction requirements of Section 520 - Expansion Devices - Non-Modular. Expansion Joints and Seals shall be selected from the appropriate MaineDOT Qualified Product List of Bridge Compression Seals and Gland Seals.

The Asphaltic Plug Joint System shall be an engineered asphaltic plug joint system provided by a manufacturer/supplier that has been in business for a minimum of five years and uses a polymer modified asphalt binder that is climate classified in accordance with the FHWA LTTPBind V2.1 System for satisfactory joint performance in 52°C and 58°C high temperature areas and -28°C, -34°C and -40°C low temperature areas.

An acceptable Asphaltic Plug Joint System is the D.S. Brown Matrix™502 Asphaltic Plug Bridge Joint System, or approved equal.

The materials furnished, and equipment and installation procedures used shall be in strict accordance with the manufacturer's/ supplier's published product data and installation guidelines. Product data, installation guidelines, test data and reports, and material certifications shall be submitted for review and approval.

The steel and concrete surface preparation requirements, primer material (if required), backer rod and non-sag silicone sealant to seal the raised curbs shall be submitted for review and approval.

The installers shall have a factory trained lead person(s) onsite during the joint installation, or the approved manufacturer/supplier shall provide a qualified technical representative(s) to supervise the Contractor's personnel in the proper methods of installation of the joint system. The resumes of the factory trained lead person(s) and/ or manufacturer's qualified technical representative(s) shall be submitted for review and acceptance.

Construction Requirements The removal, adjustment, modification and replacement of bridge joints shall be done in a manner that accommodates maintenance of traffic requirements and shall be coordinated with the highway paving.

Bridge decks and curbs may contain electrical conduit (rigid metal or PVC) and wiring. The Contractor shall field verify the presence of electrical conduit and shall take all precautions necessary to avoid damaging any embedded conduits. Any conduit or electrical wiring damaged as a result of the contractors operations shall be repaired by the contractor at no expense to the Department. Where the specified joint modifications include reconstruction of the backwall and deck on bridges that contain conduit, and existing conduit expansion couplers do not exist or are damaged during demolition, a new conduit expansion coupling approved by the Resident shall be installed to accommodate expansion and contraction of the bridge deck.

The contractor shall field measure existing joint openings as required to determine the appropriate replacement joint seal. All angles, joint extrusions, gland seals and compression seals shall be approved by the Resident before any materials are ordered.

Shop drawings shall be submitted for approval for all replacement joints and joint systems. The contractor shall construct the joint to the dimensions shown on the plans and as approved by the manufacturer.

The contractor shall install the joint or joint system according to the manufacturer's recommendations. Construction joints in the joint armor, or the steel extrusions, shall be fully welded at each construction joint required by phasing, and at the tie-ins to the existing joint armor and steel extrusion adjacent to the deck curbs. Replacement seals shall be installed full width in one piece after the remainder of the joint modification is completed.

Where applicable, the contractor shall cut a neat line for the substrate blackout per the dimensions indicated on the plans and standard details. The contractor shall sand blast the substrate, blow it clean with dry oil-free compressed air, and thoroughly dry the substrate prior to placing joint material. Care shall be taken where reinforcing steel is uncovered not to damage the steel or its bond to the surrounding concrete. All existing reinforcing steel exposed by the joint and concrete removal shall be cleaned by sandblasting, or by other means approved by the Resident. Prior to casting the new concrete the contractor shall apply an epoxy bonding agent from the Department's Qualified Products List.

All transverse reinforcing steel shall be continuous across the length of the joint. The contractor shall provide approved reinforcing steel coupler bars at all construction joints.

- Bridge Joint Modification Type 2A involves replacing the existing compression seal "in kind" full deck width and completely through raised curbs plus six inch extensions per side; and installing elastomeric concrete, minimum 3 inch depth, on the backwall and deck full deck width to inside faces of curbs. The new compression seal shall be an appropriate size selected from the Department's Qualified Products List.
- Bridge Joint Modification Type 3 involves replacing the existing joint system full width with a complete new compression seal system full deck width and completely through the raised curbs and median islands (if noted) including deck concrete, backwall concrete, deck and backwall curbs, and deck and backwall fascias. The compression seal shall be full deck width and completely through raised curbs plus six inch extensions per side; the new joint armor and structural concrete shall be full deck width to outside faces of raised curbs. The appropriately sized new compression seal shall be from the Department's Qualified Products List.
- Bridge Joint Modification Type 4 involves modifying the existing compression seal armor and installing an asphaltic plug joint system. The asphaltic plug joint system, elastomeric concrete and joint armor modification shall be full deck width to inside faces of raised curbs; the elastomeric sealant, backer rod, and preparation of curb joint armor and structural concrete shall be full width of raised curbs and median islands (if noted).
- Bridge Joint Modification Type 5 involves replacing the existing joint system with a complete new gland seal system the full deck width and completely through the raised curbs and median islands (if noted) including deck concrete, backwall concrete, deck and backwall curbs, and deck and backwall fascias. The gland seal and gland seal extrusions are full deck width and partially through raised curbs per Supplemental Standard Details; and the structural concrete is full deck width out to out. The appropriately sized new gland seal and gland seal extrusions shall be from the Department's Qualified Products List.

- Bridge Joint Modification Type 6 involves replacing the existing joint system full width with a deck slab over backwall system, including deck concrete, median islands (if noted), backwall concrete, deck and backwall curbs and overhangs, and deck and backwall fascias. The structural concrete work is full deck width to outside faces of raised curbs.
- Bridge Joint Modification Type 7A involves replacing the existing gland seal “in kind” full deck width and partially through raised curbs; and installing elastomeric concrete, minimum 3 inch depth, full deck width to inside faces of curbs. The new gland seals shall be from the Department’s Qualified Products List and shall match the existing gland seal being replaced.
- Bridge Joint Modification Type 7B involves installing elastomeric concrete, minimum 3 inch depth, full deck width to inside faces of curbs. The existing compression seal or gland seals are not being replaced.

Temporary Structures and Approaches

In work zones where the roadway and ramps are opened up to traffic during non-work hours the Contractor shall submit a plan to on how the roadway surfaces will be suitable for vehicular traffic. Depending on the work completed during the work hours the contractor shall shim, plate, ramp or mat the joint or deck areas being repaired prior to opening the roadway(s) to vehicular traffic.

The Contractor shall design, construct, and maintain in good condition, and remove all temporary structures (plates, mats, etc.) and approaches (shims, ramps, etc.) required for the satisfactory maintenance of vehicular traffic.

Where required, the Contractor shall install temporary structures (temporary bridge plates or temporary bridge mats) over the bridge joints, across all vehicle lanes and shoulders. Temporary structures shall be recessed flush with the adjacent roadways or ramped transversely and longitudinally per Standard Detail 202(01) for approaches.

All temporary structures and approaches shall be constructed in accordance with the plans submitted by the Contractor. Barricades, warning signs, lights and other traffic control devices shall be provided in accordance with the Contract and the approved Traffic Control Plan. Materials used for all temporary structures and approaches shall conform to the detailed plans and specifications submitted by the Contractor.

Temporary structures shall be designed and sealed by a Professional Engineer, licensed in accordance with the laws of the State of Maine. The Contractor shall submit the design computations and detailed plans of the temporary structures to the Resident prior to beginning construction of the temporary structures. If the Department requires changes to temporary structures plans or computations, based on Contract requirements, then the Contractor shall implement the changes at no additional cost to the Department.

Shims and ramps shall conform to the Standard Detail 202(01) for approaches for the posted speeds and differential elevations being corrected.

The Department shall have no obligation to review or comment on any design, construction, maintenance or removal of temporary structures and approaches. No review or comment by the Department, or any lack of review or comment by the Department, shall not relieve the Contractor of its responsibility to properly design, construct, maintain in good condition, and remove the temporary structures and approaches in accordance with the Contract, nor shall no review or comment by the Department, or any lack of review or comment by the Department shift any responsibility to the Department. The Contractor shall be responsible for all damages resulting from the failure of temporary structures or approaches.

Temporary structures shall be designed in accordance with the AASHTO Standard Specifications for Highway Bridges, 17th Edition, 2002, or the current edition of AASHTO LRFD Bridge Design Specifications, except as noted herein, to meet live load requirements of HS25, for ASD and LFD, or HL-93 Maine Modified, for LRFD designs. The design speed of the temporary structures shall not be less than the construction area posted speed limit, or the advisory speed limit, as applicable, unless otherwise indicated in the Contract. Provisions shall be made for a skid resistant wearing surface throughout the period of time the temporary structure is open to public travel for vehicular traffic.

The temporary structures and support members shall be fastened or anchored so that all contact surfaces with adjacent supporting members bear continuously. Immediate corrective action shall be taken by the Contractor to remedy any condition in the structure that results in objectionable or distracting noise levels, or results in the decking becoming loose, when subject to traffic loads.

The Contractor shall be responsible for normal maintenance, should any part, or all, of the temporary structures and approaches be damaged or destroyed by any cause, prior to, or after, opening the temporary structures and approaches to traffic, it shall be repaired or replaced by the Contractor without additional compensation.

Bridge Rail, Bridge Rail Posts, and Snow Fence

The Contractor shall be remove, stack and reset all existing bridge rail, bridge rail posts, and snow fence components that interfere with the installation of the specified joint modifications or replacements.

Materials for bridge rail modifications, if required, shall conform to Standard Specification 507. The anchoring material for drilling and anchoring new anchor rods shall be selected from the MaineDOT Qualified Products List.

Method of Measurement Bridge Joint Modification Types 2A, 3, 4, 5, 6, 7A and 7B will be measured by each unit, complete in place and accepted for the type(s) identified on the plans and described in this specification.

Providing factory trained lead persons and/ or manufacturer/ supplier technical representatives, where specified, will not be measured separately but shall be incidental to the Bridge Joint Modification pay item.

Temporary structures and approaches will not be measured separately but shall be incidental to the various Bridge Joint Modification pay items.

Removing, stacking and resetting existing bridge rail, bridge rail posts, and snow fence components that interfere with the installation of the specified joint modifications or replacements, and providing anchor bolts, bridge rail hardware, and snow fence hardware will not be measured separately but shall be incidental to the various Bridge Joint Modification pay items.

Basis of Payment The accepted quantity of Bridge Joint Modification Types 2A, 3, 4, 5, 6, 7A and 7B will be paid for at the contract unit price per each. Payment will be full compensation for furnishing and installing all materials, labor, equipment, and incidentals necessary to complete the work, including removing, disposing and installing structural concrete and steel, drilling and grouting, adjusting and cleaning existing joint materials and reinforcing steel, fabricating and installing new joint material and new seals, welding, phasing the joint installation, prepping and sealing raised curbs, salvaging existing electrical conduit, installing new conduit expansion couplings, removing and resetting bridge rail, bridge rail posts and snowfence, and temporary structures and supports, as required.

Traffic control devices used in conjunction with the temporary structures and approaches will be paid in accordance with the applicable Contract items.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
520.2421 Bridge Joint Modifications Type 2A	Each
520.243 Bridge Joint Modifications Type 3	Each
520.244 Bridge Joint Modifications Type 4	Each
520.245 Bridge Joint Modifications Type 5	Each
520.246 Bridge Joint Modifications Type 6	Each
520.2471 Bridge Joint Modifications Type 7A	Each
520.2472 Bridge Joint Modifications Type 7B	Each

SPECIAL PROVISION

SECTION 524

TEMPORARY STRUCTURAL SUPPORTS

(Temporary Structural Support)

524.01 Description

This Subsection is amended by the addition of the following:

The purpose of the temporary structural support (system) is to compensate for the loss of transverse continuity between girders caused by the longitudinal joint running along the center of the median island. The temporary structural support system shall be designed to distribute loads between the girders adjacent to the longitudinal deck joint.

The temporary structural support (system) shall be in place on the I-295 NB over the Portland Connector Bridge prior to traffic or construction loads being allowed on the median island area being removed. The structural supports shall remain in place until reconstruction of the median island is complete.

524.03 Design

This Subsection is amended by the addition of the following:

The temporary structural support shall be designed and sealed by a Professional Engineer, licensed in accordance with the laws of the State of Maine. The Contractor shall submit the design computations and detailed plans of the temporary structure sufficiently in advance of proposed use to allow for their review and approval, without delay to the Work.

If the Department requires changes to temporary structural support plans or computations, based on Contract requirements, then the Contractor shall implement the changes at no additional cost to the Department.

The Department shall have no obligation to review or comment on any design, construction, maintenance or removal of the temporary structural support. No review or comment by the Department, or any lack of review or comment by the Department, shall relieve the Contractor of its responsibility to properly design, construct, maintain in good condition, and remove the temporary structural support in accordance with the Contract, or to shift any responsibility to the Department. The Contractor shall be responsible for all damages resulting from the failure of temporary structural support.

Traffic shall not be allowed onto the supported area until the Contractor's Professional Engineer inspects the installed temporary structural support and provides the

Department with a signed and sealed document certifying that the temporary structural support was built in accordance with the previously submitted sealed plans and design details.

The temporary structural support shall be inspected on a weekly basis to ensure that the supports remains in accordance with the plans and design details, and nothing has become dislodged or loose.

The temporary structural support shall be designed in accordance with the AASHTO LRFD Bridge Design Specifications. The temporary structural support shall be designed, at a minimum, to carry the HL-93 live loading including impact.

The individual transverse support elements (TSE) shall be designed to provide a minimum flexural stiffness (K_{TSE}) of 71 k/in per foot of bridge length. The flexural stiffness of the temporary support system shall be calculated as shown in Figure 1. The transverse support element end fixity shall be determined by the Contractor's Engineer and shall be consistent with the details of the temporary support system. The individual transverse support elements shall be spaced at a maximum of 6 ft o.c. and shall be adequately braced to be stable in all directions.

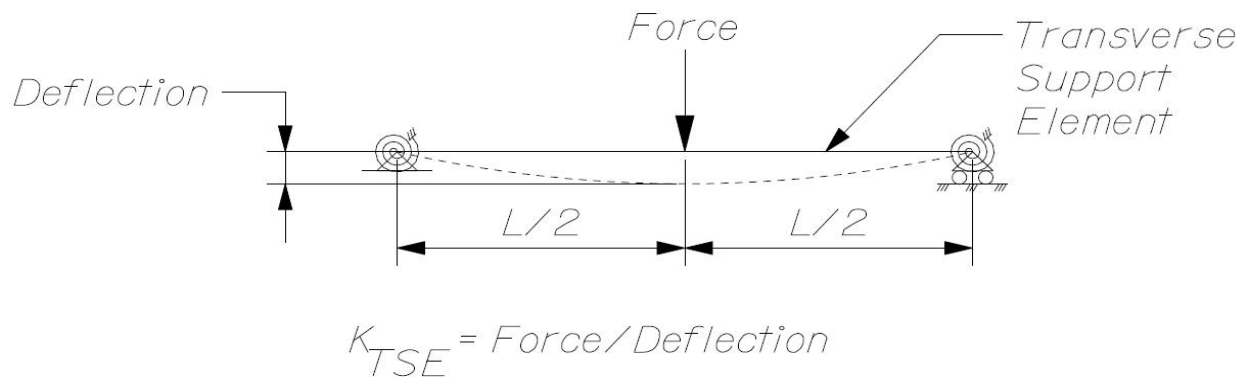


Figure 1: Stiffness Definition

524.28 Method of Measurement

The first sentence of the existing paragraph is revised to read as follows:

Temporary Structural Support will be measured as one lump sum for all the supports required for construction, satisfactorily designed, erected, maintained, dismantled, and removed from the site.

524.29 Basis of Payment

The first sentence of the existing paragraph is revised to read as follows:

Temporary Structural Support will be paid as a contract lump sum price. Price shall be full compensation for all materials, equipment, labor and incidentals for the design, erection, maintenance, dismantling, and removal of all components from the site shown on the Contractor's plans, and in accordance with these specifications.

Payment will be made under:

Pay Item

Pay Unit

524.301 Temporary Structural Support

Lump Sum

SPECIAL PROVISION
SECTION 526
CONCRETE BARRIER
(Permanent Concrete Transition Barrier)

526.01 Description

This subsection is amended by the addition of the following:

This work also consists of removing existing concrete transition barriers, relocation, removal and addition of bridge rail posts, modifying or lengthening aluminum bridge rail, installing bridge rail end caps, providing necessary bridge rail hardware, and bridge curb modifications as shown on the plans, in the locations indicated on the plans, or as directed by the Resident.

526.02 Materials

This subsection is amended by the addition of the following:

Materials for bridge rail modifications shall conform to Standard Specification 507. The anchoring material for drilling and anchoring new anchor rods shall be selected from the MaineDOT Qualified Products List.

526.03 Construction Requirements:

This subsection is amended by the addition of the following:

Bridge decks and curbs may contain electrical conduit (rigid steel or PVC) and wiring. Prior to beginning the work the contractor shall field verify the presence of electrical conduit and shall take all precautions necessary to avoid damaging any embedded conduits. If conflicts are discovered between the proposed location of drilled and anchored reinforcing steel and electrical conduit the contractor shall notify the Resident so that appropriate adjustments can be made. Any conduit or electrical wiring damaged as a result of the contractors operations shall be repaired by the contractor at no expense to the Department.

526.04 Method of Measurement

This subsection is amended by the addition of the following:

Permanent Concrete Transition Barriers, regardless of type, will be measured by each unit satisfactorily completed.

526.05 Basis of Payment:

This subsection is amended by the addition of the following:

Payment for Transition Barrier, regardless of type, will be made at the Contract unit price per each. Payment shall be full compensation for removing existing concrete transition barriers, relocating, removing, and adding aluminum bridge rail posts, modifying or lengthening aluminum bridge rail, installing bridge rail end caps, providing necessary bridge rail hardware (including toggle bolts and clamp bars), modifying existing bridge curbs, structural concrete, reinforcing steel, and all materials, equipment, labor and incidentals required to complete the work as shown on the plans, and as directed by the Resident.

SPECIAL PROVISION
SECTION 526
CONCRETE BARRIER
(Temporary Concrete Barrier)

Materials

Temporary concrete barriers must be connected using a 1-1/8 inch diameter rod, with a washer and cotter pin on the bottom. The contractor has the option to use a nut and washer connection as shown on the Standard Detail 526(02) or the top of the rod may be hooked over the top connector. The connecting pin must be smooth and not deformed. Reinforcing bar will not be permitted.

SPECIAL PROVISION
SECTION 604
MANHOLES, INLETS, AND CATCH BASINS
(Alter Catch Basin Grate to Cascade Grate)

604.01 Description

This work shall consist of removing existing catch basin grates in the existing paved shoulders, cleaning existing frames, furnishing and applying elastomeric sealer to frame seats, and furnishing and installing new grates. This work shall be completed prior to shifting traffic onto the paved shoulders.

604.02 Materials

The following sentences are added:

New grate shall be Type M grate as manufactured by Etheridge Foundaries of Portland, Maine or an approved equal.

Elastomeric sealer shall be Sikaflex 1a as manufactured by Sika or an approved equal.

604.03 Construction Requirements

The following paragraphs are added:

Prior to installing the new Type M grate, the existing frame shall be cleaned to accept elastomeric sealer. Sealer shall be placed in a continuous bead over horizontal and vertical surfaces in accordance with the manufacturer's recommendations. Installed grates shall be preloaded and allowed to set for a minimum of 1.5-hours before receiving traffic loads to assure adequate adhesion of the sealer. The old grates shall be removed and properly disposed of off MaineDOT property.

New grates shall remain in place at the completion of construction and shall become the property of the MaineDOT.

The Contractor is required to have two additional grates on-site at all times for use as backup devices. Unused grates shall become the property of the Contractor.

604.05 Method of Measurement

The following sentence is added:

Alter Catch Basin Grate to Cascade Grate will be measured for payment by each unit secured and accepted.

604.06 Basis of Payment

The following paragraphs are added:

The accepted quantity of Alter Catch Basin Grate to Cascade Grate will be paid for at the Contract unit price per each. This price shall be full compensation for removing and disposing the existing grate, cleaning the horizontal and vertical surfaces, applying the elastomeric sealer, furnishing and installing the new Type M grate, and all other labor, equipment, and materials required to complete the work.

Unused backup grates will be paid for at one-half the Contract unit price each under the Alter Catch Basin Grate to Cascade Grate item.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
604.167 Alter Catch Basin Grate to Cascade Grate	Each

SPECIAL PROVISION
SECTION 606
GUARDRAIL
(Remove and Dispose)

This Section of the Standard Specifications is amended by the addition of the following:

Description This work shall consist of the removing and disposing of existing beam guardrail including existing end treatments and indicated on the plans.

CONSTRUCTION REQUIREMENTS

General The existing guardrail including existing end treatments, shall be removed and shall become the property of the Contractor to be disposed of off the project.

Method of Measurement Guardrail, Remove and Dispose, will be measured by the foot of rail.

Basis of Payment The quantity of Guardrail, Remove and Dispose, will be paid for at the contract unit price per foot.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
606.363 Guardrail, Remove and Dispose	Linear Foot

SPECIAL PROVISION
SECTION 606
GUARDRAIL

606.01 Description This work shall consist of furnishing and installing guardrail components in accordance with these specifications and in reasonably close conformity with the lines and grades shown on the plans or as established. The types of guardrail are designated as follows:

Type 3-Galvanized steel "w" beam, wood posts or galvanized steel posts.

Type 3a-Galvanized steel "w" beam, wood posts, wood or composite offset blocks.

Type 3aa-Corrosion resistant steel "w" beam, wood posts, wood or composite offset blocks.

Type 3b-Galvanized steel "w" beam, galvanized steel posts, galvanized steel offset blocks.

Type 3c-Galvanized steel "w" beam, wood posts or galvanized steel posts, wood or composite offset blocks.

Type 3d-Galvanized steel "w" beam, galvanized steel posts, wood or composite offset blocks.

Thrie Beam-Galvanized steel thrie beam, wood posts or galvanized steel posts, wood or composite offset blocks.

Median barriers shall consist of two beams of the above types, mounted on single posts. Except for thrie beam, median barriers may include rub rails when called for.

Bridge mounted guardrail shall consist of furnishing all labor, materials, and equipment necessary to install guardrail as shown on the plans. This work shall also include drilling for and installation of offset blocks if specified, and incidental hardware necessary for satisfactory completion of the work.

Remove and Reset and Remove, Modify, and Reset guardrail shall consist of removing the existing designated guardrail and resetting in a new location as shown on the plans or directed by the Resident. Remove, Modify, and Reset guardrail and Modify guardrail include the following guardrail modifications: Removing plate washers at all posts, except at anchorage assemblies as noted on the Standard Details, Adding offset blocks, and other modifications as listed in the Construction Notes or General Notes. Modifications shall conform to the guardrail Standard Details.

Bridge Connection shall consist of the installation and attachment of beam guardrail to the existing bridge. This work shall consist of constructing a concrete end post or modifying an existing endpost as required, furnishing, and installing a terminal connector, necessary hardware, and incidentals required to complete the work as shown on the plans. Bridge Transition shall consist of a bridge connection and furnishing and installing guardrail components as shown in the Standard Details.

606.02 Materials Materials shall meet the requirements specified in the following Sections of Division 700 - Materials:

Timber Preservative	708.05
Metal Beam Rail	710.04
Guardrail Posts	710.07
Guardrail Hardware	710.08

Guardrail components shall meet the applicable standards of "A Guide to Standardized Highway Barrier Hardware" prepared and approved by the AASHTO-AGC-ARTBA Joint Cooperative Committee, Task Force 13 Report.

Posts for underdrain delineators shall be "U" channel steel, 2.44m [8 ft] long, 3.72 kg/m [2 ½ lb/ft] minimum and have 9.5 mm [3/8 in] round holes, 25 mm [1 in] center to center for a minimum distance of 610 mm [2 ft] from the top of the post.

Reflectorized Flexible Guardrail Markers shall be mounted on all guardrails. A marker shall be mounted onto guardrail posts at the flared end treatment's terminal and its tangent point, both at the leading and trailing ends of each run of guardrail. The marker's flexible posts shall be grey with either silver-white or yellow reflectors (to match the edge line striping) at the tangents, red at leading ends, and green at trailing ends. Whenever the end treatment is not flared, markers will only be required at the end treatment's terminal. These shall be red or green as appropriate. Markers shall be installed on the protected side of guardrail posts unless otherwise approved by the Resident. Reflectorized flexible guardrail markers shall be from the Maine DOT's Approved Product List of Guardrail Material. The marker shall be grey, flexible, durable, and of a non-discoloring material to which 75 mm [3 in] by 225 mm [9 in] reflectors shall be applied, and capable of recovering from repeated impacts. Reflective material shall meet the requirements of Section 719.01 for ASTM D 4956 Type III reflective sheeting. The marker shall be secured to the guardrail post with two fasteners, as shown in the Standard Details.

Reflectorized beam guardrail ("butterfly"-type) delineators shall be mounted on all "w"-beam guardrail. The delineators shall be mounted within the guardrail beam at guardrail posts. Delineators shall be fabricated from high-impact, ultraviolet & weather resistant thermoplastic. Reflectorized beam guardrail delineators shall be placed at approximately 20 m [62.5 ft] intervals or every tenth post on tangents and at approximately 10 m [31.25 ft] intervals or every fifth post on curves. Exact locations of the delineators shall be as directed by the Resident. On divided highways, the left hand delineators shall be yellow and the right hand delineators shall be silver/white. On two directional highways, the right hand side shall be silver/white and no reflectorized delineator used on the left. All reflectors shall have reflective sheeting applied to only one side of the delineator facing the direction of traffic as shown in the Standard Detail 606(07). Reflectorized sheeting for guardrail delineators shall meet the requirements of Section 719.01.

