Updated 1/19/10

FEDERAL PROJECT

Effective January 20, 2010
Supersedes December 1, 2008

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, 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™ webbased service, b) a Bid Guaranty (as described below) 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.
4. Include a 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.
5. If a paper Bid is to be sent, Federal Express overnight delivery is suggested as the package is delivered directly to the DOT Headquarters Building located at 16 Child Street in Augusta.
6. Other means, such as U.S. Postal Service's Express Mail has proven not to be reliable.

IN ADDITION, FOR FEDERAL AID PROJECTS:

7. Complete the DBE Proposed Utilization form in the proper amounts, and submit with your bid on bid opening day. If you are submitting your bid electronically, you must FAX your DBE Utilization Form to (207) 624-3431.

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.

January 30, 2004
Supercedes February 11, 2003

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 a 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 Mike Babb 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 Larry Childs at Larry.Childs@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 infrormation:

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, executers, 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: _____

SAMPLE

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.

State of Maine
Department of Transportation

REQUEST FOR INFORMATION

Date _____ Time _____

Information Requested: **PIN:** _____ **Town(s):** _____

_____

_____

_____

_____

_____

_____

_____

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_____

Request by: _____ **Phone: (_____)**_____
Bid Date: _____ **Fax: (_____)**_____

Complete top portion of form and transmit to the number listed in the Notice to Contractors

RFI No: _____ **RFI received:** _____

Response:_____

_____

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Response By:_____ Date: _____

NOTICE

Disadvantaged Business Enterprise Proposed Utilization

The Apparent Low Bidder must submit the Disadvantaged Business Enterprise Proposed Utilization form with their bid.

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 must 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 CONTRACTOR'S DISADVANTAGED BUSINESS ENTERPRISE UTILIZATION PLAN

The Contractor Shall:

1. Submit a completed Contractor's Disadvantaged Business Enterprise Utilization Plan with your bid on the Bid day.

2. Extend equal opportunity to MDOT certified DBE firms (as listed in MDOT'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 and fax number.

Provide total Bid price, Federal Project Identification Number, and location of the Project work.

In the columns, name each DBE firm to be used, provide the Unit or Item cost of the Work/Product to be provided by the DBE firm, give a brief description of the Work, and the dollar value of the Work.

If no DBE firm is to be utilized, the Contractor must document the reason(s) why no DBE firms are being used. Specific supporting evidence of good faith efforts taken by Contractors to solicit DBE Bidders must be attached. This evidence, as a minimum, includes phone logs, e-mail and/or mail DBE solicitation records, and the documented results of these solicitations.

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 2010 (October 1, 2009 through September 30, 2010), MaineDOT has established a DBE participation goal of 5.8% to be achieved through race/gender neutral means.

Interested parties may view MaineDOT's DBE goal setting methodology for the next 45 days during normal business hours (8-4, M-F) at the Maine Department of Transportation, Civil Rights Office, 16 State House Station, Augusta ME 04333-0016. Appointments may be scheduled by telephone at (207) 624-3066. The goal setting methodology is also available for viewing on the MaineDOT website: http://www.maine.gov/mdot/disadvantaged-business-enterprises/dbe-home.php.

Public comment will be accepted for 45 days following the last date of publication. The public comment period will be complete on September 16th, 2009. The goal will be submitted for approval to the FHWA on August 1st, 2009. Updated goal will be submitted to FHWA, if necessary, based on public comment.

Comments on the goal will be accepted, in writing, for 45 days from the date of this notice. Written comments should be addressed to Jackie LaPerriere, Maine Department of Transportation, Civil Rights Office, 16 State House Station, Augusta, Maine 04333-0016 or by e-mail at: jackie.laperriere@maine.gov.

Several interested stakeholders will be notified directly by e-mail of the goal publication, including Maine Small Business Administration, Associated General Contractors, and ACEC, and Maine DBEs.

____ **Original Submission** **Page ___ of ___**

____ **Revision # _____**

MaineDOT CONTRACTOR'S DBE/SUBCONTRACTOR
PROPOSED UTILIZATION FORM

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

Contractor:_____ **Telephone:** _____ **Ext.** _____

Contact Person:_____ **Fax:** _____

E-mail: _____

BID PRICE: $_____ **BID DATE:** _____/_____/_____

FEDERAL PROJECT PIN # _____ **PROJECT LOCATION:** _____

TOTAL DBE _____ **% PARTICIPATION FOR THIS SUBMISSION**

WBE•	DBE•	Non DBE	Firm Name	Unit/Item Cost	Unit #	Description of Work & Item Number	Actual $ Value
						Total ›	

Contractors must make a good faith effort to include <u>Certified</u> DBE firms in all aspects of the project. If no DBE firms are to be part of this project, a detailed explanation is required. Attach supporting evidence to the maximum participation of DBEs on this project. This is a requirement. This evidence must include name of firm(s) contacted, date contacted, and outcome of solicitation.

Equal Opportunity Use:

Form received: ___/___/___ Verified by: _____

____ Accepted ____ Rejected _____

cc: ☐ Contracts ☐ Other _____

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

Rev. 1/08

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

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

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/vendorinfo/vss.htm

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 Pavement Milling, Hot Mix Asphalt Overlay, Bridge Work, Median Guardrail, Drainage, Sign Trusses, and Safety Improvements in the towns of Scarborough, Falmouth, Cumberland, Yarmouth, and Freeport, and cities 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 May 12, 2010 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 **Highway Construction or Paving**, 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 Nos. IM-1678(700)E , PIN 16787.00, IM-1705(510)E, PIN 17055.10, HPP-1705(520)E, PIN 17055.20, HP-1563(400)E, PIN 15634.00 & IM-1779(300)E, PIN 17793.00.

Location: In Cumberland County, Project No. IM-1678(700)E is located on I-295 Southbound, beginning 1.06 mi. south of the Cumberland/Falmouth town line and extending southerly 10.628 mi. to 0.03 mi. south of the South Portland/Scarborough town line. In Cumberland County, Project No. IM-1705(510)E is located in the median of Interstate 295 northbound & southbound lanes, beginning at 0.82 miles south of the Portland/Falmouth townline and extending northerly 9.13 miles to 0.25 mile north of the Bayview Street Overpass. Project No. HPP-1705(520)E is located in the median of Interstate 295 northbound & southbound lanes, beginning at 0.51 miles north of the South Portland/Portland townline and extending northerly 4.98 miles to Tukey's Bridge. In Cumberland County, Project No. IM-1779(300)E is located on Interstate 295 Southbound beginning 1.018 mile north of the Portland/Falmouth townline and extending southerly 6.36 miles to 0.40 mile north of the Scarborough/South Portland townline, which includes work on 16 bridges. Project No. HP-1563(400)E is located on Interstate 295 near Exit 7 and will add southbound auxiliary lane between Exit 7 and Exit 8 with additional lanes added to both the northbound and southbound off ramps.

Outline of Work: Milling, Hot Mix Asphalt Overlay, Bridge Work, Median Guardrail, Drainage, Sign Trusses, and Safety Improvements, and 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/contractor-consultant-information/contractor_cons.php 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 **Scott Bickford** at (207)624-3431. Questions received after 12:00 noon of Monday 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 $149.00 ($158.00 by mail). Half size plans $74.50 ($78.50 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 $350,000 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/contractor-consultant-information/contractor_cons.php

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

Augusta, Maine
April 21, 2010

STATE OF MAINE
Kenneth L. Sweeney
4028
LICENSED
PROFESSIONAL ENGINEER

KENNETH L. SWEENEY P. E.
CHIEF ENGINEER

NOTICE

All bids for Federal Projects opened after December 1, 2008 **MUST** 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.

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/comprehensive-list-projects/project-information.php 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)

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
	SECTION 0001 PROJECT ITEMS					
0010	201.11 CLEARING	0.500 AC				
0020	202.202 REMOVING PAVEMENT SURFACE	311190.000 SY				
0030	202.205 RUMBLE STRIPS - SHOULDER	34000.000 LF				
0040	202.30 REMOVING EXISTING CONCRETE WEARING SURFACE	LUMP	LUMP			
0050	203.20 COMMON EXCAVATION	7800.000 CY				
0060	203.24 COMMON BORROW	100.000 CY				
0070	203.25 GRANULAR BORROW	100.000 CY				
0080	205.512 WIDENING OF EXISTING SHOULDER	850.000 SY				
0090	206.061 STRUCTURAL EARTH EXCAVATION - DRAINAGE AND MINOR STRUCTURES, BELOW GRADE	50.000 CY				

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0100	304.09 AGGREGATE BASE COURSE - CRUSHED	950.000 CY				
0110	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	6745.000 CY				
0120	403.208 HOT MIX ASPHALT 12.5 MM HMA SURFACE	5200.000 T				
0130	403.2081 12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	21075.000 T				
0140	403.209 HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	30.000 T				
0150	403.210 HOT MIX ASPHALT 9.5 MM	150.000 T				
0160	403.2101 9.5 MM POLYMER MODIFIED HMA	650.000 T				
0170	403.211 HOT MIX ASPHALT (SHIMMING)	2100.000 T				
0180	403.213 HOT MIX ASPHALT 12.5 MM BASE	1650.000 T				
0190	403.2131 12.5 MM POLYMER MODIFIED HMA BASE	1445.000 T				

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0200	409.15 BITUMINOUS TACK COAT - APPLIED	15600.000 G				
0210	411.10 UNTREATED AGGREGATE SURFACE COURSE (TRUCK MEASURE)	220.000 CY				
0220	424.3331 ASPHALT LOW MODULUS CRACK SEALER, APPLIED	5000.000 LB				
0230	424.3333 LOW MODULUS JOINT SEALER, APPLIED	68000.000 LF				
0240	429.34 GRID/ FABRIC FABRIC COMPOSITE PAVEMENT INTERLAYER	1000.000 SF				
0250	502.29 STRUCTURAL CONCRETE WEARING SURFACE ON BRIDGES	LUMP	LUMP			
0260	502.70 BRIDGE DRAINS TYPE A	12.000 EA				
0270	502.70 BRIDGE DRAINS TYPE C	20.000 EA				
0280	502.701 BRIDGE DRAIN GRATE MODIFICATION	52.000 EA				
0290	504.07 CONCRETE PIPE TIES	24.000 GP				

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0300	507.0926 FURNISH ALUMINUM BRIDGE RAIL COMPONENTS	LUMP	LUMP			
0310	507.0927 ALUMINUM BRIDGE RAIL, 2 BAR POST REPLACEMENT	8.000 EA				
0320	507.0928 ALUMINUM BRIDGE RAIL, RAIL SECTION REPLACEMENT	720.000 LF				
0330	507.30 ALUMINUM RAIL BAR SPLICE RETROFIT	24.000 EA				
0340	508.14 HIGH PERFORMANCE WATERPROOFING MEMBRANE	LUMP	LUMP			
0350	515.21 PROTECTIVE COATING FOR CONCRETE SURFACES	LUMP	LUMP			
0360	518.39 REPAIRING GRANITE CURB BEDDING MORTAR	930.000 LF				
0370	518.50 REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL < 7.9 IN.	8070.000 SF				
0380	518.51 REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL < 7.9 IN.	2180.000 SF				

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0390	518.52 REPAIR OF UPWARD FACING SURFACES > 7.9 IN.	21.000 CY				
0400	518.60 REPAIR OF VERTICAL SURFACES < 7.9 IN.	180.000 SF				
0410	518.61 REPAIR OF VERTICAL SURFACES > 7.9 IN.	18.000 CY				
0420	520.241 BRIDGE JOINT MODIFICATION TYPE 1	1.000 EA				
0430	520.242 BRIDGE JOINT MODIFICATION TYPE 2	17.000 EA				
0440	520.243 BRIDGE JOINT MODIFICATION TYPE 3	1.000 EA				
0450	520.244 BRIDGE JOINT MODIFICATION TYPE 4	2.000 EA				
0460	520.245 BRIDGE JOINT MODIFICATION TYPE 5	3.000 EA				
0470	520.246 BRIDGE JOINT MODIFICATION TYPE 6	1.000 EA				
0480	520.247 BRIDGE JOINT MODIFICATION TYPE 7	7.000 EA				