Single wood post shall be of cedar, white oak, or tamarack, well seasoned, straight, and sound and have been cut from live trees. The outer and inner bark shall be removed and all knots trimmed flush with the surface of the post. Posts shall be uniform taper and free of kinks and bends.

Single steel post shall conform to the requirements of Section 710.07 b.

Single steel pipe post shall be galvanized, seamless steel pipe conforming to the requirements of ASTM A120, Schedule No. 40, Standard Weight.

Acceptable multiple mailbox assemblies shall be listed on the Department's Approved Products List and shall be NCHRP 350 tested and approved.

The Guardrail 350 Flared Terminal shall be a terminal with a 1.2 m [4 ft] offset as shown in the Manufacturer's installation instructions.

Existing materials damaged or lost during adjusting, removing and resetting, or removing, modifying, and resetting, shall be replaced by the Contractor without additional compensation. Existing guardrail posts and guardrail beams found to be unfit for reuse shall be replaced when directed by the Resident.

606.03 Posts Posts for guardrail shall be set plumb in holes or they may be driven if suitable driving equipment is used to prevent battering and distorting the post. When posts are driven through pavement, the damaged area around the post shall be repaired with approved bituminous patching. Damage to lighting and signal conduit and conductors shall be repaired by the Contractor.

When set in holes, posts shall be on a stable foundation and the space around the posts, backfilled in layers with suitable material, thoroughly tamped.

The reflectorized flexible guardrail markers shall be set plumb with the reflective surface facing the oncoming traffic. Markers shall be installed on the protected side of guardrail posts. Markers, which become bent or otherwise damaged, shall be removed and replaced with new markers.

Single wood posts shall be set plumb in holes and backfilled in layers with suitable material, thoroughly tamped. The Resident will designate the elevation and shape of the top. The posts, that are not pressure treated, shall be painted two coats of good quality oil base exterior house paint.

Single steel posts shall be set plumb in holes as specified for single wood posts or they may be driven if suitable driving equipment is used to prevent battering and distorting the post.

Additional bolt holes required in existing posts shall be drilled or punched, but the size of the holes shall not exceed the dimensions given in the Standard Details. Metal around the holes shall be thoroughly cleaned and painted with two coats of approved aluminum rust resistant paint. Holes shall not be burned.

606.04 Rails Brackets and fittings shall be placed and fastened as shown on the plans. Rail beams shall be erected and aligned to provide a smooth, continuous barrier. Beams shall be lapped with the exposed end away from approaching traffic.

End assemblies shall be installed as shown on the plans and shall be securely attached to the rail section and end post.

All bolts shall be of sufficient length to extend beyond the nuts but not more than 13 mm [$\frac{1}{2}$ in]. Nuts shall be drawn tight.

Additional bolt holes required in existing beams shall be drilled or punched, but the size of the holes shall not exceed the dimensions given in the Standard Details. Metal around the holes shall be thoroughly cleaned and painted with two coats of approved aluminum rust resistant paint. Holes shall not be burned.

606.045 Offset Blocks The same offset block material is to be provided for the entire project unless otherwise specified.

606.05 Shoulder Widening At designated locations the existing shoulder of the roadway shall be widened as shown on the plans. All grading, paving, seeding, and other necessary work shall be in accordance with the Specifications for the type work being done.

606.06 Mail Box Post Single wood post shall be installed at the designated location for the support of the mailbox. The multiple mailbox assemblies shall be installed at the designated location in accordance with the Standard Details and as recommended by the Manufacturer. Attachment of the mailbox to the post will be the responsibility of the home or business owner.

606.07 Abraded Surfaces All galvanized surfaces of new guardrail and posts, which have been abraded so that the base metal is exposed, and the threaded portions of all fittings and fasteners and cut ends of bolts shall be cleaned and painted with two coats of approved rust resistant paint.

606.08 Method of Measurement Guardrail will be measured by the meter [linear foot] from center to center of end posts along the gradient of the rail except where end connections are made to masonry or steel structures, in which case measurement will be as shown on the plans.

Terminal section, low volume end, NCHRP 350 end treatments, reflectorized flexible guardrail marker, terminal end, bridge transition, bridge connection, multiple mailbox post, and single post will be measured by each unit of the kind specified and installed.

Widened shoulder will be measured as a unit of grading within the limits shown on the plans.

Excavation in solid rock for placement of posts will be measured by the cubic meter [cubic yard] determined from the actual depth of the hole and a hypothetical circle diameter of 600 mm [2 ft].

606.09 Basis of Payment The accepted quantities of guardrail will be paid for at the contract unit price per meter [linear foot] for the type specified, complete in place. Reflectorized beam guardrail ("butterfly"-type) delineators will not be paid for directly, but will be considered incidental to guardrail items. Terminal section, buffer end, NCHRP 350 end treatment, bridge connection, single post and reflectorized flexible guardrail markers will be paid for at the contract unit price each for the kind specified complete in place.

NCHRP 350 end treatments and low volume guardrail ends will be paid for at the contract price each, complete in place which price shall be full payment for furnishing and installing all components including the terminal section, posts, offset blocks, "w" beam, cable foundation posts, plates and for all incidentals necessary to complete the installation within the limits as shown on the Standard Details or the Manufacturer's installation instructions. Each end treatment will be clearly marked with the manufacturers name and model number to facilitate any future needed repair. Such payment shall also be full compensation for furnishing all material, excavating, backfilling holes, assembling, and all incidentals necessary to complete the work, except that for excavation for posts or anchorages in solid ledge rock, payment will be made under Pay Item 206.07. Type III Retroreflective Adhesive Sheeting

shall be applied to the approach buffer end sections and sized to substantially cover the end section. On all roadways, the ends shall be marked with alternating black and retroreflective yellow stripes. The stripes shall be 75 mm [3 in] wide and sloped down at an angle of 45 degrees toward the side on which traffic is to pass the end section. Guardrail 350 flared terminal shall also include a set of installation drawings supplied to the Resident.

Anchorage to bridge end posts will be part of the bridge work. Connections thereto will be considered included in the unit bid price for guardrail.

Guardrail to be placed on a radius of curvature of 45 m [150 ft] or less will be paid for under the designated radius pay item for the type guardrail being placed.

Widened shoulder will be paid for at the contract unit price each complete in place and will be full compensation for furnishing and placing, grading and compaction of aggregate subbase and any required fill material.

Adjust guardrail will be paid for at the contract unit price per meter and will be full compensation for adjusting to grade. Payment shall also include adjusting terminal end treatments where required.

Modify guardrail will be paid for at the contract unit price per meter and will be full compensation for furnishing and installing offset blocks, additional posts, and other specified modifications; removing, modifying, installing, and adjusting to grade existing posts and beams; removing plate washers and backup plates, and all incidentals necessary to complete the work. Payment shall also include removing and resetting terminal ends where required.

Remove and Reset guardrail will be paid for at the contract unit price per meter and will be full compensation for removing, transporting, storing, reassembling all parts, necessary cutting, furnishing new parts when necessary, reinstalling at the new location, and all other incidentals necessary to complete the work. Payment shall also include removing and resetting terminal ends when required. No payment will be made for guardrail removed, but not reset and all costs for such removal shall be considered incidental to the various contract pay items.

Remove, Modify, and Reset guardrail will be paid for at the contract unit price per meter and will be full compensation for the requirements listed in Modify guardrail and Remove and Reset guardrail.

Bridge Connections will be paid for at the contract unit price each. Payment shall include, attaching the connection to the endpost including furnishing and placing concrete and reinforcing steel necessary to construct new endposts if required, furnishing and installing the terminal connector, and all miscellaneous hardware, labor, equipment, and incidentals necessary to complete the work.

Bridge Transitions will be paid for at the contract unit price each. Payment shall include furnishing and installing the thrie beam or "w"-beam terminal connector, doubled beam section, and transition section, where called for, posts, hardware, precast concrete transition curb, and any other necessary materials and labor, including the bridge connection as stated in the previous paragraph.

Payment will be made under:

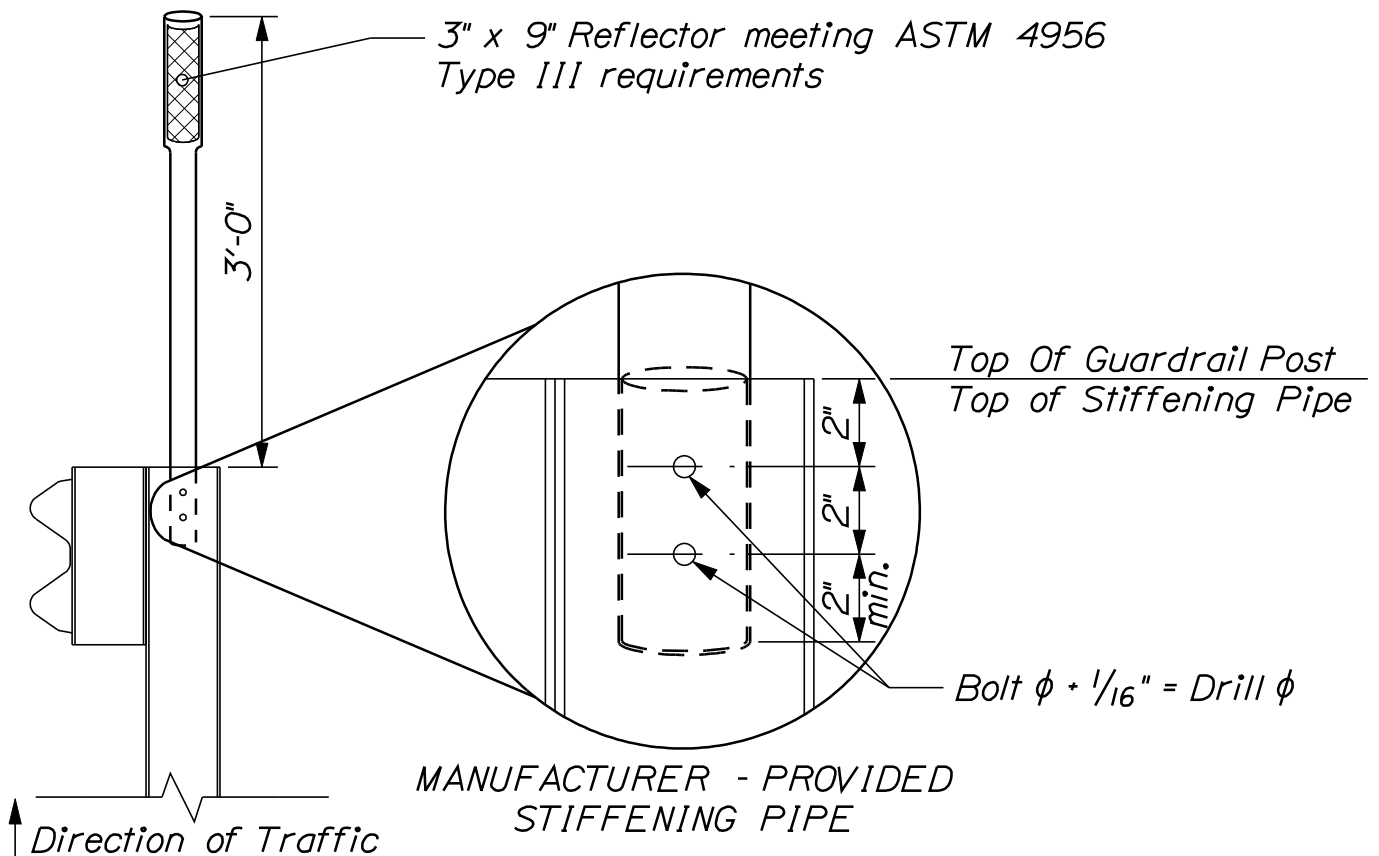
	<u>Pay Item</u>	<u>Pay Unit</u>
606.15	Guardrail Type 3a-Single Rail	meter [Linear Foot]
606.151	Guardrail Type 3aa-Single Rail	meter [Linear Foot]
606.17	Guardrail Type 3b-Single Rail	meter [Linear Foot]
606.1721	Bridge Transition - Type I	Each
606.1722	Bridge Transition - Type II	Each
606.1731	Bridge Connection - Type I	Each
606.1732	Bridge Connection - Type II	Each
606.178	Guardrail Beam	meter [Linear foot]
606.18	Guardrail Type 3b - Double Rail	meter [Linear foot]
606.19	Guardrail Type 3a - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.191	Guardrail Type 3aa - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.20	Guardrail Type 3a - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.201	Guardrail Type 3aa - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.21	Guardrail Type 3b - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.22	Guardrail Type 3b - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.23	Guardrail Type 3c - Single Rail	meter [Linear Foot]
606.2301	Guardrail Type 3c - Double Rail	meter [Linear Foot]
606.231	Guardrail Type 3c - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.232	Guardrail Type 3c - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.24	Guardrail Type 3d - Single Rail	meter [Linear Foot]
606.2401	Guardrail Type 3d - Double Rail	meter [Linear Foot]
606.241	Guardrail Type 3d - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.242	Guardrail Type 3d - over 4.5 m [15 feet] radius	meter [Linear Foot]
606.25	Terminal Connector	Each
606.257	Terminal Connector - Thrie Beam	Each
606.265	Terminal End-Single Rail - Galvanized Steel	Each
606.266	Terminal End-Single Rail - Corrosion Resistant Steel	Each
606.275	Terminal End-Double Rail - Galvanized Steel	Each
606.276	Terminal End-Double Rail - Corrosion Resistant Steel	Each
606.353	Reflectorized Flexible Guardrail Marker	Each
606.354	Remove and Reset Reflectorized Flexible Guardrail Marker	Each
606.356	Underdrain Delineator Post	Each
606.358	Guardrail, Modify, Type 3b to 3c	meter [Linear Foot]
606.3581	Guardrail, Modify Existing to Type 3d	meter [Linear Foot]
606.362	Guardrail, Adjust	meter [Linear Foot]
606.365	Guardrail, Remove, Modify, and Reset, Type 3b to 3c	meter [Linear Foot]
606.3651	Guardrail, Remove, Modify, and Reset Existing to Type 3d	meter [Linear Foot]
606.366	Guardrail, Removed and Reset, Type 3c	meter [Linear Foot]
606.367	Replace Unusable Existing Guardrail Posts	Each
606.47	Single Wood Post	Each
606.48	Single Galvanized Steel Post	Each
606.50	Single Steel Pipe Post	Each

606.51	Multiple Mailbox Support	Each
606.55	Guardrail Type 3 - Single Rail	meter [Linear Foot]
606.551	Guardrail Type 3 - Single Rail with Rub Rail	meter [Linear Foot]
606.56	Guardrail Type 3 - Double Rail	meter [Linear Foot]
606.561	Guardrail Type 3 - Double Rail with Rub Rail	meter [Linear Foot]
606.568	Guardrail, Modify Type 3c -Double Rail	meter [Linear Foot]
606.59	Guardrail Type 3 - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.60	Guardrail Type 3 - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.63	Thrie Beam Rail Beam	meter [Linear Foot]
606.64	Guardrail Thrie Beam - Double Rail	meter [Linear Foot]
606.65	Guardrail Thrie Beam - Single Rail	meter [Linear Foot]
606.66	Terminal End Thrie Beam	Each
606.70	Transition Section - Thrie Beam	Each
606.71	Guardrail Thrie Beam - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.72	Guardrail Thrie Beam - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.73	Guardrail Thrie Beam - Single Rail Bridge Mounted	meter [Linear Foot]
606.74	Guardrail Type 3 - Single Rail Bridge Mounted	meter [Linear Foot]
606.753	Widen Shoulder for Low Volume Guardrail End - Type 3	Each
606.754	Widen Shoulder for Guardrail 350 Flared Terminal	Each
606.78	Low Volume Guardrail End - Type 3	Each
606.79	Guardrail 350 Flared Terminal	Each

1. *Reflectorized Flexible Guardrail Markers shall be from Maine DOT's Approved Product List of Guardrail Material.*

2. *Installation:*

- a. *Each bolt-hole diameter shall be the bolt diameter + $\frac{1}{16}$ ".*
- b. *Wood post attachment - attach marker with 2, $\frac{5}{16}$ " diameter zinc-coated lag bolts, having 2" of embedment into wood post.*
- c. *Steel post attachment - attach marker with 2, $\frac{1}{4}$ " diameter zinc-coated bolt, washer and nut assemblies, having $\frac{1}{2}$ " of bolt extension behind steel post.*
- d. *When provided by the marker manufacturer, a stiffening pipe shall be inserted into the base of the marker prior to drilling bolt holes and shall remain in-place.*



REFLECTORIZED FLEXIBLE GUARDRAIL MARKER DETAILS

606(34)

SPECIAL PROVISION
SECTION 627
PAVEMENT MARKINGS

627.10 Description

The following sentence is added:

All temporary pavement marking lines shall be 6 inches in width.

627.10 Basis of Payment

The following pay items are added:

<u>Pay Item</u>	<u>Description</u>	<u>Pay Unit</u>
627.744	6 Inch White or Yellow Painted Pavement Marking Line	Linear Foot
627.781	Temporary 6 Inch Painted Pavement Marking Line, White or Yellow	Linear Foot

SPECIAL PROVISION
SECTION 631
EQUIPMENT RENTAL
(Skid Steer)

The following are added to Subsection 631.02 and 631.08

631.02 General

<u>Equipment</u>	<u>Description</u>	<u>Minimum Size</u>
Skid Steer	Pneumatic tired with pushing blade	34.3 kW[46 hp]

631.08 Basis of Payment

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
631.133 Skid Steer (including Operator)	Hour

SPECIAL PROVISION

SECTION 643

TRAFFIC SIGNALS

(Temporary Traffic Signal: Ramp Meter)

643.01 Description

The following paragraphs are added:

The work shall consist of furnishing and installing a temporary traffic control signal system as specified herein and as shown on the Plans including furnishing and installing temporary traffic signals, control equipment, signal heads, electric LED lamps, wooden strain poles and span wire assemblies, AC connection or solar power equipment; or a solar powered trailer mounted portable traffic signal, as specified herein and as shown on the Plans.

The work shall also consist of furnishing and installing wire and cable, temporary conduit or ducts, equipment grounding systems, new ground electrodes or connections to existing ground electrodes and all materials and equipment necessary to deliver power to the traffic signal installed on the Portland Connector loop ramp to I-295 northbound collector/ distributor road for the purpose of Ramp Metering.

The work shall also consist of

Following construction, the traffic signal and all related traffic control equipment shall be removed by the Contractor.

643.02 General

The following sentences are added:

Unless otherwise specified or indicated on the Plans, all materials shall be supplied by the Contractor and approved for its intended use by the Resident.

All electrical equipment shall be manufactured and tested in accordance with the applicable standards of the ANSI, EIA, FSS, IMSA, ITE, NEMA and UL.

If the signal is AC powered, the Contractor shall furnish the Resident written certification from the utility company stating all work associated with the temporary traffic signal system complies with the National Electric Code.

The following Subsections are added:

643.0210 Strain Pole and Span Wire Assemblies

At the location where temporary traffic signal is required, the Contractor may install a span wire attached to two temporary wooden poles.

The wooden poles shall be of sufficient size so they are securely located in the ground and will be capable of having a span wire attached high enough to allow the signal heads to be mounted on the span wire with a minimum 16 foot clearance over the roadway.

The span wire cable shall be not less than 3/8 inch diameter Number 7 wire, steel strand cable, conforming to ASTM A475, Class A, extra high strength zinc coated steel wire strand.

643.0211 Solar Powered Trailer Mounted Portable Traffic Signal

At the location where temporary traffic signal is required, the Contractor may install a solar powered trailer mounted portable traffic signal.

The trailer mounted temporary traffic signal shall be a mobile unit, solar powered with a battery backup system. The signal shall have two signal heads capable of displaying the green, yellow and red phases, conforming to the MUTCD, and include a controller that is capable of full traffic actuation.

643.0212 Signal Heads

All signal heads shall be 3-way, 12 inch sections with backplates, rigidly and securely fastened together, capable of being positively positioned to face one direction of traffic.

643.0213 Controller

Controller shall be a minimum 2-phase, 3-dial, controller capable of providing timings noted herein or as requested by the Resident. The Contractor shall be solely responsible for timing the signal controller based on the timing information provided in this specification. The Contractor is required to adjust the timings at the request of the Resident.

The controller shall also include a manual override switch for use by local police and emergency personnel as necessary. This override switch shall be accessible from the front panel of the controller. Panel shall be accessible by a Standard No. 2 key only.

643.03 General

The following paragraphs are added:

The responsibility for the exact and satisfactory installation of traffic signals shall rest with the Contractor. Work performed, if not acceptable to the Resident, shall be re-executed to the satisfaction of the Resident at the Contractor's own expense.

All electrical connections, splicing, grounding, resistance tests, service connections, and circuit identification shall meet all applicable requirements of the National Electrical Code Latest Edition, and all Municipals, State and Federal Authorities having jurisdiction.

The location of poles, signal heads, controllers and appurtenances as shown on the Plans are approximate; the exact locations shall be approved by the Resident in the field.

If the Contractor elects to furnish a solar powered trailer mounted portable traffic signal the location of the solar powered trailer mounted portable traffic signal shall be approved by the Resident in the field.

Any installation of wiring by the Contractor will be performed by licensed electricians.

The following Subsections are added:

643.041 Signal Housing

The bottom of the housing assembly of a signal head suspended over a roadway shall not be less than 16 feet nor more than 19 feet above the pavement grade at the center of the roadway.

A minimum of two signal heads is required for the approach roadway. Signal heads shall be located at 40 feet beyond the "STOP HERE ON RED" sign.

Each signal face shall consist of three sections, rigidly and securely fastened together, capable of being positively positioned to face direction of traffic.

Each section shall be a self-contained assembly consisting of a housing with door, visor and optical unit, lens and reflector, with LED traffic signal lamp.

643.042 Timing

The following paragraphs are added:

The Contractor shall program the signal initially for a time of day program, Monday through Friday 3:00 PM to 6:00 PM to provide an alternating green/yellow/red in four/two/four second increments. The signal will remain dark for the remainder of the day. At the request of the Resident the timing will be modified as needed.

643.043 Resurfacing

All surfaces and roadway appurtenances removed or disturbed in the performance of the work shall be restored or replaced in kind, to the satisfaction of the Resident. The work shall

include, but not necessarily be limited to, replacing the same type of materials and construction as formerly existed, roadway paving, base, subbase, grassed areas, guardrail, curbing and edging that are disturbed by the Contractor's operations.

643.044 Removal of Temporary Signal Equipment

The Contractor shall conduct the removal of the temporary traffic signal equipment so that interference with pedestrian and vehicular traffic is minimized and safeguard all roads and traffic thereon.

643.19 Basis of Payment

The third paragraph is deleted and replaced with the following:

Furnishing, installing and removing a complete Temporary Traffic Signal will be paid for at the Contract lump sum price which price shall be full compensation for all labor, equipment and materials required to successfully complete the work. This work shall consist of, but not necessarily be limited to, furnishing, installing and removing wooden strain poles, overhead span wires, signal heads, traffic signal controller, controller cabinet, service drop, meter and disconnect, all wiring conduit, all painting, all excavation, backfill and resurfacing; removal and stacking of PVC conduit; and all incidental work necessary and required for a complete and working installation. The Contractor shall also be responsible for all charges for the electricity used to operate the system.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
643.72 Temporary Traffic Signal: Ramp Meter	Lump Sum

SPECIAL PROVISION
Section 634 and 643
Highway Lighting and Traffic Signals

Section 634.09 testing of highway lighting, the first sentence shall be amended as follows:

Before acceptance of the work, the contractor shall cause the following tests to be made on all lighting circuits, by a licensed electrician.

The tests do not need to be performed in the presence of the Resident, but the test results shall be recorded on the Highway Lighting Quality Control Check List and submitted to the Resident by the Contractor for acceptance. The form shall be signed by the licensed electrician certifying that the highway lighting meets the requirements of section 634.09.

Subsection 634.14, field testing of Traffic Signals, the first sentence shall be amended as follows:

Before acceptance of the work the contractor shall cause the following tests to be made on all traffic signal equipment and circuits, by a licensed electrician.

The tests do not need to be performed in the presence of the Resident, but the test results shall be recorded on the Traffic Signal Quality Control Check List and submitted to the Resident by the Contractor for acceptance. The form shall be signed by the licensed electrician certifying that the signal equipment and circuits meet the requirements of section 634.14.