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0490	523.5304 STEEL BEARINGS, EXPANSION, ROCKER	10.000 EA				
0500	524.301 TEMPORARY STRUCTURAL SUPPORT	LUMP	LUMP			
0510	526.301 TEMPORARY CONCRETE BARRIER TYPE I	LUMP	LUMP			
0520	526.34 PERMANENT CONCRETE TRANSITION BARRIER	48.000 EA				
0530	527.301 ENERGY ABSORBING SYSTEM (C-A-T)	16.000 EA				
0540	527.34 WORK ZONE CRASH CUSHIONS	14.000 UN				
0550	603.159 12 INCH CULVERT PIPE OPTION III	32.000 LF				
0560	603.165 15 INCH REINFORCED CONCRETE PIPE CLASS III	72.000 LF				
0570	603.179 18 INCH CULVERT PIPE OPTION III	35.000 LF				
0580	603.195 24 INCH REINFORCED CONCRETE PIPE CLASS III	144.000 LF				

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0590	603.7424 REMOVE & RELAY 24 INCH CONCRETE PIPE	16.000 LF				
0600	604.072 CATCH BASIN TYPE A1-C	3.250 EA				
0610	604.092 CATCH BASIN TYPE B1-C	7.000 EA				
0620	604.16 ALTERING CATCH BASIN TO MANHOLES	2.000 EA				
0630	604.18 ADJUSTING MANHOLE OR CATCH BASIN TO GRADE	6.000 EA				
0640	604.182 CLEAN EXISTING CATCH BASIN AND MANHOLE	130.000 EA				
0650	604.244 CATCH BASIN TYPE F4	2.000 EA				
0660	605.09 6 INCH UNDERDRAIN TYPE B	1210.000 LF				
0670	605.11 12 INCH UNDERDRAIN TYPE C	750.000 LF				
0680	606.1721 BRIDGE TRANSITION - TYPE 1	56.000 EA				

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0690	606.178 GUARDRAIL BEAM	500.000 LF				
0700	606.24 GUARDRAIL TYPE 3D - SINGLE RAIL	862.500 LF				
0710	606.265 TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	11.000 EA				
0720	606.352 REFLECTORIZED BEAM GUARDRAIL DELINEATORS	1500.000 EA				
0730	606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	127.000 EA				
0740	606.356 UNDERDRAIN DELINEATOR POST	35.000 EA				
0750	606.363 GUARDRAIL REMOVE AND DISPOSE	3125.000 LF				
0760	606.3651 GUARDRAIL-REMOVE, MODIFY, AND RESET EXISTING TO 3D	1400.000 LF				
0770	606.367 REPLACE UNUSABLE EXISTING GUARDRAIL POSTS	40.000 EA				
0780	606.48 SINGLE GALVANIZED STEEL POST	40.000 EA				

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0790	606.561 GUARDRAIL TYPE 3 - DOUBLE RAIL WITH RUB RAIL BACK TO BACK RAIL IN MEDIAN	15350.000 LF				
0800	606.65 GUARDRAIL THRIE BEAM - SINGLE RAIL	2565.000 LF				
0810	606.66 TERMINAL END THRIE BEAM	1.000 EA				
0820	606.70 TRANSITION SECTION THRIE BEAM	1.000 EA				
0830	606.79 GUARDRAIL 350 FLARED TERMINAL	20.000 EA				
0840	609.31 CURB TYPE 3	1200.000 LF				
0850	609.34 CURB TYPE 5	374.000 LF				
0860	609.38 RESET CURB TYPE 1	550.000 LF				
0870	609.40 RESET CURB TYPE 5	800.000 LF				
0880	610.08 PLAIN RIPRAP	100.000 CY				

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0890	610.18 STONE DITCH PROTECTION	20.000 CY				
0900	613.319 EROSION CONTROL BLANKET	2650.000 SY				
0910	615.07 LOAM	500.000 CY				
0920	618.1401 SEEDING METHOD NUMBER 2 - PLAN QUANTITY	250.000 UN				
0930	619.1201 MULCH - PLAN QUANTITY	250.000 UN				
0940	619.1401 EROSION CONTROL MIX	250.000 CY				
0950	620.58 EROSION CONTROL GEOTEXTILE	1350.000 SY				
0960	621.01 EVERGREEN TREES (8 INCH - 12 INCH)	50.000 EA				
0970	621.014 EVERGREEN TREES (18 INCH - 24 INCH) GROUP A	50.000 EA				
0980	621.025 EVERGREEN TREES (3 FOOT - 4 FOOT) GROUP A	60.000 EA				

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS		UNIT PRICE DOLLARS	CTS	BID AMOUNT DOLLARS	CTS
0990	621.026 EVERGREEN TREES (3 FOOT - 4 FOOT) GROUP B	50.000	EA				
1000	621.541 DECIDUOUS SHRUBS (18 INCH - 24 INCH) GROUP B	240.000	EA				
1010	627.18 12 " SOLID WHITE PAVEMENT MARKING	10000.000	LF				
1020	627.744 6" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	240000.000	LF				
1030	627.75 WHITE OR YELLOW PAVEMENT & CURB MARKING	2500.000	SF				
1040	627.76 TEMPORARY PVMT. MARK LINE, W OR YELLOW	LUMP	LUMP				
1050	627.77 REMOVING PAVEMENT MARKINGS	17600.000	SF				
1060	627.781 TEMPORARY 6 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	460000.000	LF				
1070	629.05 HAND LABOR, STRAIGHT TIME	290.000	HR				
1080	631.10 AIR COMPRESSOR (INCLUDING OPERATOR)	154.000	HR				

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1090	631.11 AIR TOOL (INCLUDING OPERATOR)	154.000 HR				
1100	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	70.000 HR				
1110	631.122 MINI ALL-PURPOSE EXCAVATOR (INCLUDING OPERATOR)	40.000 HR				
1120	631.133 SKID STEER (INCLUDING OPERATOR)	50.000 HR				
1130	631.14 GRADER (INCLUDING OPERATOR)	30.000 HR				
1140	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	110.000 HR				
1150	631.18 CHAIN SAW RENTAL (INCLUDING OPERATOR)	30.000 HR				
1160	631.22 FRONT END LOADER (INCLUDING OPERATOR)	10.000 HR				
1170	631.32 CULVERT CLEANER (INCLUDING OPERATOR)	40.000 HR				
1180	639.18 FIELD OFFICE TYPE A	1.000 EA				

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1190	645.103 DEMOUNT GUIDE SIGN	5.000 EA				
1200	645.106 DEMOUNT REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN	1.000 EA				
1210	645.106 DEMOUNT REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN LOCATION 2: I-295 AT EXIT 7	1.000 EA				
1220	645.12 OVERHEAD GUIDE SIGN: LOCATION 1: I-295 AT EXIT 7	LUMP	LUMP			
1230	645.271 REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGNS, TYPE I	20.000 SF				
1240	645.306 FLEXIBLE REFLECTORIZED DELINEATOR	600.000 EA				
1250	652.30 FLASHING ARROW BOARD	7.000 EA				
1260	652.31 TYPE I BARRICADE	25.000 EA				
1270	652.311 TYPE II BARRICADE	25.000 EA				

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1280	652.312 TYPE III BARRICADE	80.000 EA				
1290	652.32 BATTERY OPERATED LIGHT	15.000 EA				
1300	652.33 DRUM	800.000 EA				
1310	652.34 CONE	1000.000 EA				
1320	652.35 CONSTRUCTION SIGNS	6600.000 SF				
1330	652.36 MAINTENANCE OF TRAFFIC CONTROL DEVICES	200.000 CD				
1340	652.38 FLAGGER	5125.000 HR				
1350	652.381 TRAFFIC OFFICER	225.000 HR				
1360	652.41 PORTABLE CHANGEABLE MESSAGE SIGN	12.000 EA				
1370	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP			

CONTRACT ID: 016787.00 PROJECT(S): HP-1563(400)E
IM-1678(700)E
17055.10
OTHERS

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1380	658.20 ACRYLIC LATEX COLOR FINISH, GREEN	150.000 SY				
1390	659.10 MOBILIZATION	LUMP	LUMP			
1400	660.21 ON-THE-JOB TRAINING (BID)	2000.000 HR				
	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, PIN Nos. **16787.00, 17055.10, 17055.20, 15634.00, & 17793.00 for the Pavement Milling, Hot Mix Asphalt Overlay, Bridge Work, Median Guardrail, Drainage, Sign Trusses, and Safety Improvements in the towns of Scarborough, Falmouth, Cumberland, Yarmouth, Freeport, and cities of Portland and South 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 **December 18, 2010.** 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: PIN Nos. **16787.00, 17055.10, 17055.20, 15634.00, & 17793.00 for the Pavement Milling, Hot Mix Asphalt Overlay, Bridge Work, Median Guardrail, Drainage, Sign Trusses, and Safety Improvements in the towns of Scarborough, Falmouth, Cumberland, Yarmouth, Freeport, and cities of Portland and South Portland County of Cumberland,** 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. This award consummates the Contract, and the documents referenced herein.

MAINE DEPARTMENT OF TRANSPORTATION

_____	_____
Date	By: David A. Cole, 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, PIN Nos. **16787.00, 17055.10, 17055.20, 15634.00, & 17793.00 for the Pavement Milling, Hot Mix Asphalt Overlay, Bridge Work, Median Guardrail, Drainage, Sign Trusses, and Safety Improvements in the towns of Scarborough, Falmouth, Cumberland, Yarmouth, Freeport, and cities of Portland and South 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 **December 18, 2010.** 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: PIN Nos. **16787.00, 17055.10, 17055.20, 15634.00, & 17793.00 for the Pavement Milling, Hot Mix Asphalt Overlay, Bridge Work, Median Guardrail, Drainage, Sign Trusses, and Safety Improvements in the towns of Scarborough, Falmouth, Cumberland, Yarmouth, Freeport, and cities of Portland and South Portland County of Cumberland,** 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. This award consummates the Contract, and the documents referenced herein.

MAINE DEPARTMENT OF TRANSPORTATION

_____	_____
Date	By: David A. Cole, 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 1705 U.S. Route 202, Winthrop, 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:

SAMPLE

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, PIN No. **1224.00**, for the **Hot Mix Asphalt Overlay** in the town/city of **West Eastport**, 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**, 2003**.** 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.

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.

SAMPLE

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 West Eastport, 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 on the date specified in the Engineer's "Notice to Commence 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 by 4:30pm on the day of bid opening to the Contracts Engineer.

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

SAMPLE

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

_____	**(Sign Here)**_____
Date	(Signature of Legally Authorized Representative of the Contractor)
____(**Witness Sign Here)**_____	**(Print Name Here)**_____
Witness	(Name and Title Printed)

SAMPLE

G. Award.

Your offer is hereby accepted. This award consummates the Contract, and the documents referenced herein.

MAINE DEPARTMENT OF TRANSPORTATION

_____	_____
Date	By: David A. Cole, Commissioner

_____
(Witness)

BOND # _____

CONTRACT PERFORMANCE BOND
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That _____ _____ **and 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:	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.....	.....…….....

SAMPLE

BOND # _____

CONTRACT PAYMENT BOND
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That _____ _____ **and 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	…….....….....

SAMPLE

SPECIAL PROVISION
PARTNERING

The successful bidder will have the opportunity to enter into a cooperative partnership agreement with the State Department of Transportation for the contract. The objective of this agreement is the effective completion of the work on time and to the standard of quality that will be a source of pride to both the State and the Contractor. The partnering agreement will not affect the terms of the contract. It is intended only to establish an environment of cooperation between the parties. If the partnering agreement is accepted.

1. Contractor shall select and provide a third-party facilitator to conduct the team building workshop for the Contractor and Department personnel. Facilitator selection shall require Department concurrence. The cost for the facilitator and his associated expenses will be shared equally by the Department on the next monthly estimate, following receipt of invoice(s) from the Contractor, on an extra work basis.

2. Contractor and Department will exchange lists of the key personnel to be participants in the workshop. The list will contain the name and job title of each person, a contact phone number, and the address for job related correspondence.

3. The Contractor shall select the location and make all arrangements for space as required by facilitator, and for any meals required. This cost to be shared equally.

4. A working arrangement for the partnership will be agreed upon in writing at the workshop. The arrangement will set out the mutually recognized goals and expectation of the parties.

5. The Contractor and the Department agree to make an effort to maintain identified key personnel assigned to the work for its duration. A timely notice by each shall be given if changes by either must be made.

6. Project issues shall be processed in the manner agreed upon by the parties during the orientation.

7. Follow-up workshops may be held periodically throughout the duration of the contract as agreed by the Contractor and the Department.

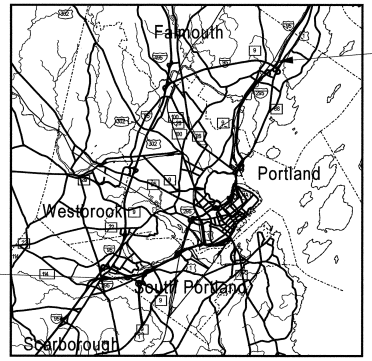
8. The Partnering Agreement is not intended to be a legal document. Failure by either party to follow the process identified will not be grounds for any claim under the contract.

9. ARE YOU INTERESTED IN THIS OPPORTUNITY? YES _____ NO _____

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1678(700)E

END PROJECT STA. 247+73.00



BEGIN PROJECT STA. 68+00.00

LOCATION MAP

2 0 2 4
Scale In Miles

SCARBOROUGH, SOUTH PORTLAND, PORTLAND, & FALMOUTH

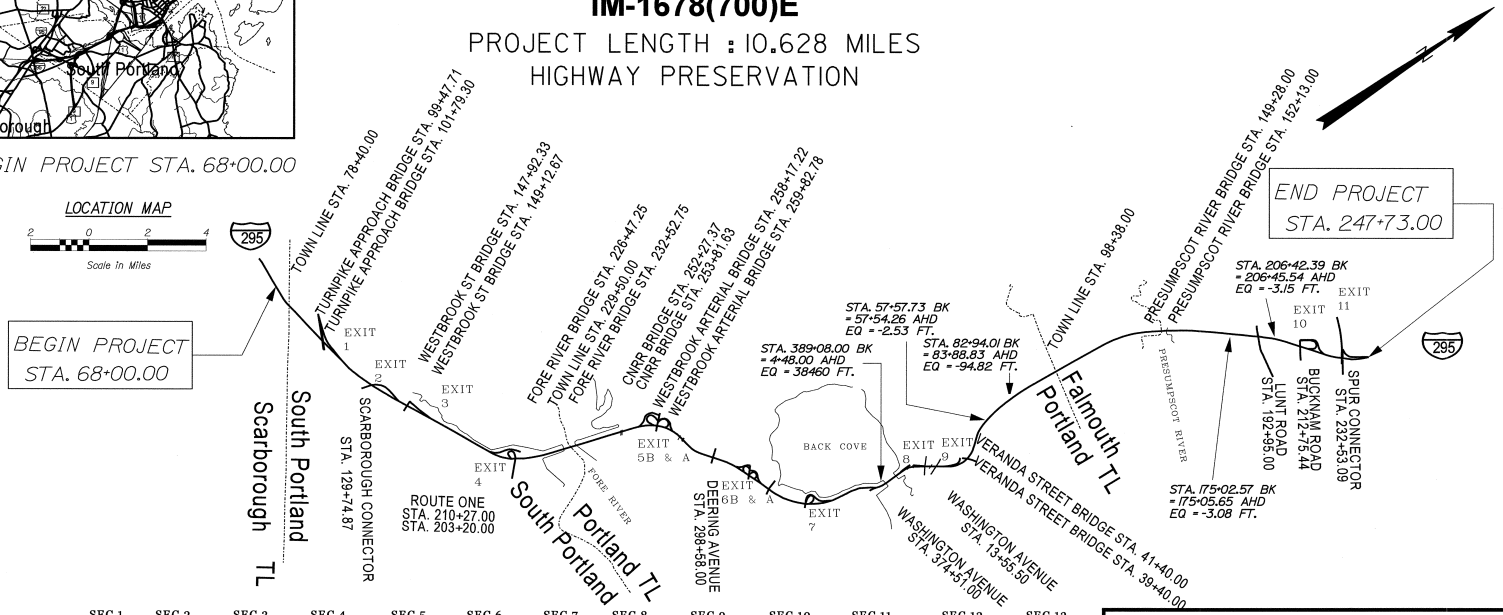
CUMBERLAND COUNTY

I-295 SOUTHBOUND

IM-1678(700)E

PROJECT LENGTH : 10.628 MILES

HIGHWAY PRESERVATION



PIN 16787.00

IM-1678(700)E

TRAFFIC DATA

	SEC 1	SEC 2	SEC 3	SEC 4	SEC 5	SEC 6	SEC 7	SEC 8	SEC 9	SEC 10	SEC 11	SEC 12	SEC 13
	S/O CUMBERLAND-FALMOUTH TL TO EXIT 11 (FALMOUTH SPUR)	EXIT 11 (FALMOUTH SPUR) TO EXIT 10 (BUCKNAM ROAD)	EXIT 10 (BUCKNAM ROAD) TO EXIT 9B (FALMOUTH FORESIDE)	EXIT 9B (FALMOUTH FORESIDE) TO EXIT 9A (BAXTER BLVD)	EXIT 9A (BAXTER BLVD) TO EXIT 8 (WASHINGTON AVE)	EXIT 8 (WASHINGTON AVE) TO EXIT 7 (FRANKLIN ST ART)	EXIT 7 (FRANKLIN ST ART) TO EXIT 6 (US 302 FOREST AVE)	EXIT 6 (US 302 FOREST AVE) TO EXIT 5 (US 22 CONGRESS ST)	EXIT 5 (SR 22 CONGRESS ST) TO EXIT 4 (US ROUTE 1 SOUTH)	EXIT 4 (US ROUTE 1 SOUTH) TO EXIT 3 (WESTBROOK STREET)	EXIT 3 (WESTBROOK STREET) TO EXIT 2 (SCARBOROUGH CONN.)	EXIT 2 (SCARBOROUGH CONN.) TO EXIT 1 (MAINE MALL ROAD)	EXIT 1 MAINE MALL ROAD TO MAINE TURNPIKE
Current (2009) AADT	26120	21160	22060	28600	39030	32310	32250	32030	31050	35580	24600	17440	11100
Design Speed (mph)	65	65	65-50	50	50	50	50	50	50-55	55	55	55	55-35

Functional Class: PRINCIPAL ARTERIAL INTERSTATE

PROGRAM AREA: HIGHWAY IMPROVEMENTS: INTERSTATE
SCOPE OF WORK: HIGHWAY REHABILITATION WITH BRIDGE WORK, PAVING, DRAINAGE AND SAFETY IMPROVEMENTS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED — DATE
COMMISSIONER:
CHIEF ENGINEER: 4-12-10

STATE OF MAINE — REGISTERED PROFESSIONAL ENGINEER — Richard J. Desmond — No. 5641

PROJECT INFORMATION			
PROGRAM	HIGHWAY		
PROJECT MANAGER	ROBERT HOUGH	SIGNATURE	
DESIGNER	MICHAEL LENKO	P.E. NUMBER	
CONSULTANT		DATE	
PROJECT RESIDENT			
CONTRACTOR			
PROJECT COMPLETION DATE			

SCARBOROUGH, SOUTH PORTLAND, PORTLAND, & FALMOUTH
I-295 SOUTHBOUND

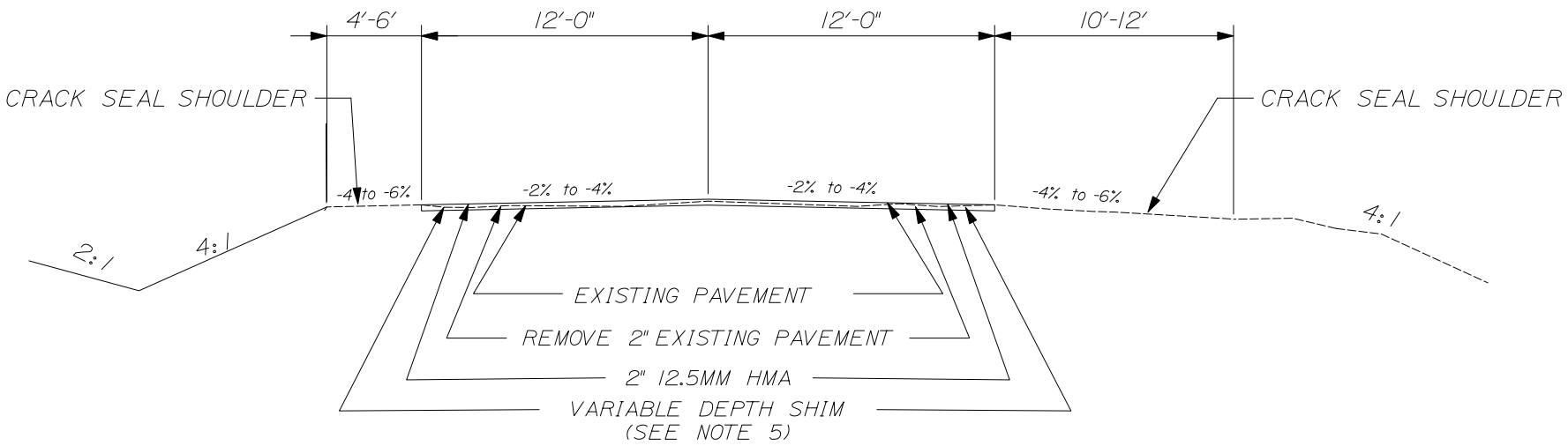
TITLE SHEET

SHEET NUMBER
1
OF 1

Filename: ...\00\HIGHWAY\MSTA\001_Title.dgn Division: HIGHWAY Username: michael.lenko Date:4/9/2010

MAINLINE MILL & FILL

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 TRAVEWAY 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.

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1678(700)E

PIN 16787.00

HIGHWAY PLANS

PROJ. MANAGER	ROBERT HOUGH	BY	DATE
DESIGN-DETAILED			
CHECKED-REVIEWED			SIGNATURE
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			P.E. NUMBER
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			DATE
REVISIONS 4			
FIELD CHANGES			

SCARBOROUGH, SOUTH PORTLAND, PORTLAND, & FALMOUTH
I-295 SOUTHBOUND
TYPICAL SECTIONS

SHEET NUMBER
1
OF 5

Filename: $file$ Division: $wkgroup$ Username: $user$ Date:$date$

AUXILIARY MILL & FILL

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.
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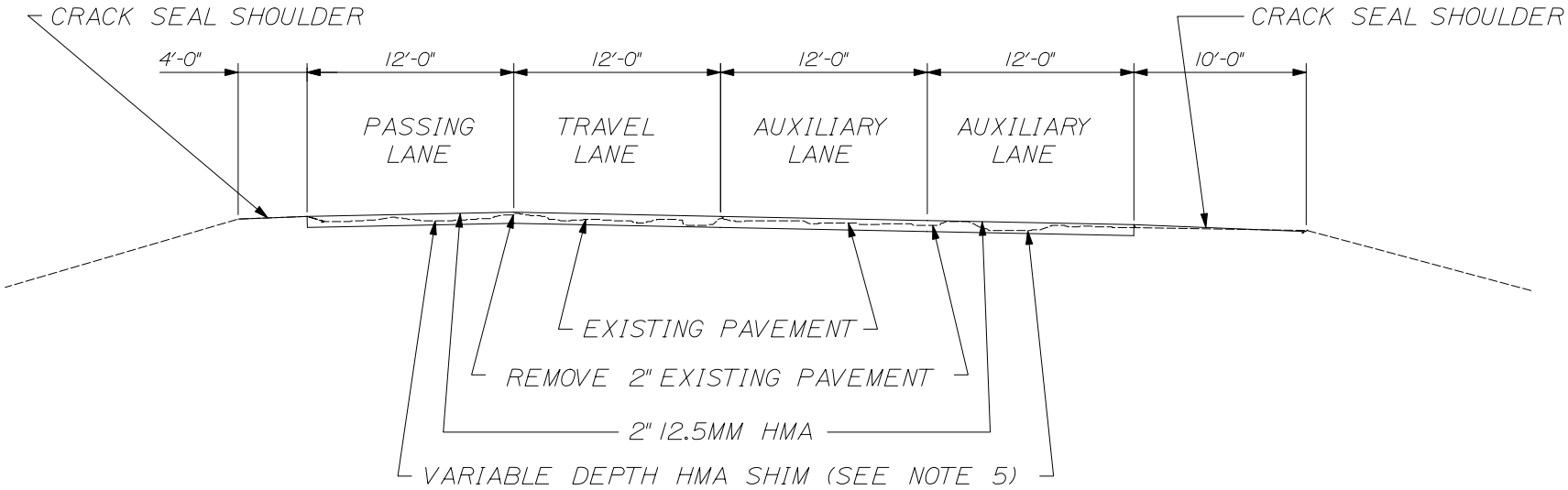

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1678(700)E

PIN 16787.00

HIGHWAY PLANS

PROJ. MANAGER	ROBERT HOUGH	BY	DATE
DESIGN-DETAILED			
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

SCARBOROUGH, SOUTH PORTLAND, PORTLAND, & FALMOUTH
I-295 SOUTHBOUND
TYPICAL SECTIONS

SHEET NUMBER
2
OF 5

Filename: $file$ Division: $wkgroup$ Username: $user$ Date:$date$

RAMPS
1 1/2" MILL & FILL
MAINLINE ONLY

NORMAL SECTIONS

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 TRAVEWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.