Highway Lighting Quality Control Checklist

Subsection 634.09 Field Testing

Project Pin # _____

Location (if multiple services, please be specific)- _____

Grounding Electrode Resistance at service _____

Number of Circuits _____

Hand-Off-Auto Switch? _____

Circuit #1

Open Circuit Resistance- (Ohm out both hot legs at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Megger Test- (Meg out both hot legs to ground at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Current draw- (during normal operation)

Leg #1

Leg #2

Operating Voltage at last pole _____

Circuit #2

Open Circuit Resistance- (Ohm out both hot legs at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Megger Test- (Meg out both hot legs to ground at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Current draw- (during normal operation)

Leg #1

Leg #2

Operating Voltage at last pole _____

I, _____, certify that this work was done in accordance with subsection 643.14 and current NEC _____ guidelines, and when tested, was functioning as intended.
(YEAR)

Electrician's Signature _____

Electrician's License # _____

Highway Lighting Quality Control Checklist

Subsection 634.09 Field Testing

Project Pin # _____

Location (if multiple services, please be specific)- _____

Grounding Electrode Resistance at service _____

Number of Circuits _____

Hand-Off-Auto Switch? _____

Circuit #3

Open Circuit Resistance- (Ohm out both hot legs at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Megger Test- (Meg out both hot legs to ground at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Current draw- (during normal operation)

Leg #1

Leg #2

Operating Voltage at last pole _____

Circuit #4

Open Circuit Resistance- (Ohm out both hot legs at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Megger Test- (Meg out both hot legs to ground at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Current draw- (during normal operation)

Leg #1

Leg #2

Operating Voltage at last pole _____

I, _____, certify that this work was done in accordance with subsection 643.14 and current NEC _____ guidelines, and when tested, was functioning as intended.
(YEAR)

Electrician's Signature _____

Electrician's License # _____

Traffic Signal Quality Control Checklist

Subsection 643.14 Field Testing

Project Pin # _____

Grounding Electrode Resistance at service _____

ID tags on loop amps / detector cards? _____

Location _____

Street Approach	_____
Loop #	_____ Resistance _____
Phase #	_____ Meg to ground _____
L,C, or R Lane	_____ Amount of bondo covering loop _____
Pulse or Presence	_____

Street Approach	_____
Loop #	_____ Resistance _____
Phase #	_____ Meg to ground _____
L,C, or R Lane	_____ Amount of bondo covering loop _____
Pulse or Presence	_____

Street Approach	_____
Loop #	_____ Resistance _____
Phase #	_____ Meg to ground _____
L,C, or R Lane	_____ Amount of bondo covering loop _____
Pulse or Presence	_____

I, _____, certify that this work was done in accordance
with subsection 643.14 and current NEC _____ guidelines, and
(YEAR)
when tested, was functioning as intended.

Electrician's Signature _____

Electrician's License # _____

SPECIAL PROVISION
SECTION 645
HIGHWAY SIGNING
(Flexible Reflectorized Delineator)

Description: This work shall consist of furnishing and installing flexible reflectorized delineators in accordance with the Manufacturer's recommendations in reasonably close conformity with the plans and specifications.

Materials: Flexible reflectorized delineators shall be tubular markers and shall be 42 inches high orange tubes with four alternating 6 inch wide retro-reflective orange and white bands (2 white and 2 orange) starting with an orange band at the top. Adhesive pads used to secure tubular markers on pavement that is not going to be overlaid shall not require heating of the pavement.

Construction Requirements: Flexible delineators shall be installed in accordance with manufacturer's specifications and Special Provision 652.

Method of Measurement: Flexible reflectorized delineators will be measured by each unit, complete in place and accepted.

Basis of Payment: The accepted quantity of Flexible Reflectorized Delineators will be paid for at the contract unit price per each. Payment will be full compensation for all materials, labor, equipment, and incidentals necessary to furnish, install and maintain the flexible delineator and all associated hardware, complete in place. Payment will also include full compensation for the removal of the delineators, bases and base adhesives to the Resident's satisfaction when the construction activity is complete.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
645.306 Flexible Reflectorized Delineator	Each

SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC

652.1 Description: All bridge work traffic control shall be in accordance with the bridge work traffic control and traffic phasing plans in the Contract Documents. The Contractor shall submit Traffic Control Plans for lane closures to install the bridge 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.

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.

652.2 Signs: The minimum required construction signing for the bridge work is shown on the Sign Summary Sheets. Additional signing, required for the highway preservation work and nighttime lane closures, is as follows:

Interstate Approaches. Approach signing for the work on the Interstate shall include the following signs

Road Work 3 Miles	Road Work 500 Feet
Road Work 2 Miles	Road Work Next x Miles
Road Work 1 Mile	

Interstate Work Areas. For temporary night time lane closures at the work sites, the signs, flashing arrow boards and channeling devices shown on the enclosed Work Zone Signing details shall be used. Additional signs and devices may be directed by the Resident. Work Zone Speed Limit and End Work Zone signs, furnished in the bridge work Sign Summary Plans, shall be incorporated into the temporary night time lane closures.

Signs Include:

Right or Left Lane Closed 2 Miles
Lane Ends 1 mile Merge Right or Left Now
Right or Left Lane Closed 1/2 Mile
Do Not Pass*
Right/Left Merge Symbol (W 4-2)
End Work Zone Speed Limit*
Exit (green with white legend and border)
Merging Traffic Symbol (At on-ramp in right lane closure)
Stop Ahead (At on-ramp in right lane closure)
Single Lane Ahead (At on-ramp in left lane closure)
Stop (At on-ramp in right lane closure)
Directional Arrows (At on-ramp in right lane closure)
Bump
Trucks Entering
Left Turning Trucks with 500 Feet Advisory Plate

Flagger Sign
Grooved Pavement

* Regulatory - white with black legend and border

Work zone speed limit sign packages will also be required at the end of any on-ramps that are within the lane closure

The above list of Interstate Approach signs and Interstate Work Area signs are representative of the contract requirements. Other signs legends may be required.

Advance signing for ramp exits in locations of long term lane closures are included in the TCP. Signing shall direct traffic into the proper lane well in advance of the work zone.

Road Work Ahead signs shall be used on roads adjacent to the interstate when the Contractor is working on or near an on-ramp or when the on-ramp enters a lane closure area.

Wide Load Signing: Due to lane width restrictions in bridge work zones, all loads in excess of 10'-0" wide will need to exit I-295 at or before the Exit 1 off-ramp. The Contractor shall install the wide load signing as per the TCP prior to starting the bridge work.

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

The Department has prepared Traffic Control Plans for bridge work zones for the Contractor to implement to complete the Project. Submittal of traffic control plans for the bridge work zones is not required unless the Contractor proposes to change project phasing or detours. The Contractor shall submit materials required under paragraphs a., e., f., and i.

The Contractor shall submit Traffic Control Plans for temporary lane closures to install the bridge work zone traffic control and to complete the highway preservation work.

652.3.3.f Notification Procedure

The Contractor shall provide a schedule of anticipated lane closures and bridge work zones to the Resident on a weekly basis, and provide a minimum notice of 72 hours of proposed changes to the lane closures and bridge work zones.

652.3.4 General: The following is added:

Flexible Reflectorized Delineators:

The Resident has the right to require Flexible Reflectorized Delineators be installed in advance of bridge work zones at 40' spacing.

The bridge work zone minimum travel lane widths are shown on the Plans. The Contractor shall provide a minimum travel lane width of 12 feet (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 closure or long term bridge lane closure, and be closed to traffic. Slow moving construction equipment may travel the closed lane for short distances. All trucking shall be done in the lane open to traffic.

12:1 paved tapers shall be placed at all Ramps immediately following paving and/or milling operations.

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

The Contractor, his 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, negative verbal or physical gestures).

Channelization.

Channelization devices shall include the following:

Flashing Arrow Boards

Vertical Panel Markers

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

Cones (During actual work the Contractor may use cones in the work areas in lieu of Drums, if approved by the Resident)

Temporary Raised Pavement Markers

Channelization devices shall be installed and maintained at the spacing determined by the MUTCD to delineate travel lanes through the project. Vertical Panel markers shall be placed 2 feet from the outside edge of the shoulder on the passing lane at 600 foot intervals when the travel lane is closed in overnight lane closures. The vertical panel marker size shall be 12 inches x 24 inches. When directed by the Engineer, drums or other channelization devices shall be placed in the closed lane at a maximum spacing of 2 x speed limit.

Crossover Use.

Interstate crossovers shall not be used by the Contractor at any time.

Interstate crossovers shall not be used to change direction, store materials or park vehicles or equipment at any time. Existing crossovers shall be closed within the project limits, utilizing drums at all times during phased bridge construction, and times when lane closures are in place. Crossovers shall not be blocked from the normal use by MaineDOT maintenance or State Police forces. There shall be no diverting of traffic between northbound and southbound lanes.

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.

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

See General Notes on the Bridge Plans for requirements for temporary pavement marking lines. Temporary approved raised pavement markers will not be permitted for the bridge work, but may be approved for the highway milling and pavement work that occurs after the bridge work is complete, subject to Resident approval.

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 Item 627.781
Temporary 6 Inch Painted Pavement Marking Line, White or Yellow.

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 Centerline or Edge Line.

A temporary painted centerline and edge line shall be marked each day on all new pavement to be used by traffic. The temporary line shall conform to the standard marking patterns used for permanent markings and will be paid for under Section 627. Failure to apply a temporary line daily will result in suspension of paving until temporary markings are applied to all previously placed pavement.

Roadside Recovery Area.

The Contractor shall not temporary 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. Temporary storage shall be defined as less than 12 hours.

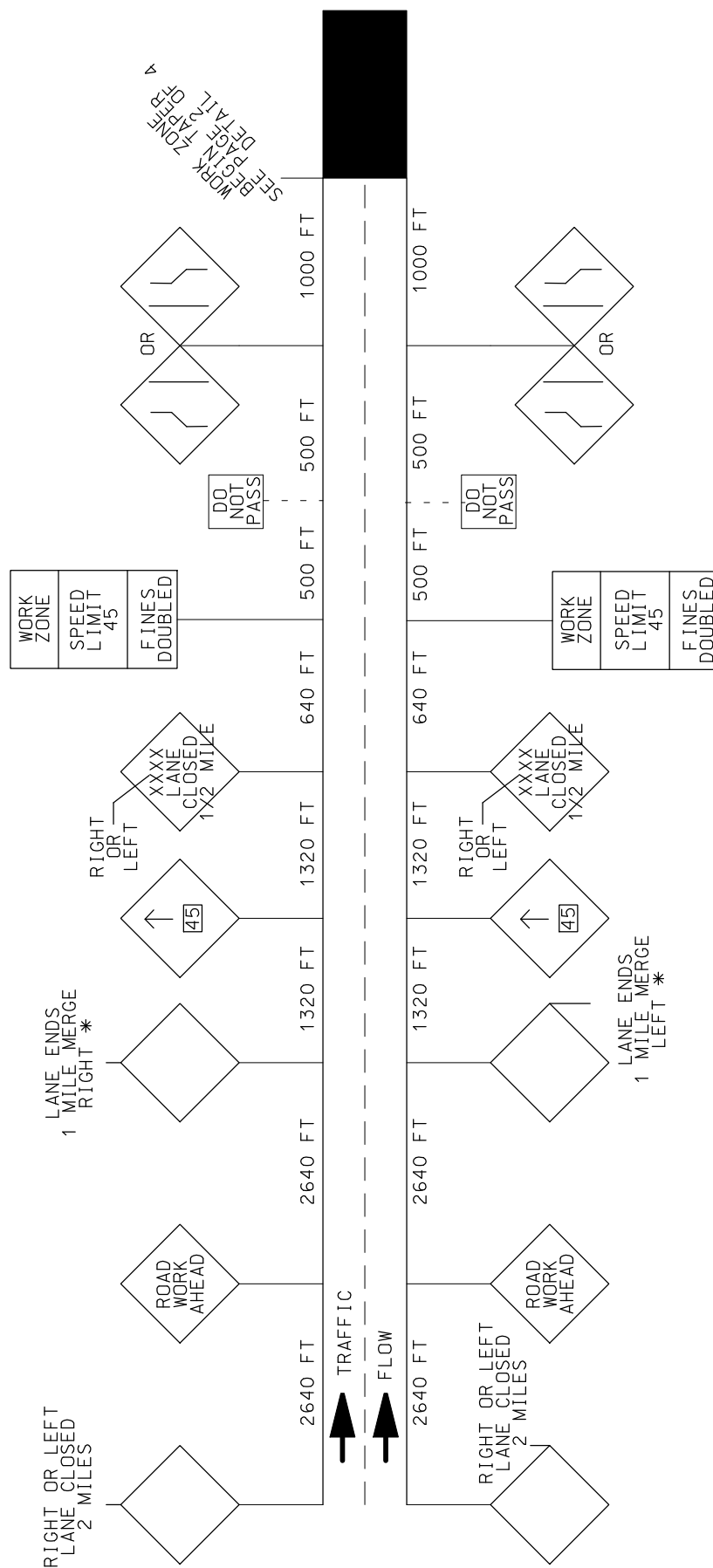
Speed Limits in Work Zones.

The Contractor shall sign all approved reduced speed limits on construction project according to APM #431 - A Policy on the Establishment of Speed Limits in Work Zones.

Signal Timing:

The Contractor shall coordinate the signal timing modifications at local intersections with the Resident and the City of Portland. Changes in traffic phasing may require modifications to the timing and phasing of local road traffic signals. The coordination associated with signal modifications shall be considered incidental to the 652 pay items. No separate payment will be made.

LANE CLOSURE SIGNING

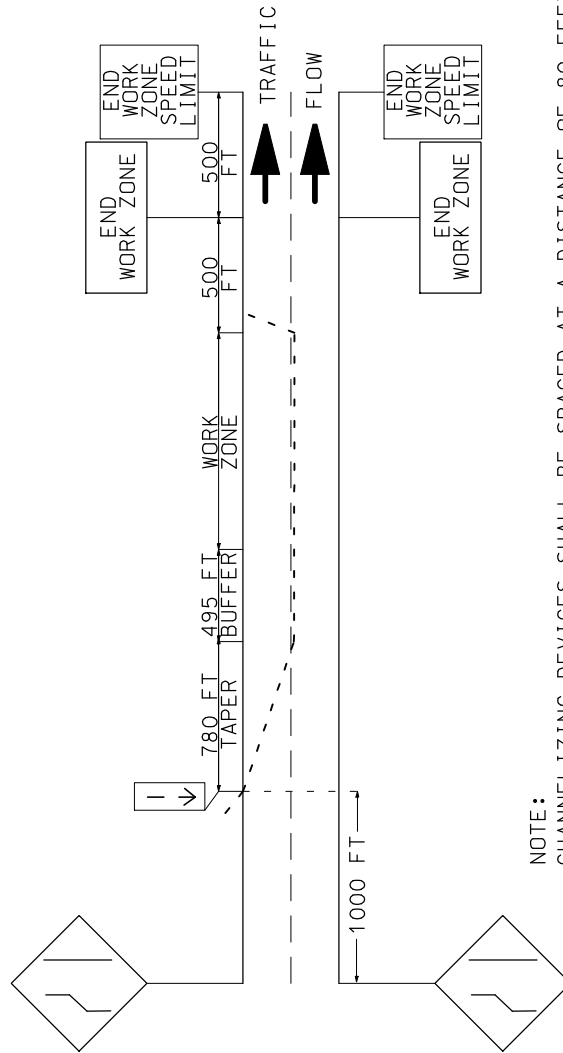


A "ROAD WORK 3 MILES" MAY BE REQUIRED AT THE DEPARTMENT'S OPTION

* LANE ENDS 1 MILE MERGE RIGHT OR LEFT SIGNS

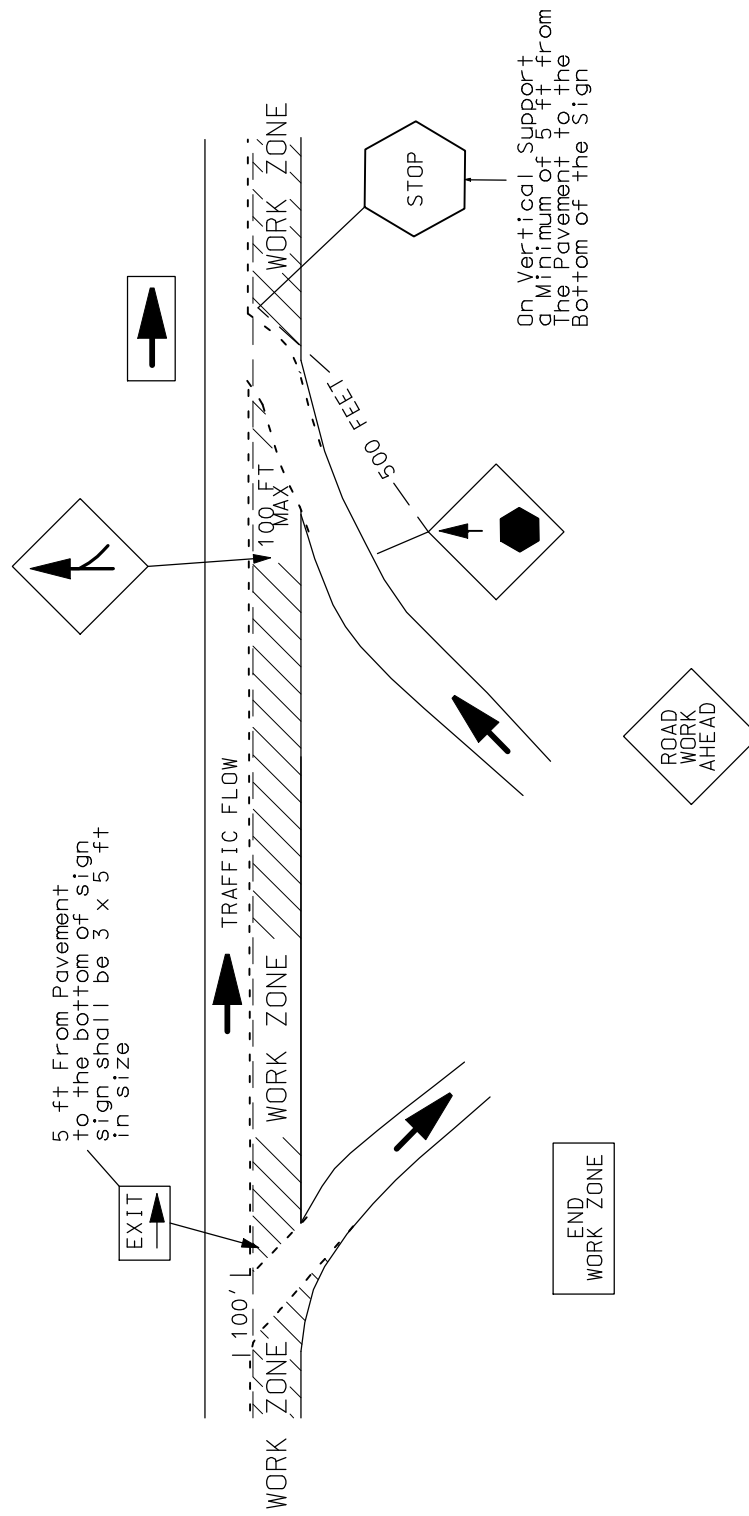
SHALL ONLY BE PLACED ON SIDE OF ROAD THAT NEEDS TO MERGE

WORK ZONE

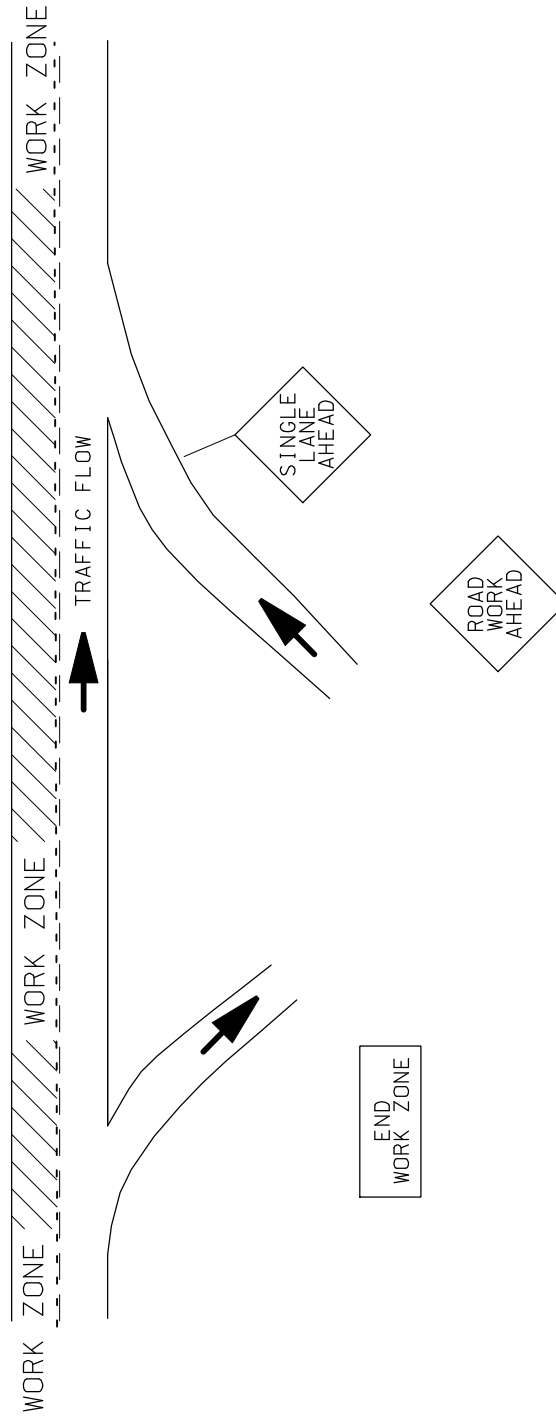


NOTE:
CHANNELIZING DEVICES SHALL BE SPACED AT A DISTANCE OF 80 FEET
APART WITH 3 DEVICES ACROSS THE CLOSED LANE EVERY 1500 FEET.
DEVICES IN THE TAPER SHALL BE SPACED AT 40 FEET APART.

RAMPS – RIGHT LANE CLOSED



RAMPS – LEFT LANE CLOSED



SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC
(Traffic Officers)

Description:

This work shall consist of furnishing uniformed police officer(s) with police cruiser in the following situations:

- 1.) When roadway closures are required.
- 2.) When work being done at or around a signalized intersection necessitates that the signal be put on flash or shut off and traffic directed by traffic officers.
- 3.) As directed by the Resident.
- 4.) State Police shall be required for use on the Interstate.
- 5.) Local Police shall be used off the Interstate system.

General:

The Contractor shall make requests for uniformed police officers a minimum of 48 hours in advance.

Method of Measurement:

Traffic officers will be measured for payment by the number of man-hours measured to the nearest ¼ hour.

Basis of Payment:

The accepted quantity of traffic officers will be paid for at the contract unit price per man-hour with no additional payment for overtime. The contract unit price will be full compensation for transporting, equipping, supervising and the payment of traffic officers including police cruisers, and for all incidentals necessary to complete the work.

Payment will be made under:

Pay Item

Pay Unit

652.381 Traffic Officers

Hour

SPECIAL PROVISION

SECTION 652

MAINTENANCE OF TRAFFIC

(Traffic Coordinator)
(Traffic Monitor)

652.1 Description

This Subsection is amended by the addition of the following

The Contractor shall assign a Traffic Coordinator to the Project who shall coordinate the all traffic control on the Project and work with the Project Superintendent and Resident to ensure safe and efficient set up, maintenance and removal of the traffic control layouts and devices for the duration of the project.

The Contractor shall provide full time Traffic Monitor(s) to the Project who shall be continuously observe and patrol the traffic setups to ensure traffic is flowing as anticipated, and all traffic control devices (PCMS, signs, arrow boards, drums, cones, Type III barrier, etc.) are in the correct locations and functioning properly.

The following Subsection is added:

652.3.4.1 Traffic Coordinator

The Contractor shall submit to the Resident for approval the name of the Traffic Coordinator to be assigned to the Project. The submission shall include the qualifications, certifications and experience of the proposed Traffic Coordinator. The proposed Traffic Coordinator shall have a minimum of two years experience in the set up and removal of Interstate traffic control work zones.

The Traffic Coordinator duties shall include, but are not limited to:

- a) Developing in conjunction with the Resident and project superintendent a traffic control program for the day's work activities which will facilitate traffic in a safe and efficient manner.
- b) Ensuring all traffic control implements (signs, arrow boards, barrels, portable changeable message signs, concrete barrier, work zone crash cushions, etc.) are on-site or readily available, and required subcontractors are available, so the traffic program can be implemented effectively.
- c) Directing the safe and effective set up and removal of all signing implements to least impact the traveling motorist.
- d) Reviewing and understanding the Project maintenance of traffic plans.
- e) Demonstrating a working knowledge of construction signing and traffic control requirements in conformance with the latest issued Manual on Uniform Traffic Control Devices.

- f) The Contractor shall supplement the traffic control plan with a daily plan, which includes schedules for utilizing traffic coordinators and flaggers. This plan shall be submitted daily and agreed upon cooperatively with the Resident.

The Traffic Coordinator may participate in the setup, maintenance and removal of traffic control layouts and devices throughout the project.

The Traffic Coordinator may be assigned as the Traffic Monitor when not involved in the setup, maintenance and removal of traffic control layouts and devices; performing other project related tasks as required.

The Traffic Coordinator shall provide the Department the names and cell phone numbers of the persons assigned as Traffic Coordinator, Traffic Control Personnel and Traffic Monitor for all time periods a minimum of 48/72 hours prior to the shift duty.

The following Subsection is added:

652.3.4.2 Traffic Control Personnel

The following Subsection is added:

The Contractor shall submit a list of traffic control personnel assigned to the project including qualifications, certifications and experience.

Traffic control personnel shall have experience in the in the set up and removal of Interstate traffic control work zones; shall have been trained and be able to demonstrate a working knowledge of construction signing and traffic control requirements in conformance with the latest issued Manual on Uniform Traffic Control Devices; and shall be able to demonstrate an understanding the Project maintenance of traffic plans.

The following Subsection is added:

652.3.4.3 Traffic Monitor

The traffic monitor(s) shall provide at least hourly monitoring (24-hours/seven days a week) when Project traffic control devices are in place (including non-work hours) to monitor and report traffic issues and to advise the Traffic Coordinator of damaged, displaced or non-functioning traffic control devices (arrow boards, portable changeable message signs, barrels, signs, etc.).