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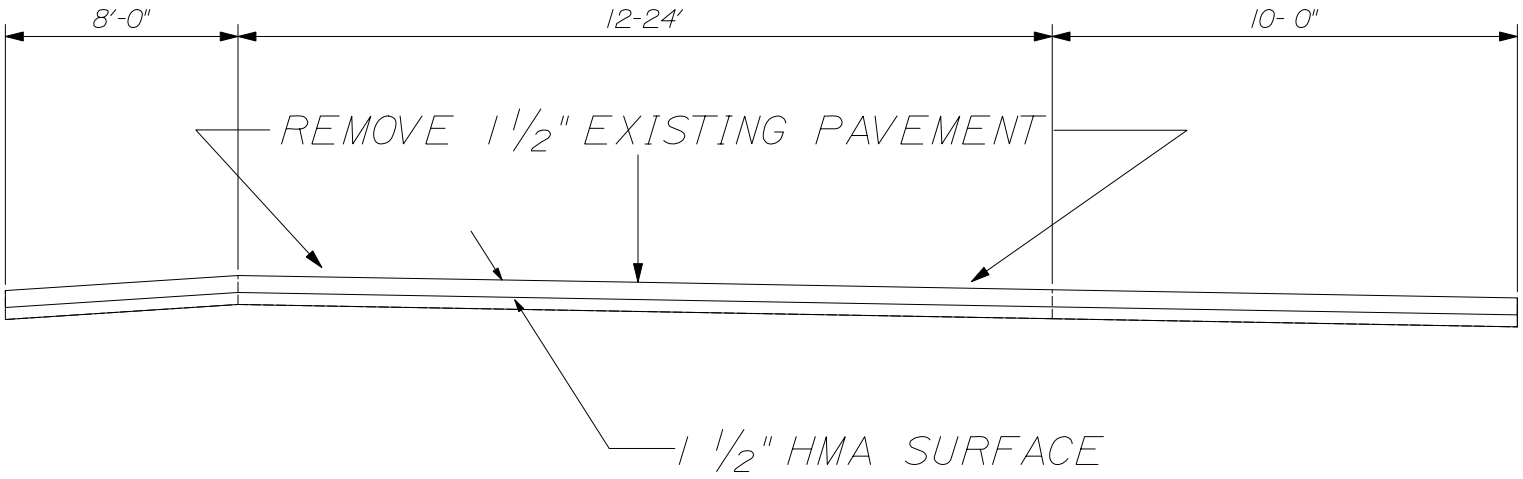


SEE CONSTRUCTION NOTES FOR STATIONING

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1678(700)E

PIN 16787.00

HIGHWAY PLANS

PROJ. MANAGER	ROBERT HOUGH	BY	DATE
DESIGN-DETAILED			
CHECKED-REVIEWED			SIGNATURE
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			P.E. NUMBER
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			DATE
FIELD CHANGES			

SCARBOROUGH, SOUTH PORTLAND, PORTLAND, & FALMOUTH
I-295 SOUTHBOUND
TYPICAL SECTIONS

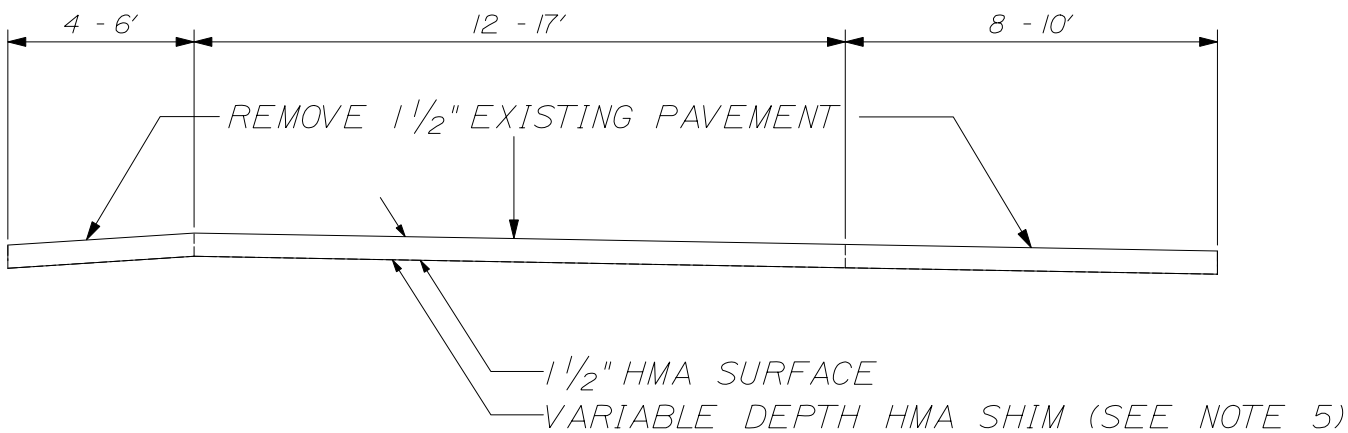
SHEET NUMBER
3
OF 5

Filename: $file$ Division: $wkgroup$ Username: $user$ Date:$date$

FULL WIDTH
1 1/2" MILL & FILL

EXIT 7 OFF RAMP 22+00 - 23+20
EXIT 7 ON RAMP 18+45 - 21+00
EXIT 4 OFF RAMP 0+00 - 15+05

NORMAL SECTIONS



NOTE:

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NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1678(700)E

PIN 16787.00

HIGHWAY PLANS

PROJ. MANAGER	ROBERT HOUGH	BY	DATE
DESIGN-DETAILED			
CHECKED-REVIEWED			SIGNATURE
DESIGN2-DETAILED2			
REVISIONS 1			P.E. NUMBER
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			DATE
FIELD CHANGES			

SCARBOROUGH, SOUTH PORTLAND, PORTLAND, & FALMOUTH
I-295 SOUTHBOUND
TYPICAL SECTIONS

SHEET NUMBER
4
OF 4

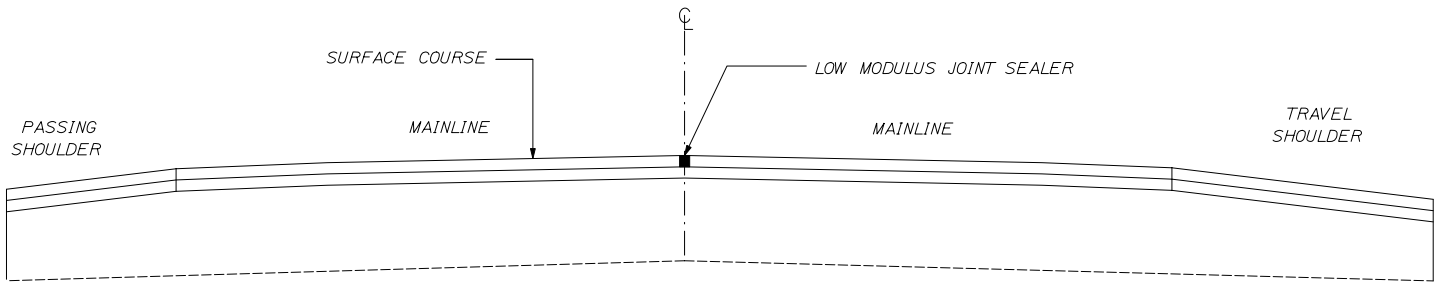
Filename: $file$ Division: $wkgroup$ Username: $user$ Date:$date$

NOTE:

1. AUXILIARY LANES SHALL HAVE LOW MODULUS JOINT SEALER APPLIED, UNLESS OTHERWISE DIRECTED BY THE RESIDENT.

CENTERLINE DETAIL

LONGITUDINAL CENTERLINE JOINT
WITH LOW MODULUS JOINT SEALER APPLIED



1. LOW MODULUS JOINT SEALER SHALL BE APPLIED DIRECTLY TO THE CENTERLINE LONGITUDINAL JOINTS. IMMEDIATELY PRIOR TO THE PLACEMENT OF THE ADJOINING COURSE. SEALER MATERIAL WILL BE APPLIED TO ALL CENTERLINE LONGITUDINAL JOINTS ON THE WEARING SURFACES WHERE NEW ASPHALT MIX COURSES ARE CONSTRUCTED ABUTTING PREVIOUSLY PLACED ASPHALT MIX COURSES. (NEW MIX ABUTTING NEW MIX) JOINTS CONSTRUCTED ABUTTING OLD PAVEMENTS WILL BE TACKED WITH EMULSIONS AS PER SEC. 401.

2. APPLICATION SHALL BE BY AN APPROVED SEALER APPLICATION WAND, AND SHALL PRODUCE AN EVEN SEAL COAT OVER THE ENTIRE FACE OF THE JOINT, (1/8") COATING TYPICAL. (APPROX. 75 LIN. FT./GALLON APPLICATION RATE.) SEE SPECIAL PROVISION 424- LOW MODULUS JOINT SEALER.

3. THE SURFACE AREA WHERE THE SEAL COAT IS TO BE APPLIED SHALL BE DRY AND CLEAN OF ALL DIRT, SAND AND LOOSE BITUMINOUS MATERIAL.

4. THE ACTUAL METHOD OF APPLICATION SHALL GENERALLY BE LEFT TO THE CONTRACTOR'S OPTION. BUT ALL METHODS AND RATES OF APPLICATION SHALL BE APPROVED BY THE RESIDENT BEFORE THE WORK PROGRESSES.

5. MEASUREMENT/PAYMENT WILL BE BASED ON THE LINEAR FOOT MEASURED IN PLACE.

6. MATERIAL INVOICES SHALL BE SUPPLIED TO THE RESIDENT STATING THE MATERIAL TYPE. MANUFACTURE, SOURCE AND DATE.

7. APPLICATION EQUIPMENT SHALL BE EQUIPPED WITH A SAMPLING VALVE OR METHOD FOR SAMPLING OF THE SEALER MATERIAL.

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1678(700)E

PIN 16787.00 HIGHWAY PLANS

PROJ. MANAGER	ROBERT HOUGH	BY	DATE
DESIGN-DETAILED	----------	----------	----------
CHECKED-REVIEWED	----------	----------	----------
DESIGN2-DETAILED2	----------	----------	----------
DESIGN3-DETAILED3	----------	----------	----------
REVISIONS 1	----------	----------	----------
REVISIONS 2	----------	----------	----------
REVISIONS 3	----------	----------	----------
REVISIONS 4	----------	----------	----------
FIELD CHANGES	----------	----------	----------

SIGNATURE

P.E. NUMBER

DATE

SCARBOROUGH, SOUTH PORTLAND, PORTLAND, & FALMOUTH
I-295 SOUTHBOUND
TYPICAL SECTIONS

SHEET NUMBER
5
OF 5

Filename: $file$ Division: $wkgroup$ Username: $user$ Date:$date$

Station	Description	Description
247+73.00	**Begin Project**	**Limit**
247+00.33	Exit 11 Falmouth Spur Start Station 0+00	Ramp
232+53.09	Spur Connector Overpass	Overpass
224+72.75	Exit 10 Bucknam Road Start Station 15+09.02	Ramp
216+90.59	Exit 10 On Ramp End Station 14+43.15	Ramp
212+75.44	Depot Road Overpass	Overpass
206+45.54	Equation: 206+42.39 SB BK =206+45.54 AHD, EQ. = -3.15'	Equation
204+00.00	5' X 5' Box Culvert	Culvert
192+95.00	Lunt Road Overpass	Overpass
175+05.65	Equation: 175+02.57SB BK = 175+05.65 AHD, EQ. = -3.08'	Equation
163+79.00	4 X 6 Box Culvert	Culvert
152+13.00	Presumpscot River Bridge (Back of Backwall)	Bridge
149+28.00	Presumpscot River Bridge (Back of Backwall)	Bridge
98+38.00	Falmouth/Portland Town Line Sign	**Limit**
83+88.83	Equation: 82+94.01 SB BK = 83+88.83 AHD, EQ. = -94.82'	Equation
57+54.26	Equation: 57+51.73 SB BK = 57+54.26 AHD, EQ. = -2.53'	Equation
51+55.00	**Begin Permanent Concrete Median**	**Limit**
39+40.00	Veranda Street Bridge Joint	Bridge
37+40.00	Veranda Street Bridge Joint	Bridge
29+70.00	Veranda Street On Ramp (Gore Nose)	Ramp
22+00.00	Railroad Bridge Joint	Bridge
20+44.00	Railroad Bridge Joint	Bridge
13+79.00	Washington Avenue Bridge Joint	Bridge
12+48.00	Washington Avenue Bridge Joint	Bridge
11+08.00	Baxter Boulevard Exit Overpass	Overpass
4+48.00	Equation: 4+48 NB AHD = 389+08 BK, EQ. = 38460'	Equation
389+08.00	Tukey's Bridge Joint	Bridge
384+03.00	Tukey's Bridge Joint	Bridge
374+51.00	Washington Avenue Overpass	Overpass
373+96.00	**End Permanent Concrete Median**	**Limit**
346+33.34	Franklin Street Bridge (Back of Backwall)	Bridge

Station	Description	Description
345+16.47	Franklin Street Bridge (Back of Backwall)	Bridge
328+58.50	Preble Street Bridge (Back of Backwall)	Bridge
327+41.50	Preble Street Bridge (Back of Backwall)	Bridge
317+69.82	Forest Avenue Bridge (Back of Backwall)	Bridge
316+41.46	Forest Avenue Bridge (Back of Backwall)	Bridge
298+58.00	Deering Avenue Overpass	Overpass
283+35.38	St. John Street Bridge (Back of Backwall)	Bridge
282+20.18	St. John Street Bridge (Back of Backwall)	Bridge
280+84.37	Railroad Bridge (Back of Backwall)	Bridge
279+67.26	Railroad Bridge (Back of Backwall)	Bridge
277+58.03	St. James Street Bridge (Back of Backwall)	Bridge
276+46.00	St. James Street Bridge (Back of Backwall)	Bridge
270+66.01	Congress Street Bridge (Back of Backwall)	Bridge
268+57.75	Congress Street Bridge (Back of Backwall)	Bridge
259+82.78	Westbrook Arterial Bridge (Back of Backwall)	Bridge
258+17.22	Westbrook Arterial Bridge (Back of Backwall)	Bridge
253+81.63	Railroad Bridge (Back of Backwall)	Bridge
252+27.37	Railroad Bridge (Back of Backwall)	Bridge
232+52.75	Fore River Bridge (Back of Backwall)	Bridge
229+50.00	Portland/South Portland Town Line	**Limit**
226+47.25	Fore River Bridge (Back of Backwall)	Bridge
210+20.00	Route One Overpass	Overpass
203+27.00	Route One Overpass	Overpass
149+12.67	Westbrook Street Bridge (Back of Backwall)	Bridge
147+92.33	Westbrook Street Bridge (Back of Backwall)	Bridge
129+74.87	Scarborough Connector Overpass	Overpass
101+79.30	State Route 703 Bridge (Back of Backwall)	Bridge
99+47.71	State Route 703 Bridge (Back of Backwall)	Bridge
78+40.00	South Portland/Scarborough Town Line	**Limit**
68+00.00	**End Project**	**Limit**

RAMP STATIONING

Exit 11 Falmouth Spur Connector
Off Ramp

STA. @ X*	STA. @ I-295
STA. 16+11.41 @ Gore @ Connector	STA. 0+00 = STA. 247+00.00 I-295 SB

Exit 10 Bucknam Road
Off Ramp

STA. @ X*	STA. @ I-295
STA. 0+00 @ CL Bucknam Road	STA. 15+09.02 = STA. 224+72.75 I-295 SB

On Ramp

STA. 0+00 @ CL Bucknam Road	STA. 14+43.15 = STA. 216+25.06 I-295 SB

Exit 9 Veranda Street
On Ramp

STA. @ X*	STA. @ I-295
STA. 11+00 @ Tip of Island (Veranda St)	STA. 0+00 = STA. 24+77.57 I-295 SB

Exit 9 Baxter Boulevard
Off Ramp

STA. @ X*	STA. @ I-295
STA. 16+42.5 @ Bridge Joint	STA. 22+91 = STA. 22+91 I-295 SB Br Joint

Exit 8 Washington Avenue
On Ramp

STA. 21+31 @ Tip of Island (Bates St)	STA. 4+48 = STA. Bridge Joint @ Tukeys

Off Ramp

STA. @ X*	STA. @ I-295
STA. 377+21 @ Bridge Joint	STA. 381+56 = STA. 381+56 I-295 SB

Exit 7 Franklin Street
Off Ramp

STA. @ X*	STA. @ I-295
STA. 22+00 @ CB End Ramp Limits	STA. 39+55.68 = STA. 361+72.13 I-295 SB

On Ramp

STA. @ X*	STA. @ I-295
STA. 18+45 @ CB Begin Ramp Work	STA. 31+50 = STA. Bridge Joint I-295 SB

RAMP STATIONING

Exit 6B Forest Avenue

Off Ramp

STA. @ X*	STA. @ I-295
STA. 13+85 @ CB End Ramp Limits	STA. 39+55.68 = STA. 361+72.13 I-295 SB
	STA. 1+89 = STA. Bridge Joint I-295 SB
	STA. 0+00 = STA. 329+32.13 I-295 SB

On Ramp

STA. @ X*	STA. @ I-295
STA. 1+69 @ CB Begin Ramp Work	STA. 8+03.44 = STA. 317+69.82 I-295 SB

Exit 6A Forest Avenue

Off Ramp

STA. @ X*	STA. @ I-295
STA. 4+82 @ End Ramp Work	STA. 0+00 = STA. 315+00 I-295 SB
	STA. -1+41.46 = Bridge Joint I-295 SB
	STA. 0+00 = STA. 329+32.13 I-295 SB

On Ramp

STA. @ X*	STA. @ I-295
STA. 0+00 @ Forest Ave Gutter	STA. 16+82.77 = STA. 299+58.33 I-295 SB

Exit 5B Congress Street

Off Ramp

STA. @ X*	STA. @ I-295
STA. 10+16 @ CB End Ramp Limits	STA. 0+25 = STA. Bridge Joint I-295 SB
	STA. 0+25 = 276+46 I-295 SB

On Ramp

STA. @ X*	STA. @ I-295
STA. 0+00 @ Congress St Gutter	STA. 12+25 = STA. 271+32 I-295 SB

Exit 5A Westbrook Arterial

Off Ramp

STA. @ X*	STA. @ I-295
STA. 8+33 @ Westbrook Art Gutter	STA. 0+00 = STA. Bridge Joint I-295 SB
	STA. 0+00 = 268+57.75 I-295 SB

On Ramp

STA. @ X*	STA. @ I-295
STA. 9+35 @ CB Begin Ramp Work	STA. 25+38.83 = STA. 243+50 I-295 SB
	STA. 14+79 = Bridge Joint I-295 SB

Exit 4 Main Street

Off Ramp

STA. @ X*	STA. @ I-295
STA. 15+05 @ Br Joint End Ramp	STA. 0+00 = STA. 209+00 I-295 SB

RAMP STATIONING

<u>Exit 3 Westbrook Street</u>
Off Ramp

STA. @ X*	STA. @ I-295
STA. 26+74.23 @ CL of Westbrook St	STA. 13+08.23 = STA. 162+17.55 I-295 SB

<u>Exit 2 Scarborough Connector</u>
Off Ramp

STA. @ X*	STA. @ I-295
STA. 146+36 @ Bridge Joint	STA. 131+21.46 = STA. 145+20 I-295 SB

<u>Exit 1 Turnpike Approach</u>
Off Ramp

STA. @ X*	STA. @ I-295
STA. 29+22 @ End Ramp Work	STA. 10+00 = STA. 115+00 I-295 SB

Construction Notes

Item 202.202 Removing Pavement Surface

Mainline & Shoulders

Mainline milling will consist of milling travel (Left – slow lane) & passing (Right – high speed lane) approximately 24' +/- 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. Stations are in reference to As-built plans and run from south to north along the center of the median.

Shoulders

Station	to	Station	Depth	Remarks
247+73	-	206+46	2"	Lt 10'/Rt 4'
206+42	-	27+52	2"	Lt 2'/Rt 4'
27+52	-	18+67	2"	Lt 8'/Rt 4'
18+25	-	13+79	2"	Lt 15'/Rt 4'
12+48	-	4+48	2"	Lt 10'/Rt 4'
384+03	-	328+59	2"	Lt 10'/Rt 4"
327+43	-	191+09	2"	Lt 10'/Rt 4'
191+09	-	159+26	2"	Lt 2'/Rt 4'
159+26	-	68+00	2"	Lt 10'/Rt 4'

Ramps

Station	to	Station	Depth	Remarks
Exit 11 Off ramp				
0+00	-	16+11+/-	1 ½"	Mill Full Width
Exit 10 Off ramp				
16+43	-	22+91+/-	1 ½"	Mill Full Width
Exit 10 On ramp				
16+43	-	22+91+/-	1 ½"	Mill Full Width
Exit 9 On ramp				
16+43	-	22+91+/-	1 ½"	Mill Full Width
Exit 9 Off ramp				
16+43	-	22+91+/-	1 ½"	Mill Full Width

Item 202.202 Removing Pavement Surface (Continued)

Station	to	Station	Depth	Remarks
	Exit 8 On ramp			
19+81	-	21+31+/-	1 ½”	Mill Full Width
16+81	-	19+81+/-	1 ½”	Mill Full Width
8+81	-	16+81+/-	1 ½”	Mill Full Width
4+48	-	8+81+/-	1 ½”	Mill Full Width
	Exit 7 Off ramp			
See PIN 15634.00.				
	Exit 7 On ramp			
18+45	-	21+00+/-	1 ½”	Mill Full Width
21+00	-	29+50+/-	1 ½”	Mill Full Width
29+50	-	31+50+/-	1 ½”	Mill Full Width
	Exit 6B Off ramp			
1+89	-	13+85+/-	1 ½”	Mill/Fill 14-16’ T/L only
	Exit 6B On ramp			
1+69	-	8+03+/-	1 ½”	Mill/Fill 14-16’ T/L only
	Exit 6A Off ramp			
-1+42	-	4+82+/-	1 ½”	Mill/Fill 14-16’ T/L only
	Exit 6A On ramp			
0+00	-	16+83+/-	1 ½”	Mill/Fill 14-16’
	Exit 5B Off ramp			
16+43	-	22+91+/-	1 ½”	Mill Full Width
	Exit 5B On ramp			
16+43	-	22+91+/-	1 ½”	Mill Full Width T/L only
	Exit 5A Off ramp			
7+35	-	8+33+/-	1 ½”	Mill Left Spur
7+35	-	8+70+/-	1 ½”	Mill Right Spur
5+20	-	7+35+/-	1 ½”	Mill Full Width
2+10	-	5+20+/-	1 ½”	Mill Full Width
0+00	-	2+10+/-	1 ½”	Mill Full Width

Item 202.202 Removing Pavement Surface (Continued)

Station	to	Station		Depth	Remarks
	Exit 5A On ramp				
9+35	-	14+79+/-		1 ½”	Mill/Fill 23’ ML
14+82	-	16+35+/-		1 ½”	Mill/Fill 21’ ML
16+35	-	25+39+/-		1 ½”	Mill/Fill 20’ ML
	Exit 4 Off ramp				
0+00	-	15+05+/-		1 ½”	Mill Full Width
	Exit 4 On ramp				
	-		Gore Area	1 ½”	18’ X 887’
	Exit 3 Off ramp				
13+08	-	24+93+/-		1 ½”	Mill/Fill 14-22’ Left Lane only
	Exit 2 Off ramp				
131+22	-	146+36+/-		1 ½”	Mill Full Width
	Exit 1 Off ramp				
10+00	-	29+22+/-		1 ½”	Mill Full Width

Above locations are estimates only and may be changed by the Resident.
Above Ramps may be changed to an overlay at the Residents discretion.
Shoulder areas shall be milled as directed.