The traffic monitor shall report any and all disabled motorists, accidents or other unusual occurrences to the Resident or his representative, the Maine State Police, or the Department's communication dispatcher throughout the duration of any and all lane closures. The traffic monitor shall also coordinate with the Turnpike Authority's communication dispatcher if required.

The Traffic Monitor shall once daily inspect the Contractor's traffic control on the local roads in Scarborough, South Portland, and Portland to ensure the correct signs and Portable changeable message signs, are in place, are not damaged or disturbed, and/or are operating properly.

The Traffic Monitor shall once weekly inspect the Contractor's traffic control on the Maine Turnpike to ensure the correct signs and Portable changeable message signs, are in place, are not damaged or disturbed, and/or are operating properly.

The Traffic Monitor will also be required to inspect and maintain on a daily basis barrel camera monitoring systems (up to 5) provided by MaineDOT, to be located in the project work zone or in advance of the work zone.

The Contractor shall provide the Traffic Monitor(s) a dedicated patrol vehicle for traffic monitoring and project patrol.

The dedicated patrol vehicle(s) shall meet the following requirements:

- a) Be in good mechanical condition, clean and presentable at all times.
- b) Be equipped with a cellular phone capable of communicating with the Resident, the Superintendent, the traffic coordinator or his representative, the State Police (City police) or the Turnpike Authority's communication dispatcher.
- c) Be equipped with a pager (message - number) to be worn by the patrol vehicle(s) operator to allow for continuous communication throughout the duration of all lane closures.
- d) Be equipped with a mounted revolving amber light or amber strobe light capable of 360-degree visibility to meet all lighting requirements.
- e) Be equipped with a light bar ("Arrowstik" arrow board).

The Traffic Monitor may not participate in the setup, maintenance and removal of traffic control layouts and devices throughout the project, except in emergency situations, or as approved by the Resident.

The Traffic Monitor may make minor adjustments in the setup and perform emergency maintenance on traffic control devices throughout the project, if required.

The Traffic Monitor shall be able to remotely change the messages on the Portable changeable message signs, so the Portable changeable message signs, provide current information to the public traveling to or through the work zone.

The Traffic Monitor shall once daily inspect the Contractor's traffic control on the local roads in Scarborough, South Portland, and Portland to ensure the correct signs and Portable changeable message signs, are in place, are not damaged or disturbed, and/or are operating properly.

The Traffic Monitor shall once weekly inspect the Contractor's traffic control on the Maine Turnpike to ensure the correct signs and Portable changeable message signs, are in place, are not damaged or disturbed, and/or are operating properly.

652.3.6 Traffic Control

This Subsection is amended by the addition of the following:

All vehicles used during the installation and removal of traffic control devices, including lane closures, shall be equipped with a vehicle-mounted Arrowstik, model AS-10/ or AS/847, as manufactured by:

Public Safety Equipment, Inc.
10986 North Warson Road
St. Louis, MO 63114-2029

or an equal as determined by the Resident. The arrow board shall be capable of displaying a left arrow, right arrow, double arrow, and a light bar.

If the proper maintenance of traffic and proper provisions for traffic control are not being provided by the Contractor, the Department reserves the right to assume maintenance of the traffic control and deduct the cost from any money due or to become due under the Contract. The Department also reserves the right to suspend all work until the Contractor provides the proper maintenance of traffic and provisions for traffic control to the satisfaction of the Resident.

652.7 Method of Measurement

The third paragraph is deleted and replaced with the following:

Maintenance of traffic control devices will be measured by the calendar day for all authorized and installed traffic control devices. Traffic control devices required to complete the work will be measured for payment under their respective pay items. Traffic control devices will only be measured for payment the first time used. Subsequent uses shall be incidental to Item 652.36.

The following sentences are added:

The vehicle mounted "Arrowstik" arrow boards, mounted on trucks used for installation and removal of lane closures and the Traffic Monitor's dedicated patrol vehicle, will not be measured separately for payment, but shall be incidental to Item 652.36.

The Contractor's dedicated traffic employees, including Traffic Coordinator(s) and traffic control personnel, will not be measured separately for payment, but shall be incidental to Item 652.36, Maintenance of Traffic Control Devices.

The Traffic Monitor will be measured by the calendar day for each calendar day that the Contractor furnished the Traffic Monitor and dedicated patrol vehicle 24/7 as specified herein. The Traffic Monitor's dedicated patrol vehicle(s) with cellular phone(s), and pager(s) will be not be measured separately, but shall be incidental to the Traffic Monitor pay item.

The contract unit price per calendar day for the Traffic Monitor shall be full payment for each day for such monitoring, encompassing all areas of the contract, regardless of whether or not the work areas or projects are geographically separated.

Payment will be made under:

Pay Item	Pay Unit
652.382 Traffic Monitor	Calendar Day

SPECIAL PROVISION

SECTION 652

MAINTENANCE OF TRAFFIC

(Portable Changeable Message Sign)

652.2.4 Other Devices

The eighth paragraph is deleted and replaced with the following:

Portable-Changeable Message Signs will be furnished by the contractor at locations indicated on the plans and approved by the Resident for the duration of the project.

Portable-Changeable Message Signs shall be model PCMS-1210 as manufactured by Ver-Mac or an approved equal. The signs shall be an all LED display, and be legible from a distance of 1,000 feet. The signs shall have three lines available for messages. The signs shall be NTCIP compliant (NTCIP 1203) and shall be solar powered with adjustable tilt solar panels. The signs shall be capable of being programmed by a remote computer via a data (IP over Cell) cellular modem connection. The signs shall also have GPS location capability, by GPS modem or by add on GPS device capable of providing GPS location remotely to the MTA Communication Center. The Contractor shall submit a catalog cut to the Resident of all proposed equipment for approval.

The Contractor shall establish and pay for a data cellular account so that signs may be programmed remotely, and shall provide to the Department all sign manufactures technical support that may be necessary to integrate the signs into the MaineDOT software platform (Vanguard) so the sign can be operated from the MaineDOT Communication Center.

The Contractor/Manufacturer shall provide training for the operation of the signs to the Resident and the MaineDOT Communications Center representative (System Maintenance Supervisor).

The Contractor shall make all Portable Changeable Message Signs on the project work site available to the MaineDOT and the MTA (for the PCMS signs located on the Turnpike) for any/all emergency situation as defined by the MaineDOT. This shall include the preemption of any messages running at the time of need as directed by the MaineDOT and the Resident.

The Contractor shall provide, operate and maintain the Portable-Changeable Message Signs. The Contractor shall remove, transport and maintain the signs as directed by the Resident. The Contractor will be responsible for the day to day programming and operation of the signs.

A deduction will be made from monies due the Contractor for Portable-Changeable Message Signs that fail to operate for extended periods of time.

652.7 Method of Measurement

The following sentence is added:

Portable-Changeable Message Signs will be measured for payment by each unit supplied, installed and maintained.

652.8 Basis of Payment

The following paragraphs are added:

The accepted quantity of Portable-Changeable Message Signs will be paid for at the Contract unit price each. This price shall be full compensation for providing training, relocating, maintaining and removing the Portable-Changeable Message Signs. The price also includes all costs associated with setting up and paying for a data cellular account and any costs associated with the GPS location device.

The first payment of 70 percent of the unit price for Portable-Changeable Message Sign will be made with the first monthly estimate. The second payment of 15 percent of the unit price for Portable-Changeable Message Sign will be made following completion of 25 percent of the proposed Contract Amount. The third payment of 15 percent of the unit price for Portable-Changeable Message Sign will be made following completion of 50 percent of the proposed Contract Amount.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
652.41 Portable Changeable Message Sign	Each

SPECIAL PROVISION

SECTION 652

MAINTENANCE OF TRAFFIC

(Portable Changeable Message Sign – Transport and Setup)

652.2.4 Other Devices

The work also includes transporting, set-up, operation, maintenance, storage, relocation and return of Portable Changeable Message Sign(s) furnished by MaineDOT.

The MaineDOT furnished Portable Changeable Message Signs are Vermac Model PCMS-1210 Portable Changeable Message Signs and are to be picked up at the Maine Department of Transportation Region 1 Office in Scarborough, Maine, and returned to the same location at the end of the project.

Portable Changeable Message Signs furnished by MaineDOT will be set-up at locations indicated on the plans and approved by the Resident for the duration of the project.

The Contractor shall establish and pay for a data cellular account so that signs may be programmed remotely. The supplied PCMSs will have been integrated into the MaineDOT software platform (Vanguard) so the signs can be operated from the MaineDOT Communication Center.

The Contractor shall make all Portable Changeable Message Signs on the project work site available to the MaineDOT and the MTA (for the PCMS signs located on the Turnpike) for any/all emergency situation as defined by the MaineDOT. This shall include the preemption of any messages running at the time of need as directed by the MaineDOT and the Resident.

The Contractor shall operate and maintain the Portable Changeable Message Signs. The Contractor shall remove, transport and maintain the signs as directed by the Resident. The Contractor will be responsible for the day to day programming and operation of the signs.

652.7 Method of Measurement

The following sentence is added:

Portable Changeable Message Sign – Transport and Setup will be measured for payment by each unit transported, set-up, operated, maintained, stored, relocated and returned.

652.8 Basis of Payment

The following paragraphs are added:

The accepted quantity of Portable Changeable Message Sign – Transport and Setup will be paid for at the Contract unit price each. This price shall be full compensation for transportation, set-up, operation, maintenance, storage, relocation, and return of Portable Changeable Message Signs. The price also includes all costs associated with setting up and paying for a data cellular account and any costs associated with the GPS location device.

The first payment of 50 percent of the unit price for Portable Changeable Message Sign – Transport and Setup will be made with the first monthly estimate. The second payment of 25 percent of the unit price for Portable Changeable Message Sign will be made following completion of 25 percent of the proposed Contract Amount. The third payment of 25 percent of the unit price for Portable Changeable Message Sign will be made following completion of 50 percent of the proposed Contract Amount.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
652.415 Portable Changeable Message Sign– Transport and Setup	Each

I-295 N
ON RAMP
CLOSED

STARTING
DATE ?

SEEK
ALT
ROUTE

THREE ON RAMP/ONE OFF RAMP CLOSURE PCMS
PCMS-1

BRIDGE
WORK
AHEAD

EXPECT
DELAYS

BE
PREPARED
TO STOP

I-295 ADVANCED WARNING OF CONSTRUCTION PCMS
PCMS-2

PORTLAND
I-295 N
CONST

EXPECT
DELAYS

SEEK
ALT
ROUTE

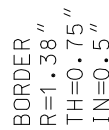
STATE ROUTE 703 AND 704 PCMS
PCMS-3

I-295 N
PORTLAND
DELAYS

I-295 N
USE I-95
EXIT 52

I-95 MAINE TURNPIKE MAIN LINE PCMS
PCMS-4

1:2

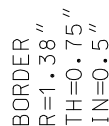


Panel Style: construction_warning.ssi
Dimensions are in inches.tenths

Letter locations are paneled to lower left corner

[illegible]256

1:2

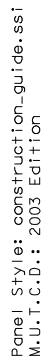


Panel Style: construction_warning.ssi
Dimensions are in inches.tenths

Letter locations are paneled to lower left corner

[illegible]257

1:3

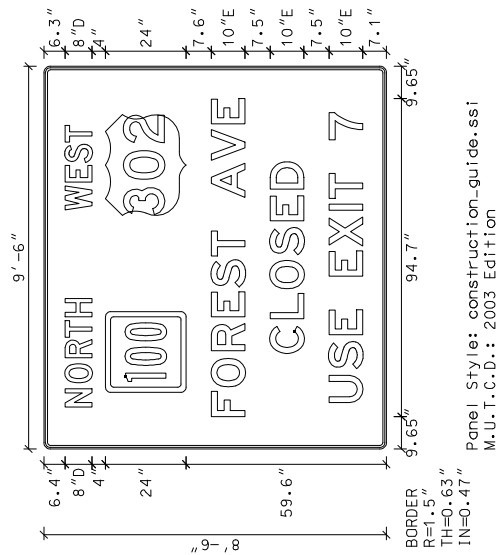


Letter locations are paneled to lower left corner

[illegible]258

SIGN DETAIL

1:3



Panel Style: construction_guide.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

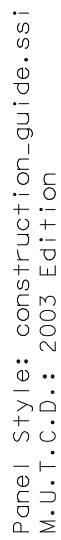
SIGN NUMBER	CS-4
WIDTH x HGT.	9'-6" x 8'-6"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
LEGEND/BORDER	COLOR: Orange
	TYPE: Reflective
	COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
M153CT	0	16.9	59.6	24	24
M1_4	0	69.6	59.7	30	24

LETTER POSITIONS (X)

LETTER POSITIONS (X)															LENGTH	SERIESIZE
N	O	R	T	H												D 2000
12.5	19.7	27.2	33.3	39.4											32.3	8
W	E	S	T													D 2000
71.2	79.5	85.3	91.4												25.1	8
F	O	R	E	S	T	A	V	E								E 2000
9.7	18.6	29.3	39.4	48.3	57.5	65	75	86	96.9						94.7	10
C	L	O	S	E	D											E 2000
28.5	38.9	47.8	57.9	68	77.5										57.1	10
U	S	E		E	X	I	T		7							E 2000
13.8	23.9	34	41.5	51.5	60.4	71.1	74.6	82.1	92.1						86.4	10

1:2

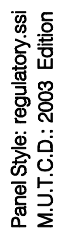


Dimensions are in inches.tenths

Letter locations are paneled to lower left corner

[illegible]260

1:2

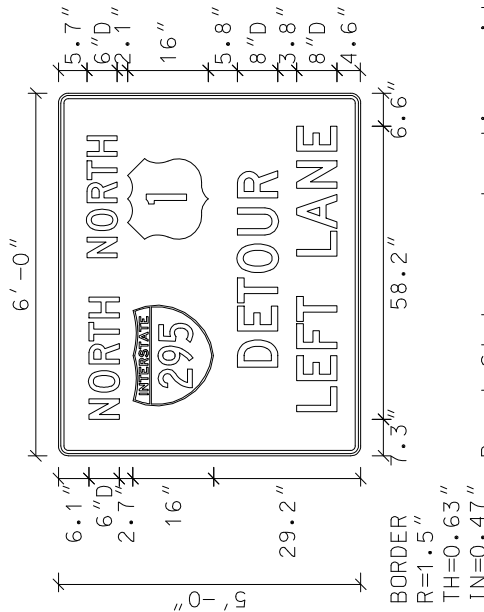


Letter locations are paneled to lower left corner

[illegible]261

SIGN DETAIL

1:2



Panel Style: construction_guide.ssi
M.U.T.C.D.: 2003 Edition

Panel Style: construction_guide.ssi
Dimensions are in inches tenths

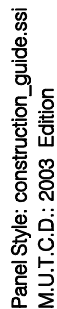
Letter locations are panel edge to lower left corner

SIGN NUMBER	CS-7
WIDTH x HGT.	6'-0" x 5'-0"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Orange
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
M1_4	0	43	30.3	16	16
M1_1	0	9.9	29.2	20	16

LETTER POSITIONS (X)													LENGTH	SERIES/SIZE
N	O	R	T	H										D 2000
7.3	12.7	18.2	22.8	27.4									24.2	6
N	O	R	T	H										D 2000
39.3	44.7	50.3	54.8	59.5									24.2	6
D	E	T	O	U	R									D 2000
17.6	24.8	30.4	36.4	43.8	51.2								39	8
L	E	F	T		L	A	N	E						D 2000
8.8	14.9	21.3	26.7	31.7	39.7	45.1	53.1	60.5					56.6	8

1:2



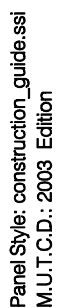
Panel Style: construction_guide.ssi
Dimensions are in inches.tenths

Letter locations are paneled to lower left corner

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	9.8	31.1	20	16
M1_4	0	42.9	31.1	16	16
AR90L1	0	28.8	4.7	11.9	11.9

263

1:2

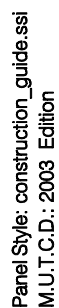


Letter locations are paneled to lower left corner

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	9.8	29.9	20	16
M1_4	0	42.9	30	16	16
ARLONG	180	27.8	5.8	8	18.4

264

1:2



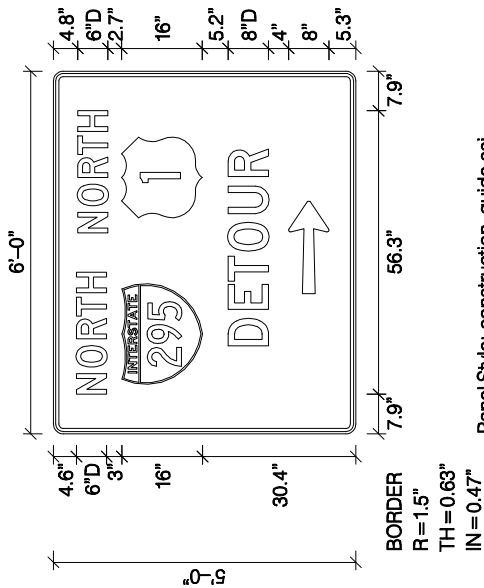
Letter locations are paneled to lower left corner

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	9.8	32.4	20	16
M1_4	0	42.9	32.5	16	16
ARUP	0	33	3.3	8	12

265

SIGN DETAIL

1:2



Letter locations are panel edge to lower left corner

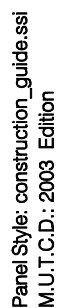
SIGN NUMBER	CS-11
WIDTH x HIGHT.	6'-0" x 5'-0"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
LEGEND/BORDER	COLOR: Orange
	TYPE: Reflective
	COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	9.8	30.4	20	16
M1_4	0	42.9	30.5	16	16
ARLONG	0	27.8	5.3	8	18.4

LETTER POSITIONS (X)

		LENGTH										SERIES/SIZE	
N	O	R	T	H								D	2000
7.9	13.3	18.8	23.4	28								24.2	6
N	O	R	T	H								D	2000
39.9	45.3	50.9	55.4	60.1								24.2	6
D	E	T	O	U	R							D	2000
17.5	24.7	30.3	36.3	43.7	51.1							39	8

1:2



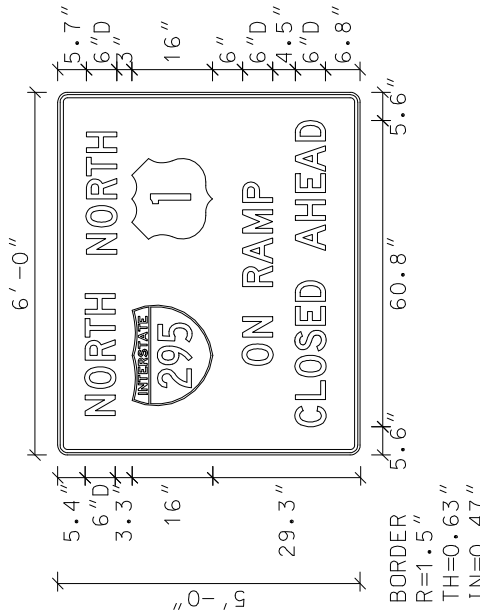
Letter locations are paneled to lower left corner

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	9.8	31.1	20	16
M1_4	0	42.9	31.2	16	16
AR90R1	0	35.8	4.6	11.9	11.9

267

SIGN DETAIL

1:2



Panel Style: construction_guide.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

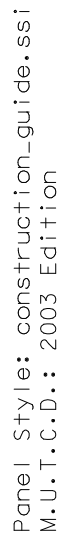
SIGN NUMBER	CS-13
WIDTH x HGT.	6'-0" x 5'-0"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Orange
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	9.8	29.2	20	16
M1_4	0	42.9	29.3	16	16

LETTER POSITIONS (X)

		LENGTH										SERIES/SIZE	
N	O	R	T	H								D	2000
7.8	13.2	18.8	23.4	28								24.2	6
N	O	R	T	H								D	2000
39.9	45.3	50.9	55.4	60								24.2	6
O	N		R	A	M	P						D	2000
17.8	23.4	27.5	33.5	38	44	50.1						36.4	6
C	L	O	S	E	D		A	H	E	A	D	D	2000
5.6	11	15.5	20.7	25.8	30.5	34.6	40.6	46.6	52.1	56.3	62.3	60.8	6

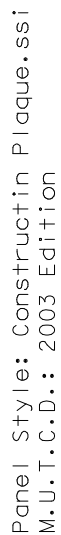
1:2



Letter locations are paneled to lower left corner

[illegible]269

1:2



Letter locations are paneled to lower left corner

SYMBOL	ROT	X	Y	WID	HT
ARUP	90	11.4	8.1	8	12
M1_1	0	28.6	6.1	15	12
M1_4	0	49.9	6	12	12

270

1:2



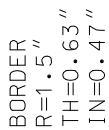
Panel Style: construction_guide.ssi
Dimensions are in inches.tenths

Letter locations are paneled to lower left corner

SYMBOL	ROT	X	Y	WID	HT
M153CT	0	9.9	37.1	18	18
M1_4	0	43	37.1	22.5	18

271

1:2



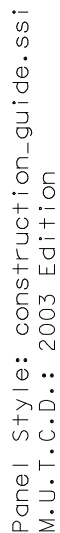
Panel Style: construction_guide.ssi
Dimensions are in inches.tenths

Letter locations are paneled to lower left corner

SYMBOL	ROT	X	Y	WID	HT
M153CT	0	10.4	39.7	18	18
M1_4	0	43.5	39.7	22.5	18
ARSHRT	45	31.1	4.9	12	13.5

272

1:2

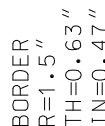


Letter locations are paneled to lower left corner

SYMBOL	ROT	X	Y	WID	HT
MI53CT	0	9.8	29.6	18	18
ARLONG	0	27	5.1	8	18.4

273

1:2



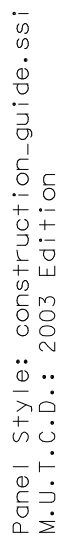
Panel Style: construction_guide.ssi
Dimensions are in inches.tenths

Letter locations are paneled to lower left corner

SYMBOL	ROT	X	Y	WID	HT
M153CT	0	9.8	30.5	18	18
M1_4	0	39.8	30.5	22.5	18
ARSHRT	90	32.8	4.4	8	9

274

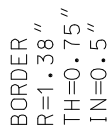
1:2



Letter locations are paneled to lower left corner

[illegible]275

1:2

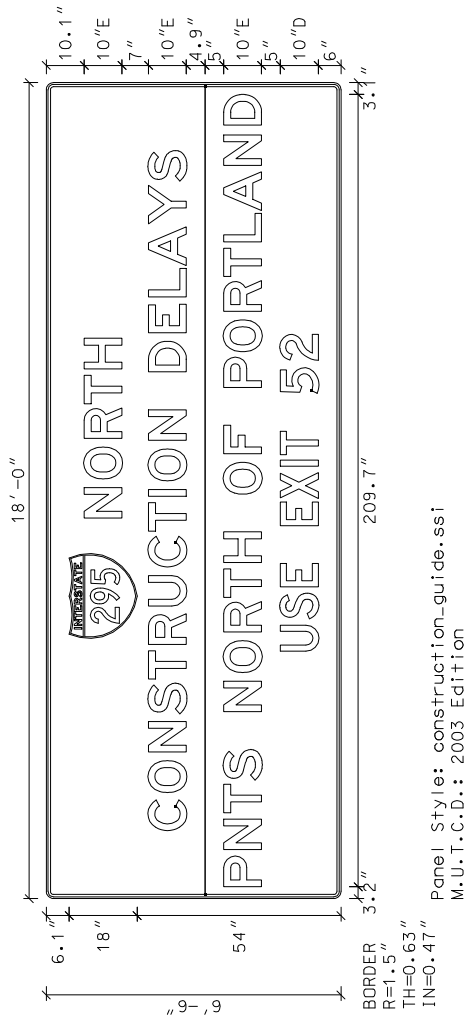


Panel Style: construction_warning.ssi
Dimensions are in inches.tenths

Letter locations are paneled to lower left corner

[illegible]276

SIGN DETAIL
1:2



Panel Style: construction_guide.ssi
Dimensions are in inches tenths

Letter locations are panel edge to lower left corner

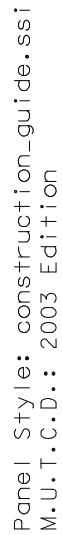
SIGN NUMBER	CS-22
WIDTH x HGT.	18'-0" x 6'-6"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
LEGEND/BORDER	COLOR: Orange/Orange
	TYPE: Reflective
	COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	68.9	54	22.5	18

LETTER POSITIONS (X)

LETTER POSITIONS (X)																							LENGTH	SERIES/SIZE
N	O	R	T	H																				
100.7	111.1	121.8	131	140.2																	E 2000			
																				47.6	10			
C	O	N	S	T	R	U	C	T	I	O	N	D	E	L	A	Y	S				E 2000			
18	28.1	38.8	48.9	58.1	67.3	77.4	87.8	97.3	106.5	110.6	121.3	129.4	139.4	149.8	159.3	167.6	178.6	189.9		180	10			
P	N	T	S		N	O	R	T	H		O	F		P	O	R	T	L	A	N	D	E 2000		
3.2	13	22.8	31.4	39.5	49.5	59.9	70.6	79.8	89	97.1	107.1	117.8	125.3	135.3	144.8	155.5	164.7	173.9	182.2	194.1	204.8	10		
U	S	E		E	X	I	T		5	2												D 2000		
65.5	74	82.5	88.7	98.7	105.9	114.4	117.5	123.7	133.7	142.5											83.8	10		

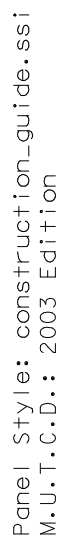
1:2



Letter locations are paneled to lower left corner

[illegible]278

1:2

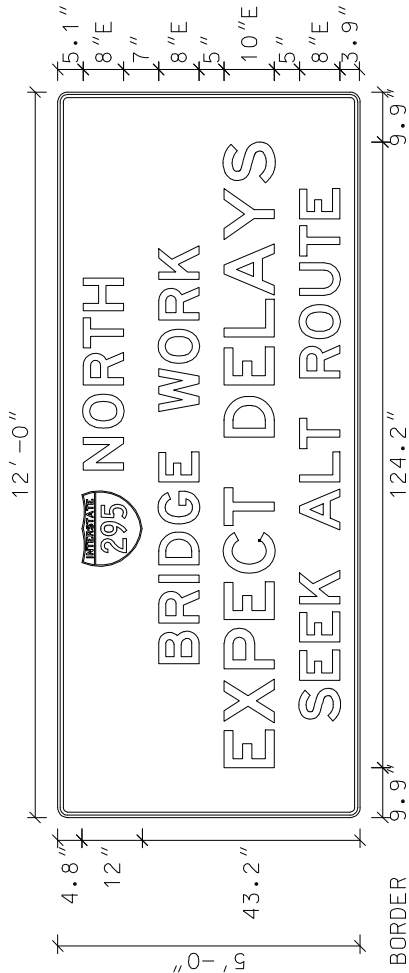


Letter locations are paneled to lower left corner

[illegible]279

SIGN DETAIL

1:2



BORDER
R=1.5"
TH=0.63"
IN=0.47"

Panel Style: construction_guide.ssi
M.U.T.C.D.: 2003 Edition

Panel Style: construction_guide.ssi
Dimensions are in inches tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	CS-25
WIDTH x HGT.	12'-0" x 5'-0"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
LEGEND/BORDER	COLOR: Orange
	TYPE: Reflective
	COLOR: Black/Black

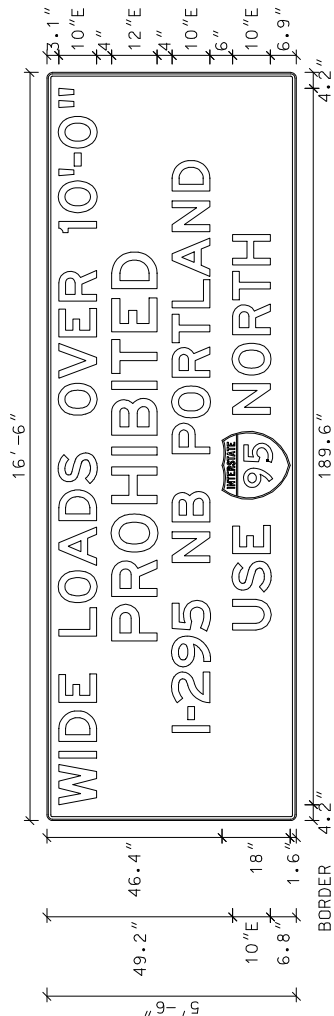
SYMBOL	ROT	X	Y	WID	HT
M1.1	0	49.9	43.2	15	12

LETTER POSITIONS (X)

		LENGTH															SERIES/SIZE	
N	O	R	T	H													E 2000	
69	77.3	85.9	93.2	100.6												38.1	8	
B	R	I	D	G	E												E 2000	
30.5	38.6	46.7	50.2	58.3	66.6	72.6	80.6	90.2	98.8	106.8						83	8	
E	X	P	E	C	T		D	E	L	A	Y	S					E 2000	
9.9	18.8	29.5	39.3	48.5	58	65.5	75.5	85.9	95.4	103.7	114.7	126				124.2	10	
S	E	E	K		A	L	T		R	O	U	T	E				E 2000	
19.2	27.2	34.8	42.4	49.1	57.1	66.6	73.2	79.2	87.2	95.1	103.6	111.5	118.8			105.7	8	

SIGN DETAIL

1:2



Panel Style: regulatory.ssi
M.U.T.C.D.: 2003 Edition

Panel Style: regulatory.ssi

Dimensions are in inches tenths

Letter locations are panel edge to lower left corner

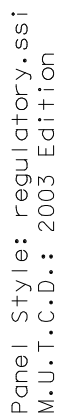
SIGN NUMBER	WL-1
WIDTH x HIGHT.	16'-6" x 5'-6"
BORDER WIDTH	0.63"
CORNER RADIUS	1.13"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
LEGEND/BORDER	COLOR: White
	TYPE: Reflective
	COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
M1.1	0	85	1.6	18	18

LETTER POSITIONS (X)

LETTER POSITIONS (X)																				LENGTH			SERIES/SIZE
W	I	D	E	L	O	A	D	S	O	V	E	R	1	0	'	-	0	"	E 2000				
4.2	16.5	20.9	31.3	38.8	48.8	57.7	67.5	79.4	89.2	97.3	107.3	117.1	128	137.5	145.6	155.6	160.9	170.7	173.2	178	188.7	10	
P	R	O	H	I	B	I	T	E	D													E 2000	
47.5	59.3	71	83.9	96.7	102	114.1	118.3	129.4	140.8											103	12		
I	-	2	9	5		N	B		P	O	R	T	L	A	N	D						E 2000	
23.3	26.7	31.2	40.7	50.2	58.3	68.3	79	87.1	97.1	106.6	117.3	126.5	135.7	144	155.9	166.6				151.4	10		
U	S	E																			E 2000		
50.4	60.5	70.6																		27.7	10		
N	O	R	T	H																	E 2000		
107.5	117.9	128.6	137.8	147																47.6	10		

1:2



Dimensions are in inches.tenths

Letter locations are paneled to lower left corner

[illegible]282

1:2


$$R=1.13''$$
$$TH=0.63''$$
$$IN=0.38''$$

Panel Style: regulatory.ssi
M.U.T.C.D.: 2003 Edition

regulatory.ssi

inches.tenths

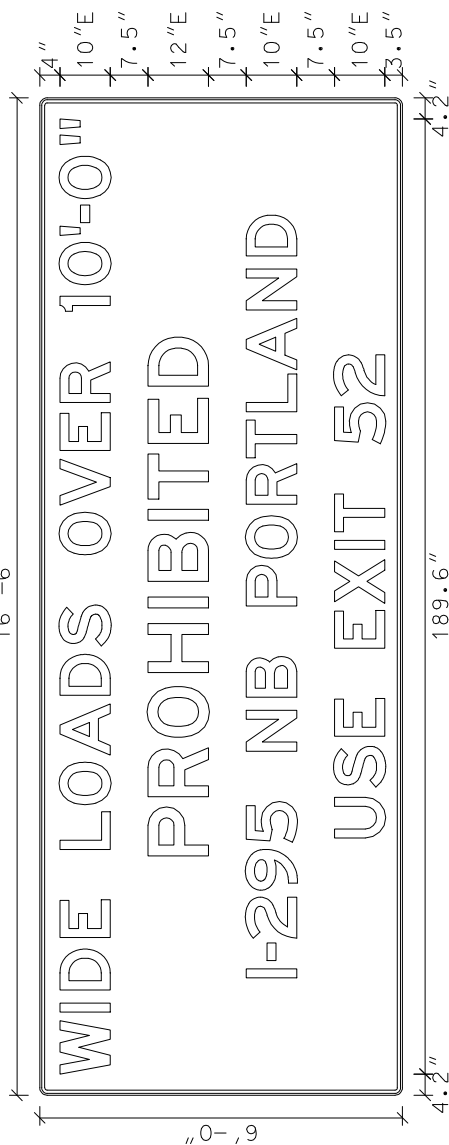
Letter locations are paneled to lower left corner

SIGN NUMBER	WL-3
WIDTH x HIGHT.	5'-6" x 3'-0"
BORDER WIDTH	0.63"
CORNER RADIUS	1.13"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: White
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black/Black

[illegible][illegible]

1:2

16'-6"


$$|N| = 0.38''$$

M.U.T.C.D.: 2003 Edition

regulatory.ssi

inches.tenths

Letter locations are paneled to lower left corner

SIGN NUMBER	WL-4
WIDTH x HGT.	16'-6" x 6'-0"
BORDER WIDTH	0.63"
CORNER RADIUS	1.13"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: White
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black/Black

[illegible][illegible]

SPECIAL PROVISION
SECTION 652
 MAINTENANCE OF TRAFFIC
 (Traffic Control)

Failure by the contractor to follow the Contracts 652 Special Provisions and Standard Specification and/or The Manual on Uniform Traffic Control Devices (MUTCD) and/or The Contractors own Traffic Control Plan will result in a violation letter and result in a reduction in payment as shown in the schedule below. The Departments Resident or any other representative of The Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item. Any reduction in payment under this Special Provision will be in addition to forfeiting payment of maintenance of traffic control devices for that day.

ORIGINAL CONTRACT AMOUNT

from	Up to and	Amount of Penalty
<u>More Than</u>	<u>Including</u>	<u>Damages per Violation</u>
\$0	\$100,000	\$250
\$100,000	\$300,000	\$500
\$300,000	\$500,000	\$750
\$500,000	\$1,000,000	\$1,500
\$1,000,000	\$2,000,000	\$2,500
\$2,000,000	\$4,000,000	\$5,000
\$4,000,000	and more	\$10,000

SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC
Construction Sign Sheeting Material

Super high intensity fluorescent retroreflective sheeting, ASTM D 4956 - Type VII, Type VIII, or Type IX (prismatic), is required for all construction signs.

SPECIAL PROVISION
SECTION 656
Temporary Soil Erosion and Water Pollution Control

Supplemental Specification 656 of the Standard Specifications is deleted and replaced by this Special Provision. The following information and requirements apply specifically to this Project.

No earthmoving activities are anticipated for this project but if the Scope of Work changes and involves disturbance of soils Section 2) below will apply. Section 1) applies regardless of whether soil is disturbed or not.

- 1) If the Work includes the handling or storage of petroleum products or Hazardous Materials including the on site fueling of Equipment, the Resident must be provided with a Spill Prevention Control and Countermeasure Plan (SPCCP) plan for his/her approval. At a minimum, the SPCCP shall include:
 - a) The name and emergency response numbers (telephone number, cellular phone and pager numbers, if applicable) of the Contractor's representative responsible for spill prevention;
 - b) General description and location of (1) handling, transfer, storage, and containment facilities of such products or Materials ("activities and facilities") and (2) potential receptors of such products or Materials including oceans, lakes, ponds, rivers, streams, wetlands, and sand and gravel aquifers ("sensitive resources") including the distances between said activities and facilities and said sensitive resources;
 - c) Description of preventative measures to be used to minimize the possibility of a spill including Equipment and/or Materials to be used to prevent discharges including absorbent Materials,
 - d) A contingency response plan to be implemented if a spill should occur including a list of emergency phone/pager numbers including the Contractor's representative, MDEP Spill Response, the Resident, and local police and fire authorities. For a related provision, see 105.2.2 - "Project Specific Emergency Planning".
- 2) The following information and requirements will constitute the Soil Erosion and Water Pollution Control Plan for this Project. The soil erosion and water pollution control measures associated with this work are as follows:
 - a) All work shall be done in accordance with the latest revision of the Maine Department of Transportation Best Management Practices for Erosion and Sediment Control (a.k.a. Best Management Practices manual or BMP Manual) are a reference to the latest revision of said manual. The "Table of Contents" of the latest version is dated "1/19/00" (available at <http://www.state.me.us/mdot/mainhtml/bmp/bmpjan2000.pdf>.)
 - b) The on-site person responsible for implementation of this plan, shall be the Contractor's Superintendent or other supervisory employee (the "Environmental Coordinator") with the authority to immediately remedy any deficient controls and shall provide the Resident

SPECIAL PROVISION

SECTION 656

Temporary Soil Erosion and Water Pollution Control

with their numbers (telephone number, cellular phone and pager numbers, if applicable) where the Environmental Coordinator can be reached 24 hours a day.

- c) All areas where soil is disturbed shall be permanently mulched on a daily basis and seeded on a weekly basis (if seeded by hand, it shall be done on a daily basis). All previously mulched areas shall be maintained and re-mulched on a daily basis if bare areas develop until an acceptable growth of grass has been obtained.
- d) All disturbed ditches shall receive erosion control blanket or stone rip rap prior to leaving the site each day.
- e) There will be no Instream Work.
- f) The Environmental Coordinator must inspect and maintain daily all controls for the duration of the project.
- g) Any costs related to this plan shall be considered incidental to the contract.
- h) If the Project Resident directs activity that entails soil disturbance that require temporary erosion and sedimentation control or Instream Work, all permits shall be obtained by the DOT, the Supplemental Specification 656 shall be re-instituted, and a full SEWPCP will be required and paid for as Extra Work.

STANDARD DETAIL UPDATES

Standard Details and Standard Detail updates are available at:

http://www.maine.gov/mdot/contractor-consultant-information/ss_standard_details_updates.php

<u>Detail #</u>	<u>Description</u>	<u>Revision Date</u>
504(15)	Diaphragms	12/30/02
507(04)	Steel Bridge Railing	2/05/03
526(33)	Concrete Transition Barrier	8/18/03
645(06)	H-Beam Posts – Highway Signing	7/21/04
645(09)	Installation of Type II Signs	7/21/04
626(09)	Electrical Junction Box for Traffic Signals and Lighting	2/25/05
604(01)	Catch Basins	11/16/05
604(05)	Type “A” & “B” Catch Basin Tops	11/16/05
604(06)	Type “C” Catch Basin Tops	11/16/05
604(07)	Manhole Top “D”	11/16/05
604(09)	Catch Basin Type “E”	11/16/05
606(02)	Multiple Mailbox Support	11/16/05
606(07)	Reflectorized Beam Guardrail Delineator Details	11/16/05
609(06)	Vertical Bridge Curb	11/16/05
504(23)	Hand-Hold Details	12/08/05
609(03)	Curb Type 3	6/27/06
609(07)	Curb Type 1	6/27/06
535(01)	Precast Superstructure - Shear Key	10/12/06
535(02)	Precast Superstructure - Curb Key & Drip Notch	10/12/06
535(03)	Precast Superstructure - Shear Key	10/12/06

535(04)	Precast Superstructure - Shear Key	10/12/06
535(05)	Precast Superstructure - Post Tensioning	10/12/06
535(06)	Precast Superstructure - Sections	10/12/06
535(07)	Precast Superstructure - Precast Slab & Box	10/12/06
535(08)	Precast Superstructure - Sections	10/12/06
535(09)	Precast Superstructure - Sections	10/12/06
535(10)	Precast Superstructure - Sections	10/12/06
535(11)	Precast Superstructure - Sections	10/12/06
535(12)	Precast Superstructure - Sections	10/12/06
535(13)	Precast Superstructure - Sections	10/12/06
535(14)	Precast Superstructure - Stirrups	10/12/06
535(15)	Precast Superstructure - Plan	10/12/06
535(16)	Precast Superstructure - Reinforcing	10/12/06
535(17)	Precast Superstructure - Notes	10/12/06
801(01)	Drives on Sidewalk Sections	2/06/07
801(02)	Drives on Non-Sidewalk Sections	2/06/07
535(03)	Precast Superstructure - Shear Key	12/5/07
535(04)	Precast Superstructure - Shear Key	12/5/07
535(05)	Precast Superstructure - Post Tensioning	12/5/07
535(17)	Precast Superstructure - Notes	12/5/07
801(01)	Drives on Sidewalk Sections	1/04/08
801(02)	Drives on Non-Sidewalk Sections	1/04/08
203(03)	Backslope Rounding	1/29/08

535(02)	Precast Superstructure - Curb Key & Drip Notch	5/20/08
535(05)	Precast Superstructure - Post Tensioning	5/20/08
502(03)	Concrete Curb - Bituminous Wearing Surface	2/2/09
502(03)A	Concrete Curb - Concrete Wearing Surface	2/2/09
502(07)	Precast Concrete Deck Panels - Layout Plan	2/2/09
502(07)A	Precast Concrete Deck Panels - Layout Plan	2/2/09
502(08)	Precast Concrete Deck Panels - Panel Plan	2/2/09
502(09)	Precast Concrete Deck Panels - Blocking Detail	2/2/09
502(10)	Precast Concrete Deck Panels	2/2/09
502(11)	Precast Concrete Deck Panels	2/2/09
502(12)	Precast Concrete Deck Panels - Notes	2/2/09
502(12)A	Precast Concrete Deck Panels - Notes	2/2/09
526(06)	Permanent Concrete Barrier	2/2/09
526(08)	Permanent Concrete Barrier – Type IIIA	2/2/09
526(08)A	Permanent Concrete Barrier – Type IIIA	2/2/09
526(13)	Permanent Concrete Barrier – Type IIIB	2/2/09
526(14)	Permanent Concrete Barrier – Type IIIB	2/2/09
526(21)	Concrete Transition Barrier	2/2/09
526(39)	Texas Classic Rail – Between Window	2/2/09
526(40)	Texas Classic Rail – Through Window	2/2/09
526(41)	Texas Classic Rail – Through Post	2/2/09
526(42)	Texas Classic Rail – Through Nose	2/2/09
606(20)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09

606(21)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09
606(22)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09
606(23)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09
609(06)	Vertical Bridge Curb	2/2/09
609(08)	Precast Concrete Transition Curb	2/2/09
502(12)	Precast Concrete Desk Panels	9/09
504(22)	Diaphragm & Crossframe Notes	9/09
626(09)	Electrical Junction Box for Traffic Signals and Lighting	8/20/10
526(08)	Permanent Concrete Barrier	12/7/10
526(08)A	Permanent Concrete Barrier	12/7/10
504(15)	Diaphragms	5/19/11
507(09)	Steel Bridge Railing	5/19/11
507(09)A	Steel Bridge Railing	5/19/11
610(02)	Stone Scour Protection	5/19/11
610(03)	Stone Scour Protection	5/19/11
610(04)	Stone Scour Protection	5/19/11
620(05)	Geotextile Placement for Protection of Slopes Adjacent to Stream & Tidal Areas	5/19/11
502(03)	Concrete Curb	8/8/11
610(02)	Stone Scour Protection	8/9/11

SUPPLEMENTAL SPECIFICATION

(Corrections, Additions, & Revisions to Standard Specifications - Revision of December 2002)

SECTION 101

CONTRACT INTERPRETATION

101.2 Definitions

Closeout Documentation Replace the sentence “A letter stating the amount..... DBE goals.” with “DBE Goal Attainment Verification Form”

Add “Environmental Information Hazardous waste assessments, dredge material test results, boring logs, geophysical studies, and other records and reports of the environmental conditions. For a related provision, see Section 104.3.14 - Interpretation and Interpolation.”

Add “Fabrication Engineer The Department’s representative responsible for Quality Assurance of pre-fabricated products that are produced off-site.”

Geotechnical Information Replace with the following: “Boring logs, soil reports, geotechnical design reports, ground penetrating radar evaluations, seismic refraction studies, and other records of subsurface conditions. For a related provision, see Section 104.3.14 - Interpretation and Interpolation.”

SECTION 102

DELIVERY OF BIDS

102.7.1 Location and Time Add the following sentence “As a minimum, the Bidder will submit a Bid Package consisting of the Notice to Contractors, the completed Acknowledgement of Bid Amendments form, the completed Schedule of Items, 2 copies of the completed Agreement, Offer, & Award form, a Bid Bond or Bid Guarantee, and any other Certifications or Bid Requirements listed in the Bid Book.”

102.11.1 Non-curable Bid Defects Replace E. with “E. The unit price and bid amount is not provided or a lump sum price is not provided or is illegible as determined by the Department.”

SECTION 103

AWARD AND CONTRACTING

103.3.1 Notice and Information Gathering Change the first paragraph to read as follows: “After Bid Opening and as a condition for Award of a Contract, the Department may require an Apparent Successful Bidder to demonstrate to the Department’s satisfaction that the Bidder is responsible and qualified to perform the Work.”

SECTION 104

GENERAL RIGHTS AND RESPONSIBILITIES

104.3.14 Interpretation and Interpolation In the first sentence, change “...and Geotechnical Information.” to “...Environmental Information, and Geotechnical Information.”

SECTION 105 GENERAL SCOPE OF WORK

Delete the entire Section 105.6 and replace with the following:

105.6.1 Department Provided Services The Department will provide the Contractor with the description and coordinates of vertical and horizontal control points, set by the Department, within the Project Limits, for full construction Projects and other Projects where survey control is necessary. For Projects of 1,500 feet in length, or less: The Department will provide three points. For Projects between 1,500 and 5,000 feet in length: The Department will provide one set of two points at each end of the Project. For Projects in excess of 5,000 feet in length, the Department will provide one set of two points at each end of the Project, plus one additional set of two points for each mile of Project length. For non-full construction Projects and other Projects where survey control is not necessary, the Department will not set any control points and, therefore, will not provide description and coordinates of any control points. Upon request of the Contractor, the Department will provide the Department's survey data management software and Survey Manual to the Contractor, or its survey Subcontractor, for the exclusive use on the Department's Projects.

105.6.2 Contractor Provided Services Utilizing the survey information and points provided by the Department, described in Subsection 105.6.1, Department Provided Services, the Contractor shall provide all additional survey layout necessary to complete the Work. This may include, but not be limited to, reestablishing all points provided by the Department, establishing additional control points, running axis lines, providing layout and maintenance of all other lines, grades, or points, and survey quality control to ensure conformance with the Contract. The Contractor is also responsible for providing construction centerline, or close reference points, for all Utility Facilities relocations and adjustments as necessary to complete the Work. When the Work is to connect with existing Structures, the Contractor shall verify all dimensions before proceeding with the Work. The Contractor shall employ or retain competent engineering and/or surveying personnel to fulfill these responsibilities.

The Contractor must notify the Department of any errors or inconsistencies regarding the data and layout provided by the Department as provided by Section 104.3.3 - Duty to Notify Department If Ambiguities Discovered.

105.6.2.1 Survey Quality Control The Contractor is responsible for all construction survey quality control. Construction survey quality control is generally defined as, first, performing initial field survey layout of the Work and, second, performing an independent check of the initial layout using independent survey data to assure the accuracy of the initial layout; additional iterations of checks may be required if significant discrepancies are discovered in this process. Construction survey layout quality control also requires written documentation of the layout process such that the process can be followed and repeated, if necessary, by an independent survey crew.

105.6.3 Survey Quality Assurance It is the Department's prerogative to perform construction survey quality assurance. Construction survey quality assurance may, or may not, be performed by the Department. Construction survey quality assurance is generally defined as an independent check of the construction survey quality control. The construction survey

quality assurance process may involve physically checking the Contractor's construction survey layout using independent survey data, or may simply involve reviewing the construction survey quality control written documentation. If the Department elects to physically check the Contractor's survey layout, the Contractor's designated surveyor may be required to be present. The Department will provide a minimum notice of 48 hours to the Contractor, whenever possible, if the Contractor's designated surveyor's presence is required. Any errors discovered through the quality assurance process shall be corrected by the Contractor, at no additional cost to the Department.

105.6.4 Boundary Markers The Contractor shall preserve and protect from damage all monuments or other points that mark the boundaries of the Right-of-Way or abutting parcels that are outside the area that must be disturbed to perform the Work. The Contractor indemnifies and holds harmless the Department from all claims to reestablish the former location of all such monuments or points including claims arising from 14 MRSA § 7554-A. For a related provision, see Section 104.3.11 - Responsibility for Property of Others.

SECTION 106 QUALITY

106.4.3 Testing Change the first sentence in paragraph three from "...maintain records of all inspections and tests." to "...maintain original documentation of all inspections, tests, and calculations used to generate reports."

106.6 Acceptance Add the following to paragraph 1 of A: "This includes Sections 401 - Hot Mix Asphalt, 402 - Pavement Smoothness, and 502 - Structural Concrete - Method A - Air Content."

Add the following to the beginning of paragraph 3 of A: "For pay factors based on Quality Level Analysis, and"

106.7.1 Standard Deviation Method Add the following to F: "Note: In cases where the mean of the values is equal to either the USL or the LSL, then the PWL will be 50 regardless of the computed value of s."

Add the following to H: "Method C Hot Mix Asphalt: $PF = [55 + (Quality\ Level * 0.5)] * 0.01$ "

SECTION 107 TIME

107.3.1 General Add the following: "If a Holiday occurs on a Sunday, the following Monday shall be considered a Holiday. Sunday or Holiday work must be approved by the Department, except that the Contractor may work on Martin Luther King Day, President's Day, Patriot's Day, the Friday after Thanksgiving, and Columbus Day without the Department's approval."

107.7.2 Schedule of Liquidated Damages Replace the table of Liquidated Damages as follows:

From	Up to and	Amount of Liquidated

<u>More Than</u>	<u>Including</u>	<u>Damages per Calendar Day</u>
\$0	\$100,000	\$225
\$100,000	\$250,000	\$350
\$250,000	\$500,000	\$475
\$500,000	\$1,000,000	\$675
\$1,000,000	\$2,000,000	\$900
\$2,000,000	\$4,000,000	\$1,000
\$4,000,000	and more	\$2,100

SECTION 108 PAYMENT

Remove Section 108.4 and replace with the following:

“108.4 Payment for Materials Obtained and Stored Acting upon a request from the Contractor and accompanied by bills or receipted bills, the Department will pay for all or part of the value of acceptable, non-perishable Materials that are to be incorporated in the Work, including Materials that are to be incorporated into the Work, not delivered on the Work site, and stored at places acceptable to the Department. Examples of such Materials include steel piles, stone masonry, curbing, timber and lumber, metal Culverts, stone and sand, gravel, and other Materials. The Department will not make payment on living or perishable Materials until acceptably planted in their final locations.