Item 205.512 Widening of of Existing Shoulder

This Item is estimated for widening existing BCT’s or other end treatments to the limits of a 350 shoulder widening for guardrail 350 terminal as per the Standard Details page 606(19). This Item will also be used to widen shoulder for lengthening guardrail runs. The following criteria will be required and considered incidental: All excavation/grubbing, the top 18” of gravel, any borrow needed to build sub-grade and any borrow needed to create a 4:1 slope. Compaction of borrow and gravel shall be completed with a 3-5 ton roller.

Item 403.208 Hot Mix Asphalt 12.5mm

Ramps 1 ½" mill & fill, 1 ½" Overlay. Shoulders 2".

Item 403.2081 Polymer Modified Hot Mix Asphalt 12.5mm Surface

Mainline & Auxiliary lanes 2" mill & fill. Exit 3 Off ramp 1 ½" mill & fill.

Item 403.210 Hot Mix Asphalt 9.5mm

350 shoulder widening areas will receive 3" of HMA surface.

Item 403.211 Hot Mix Asphalt shim 9.5mm

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

Item 424.3331 Low Modulus Crack Sealer

Shoulders entire length of project, ramps, and as directed.

Item 424.3333 Low Modulus Joint Sealer, Applied

Centerline longitudinal joint entire project.

Item 604.18 Adjust Manhole or Catch Basin to Grade

There is an estimated 5 catch basins located in the median that may need adjustment. Each catch basin will be inspected and adjusted as directed by the Resident.

Item 604.182 Cleaning Catch Basin

There is an estimated 130 catch basins located in the median. Each catch basin will be inspected and cleaned as directed by the Resident.

Item 606.356 Underdrain Delineator Post

Item shall be installed at all culverts 24" and smaller or as directed by the Resident.

Item 615.07 Loam

This Item is estimated to cover slopes of 350 widening areas at a depth of 2", to achieve growth of grass, and to back up edge of pavement as directed.

Item 629.05 Hand Labor, Straight Time

Item to be used for plumbing existing delineator posts, cleaning culverts, cleaning winter sand from guardrail areas and paved areas under overpasses, and other tasks as directed.

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

Item will be used on all milled surfaces on mainline and ramps. 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, and Others

These items estimated for removing excess material from in-slopes, in-slopes behind guardrail areas, ditching, and other work as directed. Skid steer intended to be used under guardrail beam. 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 item being used.

DRAINAGE
PIN 16787.00 SCARBOROUGH - FALMOUTH I-295 SB

STATION	SIZE (inches)	REMOVE (l.f.)	RELAY (l.f.)	INSTALL NEW (l.f.)	RIPRAP *(c.y.)	*PIPE TIES	REMARKS
239+50	15”	16’ CMP		16’ RCP	2.19	2	Remove 16’ CMP/Install 16’ RCP LT
235+50	15”	14’ CMP		16’ RCP	2.19	2	Remove 14’ CMP/Install 16’ RCP LT Ditch Out
181+25	24”	24’ CMP		24’ RCP	2.49	2	Remove 24’ CMP/Install 24’ RCP LT
174+50	24”	26’ CMP		32’ RCP	2.49	2	Remove 26’ CMP/Install 32’ RCP LT
169+45	24”	14’ CMP		16’ RCP	2.49	2	Remove 14’ CMP/Install 16’ RCP LT
161+00	15”						Could Not Locate
157+00	15”	34’ CMP		40’ RCP	2.49++	2	Remove 34’ CMP/Install 40’ RCP LT
136+00	24”	20’ CMP		24’ RCP	2.49++	2	Remove 20’ CMP/Install 24’ RCP LT
133+00	24”	10’ CMP		16’ RCP	2.49	2	Remove 10’ CMP/Install 16’ RCP LT
126+10	24”	8’ RCP	8’ RCP		2.49	1	Remove 8’/Relay 8’ RCP LT
107+50	24”	4’ RCP		8’ RCP	2.49	1	Remove 4’ RCP/Install 8’ RCP LT
107+50	24”	16’ CMP		16’ RCP	2.49	2	Remove 16’ CMP/Install 16’ RCP RT
64+00	24”	16’ RCP	8’ RCP	8’ RCP	2.49	2	Remove 16’ RCP/Relay 8’ RCP/Install 8’ RCP LT
350+50	12”						Ditch Out LT

*** Estimate only • Metal End Wall = MEW *Length of ditching estimate only**

GUARDRAIL PIN 16787.00 SCARBOROUGH-FALMOUTH I-295 SB

350 FLARED TERMINAL Station	For Treatment See Remarks Station	to Station	l.f.	SHOULDER WIDENING *s.y.	REMARKS
Southbound					
234+33 – 234+70.5 LT	234+33	235+39.5		37.2	Replace Existing BCT/Widen Existing
222+75 – 223+12.5 LT	222+75	223+81.5		37.2	Replace Existing BCT/Widen Existing
215+46.5 – 215+84 LT	215+46.5	216+53		37.2	Replace Existing BCT/Widen Existing
LEFT	213+00	213+18.5	18.5		Type 1 Transition Attach to Concrete Barrier
LEFT	212+33	212+51.5	18.5		Type 1 Transition Attach to Concrete Barrier
LEFT	211+83	212+33	50.0		Replace Existing with new Type 3D Guardrail
206+25 – 206+62.5 LT	206+25	207+31.5		37.2	Replace Existing BCT/Widen Existing
171+42 – 171+79.5 LT	171+42	172+48.5		37.2	Replace Existing BCT/Widen Existing
LEFT	152+09	152+27.5	18.5		Type 1 Transition Attach to Presumpscot Bridge
LEFT	149+09.5	149+28	18.5		Type 1 Transition Attach to Presumpscot Bridge
134+75 – 135+12.5 LT	134+75	135+81.5		37.2	Replace Existing BCT/Widen Existing
101+37 – 101+74.5 LT	101+37	102+43.5		37.2	Replace Existing BCT/Widen Existing
78+54 – 78+91.5 LT	78+54	79+60.5		37.2	Replace Existing BCT/Widen Existing
65+74 – 66+11.5 LT	65+74	66+80.5		37.2	Replace Existing BCT/Widen Existing
26+46.5 – 26+84 LT	26+46.5	27+53		37.2	Replace Existing BCT/Widen Existing
LEFT	22+78	22+96.5	18.5		Type 1 Transition Attach to Kensington Street Br.
LEFT	20+61	20+79.5	18.5		Type 1 Transition Attach to Sherwood Street Br.
LEFT	16+61	20+61	400.0		Remove Existing Guardrail/Install New Type 3D
LEFT	16+42.5	16+61	18.5		Type 1 Transition Attach to Baxter Boulevard Br.
LEFT	16+42.5	16+61	18.5		Type 1 Transition to Baxter Blvd Br RAMP
LEFT	14+73	14+91.5	18.5		Type 1 Transition Attach to Baxter Boulevard Br.
LEFT	344+98	345+16.5	18.5		Type 1 Transition Attach to Franklin Street Bridge
					North side of bridge is on ramp sheet

*** Estimate only, Widen existing widening**

**** Requires Energy Absorbing System CAT(Item # 527.301)**

Note: Existing BCT's to be replaced with FT 350's or CAT's

Item 606.352 shall be installed on all runs according to Standard Specification

Stations are in reference to as built drawings which runs from south to north

GUARDRAIL PIN 16787.00 SCARBOROUGH-FALMOUTH I-295 SB

350 FLARED TERMINAL Station	For Treatment See Remarks Station	to Station	l.f.	SHOULDER WIDENING *s.y.	REMARKS
334+58 – 334+95.5 LT	334+58	335+64.5		37.2	Replace Existing BCT/Widen Existing
LEFT	328+77	328+95.5	18.5		Type 1 Transition Attach to Preble Street Bridge
285+93 – 286+30.5 LT	285+93	286+99.5		37.2	Replace Existing BCT/Widen Existing
LEFT	283+49.5	283+68	18.5		Type 1 Transition Attach to St. John Street Bridge
262+07 – 262+44.5 LT	262+07	263+13.5		59.2	Replace Existing/Widen Existing
LEFT	260+13.5	260+32	18.5		Type 1 Transition Attach to Westbrook Art Bridge
LEFT	257+69.5	257+88	18.5		Type 1 Transition Attach to Westbrook Art Bridge
LEFT	232+56.5	232+75	18.5		Type 1 Transition Attach to Fore River Bridge
LEFT	226+29	226+47.5	18.5		Type 1 Transition Attach to Fore River Bridge
154+82 – 155+32 LT**					Replace Existing BCT/CAT System
LEFT	149+13.5	149+32	18.5		Type 1 Transition Attach to Westbrook Street Br.
LEFT	147+73	147+91.5	18.5		Type 1 Transition Attach to Westbrook Street Br.
LEFT	146+63	146+81.5	18.5		Type 1 Transition Attach to Exit 2 RAMP
120+12.5 – 120+50 LT	120+12.5	121+19		37.2	Replace Existing BCT/Widen Existing
104+93.5 – 105+31 LT	104+93.5	106+00		37.2	Replace Existing/Widen Existing
LEFT	101+12.5	101+31	18.5		Type 1 Transition Attach to ST Route 703 Bridge
LEFT	98+59	98+77.5	18.5		Type 1 Transition Attach to ST Route 703 Bridge
156+15 – 156+65 RT**					Replace Existing /CAT System
RIGHT	152+09	152+27.5	18.5		Type 1 Transition Attach to Presumpscot Bridge
RIGHT	149+09.5	149+28	18.5		Type 1 Transition Attach to Presumpscot Bridge

*** Estimate only, Widen existing widening**

**** Requires Energy Absorbing System CAT(Item # 527.301)**
Note: Existing BCT's to be replaced with FT 350's or CAT's
Item 606.352 shall be installed on all runs according to Standard Specification
Stations are in reference to as built drawings which runs from south to north

GUARDRAIL PIN 16787.00 SCARBOROUGH-FALMOUTH I-295 SB

350 FLARED TERMINAL Station	For Treatment See Remarks Station	to Station	l.f.	SHOULDER WIDENING *s.y.	REMARKS
Southbound					
RIGHT	51+55	51+73.5	18.5		Type 1 Transition Attach to Concrete Median
RIGHT	373+77.5	373+96	18.5		Type 1 Transition Attach to Concrete Median
RIGHT	346+33.5	346+52	18.5		Type 1 Transition Attach to Franklin Street
RIGHT	344+98	345+16.5	18.5		Type 1 Transition Attach to Franklin Street
RIGHT	328+50.5	328+69	18.5		Type 1 Transition Attach to Preble Street
RIGHT	327+23	327+41.5	18.5		Type 1 Transition Attach to Preble Street
RIGHT	317+69.5	317+88	18.5		Type 1 Transition Attach to Forest Avenue
RIGHT	316+22	316+40.5	18.5		Type 1 Transition Attach to Forest Avenue
RIGHT	283+35.5	283+54	18.5		Type 1 Transition Attach to St John Street
RIGHT	276+27	276+45.5	18.5		Type 1 Transition Attach to St James Street
RIGHT	270+71	270+89.5	18.5		Type 1 Transition Attach to Congress Street
RIGHT	268+39	268+57.5	18.5		Type 1 Transition Attach to Congress Street
RIGHT	259+83.5	260+02	18.5		Type 1 Transition Attach to Westbrook Arterial
RIGHT	257+98	258+16.5	18.5		Type 1 Transition Attach to Westbrook Arterial
RIGHT	253+82	254+00.5	18.5		Type 1 Transition Attach to Railroad Bridge
RIGHT	252+08	252+26.5	18.5		Type 1 Transition Attach to Railroad Bridge

*** Estimate only, Widen existing widening**

**** Requires Energy Absorbing System CAT(Item # 527.301)**
Note: Existing BCT's to be replaced with FT 350's or CAT's
Item 606.352 shall be installed on all runs according to Standard Specification
Stations are in reference to as built drawings which runs from south to north