If payment for Materials is made to the Contractor based on bills, only, then the Contractor must provide receipted bills to the Department for these Materials within 14 days of the date the Contractor receives payment for the Materials. Failure of the Contractor to provide receipted bills for these Materials within 14 days of the date the Contractor receives payment will result in the paid amount being withheld from the subsequent progress payment, or payments, until such time the receipted bills are received by the Department.

Materials paid for by the Department are the property of the Department, but the risk of loss shall remain with the Contractor. Payment for Materials does not constitute Acceptance of the Material. If Materials for which the Department has paid are later found to be unacceptable, then the Department may withhold amounts reflecting such unacceptable Materials from payments otherwise due the Contractor.

In the event of Default, the Department may use or cause to be used all paid-for Materials in any manner that is in the best interest of the Department.”

SECTION 109 CHANGES

109.1.1 Changes Permitted Add the following to the end of the paragraph: “There will be no adjustment to Contract Time due to an increase or decrease in quantities, compared to those estimated, except as addressed through Contract Modification(s).”

109.1.2 Substantial Changes to Major Items Add the following to the end of the paragraph: “Contract Time adjustments may be made for substantial changes to Major Items when the change affects the Critical Path, as determined by the Department”

109.4.4 Investigation / Adjustment Third sentence, delete the words “subsections (A) - (E)”

109.5.1 Definitions - Types of Delays

B. Compensable Delay Replace (1) with the following; “a weather related Uncontrollable Event of such an unusually severe nature that a Federal Emergency Disaster is declared. The Contractor will only be entitled to an Equitable Adjustment if the Project falls within the geographic boundaries prescribed under the disaster declaration.”

109.7.2 Basis of Payment Replace with the following: “Adjustments will be established by mutual Agreement based upon Unit or Lump Sum Prices. These agreed Unit or Lump Sum prices will be full compensation and no additions or mark-ups are allowed. If Agreement cannot be reached, the Contractor shall accept payment on a Force Account basis as provided in Section 109.7.5 - Force Account Work, as full and complete compensation for all Work relating to the Equitable Adjustment.”

109.7.3 Compensable Items Delete this Section entirely.

109.7.4 Non-Compensable Items Replace with the following: “The Contractor is not entitled to compensation or reimbursement for any of the following items:

- A. Total profit or home office overhead in excess of 15%,
- B.”

109.7.5 Force Account Work

C. Equipment

Paragraph 2, delete sentence 1 which starts; “Equipment leased....”

Paragraph 6, change sentence 2 from “The Contractor may furnish...” to read “If requested by the Department, the Contractor will produce cost data to assist the Department in the establishment of such rental rate, including all records that are relevant to the Actual Costs including rental Receipts, acquisition costs, financing documents, lease Agreements, and maintenance and operational cost records.”

Add the following paragraph; “Equipment leased by the Contractor for Force Account Work and actually used on the Project will be paid for at the actual invoice amount plus 10% markup for administrative costs.”

Add the following section;

“F. Subcontractor Work When accomplishing Force Account Work that utilizes Subcontractors, the Contractor will be allowed a maximum markup of 5% for profit and overhead on the Subcontractor’s portion of the Force Account Work. If the Department does not accept the Subcontractor quote, then the Subcontractor work will be subject to the Force Account provisions with a 5% markup for profit & overhead..”

SECTION 110 INDEMNIFICATION, BONDING, AND INSURANCE

Delete the entire Section 110.2.3 and replace with the following:

110.2.3 Bonding for Landscape Establishment Period The Contractor shall provide a signed, valid, and enforceable Performance, Warranty, or Maintenance Bond complying with the Contract, to the Department at Final Acceptance.

The bond shall be in the full amount for all Pay Items for work pursuant to Sec 621, Landscape, payable to the “Treasurer - State of Maine,” and on the Department’s forms, on exact copies thereof, or on forms that do not contain any significant variations from the Department’s forms as solely determined by the Department.

The Contractor shall pay all premiums and take all other actions necessary to keep said bond in effect for the duration of the Landscape Establishment Period described in Special Provision 621.0036 - Establishment Period. If the Surety becomes financially insolvent, ceases to be licensed or approved to do business in the State of Maine, or stops operating in the United States, the Contractor shall file new bonds complying with this Section within 10 Days of the date the Contractor is notified or becomes aware of such change.

All Bonds shall be procured from a company organized and operating in the United States, licensed or approved to do business in the State of Maine by the State of Maine Department of Business Regulation, Bureau of Insurance, and listed on the latest Federal Department of the Treasury listing for “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies.”

By issuing a bond, the Surety agrees to be bound by all terms of the Contract, including those related to payment, time for performance, quality, warranties, and the Department’s self-help remedy provided in Section 112.1 - Default to the same extent as if all terms of the Contract are contained in the bond(s).

Regarding claims related to any obligations covered by the bond, the Surety shall provide, within 60 Days of Receipt of written notice thereof, full payment of the entire claim or written notice of all bases upon which it is denying or contesting payment. Failure of the Surety to provide such notice within the 60-day period constitutes the Surety’s waiver of any right to deny or contest payment and the Surety’s acknowledgment that the claim is valid and undisputed.

SECTION 202 REMOVING STRUCTURES AND OBSTRUCTIONS

202.02 Removing Buildings Make the following change to the last sentence in the final paragraph, change “...Code of Maine Regulations 401.” to “...Department of Environmental Protection Maine Solid Waste Management Rules, 06-096 CMR Ch. 401, Landfill Siting, Design and Operation.”

SECTION 203 EXCAVATION AND EMBANKMENT

203.01 Description Under b. Rock Excavation; add the following sentence: “The use of perchlorate is not allowed in blasting operations.”

Delete the entire Section 203.041 and replace with the following:

“203.041 Salvage of Existing Hot Mix Asphalt Pavement All existing hot mix asphalt pavement designated to be removed under this contract must be salvaged for utilization. Existing hot mix asphalt pavement material shall not be deposited in any waste area or be placed below subgrade in any embankment.

Methods of utilization may be any of the following:

1. Used as a replacement for untreated aggregate surface course on entrances provided the material contains no particles greater than 50 mm [2 in] in any dimension. Payment will be made under Pay Item 411.09, Untreated Aggregate Surface Course or 411.10, Untreated Aggregate Surface Course, Truck Measure. Material shall be placed, shaped, compacted and stabilized as directed by the Resident.

2. Used as the top 3” of gravel. Recycled Asphalt Pavement (RAP) shall be process to 1½” minus and blending will not be allowed. When this method is utilized, a surcharge will not be required

3. Stockpiled at commercial or approved sites for commercial or MaineDOT use.

4. Other approved methods proposed by the Contractor, and approved by the Resident which will assure proper use of the existing hot mix asphalt pavement.

The cost of salvaging hot mix asphalt material will be included for payment under the applicable pay item, with no additional allowances made, which will be full compensation for removing, temporarily stockpiling, and rehandling, if necessary, and utilizing the material in entrances or other approved uses, or stockpiling at an approved site as described above. The material will also be measured and paid for under the applicable Pay Item if it is reused for aggregate in entrances, or other approved uses.”

SECTION 502 STRUCTURAL CONCRETE

502.05 Composition and Proportioning; TABLE #1; NOTE #2; third sentence; Change “...alcohol based saline sealer...” to “alcohol based silane sealer...”. Add NOTE #6 to Class S Concrete.

502.0502 Quality Assurance Method A - Rejection by Resident Change the first sentence to read: “For an individual subplot with test results failing to meet the criteria in Table #1, or if the calculated pay factor for Air Content is less than 0.80.....”

502.0503 Quality Assurance Method B - Rejection by Resident Change the first sentence to read: "For material represented by a verification test with test results failing to meet the criteria in Table #1, the Department will....."

502.0505 Resolution of Disputed Acceptance Test Results Combine the second and third sentence to read: "Circumstances may arise, however, where the Department may"

502.10 Forms and False work

D. Removal of Forms and False work 1., First paragraph; first, second, and third sentence; replace "forms" with "forms and false work"

502.11 Placing Concrete

G. Concrete Wearing Surface and Structural Slabs on Precast Superstructures Last paragraph; third sentence; replace "The temperature of the concrete shall not exceed 24° C [75° F] at the time of placement." with "The temperature of the concrete shall not exceed 24° C [75° F] at the time the concrete is placed in its final position."

502.15 Curing Concrete First paragraph; replace the first sentence with the following; "All concrete surfaces shall be kept wet with clean, fresh water for a curing period of at least 7 days after concrete placing, with the exception of vertical surfaces as provided for in Section 502.10 (D) - Removal of Forms and False work."

Second paragraph; delete the first two sentences.

Third paragraph; delete the entire paragraph which starts "When the ambient temperature...."

Fourth paragraph; delete "approved" to now read "...continuously wet for the entire curing period..."

Fifth paragraph; second sentence; change "...as soon as it is possible to do so without damaging the concrete surface." to "...as soon as possible."

Seventh paragraph; first sentence; change "...until the end of the curing period." to "...until the end of the curing period, except as provided for in Section 502.10(D) - Removal of Forms and False work."

502.19 Basis of Payment First paragraph, second sentence; add "pier nose armor" to the list of items included in the contract price for concrete.

SECTION 503

REINFORCING STEEL

503.06 Placing and Fastening Change the second paragraph, first sentence from: "All tack welding shall be done in accordance with Section 504, Structural Steel." to "All tack welding shall be done in accordance with AWS D1.4 Structural Welding Code - Reinforcing Steel."

SECTION 504

STRUCTURAL STEEL

504.09 Facilities for Inspection Add the follow as the last paragraph: "Failure to comply with the above requirements will be consider to be a denial to allow access to work by the Contractor. The Department will reject any work done when access for inspection is denied."

504.18 Plates for Fabricated Members Change the second paragraph, first sentence from: "...ASTM A 898/A 898 M..." to "...ASTM A 898/A 898 M or ASTM A 435/A 435 M as applicable and..."

504.31 Shop Assembly Add the following as the last sentence: "The minimum assembly length shall include bearing centerlines of at least two substructure units."

504.64 Non Destructive Testing-Ancillary Bridge Products and Support Structures Change the third paragraph, first sentence from "One hundred percent..." to "Twenty five percent..."

SECTION 535

PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE

535.02 Materials Change "Steel Strand for Concrete Reinforcement" to "Steel Strand." Add the following to the beginning of the third paragraph; "Concrete shall be Class P conforming to the requirements in this section. 28 day compressive strength shall be as stated on the plans. Coarse aggregate...."

535.05 Inspection Facilities Add the follow as the last paragraph: "If the above requirements are not met, the Contractor shall be considered to be in violation of Standard Specification 104.2.5 – Right to Inspect Work. All work occurring during a violation of this specification will be rejected."

535.26 Lateral Post-Tensioning Replace the first paragraph; "A final tension..." with "Overstressing strands for setting losses cannot be accomplished for chuck to chuck lengths of 7.6 m [25 ft] and less. In such instances, refer to the Plans for all materials and methods. Otherwise, post-tensioning shall be in accordance with PCI standards and shall provide the anchorage force noted in the Plans. The applied jacking force shall be no less than 100% of the design jacking force."

SECTION 603

PIPE CULVERTS AND STORM DRAINS

603.0311 Corrugated Polyethylene Pipe for Option III Replace the Minimum Mandrel Diameter Table with the following:

Nominal Size US Customary (in)	Minimum Mandrel Diameter (in)	Nominal Size Metric (mm)	Minimum Mandrel Diameter (mm)
12	11.23	300	280.73
15	14.04	375	350.91
18	16.84	450	421.09
24	22.46	600	561.45
30	28.07	750	701.81
36	33.69	900	842.18
42	39.30	1050	982.54
48	44.92	1200	1122.90

SECTION 604

MANHOLES, INLETS, AND CATCH BASINS

604.02 Materials Add the following:

“Tops and Traps	712.07
Corrugated Metal Units	712.08
Catch Basin and Manhole Steps	712.09”

SECTION 605 UNDERDRAINS

605.05 Underdrain Outlets Make the following change:

In the first paragraph, second sentence, delete the words “metal pipe”.

SECTION 606 GUARDRAIL

606.02 Materials Delete the entire paragraph which reads “The sole patented supplier of multiple mailbox....” and replace with “Acceptable multiple mailbox assemblies shall be listed on the Department’s Approved Products List and shall be NCHRP 350 tested and approved.” Delete the entire paragraph which reads “Retroreflective beam guardrail delineators....” and replace with “Reflectorized sheeting for Guardrail Delineators shall meet the requirements of Section 719.01 - Reflective Sheeting. Delineators shall be fabricated from high-impact, ultraviolet and weather resistant thermoplastic.

606.09 Basis of Payment First paragraph; delete the second and third sentence in their entirety and replace with “Butterfly-type guardrail reflectorized delineators shall be mounted on all W-beam guardrail at an interval of every 10 posts [62.5 ft] on tangents sections and every 5 posts [31.25 ft] on curved sections as directed by the Resident. On divided highways, the delineators shall be yellow on the left hand side and silver/white on the right hand side. On two-way roadways, the delineators shall be silver/white on the right hand side. All delineators shall have retroreflective sheeting applied to only the traffic facing side. Reflectorized guardrail delineators will not be paid for directly, but will be considered incidental to the guardrail items.”

SECTION 609 CURB

609.04 Bituminous Curb f., Delete the requirement “Color Natural (White)”

SECTION 610 STONE FILL, RIPRAP, STONE BLANKET, AND STONE DITCH PROTECTION

Add the following paragraph to Section 610.02:

“Materials shall meet the requirements of the following Sections of Special Provision 703:

Stone Fill	703.25
Plain and Hand Laid Riprap	703.26
Stone Blanket	703.27
Heavy Riprap	703.28
Definitions	703.32”

Add the following paragraph to Section 610.032.a.

“Stone fill and stone blanket shall be placed on the slope in a well-knit, compact and uniform layer. The surface stones shall be chinked with smaller stone from the same source.”

Add the following paragraph to Section 610.032.b:

“Riprap shall be placed on the slope in a well-knit, compact and uniform layer. The surface stones shall be chinked with smaller stone from the same source.”

Add the following to Section 610.032: “Section 610.032.d. The grading of riprap, stone fill, stone blanket and stone ditch protection shall be determined by the Resident by visual inspection of the load before it is dumped into place, or, if ordered by the Resident, by dumping individual loads on a flat surface and sorting and measuring the individual rocks contained in the load. A separate, reference pile of stone with the required gradation will be placed by the Contractor at a convenient location where the Resident can see and judge by eye the suitability of the rock being placed during the duration of the project. The Resident reserves the right to reject stone at the job site or stockpile, and in place. Stone rejected at the job site or in place shall be removed from the site at no additional cost to the Department.”

SECTION 615 LOAM

615.02 Materials Make the following change:

<u>Organic Content</u>	<u>Percent by Volume</u>
Humus	“5% - 10%”, as determined by Ignition Test

SECTION 618 SEEDING

618.01 Description Change the first sentence to read as follows: “This work shall consist of furnishing and applying seed” Also remove “,and cellulose fiber mulch” from 618.01(a).

618.03 Rates of Application In 618.03(a), remove the last sentence and replace with the following: “These rates shall apply to Seeding Method 2, 3, and Crown Vetch.”

In 618.03(c) “1.8 kg [4 lb]/unit.” to “1.95 kg [4 lb]/unit.”

618.09 Construction Method In 618.09(a) 1, sentence two, replace “100 mm [4 in]” with “25 mm [1 in] (Method 1 areas) and 50 mm [2 in] (Method 2 areas)”

618.15 Temporary Seeding Change the Pay Unit from Unit to Kg [lb].

SECTION 620 GEOTEXTILES

620.03 Placement Section (c)

Title: Replace “Non-woven” in title with “Erosion Control”.

First Paragraph: Replace first word “Non-woven” with “Woven monofilament”.

Second Paragraph: Replace second word “Non-woven” with “Erosion Control”.

620.07 Shipment, Storage, Protection and Repair of Fabric Section (a)

Replace the second sentence with the following: “Damaged geotextiles, as identified by the Resident, shall be repaired immediately.”

620.09 Basis of Payment

Pay Item 620.58: Replace “Non-woven” with “Erosion Control”

Pay Item 620.59: Replace “Non-woven” with “Erosion Control”

SECTION 621 LANDSCAPING

621.0036 Establishment Period In paragraph 4 and 5, change “time of Final Acceptance” to “end of the period of establishment”. In Paragraph 7, change “Final Acceptance date” to “end of the period of establishment” and change “date of Final Acceptance” to “end of the period of establishment”.

SECTION 626 HIGHWAY SIGNING

626.034 Concrete Foundations Add to the following to the end of the second paragraph: “Pre-cast and cast-in-place foundations shall be warranted against leaning and corrosion for two years after the project is completed. If the lean is greater than 2 degrees from normal or the foundation is spalling within the first two years, the Contractor shall replace the foundation at no extra cost.”

SECTION 627 PAVEMENT MARKINGS

627.10 Basis of Payment Add to the following to the end of the third paragraph: “If allowed by Special Provision, the Contractor may utilize Temporary Bi-Directional Yellow and White(As required) Delineators as temporary pavement marking lines and paid for at the contract lump sum price. Such payment will include as many applications as required and removal.”

SECTION 637 DUST CONTROL

637.06 Basis of Payment Add the following after the second sentence of the third paragraph: “Failure by the Contractor to follow Standard Specification or Special Provision - Section 637

and/or the Contractor's own Soil Erosion and Pollution Control Plan concerning Dust Control and/or the Contractor's own Traffic Control Plan concerning Dust Control and/or visible evidence of excessive dust problems, as determined by the Resident, will result in a reduction in payment, computed by reducing the Lump Sum Total by 5% per occurrence per day. The Department's Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item. Additional penalties may also be assessed in accordance with Special Provision 652 - Work Zone Traffic Control and Standard Specification 656 - Temporary Soil Erosion and Water Pollution Control."

SECTION 639 ENGINEERING FACILITIES

639.04 Field Offices Change the forth to last paragraph from: "The Contractor shall provide a fully functional desktop copier..." to "...desktop copier/scanner..."

Description Change "Floor Area" to "Floor Area (Outside Dimension)". Change Type B floor area from "15 (160)" to "20 (217)".

639.09 Telephone Paragraph 1 is amended as follows:

"The contractor shall provide **two** telephone lines and two telephones,...."

Add- "In addition the contractor will supply one computer broadband connection, modem lease and router. The router shall have wireless access and be 802.11n or 802.11g capable and wireless. The type of connection supplied will be contingent upon the availability of services (i.e. DSL or Cable Broadband). It shall be the contractor's option to provide dynamic or static IP addresses through the service. **The selected service will have a minimum downstream connection of 1.5 Mbps and 384 Kbps upstream.** The contractor shall be responsible for the installation charges and all reinstallation charges following suspended periods. Monthly service and maintenance charges shall be billed by the Internet Service Provider (ISP) directly to the contractor."

SECTION 652 MAINTENANCE OF TRAFFIC

652.2.3 Flashing Arrow Board Delete the existing 5 paragraphs and replace with the following: Flashing Arrow Panels (FAP) must be of a type that has been submitted to AASHTO's National Transportation Product Evaluation Program (NTPEP) for evaluation and placed on the Maine Department of Transportations' Approved Products List of Portable Changeable Message Signs & Flashing Arrow Panels.

FAP units shall meet requirements of the current Manual on Uniform Traffic Control Devices (MUTCD) for Type "C" panels as described in Section 6F.56 - Temporary Traffic Control Devices. An FAP shall have matrix of a minimum of 15 low-glare, sealed beam, Par 46 elements capable of either flashing or sequential displays as well as the various operating modes as described in the MUTCD, Chapter 6-F. If an FAP consisting of a bulb matrix is used, each element should be recess-mounted or equipped with an upper hood of not less than 180

degrees. The color presented by the elements shall be yellow.

FAP elements shall be capable of at least a 50 percent dimming from full brilliance. Full brilliance should be used for daytime operation and the dimmed mode shall be used for nighttime operation. FAP shall be at least 2.4 M x 1.2 M [96" x 48"] and finished in non-reflective black. The FAP shall be interpretable for a distance not less than 1.6 km [1 mile].

Operating modes shall include, flashing arrow, sequential arrow, sequential chevron, flashing double arrow, and flashing caution. In the three arrow signals, the second light from the arrow point shall not operate.

The minimum element on-time shall be 50 percent for the flashing mode, with equal intervals of 25 percent for each sequential phase. The flashing rate shall be not less than 25 nor more than 40 flashes per minute. All on-board circuitry shall be solid state.

Primary power source shall be 12 volt solar with a battery back-up to provide continuous operation when failure of the primary power source occurs, up to 30 days with fully charged batteries. Batteries must be capable of being charged from an onboard 110 volt AC power source and the unit shall be equipped with a cable for this purpose.

Controller and battery compartments shall be enclosed in lockable, weather-tight boxes. The FAP shall be mounted on a pneumatic-tired trailer or other suitable support for hauling to various locations, as directed. The minimum mounting height of an arrow panel should be 2.1 M [7 feet] from the roadway to the bottom of the panel.

The face of the trailer shall be delineated on a permanent basis by affixing retro-reflective material, known as conspicuity material, in a continuous line as seen by oncoming drivers.

A portable changeable message sign may be used to simulate an arrow panel display."

652.2.4 Other Devices Delete the last paragraph and add the following:

"652.2.5 Portable Changeable Message Sign Trailer mounted Portable Changeable Message Signs (PCMS) must be of a type that has been submitted to AASHTO's National Transportation Product Evaluation Program (NTPEP) for evaluation and placed on the Maine Department of Transportations' Approved Products List of Portable Changeable Message Signs & Flashing Arrow Panels. The PCMS unit shall meet or exceed the current specifications of the Manual on Uniform Traffic Control Devices (MUTCD), 6F.55.

The front face of the sign should be covered with a low-glare protective material. The color of the LED elements shall be amber on a black background. The PCMS should be visible from a distance of 0.8 km [0.5 mile] day and night and have a minimum 15° viewing angle. Characters must be legible from a distance of at least 200 M [650 feet].

The message panel should have adjustable display rates (minimum of 3 seconds per phase), so that the entire message can be read at least twice at the posted speed, the off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed. Each message shall consist of either one or two phases. A phase shall consist of up to eight characters per line. The unit must be capable of displaying at least three lines of text with eight characters per line.

Each character shall be 457 mm [18"] high. Each character module shall use at least a five wide and seven high pixel matrix. The text of the messages shall not scroll or travel horizontally or vertically across the face of the sign.

Units shall automatically adjust their brightness under varying light conditions to maintain legibility.

The control system shall include a display screen upon which messages can be reviewed before being displayed on the message sign. The control system shall be capable of maintaining memory when power is unavailable. Message must be changeable with either a notebook computer or an on-board keypad. The controller shall have the capability to store a minimum of 200 user-defined and 200 pre-programmed messages. Controller and battery compartments shall be enclosed in lockable, weather-tight boxes.

PCMS units shall have the capability of being made programmable by means of wireless communications. PCMS units shall also be fully capable of having an on-board radar system installed if required for a particular application.

PCMS' primary power source shall be solar with a battery back-up to provide continuous operation when failure of the primary power source occurs. Batteries must be capable of being charged from a 110 volt AC power source. The unit must also be capable of being operated solely from a 110 volt AC power source and be equipped with a cable for this purpose.

The PCMS shall be mounted on a trailer in such a way that the bottom of the message sign panel shall be a minimum of 2.1 M [7 ft] above the roadway in urban areas and 1.5 M [5 ft] above the roadway in rural areas when it is in the operating mode. PCMS trailers should be of a heavy duty type with a 51 mm [2"] ball hitch and a minimum of four leveling jacks (at each corner). The sign shall be capable of being rotated 360° relative to the trailer. The face of the trailer shall be delineated on a permanent basis by affixing retro-reflective material, known as conspicuity material, in a continuous line as seen by oncoming drivers."

652.3.3 Submittal of Traffic Control Plan In item e. change "A list of all certified flaggers..." to "A list of all the Contractor's certified flaggers..."

Change a. in the list of requirements to: "a. The name, telephone number, and other contact numbers (cellular phone, pager, if any) of the Contractor's Traffic Control Supervisor (the person with overall responsibility for following the TCP), who has received Work Zone Traffic Control Training commensurate with the level of responsibility shown in the requirements of the Contract, and who is empowered to immediately resolve any work zone traffic control deficiencies or issues. Provide documentation that the Traffic Control Supervisor has completed a Work Zone Traffic Control Training Course (AGC, ATSSA, or other industry-recognized training), and a Supervisory refresher training every 5 years thereafter. Submit the course name, training entity, and date of training.

Traffic Control Training Course curriculum must be based on the standards and guidelines of the MUTCD and must include, at a minimum, the following:

1. Parts of Temporary Traffic Control Zone
2. Appropriate use and spacing of signs
3. Use and spacing of channelizing devices

- 4. Flagging basics
- 5. Typical examples and applications

The Traffic Control Supervisor, or designee directly overseeing physical installation, adjustment, and dismantling of work zone traffic control, will ensure all personnel performing those activities are trained to execute the work in a safe and proper manner, in accordance with their level of decision-making and responsibility.”

Add the follow to the list of requirements: “k. The plan for unexpected nighttime work along with a list of emergency nighttime equipment available on-site.”