GUARDRAIL PIN 16787.00 SCARBOROUGH-FALMOUTH I-295 SB

350 FLARED TERMINAL Station	For Treatment See Remarks Station	to Station	l.f.	SHOULDER WIDENING *s.y.	REMARKS
Southbound					
RIGHT	232+53.5	232+72	18.5		Type 1 Transition Attach to Fore River Bridge
RIGHT	226+28	226+46.5	18.5		Type 1 Transition Attach to Fore River Bridge
RIGHT	149+13.5	149+32	18.5		Type 1 Transition Attach to Westbrook Street
RIGHT	147+73	147+91.5	18.5		Type 1 Transition Attach to Westbrook Street
RIGHT	104+78.5	104+97	18.5		Type 1 Transition Attach to Turnpike Approach
RIGHT	99+28	99+46.5	18.5		Type 1 Transition Attach to Turnpike Approach
Southbound Lanes					
RIGHT	356+12.5	360+75	462.5		Remove/Modify/Reset Existing for Sign Truss
Northbound Lanes					
LEFT	335+69	336+19	50.0	13.8	Northbound Lanes for Sign Truss Exit 7
LEFT	357+65	358+65	100.0	63.9	Northbound Lanes for Sign Truss Exit 7
LEFT	331+06.5	335+69	462.5		Remove/Modify/Reset Existing for Sign Truss
LEFT	353+02.5	357+65	462.5		Remove/Modify/Reset Existing for Sign Truss

*** Estimate only, Widen existing widening**

**** Requires Energy Absorbing System CAT(Item # 527.301)**
Note: Existing BCT's to be replaced with FT 350's or CAT's
Item 606.352 shall be installed on all runs according to Standard Specification
Stations are in reference to as built drawings which runs from south to north

GUARDRAIL PIN 16787.00 SCARBOROUGH-FALMOUTH I-295 SB

350 FLARED TERMINAL Station	For Treatment See Remarks Station	to Station	l.f.	SHOULDER WIDENING *s.y.	REMARKS
Exit 11 Off					
6+67.5 – 7+17.5 LT**					Replace Existing BCT/CAT System
Exit 10 Off					
13+05 – 13+42.5 RT	13+05	13+42.5		37.2	Replace Existing BCT/Widen Existing
Exit 8 Off	377+42	377+60.5	18.5		Type 1 Transition Attach to Washington St Br RT
379+10.5 – 379+60.5 RT**					Replace Existing BCT/CAT System
Exit 7 On					
28+81.5 – 29+19 RT	28+12.5	29+19		37.2	Replace Existing BCT/Widen Existing
	31+50	31+31.5	18.5		Type 1 Transition Attach to Franklin St Bridge RT
Exit 6B Off	1+88.5	2+07	18.5		Type 1 Transition Attach to Preble St Bridge RT
Exit 6B On					
5+97.5 – 6+35 RT	5+28.5	6+35		37.2	Replace Existing BCT/Widen Existing
	7+85	8+03.5	18.5		Type 1 Transition Attach to Forest Ave Bridge RT
Exit 6A Off	-1+06	0-87.5	18.5		Type 1 Transition Attach to Forest Ave Bridge RT
Exit 5B Off	0+25	0+43.5	18.5		Type 1 Transition Attach to St James St Bridge RT
Exit 5B On					
3+86 – 4+23.5 RT	3+17	4+23.5		37.2	Replace Existing BCT/Widen Existing
	11+86	12+04.5	18.5		Type 1 Transition Attach to Congress St Br RT
Exit 5A Off	0+25.5	0+44	18.5		Type 1 Transition Attach to Congress St Br RT
Exit 5A On	16+35	16+53.5	18.5		Type 1 Transition Attach to Railroad Br RT
Exit 2 Off					
136+96.5 – 137+34 LT	136+27.5	137+34		37.2	Replace Existing BCT/Widen Existing
	146+34	146+52.5	18.5		Type 1 Transition Attach to Route One Br LT

*** Estimate only, Widen existing widening**

**** Requires Energy Absorbing System CAT(Item # 527.301)**

Note: Existing BCT's to be replaced with FT 350's or CAT's

Item 606.352 shall be installed on all runs according to Standard Specification

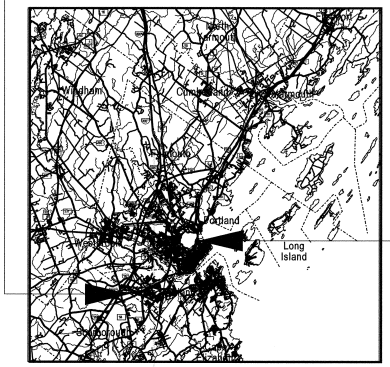
Stations are in reference to as built drawings which runs from south to north

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1705(510)E

BEGIN PROJECT STA. 53+94.00

END PROJECT STA. 558+08.00



LOCATION MAP

5 0 5 10

Scale in Miles

PORTLAND, FALMOUTH, CUMBERLAND, & YARMOUTH

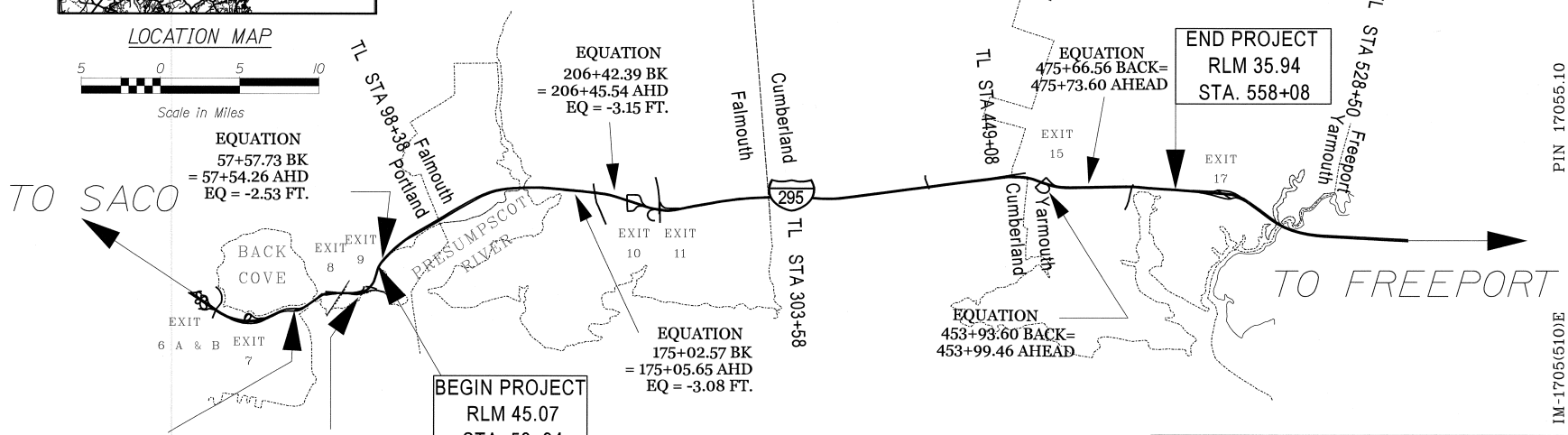
CUMBERLAND COUNTY

INTERSTATE 295 SOUTHBOUND

IM-1705(510)E

PROJECT LENGTH : 9.130 MILES

OPERATIONAL AND SAFETY IMPROVEMENTS



TRAFFIC DATA

	SEC 7	SEC 8	SEC 9	SEC 10	SEC 11	SEC 12	SEC 13
	EXIT 7 (FRANKLIN ST ART) TO EXIT 6 (US 302 FOREST AVE)	EXIT 8 (WASHINGTON AVE) TO EXIT 7 (FRANKLIN ST ART)	EXIT 9 US 1 FALMOUTH TO EXIT 10	EXIT 10 FALMOUTH TO EXIT 11	EXIT 11 FALMOUTH SPUR TO EXIT 16	EXIT 16 US 1 YARMOUTH TO EXIT 17	EXIT 17 US 1 YARMOUTH TO EXIT 20
Current (2009) AADT	32250	32310	23150	21930	25350	21510	23330
Design Speed (mph)	50	65					

Functional Class: PRINCIPAL ARTERIAL INTERSTATE

PROGRAM AREA: HIGHWAY IMPROVEMENTS: INTERSTATE
SCOPE OF WORK: GUARDRAIL INSTALLATION AND REPLACEMENT

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
COMMISSIONER: DATE 4/12/10
CHIEF ENGINEER: DATE 4/12/10

STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER

PROJECT INFORMATION
PROGRAM: HIGHWAY
PROJECT MANAGER: ROBERT HOUGH
DESIGNER
CONSULTANT
PROJECT RESIDENT
CONTRACTOR
PROJECT COMPLETION DATE
SIGNATURE
P.E. NUMBER
DATE

PIN 17055.10

IM-1705(510)E

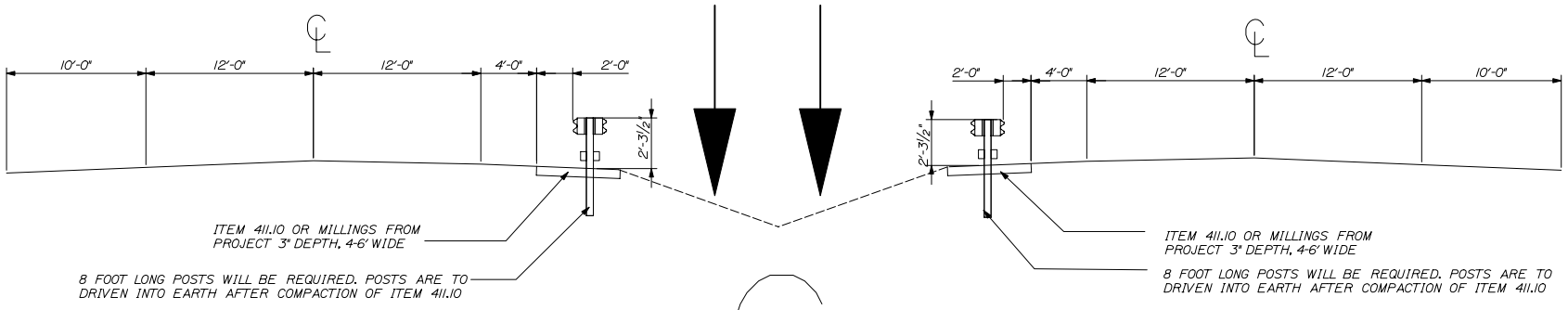
PORTLAND, FALMOUTH, CUMBERLAND, & YARMOUTH
INTERSTATE 295 SOUTHBOUND
TITLE SHEET

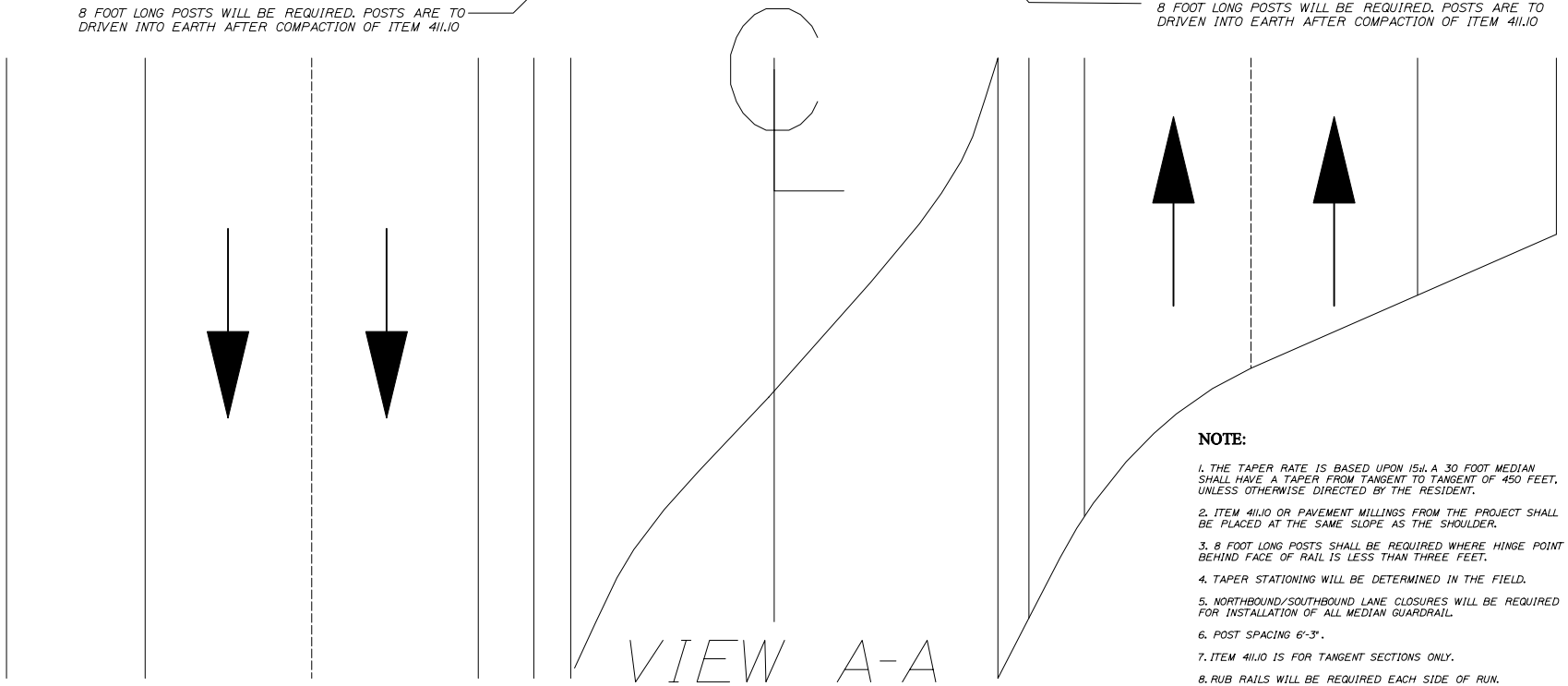
SHEET NUMBER
1
OF 1

Filename: ...\10\HIGHWAY\MSTA\001_Title.dgn Division: HIGHWAY Username: michael.lenko Date:4/9/2010