In the last paragraph add the following as the second sentence: “The Department will review and provide comments to the Contractor within 14 days of receipt of the TCP.” Add the following as the last sentence: “The creation and modification of the TCP will be considered incidental to the related 652 items.”

652.3.5 Installation of Traffic Control Devices In the first paragraph, first sentence; change “Signs shall be erected...” to “Portable signs shall be erected..” In the third sentence; change “Signs must be erected so that the sign face...” to “Post-mounted signs must also be erected so that the sign face...”

652.4 Flaggers Replace the first paragraph with the following; “The Contractor shall furnish flaggers as required by the TCP or as otherwise specified by the Resident. All flaggers must have successfully completed a flagger test approved by the Department and administered by a Department-approved Flagger-Certifier who is employing that flagger. All flaggers must carry an official certification card with them while flagging that has been issued by their employer. Flaggers shall wear safety apparel meeting ANSI 107-2004 Class 2 risk exposure that clearly identifies the wearer as a person, and is visible at a minimum distance of 300 m [1000 ft], and shall wear a hardhat with 360° retro-reflectivity. For nighttime conditions, Class 3 apparel, meeting ANSI 107-2004, shall be worn along with a hardhat with 360° retro-reflectivity. Retro-reflective or flashing SLOW/STOP paddles shall be used, and the flagger station shall be illuminated to assure visibility in accordance with 652.6.2.”

Second paragraph, first sentence; change “...have sufficient distance to stop before entering the workspace.” to “...have sufficient distance to stop at the intended stopping point.” Third sentence; change “At a spot obstruction...” to “At a spot obstruction with adequate sight distance...”

Fourth paragraph, delete and replace with “Flaggers shall be provided as a minimum, a 10 minute break, every 2 hours and a 30 minute or longer lunch period away from the work station. Flaggers may only receive 1 unpaid break per day; all other breaks must be paid. Sufficient certified flaggers shall be available onsite to provide for continuous flagging operations during break periods. If the flaggers are receiving the appropriate breaks, breaker flagger(s) shall be paid starting 2 hours after the work begins and ending 2 hours before the work ends. A maximum of 1 breaker per 6 flaggers will be paid. (1 breaker flagger for 2 to 6 flaggers, 2 breaker flaggers for 7 to 12 flaggers, etc)”

Add the following:

“652.5.1 Rumble Strip Crossing When lane shifts or lane closures require traffic to cross a permanent longitudinal rumble strip for 7 calendar days or less, the Contractor shall install

warning signs that read “RUMBLE STRIP CROSSING” with a supplemental Motorcycle Plaque, (W8-15P).

When lane shifts or lane closures require traffic to cross a permanent longitudinal rumble strip for more than 7 calendar days, the Contractor shall pave in the rumble strips in the area that traffic will cross, unless otherwise directed by the Resident. Rumble strips shall be replaced prior to the end of the project, when it is no longer necessary to cross them.”

652.6 Nightwork Delete this section entirely and replace with the following:

“652.6.1 Daylight Work Times Unless otherwise described in the Contract, the Contractor is allowed to commence work and end work daily according to the Sunrise/Sunset Table at: <http://www.sunrisesunset.com/usa/Maine.asp> . If the Project town is not listed, the closest town on the list will be used as agreed at the Preconstruction Meeting. Any work conducted before sunrise or after sunset will be considered Night Work.

652.6.2 Night Work When Night Work occurs (either scheduled or unscheduled), the Contractor shall provide and maintain lighting on all equipment and at all work stations.

The lighting facilities shall be capable of providing light of sufficient intensity to permit good workmanship, safety and proper inspection at all times. The lighting shall be cut off and arranged on stanchions at a height that will provide perimeter lighting for each piece of equipment and will not interfere with traffic, including commercial vehicles, approaching the work site from either direction.

The Contractor shall have available portable floodlights for special areas.

The Contractor shall utilize padding, shielding or other insulation of mechanical and electrical equipment, if necessary, to minimize noise, and shall provide sufficient fuel, spare lamps, generators, etc. to maintain lighting of the work site.

The Contractor shall submit, as a subset of the Traffic Control Plan, a lighting plan at the Preconstruction Conference, showing the type and location of lights to be used for night work. The Resident may require modifications be made to the lighting set up in actual field conditions.

Prior to beginning any Night Work, the Contractor shall furnish a light meter for the Residents use that is capable of measuring the range of light levels from 5 to 20 foot-candles.

Horizontal illumination, for activities on the ground, shall be measured with the photometer parallel to the road surface. For purposes of roadway lighting, the photometer is placed on the pavement. Vertical illumination, for overhead activities, shall be measured with the photometer perpendicular to the road surface. Measurements shall be taken at the height and location of the overhead activity.

Night Work lighting requirements:

Mobile Operations: For mobile-type operations, each piece of equipment (paver, roller, milling machine, etc) will carry indirect (i.e. balloon type) lights capable of producing at least 10 foot-candles of lighting around the work area of the equipment.

Fixed Operations: For fixed-type operations (flaggers, curb, bridge, pipes, etc.), direct (i.e. tower) lighting will be utilized capable of illuminating the work area with at least 10 foot-candles of light.

Hybrid Operations: For hybrid-type operations (guardrail, sweeping, Inslope excavation, etc.), either direct or indirect lighting may be utilized. The chosen lights must be capable of producing at least 10 foot-candles of light around the work area of the equipment

Inspection Operations: Areas required to be inspected by the Department will require a minimum of 5 foot-candles of lighting. This may be accomplished through direct or indirect means.

All workers shall wear safety apparel labeled as meeting the ANSI 107-2004 standard performance for Class 3 risk exposure.

The Contractor shall apply 2- inch wide retro-reflective tape, with alternating red and white segments, to outline the front back and sides of construction vehicles and equipment, to define their shape and size to the extent practicable. Pickup trucks and personal vehicles are exempt from this requirement. The Contractor shall furnish approved signs reading "Construction Vehicle - Keep Back" to be used on trucks hauling to the project when such signs are deemed necessary by the Resident. The signs shall be a minimum of 30 inches by 60 inches, Black and Orange, ASTM D 4956 - Type VII, Type VIII, or Type IX (prismatic).

All vehicles used on the project, including pickup trucks and personal vehicles, shall be equipped with amber flashing lights, visible from both front and rear, or by means of single, approved type, revolving, flashing or strobe lights mounted so as to be visible 360°. The vehicle flashing system shall be in continuous operation while the vehicle is on any part of the project.

The Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item. Failure to follow the approved Lighting Plan will result in a Traffic Control violation.

Payment for lighting, vehicle mounted signs and other costs accrued because of night work will not be made directly but will be considered incidental to the related contract items."

652.8.2 Other Items Replace the first paragraph with the following: "The accepted quantities of flagger hours will be paid for at the contract unit price per hour for each flagging station occupied excluding lunch breaks, and for each approved breaker flagger. Overtime hours, as reported on the certified payrolls, will be paid an additional 30% of the bid price for 652.38. The computation and additional payment for overtime hours will occur during the project close-out process and will be paid as additional hours of 652.38 to the nearest ¼ hour. The

contract unit price shall be full compensation for hiring, transporting, equipping, supervising, and the payment of flaggers and all overhead and incidentals necessary to complete the work.” Replace the last paragraph with the following: “There will be no payment made under any 652 pay items after the expiration of the adjusted total contract time.”

SECTION 653 POLYSTYRENE PLASTIC INSULATION

653.05 Placing Backfill In the second sentence; change “...shall be not less than 150 mm [6 in] loose measure.” to “...shall be not less than 250 mm [10 in] loose measure.” In the third sentence; change “...crawler type bulldozer of not more than 390 kg/m² [80 lb/ft²] ground contact pressure...” to “...crawler type bulldozer of not more than 4875 kg/m² [2000 lb/ft²] ground contact pressure...”

653.06 Compaction In the last sentence; change “...not more than 390 kg/m² [80 lb/ft²] ground contact...” to “...not more than 4875 kg/m² [2000 lb/ft²] ground contact...”

SECTION 656 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL

656.5.1 If Pay Item 656.75 Provided Replace the second paragraph with the following: “Failure by the Contractor to follow Standard Specification or Special Provision - Section 656 and/or the Contractor’s own Soil Erosion and Pollution Control Plan will result in a reduction in payment, computed by reducing the Lump Sum Total by 5% per occurrence per day. The Department’s Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item.”

SECTION 701 STRUCTURAL CONCRETE RELATED MATERIALS

701.10 Fly Ash - Chemical Requirements Change all references from “ASTM C311” to “ASTM C114”.

SECTION 703 AGGREGATES

703.05 Aggregate for Sand Leveling Change the percent passing the 9.5 mm [3/8 in] sieve from “85 – 10” to “85 – 100”

703.06 Aggregate for Base and Subbase Delete the first paragraph: “The material shall have...” and replace with “The material shall have a minimum degradation value of 15 as determined by Washington State DOT Test Method T113, Method of Test for Determination of Degradation Value (January 2009 version), except that the reported degradation value will be the result of testing a single specimen from that portion of a sample that passes the 12.5 mm [½ in] sieve and is retained on the 2.00 mm [No. 10] sieve, minus any reclaimed asphalt pavement used.”

703.07 Aggregates for HMA Pavements Delete the forth paragraph: "The composite blend shall have..." and replace with "The composite blend, minus any reclaimed asphalt pavement used, shall have a Micro-Deval value of 18.0 or less as determined by AASHTO T 327. In the event the material exceeds the Micro Deval limit, a Washington Degradation test shall be performed. The material shall be acceptable if it has a value of 30 or more as determined by Washington State DOT Test Method T 113, Method of Test for Determination of Degradation Value (January 2009 version) except that the reported degradation value will be the result of testing a single composite specimen from that portion of the sample that passes the 12.5mm [1/2 inch] sieve and is retained on the 2.00mm [No 10] sieve, minus any reclaimed asphalt pavement used."

703.09 HMA Mixture Composition The coarse and fine aggregate shall meet the requirements of Section 703.07. The several aggregate fractions for mixtures shall be sized, graded, and combined in such proportions that the resulting composite blends will meet the grading requirements of the following table.

AGGREGATE GRADATION CONTROL POINTS

SIEVE SIZE	Nominal Maximum Aggregate Size---Control Points (Percent Passing)				
	TYPE 25 mm	TYPE 19 mm	TYPE 12.5 mm	TYPE 9.5 mm	TYPE 4.75 mm
	PERCENT BY WEIGHT PASSING - COMBINED AGGREGATE				
37.5 mm	100				
25 mm	90-100	100			
19 mm	-90	90-100	100		
12.5 mm		-90	90-100	100	100
9.5 mm		-	-90	90-100	95-100
4.75 mm		-	-	-90	80-100
2.36 mm	19-45	23-49	28-58	32-67	40 - 80
1.18 mm		-	-	-	-
600 µm		-	-	-	-
300 µm		-	-	-	-
75 µm	1-7	2-8	2-10	2-10	2-10

Gradation Classification---- The combined aggregate gradation shall be classified as coarse-graded when it passes below the Primary Control Sieve (PCS) control point as defined in the following table. All other gradations shall be classified as fine-graded.

GRADATION CLASSIFICATION

PCS Control Point for Mixture Nominal Maximum Aggregate Size (% passing)				
Nominal Maximum Aggregate Size	TYPE 25 mm	TYPE 19 mm	TYPE 12.5 mm	TYPE 9.5 mm
Primary Control Sieve	4.75 mm	4.75 mm	2.36 mm	2.36 mm
PCS Control Point (% passing)	40	47	39	47

If a Grading “D” mixture is allowed per Special Provision Section 403, it shall meet the following gradation and the aggregate requirements of Section 703.07.

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
½ inch	100
¾ inch	93-100
No. 4	60-80
No. 8	46-65
No. 16	25-55
No. 30	16-40
No. 50	10-30
No. 100	6-22
No. 200	3.0-8.0

703.18 Common Borrow Replace the first paragraph with the following: “Common borrow shall consist of earth, suitable for embankment construction. It shall be free from frozen material, perishable rubbish, peat, and other unsuitable material including material currently or previously contaminated by chemical, radiological, or biological agents unless the material is from a DOT project and authorized by DEP for use.”

703.22 Underdrain Backfill Material Change the first paragraph from “...for Underdrain Type B...” to “...for Underdrain Type B and C...”

Replace subsections 703.25 through 703.28 with the following:

“703.25 Stone Fill Stones for stone fill shall consist of hard, sound, durable rock that will not disintegrate by exposure to water or weather. Stone for stone fill shall be angular and rough. Rounded, subrounded, or long thin stones will not be allowed. Stone for stone fill may be obtained from quarries or by screening oversized rock from earth borrow pits. The maximum allowable length to thickness ratio will be 3:1. The minimum stone size (10 lbs) shall have an average dimension of 5 inches. The maximum stone size (500 lbs) shall have a maximum dimension of approximately 36 inches. Larger stones may be used if approved by the Resident. Fifty percent of the stones by volume shall have an average dimension of 12 inches (200 lbs).

703.26 Plain and Hand Laid Riprap Stone for riprap shall consist of hard, sound durable rock that will not disintegrate by exposure to water or weather. Stone for riprap shall be angular and rough. Rounded, subrounded or long thin stones will not be allowed. The maximum allowable length to width ratio will be 3:1. Stone for riprap may be obtained from quarries or by screening oversized rock from earth borrow pits. The minimum stone size (10 lbs) shall have an average dimension of 5 inches. The maximum stone size (200 lbs) shall have an average dimension of approximately 12 inches. Larger stones may be used if approved by the Resident. Fifty percent of the stones by volume shall have an average dimension greater than 9 inches (50 lbs).

703.27 Stone Blanket Stones for stone blanket shall consist of sound durable rock that will not disintegrate by exposure to water or weather. Stone for stone blanket shall be angular and rough. Rounded or subrounded stones will not be allowed. Stones may be obtained from

quarries or by screening oversized rock from earth borrow pits. The minimum stone size (300 lbs) shall have minimum dimension of 14 inches, and the maximum stone size (3000 lbs) shall have a maximum dimension of approximately 66 inches. Fifty percent of the stones by volume shall have average dimension greater than 24 inches (1000 lbs).

703.28 Heavy Riprap Stone for heavy riprap shall consist of hard, sound, durable rock that will not disintegrate by exposure to water or weather. Stone for heavy riprap shall be angular and rough. Rounded, subrounded, or thin, flat stones will not be allowed. The maximum allowable length to width ratio will be 3:1. Stone for heavy riprap may be obtained from quarries or by screening oversized rock from earth borrow pits. The minimum stone size (500 lbs) shall have minimum dimension of 15 inches, and at least fifty percent of the stones by volume shall have an average dimension greater than 24 inches (1000 lbs)."

Add the following paragraph:

"703.32 Definitions (ASTM D 2488, Table 1).

Angular: Particles have sharp edges and relatively plane sides with unpolished surfaces

Subrounded: Particles have nearly plane sides but have well-rounded corners and edges

Rounded: Particles have smoothly curved sides and no edges"

SECTION 706

NON-METALLIC PIPE

706.06 Corrugated Polyethylene Pipe for Underdrain, Option I and Option III Culvert Pipe Change the first sentence from "...300 mm diameters to 900 mm" to "...300 mm diameters to 1200 mm" Delete, in its' entirety, the last sentence which begins "This pipe and resins..." and replace with the following; "Manufacturers of corrugated polyethylene pipe must participate in, and maintain compliance with, AASHTO's National Transportation Product Evaluation Program (www.ntpep.org) which audits producers of plastic pipe. A certificate of compliance must be provided with each shipment."

SECTION 708

PAINTS AND PRESERVATIVES

708.03 Pavement Marking Paint Change the first sentence from "...AASHTO M248" to "...the Maine DOT Maintenance Fast-Dry Water-Based Traffic Paint on file at the Traffic Section in Augusta". Delete, in its' entirety, the last sentence.

SECTION 709

REINFORCING STEEL AND WELDED STEEL WIRE FABRIC

709.03 Steel Strand Change the second paragraph from "...shall be 12mm [$\frac{1}{2}$ inch] AASHTO M203M/M203 (ASTM A416/A416M)..." to "...shall be 15.24 mm [0.600 inch] diameter AASHTO M203 (ASTM A416)..."

SECTION 710

FENCE AND GUARDRAIL

710.03 Chain Link Fabric Add the following sentence: "Chain Link fabric for PVC coated shall conform to the requirements of AASHTO M181, Type IV-Class B."

710.04 Metal Beam Rail Replace with the following: “Galvanized steel rail elements shall conform to the requirements of AASHTO M 180, Class A, Type II.

When corrosion resistant steel is specified, rail shall conform to AASHTO M 180, Class A, Type IV. Beams of corrosion resistant steel shall not be painted or galvanized. They shall be so handled and stored that the traffic face of these beams, used in a continuous run of guardrail, shall not show a distinctive color differential.

When metal beam rail is to be installed on a curve having a radius of curvature of 150 ft. or less, the beam sections shall be fabricated on an arc to the required radius and permanently stamped or embossed with the designated radius.

The engineer may take one piece of guardrail, a backup plate, and end or buffer section from each 200 pieces in a lot, or from each lot if less than 200 pieces are included therein for determination of compliance with specification requirements. If one piece fails to conform to the requirements of this specification, two other pieces shall be tested. If either of these pieces fails to conform to the requirements of this specification, the lot of material represented by these samples shall be rejected. A lot shall be considered that quantity of material offered for inspection at one time that bears the same heat and coating identification.”

710.07 Guardrail Posts Section b. change “...AASHTO M183/M183M...” to “...AASHTO M 270M/M 270 Grade 250 (36)...”

SECTION 712 MISCELLANEOUS HIGHWAY MATERIALS

712.04 Stone Curbing and Edging Delete the existing and replace with the following: “Stone for curbing and edging shall be approved granite from acceptable sources. The stone shall be hard and durable, predominantly gray in color, free from seams that would be likely to impair its structural integrity, and of a smooth splitting character. Natural grain size and color variations characteristic of the source deposit will be permitted. Such natural variations may include bands or clusters of mineral crystallization provided they do not impair the structural integrity of the curb stone. The Contractor shall submit for approval the name of the quarry that is the proposed source of the granite for curb materials along with full scale color photos of the granite. Such submission shall be made sufficiently in advance of ordering so that the Resident may have an opportunity to judge the stone, both as to quality and appearance. Samples of curbing shall be submitted for approval only when requested by the Resident. The dimensions, shape, and other details shall be as shown on the plans.”

712.06 Precast Concrete Units In the first paragraph, change “...ASTM C478M...” to “...AASHTO M199...” Delete the second paragraph and replace with the following; “Approved structural fibers may be used as a replacement of 6 x 6 #10 gauge welded wire fabric when used at an approved dosage rate for the construction of manhole and catch basin units. The material used shall be one of the products listed on the Maine Department of Transportation’s Approved Product List of Structural Fiber Reinforcement.” Delete the fifth paragraph and replace with the following; “The concrete mix design shall be approved by the Department. Concrete shall contain 6% air content, plus or minus 1½% tolerance when tested according to AASHTO T152. All concrete shall develop a minimum compressive strength of

28 MPa [4000 psi] in 28 days when tested according to AASHTO T22. The absorption of a specimen, when tested according to AASHTO T280, Test Method “A”, shall not exceed nine percent of the dry mass.”

Add the following:

“712.07 Tops, and Traps These metal units shall conform to the plan dimensions and to the following specification requirements for the designated materials.

Gray iron or ductile iron castings shall conform to the requirements of AASHTO M306 unless otherwise designated.”

712.08 Corrugated Metal Units The units shall conform to plan dimensions and the metal to AASHTO M36/M36M. Bituminous coating, when specified, shall conform to AASHTO M190 Type A.

712.09 Catch Basin and Manhole Steps Steps for catch basins and for manholes shall conform to ASTM C478M [ASTM C478], Section 13 for either of the following material:

(a) Aluminum steps-ASTM B221M, [ASTM B211] Alloy 6061-T6 or 6005-T5.

(b) Reinforced plastic steps Steel reinforcing bar with injection molded plastic coating copolymer polypropylene. Polypropylene shall conform to ASTM D 4101.

712.23 Flashing Lights Flashing Lights shall be power operated or battery operated as specified.

(a) Power operated flashing lights shall consist of housing, adapters, lamps, sockets, reflectors, lens, hoods and other necessary equipment designed to give clearly visible signal indications within an angle of at least 45 degrees and from 3 to 90 m [10 to 300 ft] under all light and atmospheric conditions.

Two circuit flasher controllers with a two-circuit filter capable of providing alternate flashing operations at the rate of not less than 50 nor more than 60 flashes per minute shall be provided.

The lamps shall be 650 lumens, 120 volt traffic signal lamps with sockets constructed to properly focus and hold the lamp firmly in position.

The housing shall have a rotatable sun visor not less than 175 mm [7 in] in length designed to shield the lens.

Reflectors shall be of such design that light from a properly focused lamp will reflect the light rays parallel. Reflectors shall have a maximum diameter at the point of contact with the lens of approximately 200 mm [8 in].

The lens shall consist of a round one-piece convex amber material which, when mounted, shall have a visible diameter of approximately 200 mm [8 in]. They shall distribute light and not diffuse it. The distribution of the light shall be asymmetrical in a downward direction. The light distribution of the lens shall not be uniform, but shall consist of a small high intensity portion with narrow distribution for long distance throw and a larger

low intensity portion with wide distribution for short distance throw. Lenses shall be marked to indicate the top and bottom of the lens.

(b) Battery operated flashing lights shall be self-illuminated by an electric lamp behind the lens. These lights shall also be externally illuminated by reflex-reflective elements built into the lens to enable it to be seen by reflex-reflection of the light from the headlights of oncoming traffic. The batteries must be entirely enclosed in a case. A locking device must secure the case. The light shall have a flash rate of not less than 50 nor more than 60 flashes per minute from minus 30 °C [minus 20 °F] to plus 65 °C [plus 150 °F]. The light shall have an on time of not less than 10 percent of the flash cycle. The light beam projected upon a surface perpendicular to the axis of the light beam shall produce a lighted rectangular projection whose minimum horizontal dimension shall be 5 degrees each side of the horizontal axis. The effective intensity shall not have an initial value greater than 15.0 candelas or drop below 4.0 candelas during the first 336 hours of continuous flashing. The illuminated lens shall appear to be uniformly bright over its entire illuminated surface when viewed from any point within an angle of 9 degrees each side of the vertical axis and 5 degrees each side of the horizontal axis. The lens shall not be less than 175 mm [7 in] in diameter including a reflex-reflector ring of 13 mm [$\frac{1}{2}$ in] minimum width around the periphery. The lens shall be yellow in color and have a minimum relative luminous transmittance of 0.440 with a luminance of 2854° Kelvin. The lens shall be one-piece construction. The lens material shall be plastic and meet the luminous transmission requirements of this specification. The case containing the batteries and circuitry shall be constructed of a material capable of withstanding abuse equal to or greater than 1.21 mm thick steel [No. 18 U.S. Standard Gage Steel]. The housing and the lens frame, if of metal shall be properly cleaned, degreased and pretreated to promote adhesion. It shall be given one or more coats of enamel which, when dry shall completely obscure the metal. The enamel coating shall be of such quality that when the coated case is struck a light blow with a sharp tool, the paint will not chip or crack and if scratched with a knife will not powder. The case shall be so constructed and closed as to exclude moisture that would affect the proper operation of light. The case shall have a weep hole to allow the escape of moisture from condensation. Photoelectric controls, if provided, shall keep the light operating whenever the ambient light falls below 215 lx [20 foot candles]. Each light shall be plainly marked as to the manufacturer's name and model number.

If required by the Resident, certification as to conformance to these specifications shall be furnished based on results of tests made by an independent testing laboratory. All lights are subject to random inspection and testing. All necessary random samples shall be provided to the Resident upon request without cost to the Department. All such samples shall be returned to the Contractor upon completion of the tests.

712.32 Copper Tubing Copper tubing and fittings shall conform to the requirements of ASTM B88M Type A [ASTM B88, Type K] or better.

712.33 Non-metallic Pipe, Flexible Non-metallic pipe and pipe fittings shall be acceptable flexible pipe manufactured from virgin polyethylene polymer suitable for transmitting liquids intended for human or animal consumption.

712.34 Non-metallic Pipe, Rigid Non-metallic pipe shall be Schedule 40 polyvinylchloride (PVC) that meets the requirement of ASTM D1785. Fittings shall be of the same material.

712.341 Metallic Pipe Metallic pipe shall be ANSI, Standard B36.10, Schedule 40 steel pipe conforming to the requirements of ASTM A53 Types E or S, Grade B. End plates shall be steel conforming to ASTM A36/A36M.

Both the sleeve and end plates shall be hot dip galvanized. Pipe sleeve splices shall be welded splices with full penetration weld before galvanizing.

712.35 Epoxy Resin Epoxy resin for grouting or sealing shall consist of a mineral filled thixotropic, flexible epoxy resin having a pot life of approximately one hour at 10°C [50°F]. The grout shall be an approved product suitable for cementing steel dowels into the preformed holes of curb inlets and adjacent curbing. The sealant shall be an approved product, light gray in color and suitable for coating the surface.

712.36 Bituminous Curb The asphalt cement for bituminous curb shall be of the grade required for the wearing course, or shall be Viscosity Grade AC-20 meeting the current requirements of Subsection 702.01 Asphalt Cement. The aggregate shall conform to the requirements of Subsection 703.07. The coarse aggregate portion retained on the 2.36 mm [No. 8] sieve may be either crushed rock or crushed gravel.

The mineral constituents of the bituminous mixture shall be sized and graded and combined in a composite blend that will produce a stable durable curbing with an acceptable texture.

Bituminous material for curb shall meet the requirements of Section 403 - Hot Bituminous Pavement.

712.37 Precast Concrete Slab Portland cement concrete for precast slabs shall meet the requirements of Section 502 - Structural Concrete, Class A.

The slabs shall be precast to the dimension shown on the plans and cross section and in accordance with the Standard Detail plans for Concrete Sidewalk Slab. The surface shall be finished with a float finish in accordance with Subsection 502.14(c). Lift devices of sufficient strength to hold the slab while suspended from cables shall be cast into the top or back of the slab.

712.38 Stone Slab Stone slabs shall be of granite from an acceptable source, hard, durable, predominantly gray in color, free from seams which impair the structural integrity and be of smooth splitting character. Natural color variations characteristic of the deposit will be permitted. Exposed surfaces shall be free from drill holes or indications of drill holes. The granite slabs in any one section of backslope must be all the same finish.

The granite slabs shall be scabble dressed or sawed to an approximately true plane having no projections or depressions over 13 mm [$\frac{1}{2}$ in] under a 600 mm [2 ft] straightedge or over 25 mm [1 in] under a 1200 mm [4 ft] straightedge. The arris at the intersection of the top surface and exposed front face shall be pitched so that the arris line is uniform throughout the length of the installed slabs. The sides shall be square to the exposed face unless the slabs are to be set

on a radius or other special condition which requires that the joints be cut to fit, but in any case shall be so finished that when the stones are placed side by side no space more than 20 mm [3/4 in] shall show in the joint for the full exposed height.

Liftpin holes in all sides will be allowed except on the exposed face.

SECTION 717 ROADSIDE IMPROVEMENT MATERIAL

717.03 C. Method #3 - Roadside Mixture #3 Change the seed proportions to the following:

Crown Vetch	25%
Perennial Lupine	25%
Red Clover	12.5%
Annual Rye	37.5%

717.05 Mulch Binder Change the third sentence to read as follows:

“Paper fiber mulch may be used as a binder at the rate of 2.3 kg/unit [5 lb/unit].”

SECTION 720 STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS

720.08 U-Channel Posts Change the first sentence from “..., U-Channel posts...” to “..., Rib Back U-Channel posts...”

SECTION 722 GEOTEXTILES

722.01 Stabilization/Reinforcement Geotextile Add the following to note #3; “The strengths specified in the columns labeled”<50%” and “≥ 50%” refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the “<50%” column. Submittals must include the percent elongation at which the material was tested.”

722.02 Drainage Geotextile Add the following to note #3; “The strengths specified in the columns labeled”<50%” and “≥ 50%” refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the “<50%” column. Submittals must include the percent elongation at which the material was tested.”

722.01 Erosion Control Geotextile Add the following note to Elongation in the Mechanical Property Table; “The strengths specified in the columns labeled”<50%” and “≥ 50%” refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the “<50%” column. Submittals must include the percent elongation at which the material was tested.”

APPENDIX A TO DIVISION 100

SECTION 1 - BIDDING PROVISIONS

A. Federally Required Certifications By signing and delivering a Bid, the Bidder certifies as provided in all certifications set forth in this Appendix A - Federal Contract Provisions Supplement including:

- Certification Regarding No Kickbacks to Procure Contract as provided on this page 1 below.
- Certification Regarding Non-collusion as provided on page 1 below.
- Certification Regarding Non-segregated Facilities as provided by FHWA Form 1273, section III set forth on page 21 below.
- "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion" as provided by FHWA Form 1273, section XI set forth on page 32 below.
- "Certification Regarding Use of Contract Funds for Lobbying" as provided by FHWA Form 1273, section XII set forth on page 35 below.

Unless otherwise provided below, the term "Bidder", for the purposes of these certifications, includes the Bidder, its principals, and the person(s) signing the Bid. Upon execution of the Contract, the Bidder (then called the Contractor) will again make all the certifications indicated in this paragraph above. Upon execution of the Contract, the Bidder (then called the Contractor) will again make all the certifications indicated in this paragraph above.

CERTIFICATION REGARDING NO KICKBACKS TO PROCURE CONTRACT Except expressly stated by the Bidder on sheets submitted with the Bid (if any), the Bidder hereby certifies, to the best of its knowledge and belief, that it has not:

(A) employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me) to solicit or secure this contract;

(B) agreed, as an express or implied condition for obtaining this contract, to employ or retain the services of any firm or person in connection with carrying out the contract, or;

C) paid, or agreed to pay, to any firm, organization, or person (other than a bona fide employee working solely for me) any fee, contribution, donation, or consideration of any kind for, or in connection with, procuring or carrying out the contract;

By signing and submitting a Bid, the Bidder acknowledges that this certification is to be furnished to the Maine Department of Transportation and the Federal Highway Administration, U.S. Department of Transportation in connection with this contract in anticipation of federal aid highway funds and is subject to applicable state and federal laws, both criminal and civil.

CERTIFICATION REGARDING NONCOLLUSION Under penalty of perjury as provided by federal law (28 U.S.C. §1746), the Bidder hereby certifies, to the best of its knowledge and belief, that:

the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with the Contract.

For a related provisions, see Section 102.7.2 (C) of the Standard Specifications - "Effects of Signing and Delivery of Bids" - "Certifications", Section 3 of this Appendix A entitled "Other Federal Requirements" including section XI - "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion" and section XII. - "Certification Regarding Use of Contract Funds for Lobbying."

B. Bid Rigging Hotline To report bid rigging activities call: **1-800-424-9071**

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

SECTION 2 - FEDERAL EEO AND CIVIL RIGHTS REQUIREMENTS

Unless expressly otherwise provided in the Bid Documents, the provisions contained in this Section 2 of this "Federal Contract Provisions Supplement" are hereby incorporated into the Bid Documents and Contract.

A. Nondiscrimination & Civil Rights - Title VI The Contractor and its subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Department deems appropriate. The Contractor and subcontractors shall comply with Title VI of the Civil Rights Act of 1964, as amended, and with all State of Maine and other Federal Civil Rights laws.

For related provisions, see Subsection B - "Nondiscrimination and Affirmative Action - Executive Order 11246" of this Section 2 and Section 3 - Other Federal Requirements of this "Federal Contract Provisions Supplement" including section II - "Nondiscrimination" of the "Required Contract Provisions, Federal Aid Construction Contracts", FHWA-1273.

B. Nondiscrimination and Affirmative Action - Executive Order 11246 Pursuant to Executive Order 11246, which was issued by President Johnson in 1965 and amended in 1967 and 1978, this Contract provides as follows.

The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its efforts to achieve maximum results from its actions. The Contractor shall

document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

1. Ensure and maintain a working environment free of harassment, intimidations, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all forepersons, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
2. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its union have employment opportunities available, and to maintain a record of the organization's responses.
3. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
4. Provide immediate written notification to the Department's Civil Rights Office when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Design-Builder's efforts to meet its obligations.
5. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under B above.
6. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligation; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
7. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review

of these items with on-site supervisory personnel such as Superintendents, General Forepersons, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

8. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractor's and Subcontractors with whom the Contractor does or anticipates doing business.
9. Direct its recruitment efforts, both orally and written to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above describing the openings, screenings, procedures, and test to be used in the selection process.
10. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth, both on the site and in other areas of a Contractor's workforce.
11. Validate all tests and other selection requirements.
12. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
13. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
14. Ensure that all facilities and company activities are non segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
15. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction Contractor's and suppliers, including circulation of solicitations to minority and female Contractor associations and other business associations.
16. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

C. Goals for Employment of Women and Minorities Per Executive Order 11246, craft tradesperson goals are 6.9% women and .5% minorities employed. However, goals may be adjusted upward at the mutual agreement of the Contractor and the Department. Calculation of these percentages shall not include On-the-Job Training Program trainees, and shall not include clerical or field clerk position employees.

For a more complete presentation of requirements for such Goals, see the federally required document "Goals for Employment of Females and Minorities" set forth in the next 6 pages below.

Start of GOALS FOR EMPLOYMENT OF FEMALES AND MINORITIES
Federally Required Contract Document

§60-4.2 Solicitations

- (d) The following notice shall be included in, and shall be part of, all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts in excess of \$10,000 to be performed in geographical areas designated by the Director pursuant to §60-4.6 of this part (see 41 CFR 60-4.2(a)):

Notice of Requirement for Affirmative Action to Ensure Equal Opportunity (Executive Order 11246)

1. The Offeror's or bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

<u>Goals for female participation in each trade</u>	6.9%

Goals for minority participation for each trade

Maine

001 Bangor, ME	0.8%

Non-SMSA Counties (Aroostook, Hancock, Penobscot, Piscataquis, Waldo, Washington)

002 Portland-Lewiston, ME

SMSA Counties: 4243 Lewiston-Auburn, ME (Androscoggin)	0.5%

6403 Portland, ME (Cumberland, Sagadahoc)	0.6%

Non-SMSA Counties: (Franklin, Kennebec, Knox, Lincoln, Oxford, Somerset, York)	0.5%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non federally involved construction.

The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be in violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor, estimated dollar amount of the subcontract; estimated started and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the Contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any).

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department form 941;
 - d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

- (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of the North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
 3. If the contractor, is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors for Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
 4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a. through p. of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical areas where the work is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specific.
 5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant, thereto.
 6. In order for the non working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the

apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as expensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, when possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organization's responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment sources or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7b above.
 - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific

review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment, efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing prior to the date for the acceptance of applications for apprenticeship or the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on site and in other areas of a Contractor's work force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are non segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of

solicitation to minority and female contractor associations and other business associations.

- p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7 a through p.). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7 a through p. of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, specific minority group of women is underutilized.)
10. The Contractor shall not use the goals and timetables or affirmative action even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementation regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the

requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.6.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g. mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and location at which the work was performed. Records be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

End of GOALS FOR EMPLOYMENT OF FEMALES AND MINORITIES
Federally Required Contract Document

D. Disadvantaged Business Enterprise (DBE) Requirements The Department has established an annual Disadvantaged Business Enterprise goal to be achieved through race neutral means. This goal will adjusted periodically and will be provided by Supplemental Provision. The Contractor shall comply with all provisions of this section regarding DBE participation and the Department's latest version of the Disadvantaged Business Enterprise Program Manual, said Manual being incorporated herein by reference. In the case of conflict between this Contract and said Manual, this Contract shall control. The Department reserves the right to adjust DBE goals on a project-by-project basis by addendum.

Policy. It is the Department's policy that DBEs as defined in 23 CFR Part 26 and referenced in the Transportation Equity Act for 21st Century of 1998, as amended from the Surface Transportation Uniform Relocation Assistance Act of 1987, and the Intermeddle Surface Transportation Efficiency Act of 1991. The intent hereto remains to provide the maximum opportunity for DBEs to participate in the performance of contracts financed in whole or in part with federal funds.

The Department and its Contractors shall not discriminate on the basis of race, color, national origin, ancestry, sex, age, or disability in the award and performance of DOT assisted contracts.

Disadvantaged Business Enterprises are those so certified by the Maine Department of Transportation Civil Rights Office prior to bid opening date.

The Department has determined that elements of a good faith effort to meet the contract goal include but are not limited to the following:

1. Whether the Contractor advertised in general circulation, trade association, and minority/women's-focus media concerning the subcontracting opportunities;
2. Whether the Contractor provided written notice to a reasonable number of specific DBEs that their interest in the contract is being solicited;
3. Whether the Contractor followed up on initial solicitations of interest by contacting DBEs to determine with certainty whether the DBEs were interested;
4. Whether the Contractor selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goals;
5. Whether the Contractor provided interested DBEs with adequate information about the plans, specification and requirements of the contract;
6. Whether the Contractor negotiated in good faith with interested DBEs, not rejecting the DBE as unqualified without sound reasons based on a thorough investigation of their capabilities;
7. Whether the Contractor made efforts to assist interested DBEs with other appropriate technical/financial assistance required by the Department or Contractor;
8. Whether the Contractor effectively used the services of available minority/women's community organizations, minority/women's business assistance offices; and other organizations that provide assistance in the recruitment and placement of DBEs.

Substitutions of DBEs. The following may be acceptable reasons for Civil Rights Office approval of such a change order:

- The DBE defaults, voluntarily removes itself or is over-extended;
- The Department deletes portions of the work to be performed by the DBE.

It is not intended that the ability to negotiate a more advantageous contract with another certified DBE be considered a valid basis for such a change in DBE utilization once the DBE Bid Submission review has been passed. Any requests to alter the DBE commitment must be in writing and included with the change order.

Failure to carry out terms of this Standard Specification shall be treated as a violation of this contract and will result in contract sanctions which may include withholding of partial payments totaling the creditable dollars amount which would have been paid for said DBE participation, termination of this contract or other measures which may affect the ability of the Contractor to obtain Department contracts.

Copies of the Maine Department of Transportation's DBE Program may be obtained from:

Maine Department of Transportation
Civil Rights Office
#16 State House Station
Augusta, Maine 04333-0016
tel. (207) 624-3519

Quarterly Reporting Requirement. The Contractor must submit Semi-annual reports of actual dollars paid to Disadvantaged Business Enterprises (DBE's) on this Project to the MDOT Civil Rights Office by the end of the third week of April and October for the period covering the preceding six months considered Federal Fiscal Year periods. The reports will be submitted directly to the Civil Rights Office on the form provided in the latest version of the DBE Program Manual. Failure to submit the report by the deadline may result in a withholding of approval of partial payment estimates by the Department.

SECTION 3 - OTHER FEDERAL REQUIREMENTS

Unless expressly otherwise provided in the Bid Documents, the provisions contained in this Section 3 of this "Federal Contract Provisions Supplement" are hereby incorporated into the Bid Documents and Contract.

A. Buy America

If the cost of products purchased for permanent use in this project which are manufactured of steel, iron or the application of any coating to products of these materials exceeds 0.1 percent of the contract amount, or \$2,500.00, whichever is greater, the products shall have been manufactured and the coating applied in the United States. The coating materials are not subject to this clause, only the application of the coating. In computing that amount, only the cost of the product and coating application cost will be included.

Ore, for the manufacture of steel or iron, may be from outside the United States; however, all other manufacturing processes of steel or iron must be in the United States to qualify as having been manufactured in the United States.

United States includes the 50 United States and any place subject to the jurisdiction thereof.

Products of steel include, but are not limited to, such products as structural steel, piles, guardrail, steel culverts, reinforcing steel, structural plate and steel supports for signs, luminaries and signals.

Products of iron include, but are not limited to, such products as cast iron grates.

Application of coatings include, but are not limited to, such applications as epoxy, galvanized and paint.

To assure compliance with this section, the Contractor shall submit a certification letter on its letterhead to the Department stating the following:

"This is to certify that products made of steel, iron or the application of any coating to products of these materials whose costs are in excess of \$2,500.00 or 0.1 percent of the original contract amount, whichever is greater, were manufactured and the coating, if one was required, was applied in the United States."

B. Materials

a. Convict Produced Materials References: 23 U.S.C. 114(b)(2), 23 CFR 635.417

Applicability: FHWA's prohibition against the use of convict material only applies to Federal-aid highways. Materials produced after July 1, 1991, by convict labor may only be incorporated in a Federal-aid highway construction project if: 1) such materials have been produced by convicts who are on parole, supervised release, or probation from a prison; or 2) such material has been produced in a qualified prison facility, e.g., prison industry, with the amount produced during any 12-month period, for use in Federal-aid projects, not exceeding the amount produced, for such use, during the 12-month period ending July 1, 1987.

Materials obtained from prison facilities (e.g., prison industries) are subject to the same requirements for Federal-aid participation that are imposed upon materials acquired from other sources. Materials manufactured or produced by convict labor will be given no preferential treatment.

The preferred method of obtaining materials for a project is through normal contracting procedures which require the contractor to furnish all materials to be incorporated in the work. The contractor selects the source, public or private, from which the materials are to be obtained (23 CFR 635.407). Prison industries are prohibited from bidding on projects directly (23 CFR 635.112e), but may act as material supplier to construction contractors.

Prison materials may also be approved as State-furnished material. However, since public agencies may not bid in competition with private firms, direct acquisition of materials from a prison industry for use as State-furnished material is subject to a public interest finding with the Division Administrator's concurrence (23 CFR 635.407d). Selection of materials produced by convict labor as State-furnished materials for mandatory use should be cleared prior to the submittal of the Plans Specifications & Estimates (PS&E).

b. Patented/Proprietary Products References: 23 U.S.C. 112, 23 CFR 635.411

FHWA will not participate, directly or indirectly, in payment for any premium or royalty on any patented or proprietary material, specification, or process specifically set forth in the plans and specifications for a project, unless:

- the item is purchased or obtained through competitive bidding with equally suitable unpatented items,
- the STA certifies either that the proprietary or patented item is essential for synchronization with the existing highway facilities or that no equally suitable alternative exists, or
- the item is used for research or for a special type of construction on relatively short sections of road for experimental purposes. States should follow FHWA's procedures for "Construction Projects Incorporating Experimental Features" ([expermnt.htm](http://www.fhwa.dot.gov/permnt.htm)) for the submittal of work plans and evaluations.

The primary purpose of the policy is to have competition in selection of materials and allow for development of new materials and products. The policy further permits materials and products that are judged equal may be bid under generic specifications. If only patented or proprietary products are acceptable, they shall be bid as alternatives with all, or at least a

reasonable number of, acceptable materials or products listed; and the Division Administrator may approve a single source if it can be found that its utilization is in the public interest.

Trade names are generally the key to identifying patented or proprietary materials. Trade name examples include 3M, Corten, etc. Generally, products identified by their brand or trade name are not to be specified without an "or equal" phrase, and, if trade names are used, all, or at least a reasonable number of acceptable "equal" materials or products should be listed. The licensing of several suppliers to produce a product does not change the fact that it is a single product and should not be specified to the exclusion of other equally suitable products.

c. State Preference References: 23 U.S.C. 112, 23 CFR 635.409

Materials produced within Maine shall not be favored to the exclusion of comparable materials produced outside of Maine. State preference clauses give particular advantage to the designated source and thus restrict competition. Therefore, State preference provisions shall not be used on any Federal-aid construction projects.

This policy also applies to State preference actions against materials of foreign origin, except as otherwise permitted by Federal law. Thus, States cannot give preference to in-State material sources over foreign material sources. Under the Buy America provisions, the States are permitted to expand the Buy America restrictions provided that the STA is legally authorized under State law to impose more stringent requirements.

d. State Owned/Furnished/Designated Materials References: 23 U.S.C. 112, 23 CFR 635.407

Current FHWA policy requires that the contractor must furnish all materials to be incorporated in the work, and the contractor shall be permitted to select the sources from which the materials are to be obtained. Exceptions to this requirement may be made when there is a definite finding, by MDOT and concurred in by Federal Highway Administration's (FHWA) Division Administrator, that it is in the public interest to require the contractor to use materials furnished by the MDOT or from sources designated by MDOT. The exception policy can best be understood by separating State-furnished materials into the categories of manufactured materials and local natural materials.

Manufactured Materials When the use of State-furnished manufactured materials is approved based on a public interest finding, such use must be made mandatory. The optional use of State-furnished manufactured materials is in violation of our policy prohibiting public agencies from competing with private firms. Manufactured materials to be furnished by MDOT must be acquired through competitive bidding, unless there is a public interest finding for another method, and concurred in by FHWA's Division Administrator.

Local Natural Materials When MDOT owns or controls a local natural materials source such as a borrow pit or a stockpile of salvaged pavement material, etc., the materials may be designated for either optional or mandatory use; however, mandatory use will require a public interest finding (PIF) and FHWA's Division Administrator's concurrence.

In order to permit prospective bidders to properly prepare their bids, the location, cost, and any conditions to be met for obtaining materials that are made available to the contractor shall be stated in the bidding documents.

Mandatory Disposal Sites Normally, the disposal site for surplus excavated materials is to be of the contractor's choosing; although, an optional site(s) may be shown in the contract provisions. A mandatory site shall be specified when there is a finding by MDOT, with the concurrence of the Division Administrator, that such placement is the most economical or that the environment would be substantially enhanced without excessive cost. Discussion of the mandatory use of a disposal site in the environmental document may serve as the basis for the public interest finding.

Summarizing FHWA policy for the mandatory use of borrow or disposal sites:

- mandatory use of either requires a public interest finding and FHWA's Division Administrator's concurrence,
- mandatory use of either may be based on environmental consideration where the environment will be substantially enhanced without excessive additional cost, and
- where the use is based on environmental considerations, the discussion in the environmental document may be used as the basis for the public interest finding.

Factors to justify a public interest finding should include such items as cost effectiveness, system integrity, and local shortages of material.

C. Standard FHWA Contract Provisions - FHWA 1273

Unless expressly otherwise provided in the Bid Documents, the following "Required Contract Provisions, Federal Aid Construction Contracts", FHWA-1273, are hereby incorporated into the Bid Documents and Contract.

Start of FHWA 1273 REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS(As revised through March 10, 1994)

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.
2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.
4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;
Section IV, paragraphs 1, 2, 3, 4, and 7;
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.
6. Selection of Labor: During the performance of this contract, the contractor shall not:
 - a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or
 - b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION (Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:
 - a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.
 - b. The contractor will accept as his operating policy the following statement:
"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment,

upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."

2. EEO Officer. The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.
3. Dissemination of Policy. All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:
 - a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.
 - b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
 - c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.
 - d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
 - e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.
4. Recruitment. When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.
 - a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

- b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)
 - c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.
5. Personnel Actions. Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:
- a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
 - b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
 - c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
 - d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.
6. Training and Promotion.
- a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.
 - b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision

for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

- c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
 - d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.
7. Unions. If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:
- a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
 - b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.
 - c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.
 - d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.
8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment. The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

- a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.
 - b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.
 - c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.
9. Records and Reports. The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.
- a. The records kept by the contractor shall document the following:
 - (1) The number of minority and non-minority group members and women employed in each work classification on the project;
 - (2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;
 - (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and
 - (4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.
 - b. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the MDOT and the Federal Highway Administration.

The Contractor will submit to the MDOT a report for the month of July, indicating the total hours worked by minority, women and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR-1391. If on-the-job training is being required by "Training Special Provision," the Contractor will be required to furnish Form FHWA-1409. The report is required for week ending July 15 and can be obtained from MDOT, is due by week ending August 20th. This report is to be furnished directly to MDOT - Civil Rights Office.

III. NONSEGREGATED FACILITIES (Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

- a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.
- b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).
- c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE (Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

- a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the

provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

- b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.
- c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

- a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.
- b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:
 - (1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;
 - (2) the additional classification is utilized in the area by the construction industry;
 - (3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and
 - (4) with respect to helpers, when such a classification prevails in the area in which the work is performed.
- c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

- d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary
- e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

- a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.
- b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

a. Apprentices:

- (1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.
- (2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor

as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

- (3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.
- (4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

- (1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.
- (2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

- (3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.
- (4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- c. **Helpers.** Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.
5. **Apprentices and Trainees (Programs of the U.S. DOT).** Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.
6. **Withholding.** The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.
7. **Overtime Requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4

and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation. Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.
9. Withholding for Unpaid Wages and Liquidated Damages. The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS (Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3). The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.
2. Payrolls and Payroll Records:
 - a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.
 - b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in

Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

- c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.
- d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
 - (1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;
 - (2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;
 - (3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.
- f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

- g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:
 - a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.
 - b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.
 - c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.
2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).
 - a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor,

with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

- b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.
2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.
3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.
4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.
2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).
3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health

standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations

in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.
3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.
4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:
(Applicable to all Federal-aid contracts - 49 CFR 29)
 - a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
 - b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
 - c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.
 - d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
 - e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out

in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

- f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
- g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.
- i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--
Primary Covered Transactions

- 1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or

local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

- c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and
- d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Covered Transactions: (Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--
Lower Tier Covered Transactions:

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

- 1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
 - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a

Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

End of FHWA 1273



Environmental Summary Sheet

Pin: 17929.10
Town: Portland
CPD Team Leader: Laurie Rowe
NEPA Complete: 10/25/11

Date Submitted: 11/21/11

☒ **Section 106**
PA
Special Conditions:

☒ **Section 4(f) and 6(f)**
Section 4(f)
Review Complete
Section 6(f)
Not Applicable

☒ **Maine Department of Inland Fisheries and Wildlife Essential Habitat**

Not Applicable Timing Window: Not Applicable

☒ **Section 7**
Not Applicable
Species of Concern:

Comments/References: Not Applicable

☒ **Maine Department of Conservation/Public Lands, Submerged Land Lease**
Not Applicable

☒ **Maine Land Use Regulation Commission**
Not Applicable

**Applicable Standards and Permits are included with the contract*

☒ **Maine Department of Environmental Protection**
Not Applicable

**Applicable Standards and Permits are included with the contract*

☒ **Army Corps of Engineers, Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act.**
Not Applicable

**Applicable Standards and Permits are included with the contract*

☒ **Coast Guard**
Not Applicable

**Applicable Standards and Permits are included with the contract*

☒ Special Provisions Required		
Special Provision 105-Timing of Work Restriction	N/A ☒	Applicable ☐
Special Provision 656-Erosion Control Plan	N/A ☐	Applicable ☒
Special Provision 203-Dredge Spec	N/A ☒	Applicable ☐
General Note for Hazardous Waste	N/A ☒	Applicable ☐
Special Provision 203-Hazardous Waste	N/A ☒	Applicable ☐
Special Provision 105.9	N/A ☒	Applicable ☐

**All permits and approvals based on plans/scope as of: 11/21/11*