MEDIAN GUARDRAIL INSTALLATION

VIEW A-A





NOTE:

1. THE TAPER RATE IS BASED UPON 15:1. A 30 FOOT MEDIAN SHALL HAVE A TAPER FROM TANGENT TO TANGENT OF 450 FEET, UNLESS OTHERWISE DIRECTED BY THE RESIDENT.
2. ITEM 411.10 OR PAVEMENT MILLINGS FROM THE PROJECT SHALL BE PLACED AT THE SAME SLOPE AS THE SHOULDER.
3. 8 FOOT LONG POSTS SHALL BE REQUIRED WHERE HINGE POINT BEHIND FACE OF RAIL IS LESS THAN THREE FEET.
4. TAPER STATIONING WILL BE DETERMINED IN THE FIELD.
5. NORTHBOUND/SOUTHBOUND LANE CLOSURES WILL BE REQUIRED FOR INSTALLATION OF ALL MEDIAN GUARDRAIL.
6. POST SPACING 6'-3".
7. ITEM 411.10 IS FOR TANGENT SECTIONS ONLY.
8. RUB RAILS WILL BE REQUIRED EACH SIDE OF RUN.

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1705(510)E

PIN 17005.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED		
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PORTLAND, FALMOUTH, CUMBERLAND, & YARMOUTH
INTERSTATE 295 SOUTHBOUND
TYPICAL SECTIONS

SHEET NUMBER
1
OF 1

Filename: $file$ Division: $wkgroup$ Username: $user$ Date:$date$

STATIONING

Tukey's Bridge Joint	384+03
Tukey's Bridge Joint	389+08
Equation	4+48 NB AHD = 389+08 BK
Washington Avenue Exit Overpass	13+56
Baxter Boulevard Bridge Joint	14+92
Baxter Boulevard Bridge Joint	16+43
Railroad Bridge Joint	22+91
Railroad Bridge Joint	24+51
Veranda Street Bridge Joint	39+40
Veranda Street Bridge Joint	41+40
Begin Permanent Concrete Median	51+55
Begin Project	**53+94**
Equation	57+51.73 BK = 57+54.26 AHD
Equation	82+94.01 BK = 83+88.83 AHD
Portland/Falmouth Town Line	98+38
Back of Back wall	149+28 Presumpscot River Bridge
Back of Back wall	152+13 Presumpscot River Bridge
Equation	175+02.57 BK = 175+05.65 AHD
Lunt Road Overpass	192+95
Bucknam Road Overpass	212+75.44

STATIONING

Spur Connector	232+53.09
Johnson Road Overpass	276+85.90
Falmouth/Cumberland Town Line	303+58
Tuttle Road Overpass	390+00
Cumberland/Yarmouth Town Line	449+08
Equation	453+83.60 BK = 453+99.46 AHD
Route 1 Overpass	457+00
Equation	475+66.56 BK = 475+73.60 AHD
Bridge Joint	509+89 Lafayette Road
Bridge Joint	510+62 Lafayette Road
Bridge Joint	514+85 Royal River
Bridge Joint	516+85 Royal River
Bayview Street Overpass	545+05.68
Bridge Joint	562+79 Route One Bridge
Bridge Joint	564+07 Route One Bridge
End Project	**558+08**

GUARDRAIL PIN 17055.10 Portland to Yarmouth I-295

CAT TERMINAL Station	INSTALL NEW GUARDRAIL TYPE 3D Station	to Station	l.f.		REMARKS
57+59 – 58+09 NB	53+94 NB	57+59 NB	375.0		Remove End Treatment 53+94-54+32 NB
207+58 – 208+08 NB	197+30 SB	207+58 NB	1025.0		Remove End Treatment SB/New Rail/End Treatment NB
208+74 – 209+24 SB	209+24 SB	211+16 NB	200.0		New Rail from SB to NB Existing Run
	217+00 SB	228+00 NB	1100.0		Remove End Treatments SB Lane/NB Lane
	234+89 SB	238+15 NB	325.0		Remove Rail/End Treatments (234+89-237+41)SB Remove Rail/End Treatments (237+65-238+15)NB
247+70 – 248+30 NB	245+20 SB	247+70 NB	250.0		Remove Rail/End Treatments (245+25-247+68)SB
	280+46 SB	292+21 NB	1175.0		Remove End Treatments SB Lane/NB Lane
300+81 – 301+31 NB	297+31 SB	300+81 NB	350.0		Remove Rail/End Treatments (297+23-298+81)SB
407+90 – 408+40 NB	393+90 SB	407+90 NB	1400.0		Remove End Treatments SB Lane/NB Lane
471+50 – 472+00 NB	460+50 SB	471+50 NB	1100.0		Remove End Treatments SB Lane/NB Lane
537+60 – 538+10 SB	538+10 SB	540+81 NB	275.0		Remove End Treatments SB Lane/NB Lane
	548+50 SB	558+08 NB	950.0		Remove End Treatments SB Lane/NB Lane

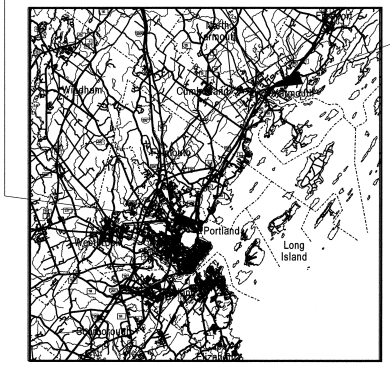
*** Estimate only**
*** Long Posts will be required**
Note: CAT Terminals

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

HPP-1705(520)E

END PROJECT STA. 368+50.00

BEGIN PROJECT STA. 105+19.00



LOCATION MAP

5 0 5 10

Scale in Miles

SOUTH PORTLAND & PORTLAND

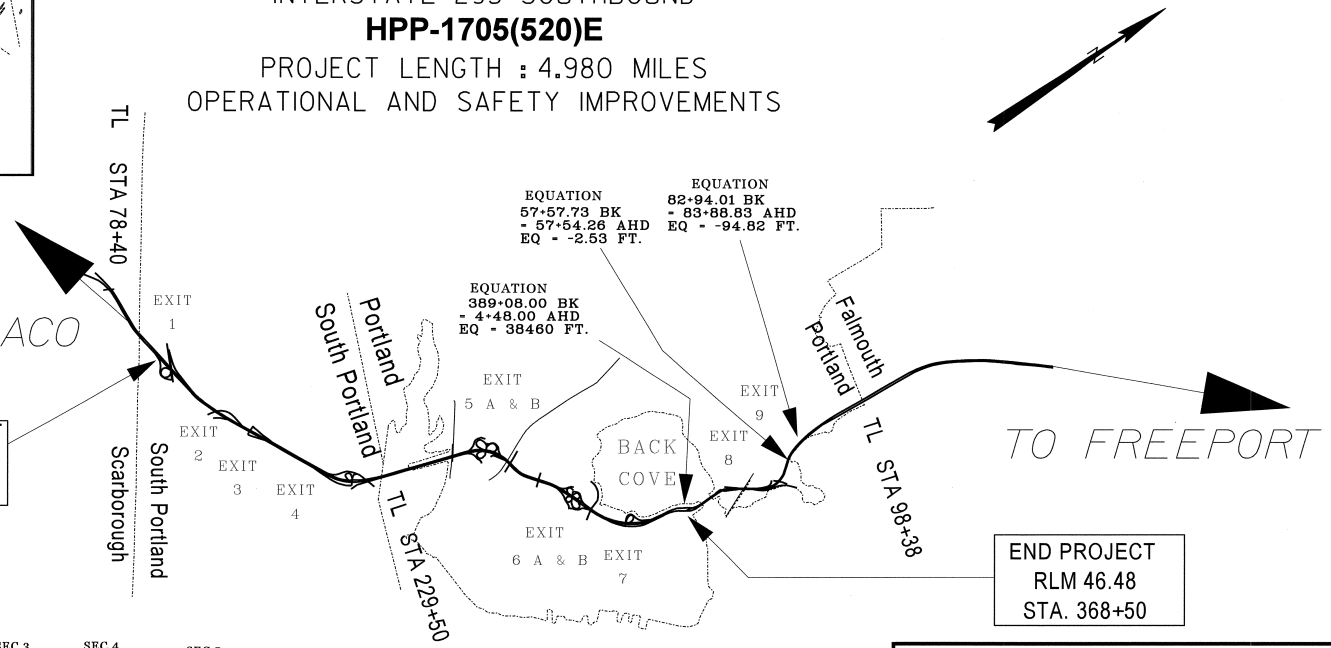
CUMBERLAND COUNTY

INTERSTATE 295 SOUTHBOUND

HPP-1705(520)E

PROJECT LENGTH : 4.980 MILES

OPERATIONAL AND SAFETY IMPROVEMENTS



TRAFFIC DATA

	SEC 1	SEC 2	SEC 3	SEC 4	SEC 5	SEC 6	SEC 7	SEC 8	SEC 9
	EXIT 1 MAINE MALL ROAD TO MAINE TURNPIKE	EXIT 2 (SCARBOROUGH CONN.) TO EXIT 1 (MAINE MALL ROAD)	EXIT 3 (WESTBROOK STREET) TO EXIT 2 (SCARBOROUGH CONN.)	EXIT 4 (US ROUTE 1 SOUTH) TO EXIT 3 (WESTBROOK STREET)	EXIT 5 (SR 22 CONGRESS ST) TO EXIT 4 (US ROUTE 1 SOUTH)	EXIT 6 (US 302 FOREST AVE) TO EXIT 5 (SR 22 CONGRESS ST)	EXIT 7 (FRANKLIN ST ART) TO EXIT 6 (US 302 FOREST AVE)	EXIT 8 (WASHINGTON AVE) TO EXIT 7 (FRANKLIN ST ART)	EXIT 9 US 1 FALMOUTH TO EXIT 10
Current (2009) AADT	11100	17440	24600	35580	31050	32030	32250	32310	23150
Design Speed (mph)	50								65
Functional Class:	PRINCIPAL ARTERIAL INTERSTATE								

PROGRAM AREA: HIGHWAY IMPROVEMENTS: INTERSTATE
SCOPE OF WORK: GUARDRAIL INSTALLATION AND REPLACEMENT

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED — DATE

COMMISSIONER: — 4/12/10

CHIEF ENGINEER: — 4/12/10

STATE OF MAINE ★ VERMONT PROFESSIONAL ENGINEER — Richard Carlisle Desjardins — 9841

SIGNATURE — P.E. NUMBER — DATE

PROJECT INFORMATION

PROGRAM	HIGHWAY
PROJECT MANAGER	ROBERT HOUGH
DESIGNER	
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

PIN 17055.20

HPP-1705(520)E

SOUTH PORTLAND & PORTLAND
INTERSTATE 295 SOUTHBOUND

TITLE SHEET

SHEET NUMBER

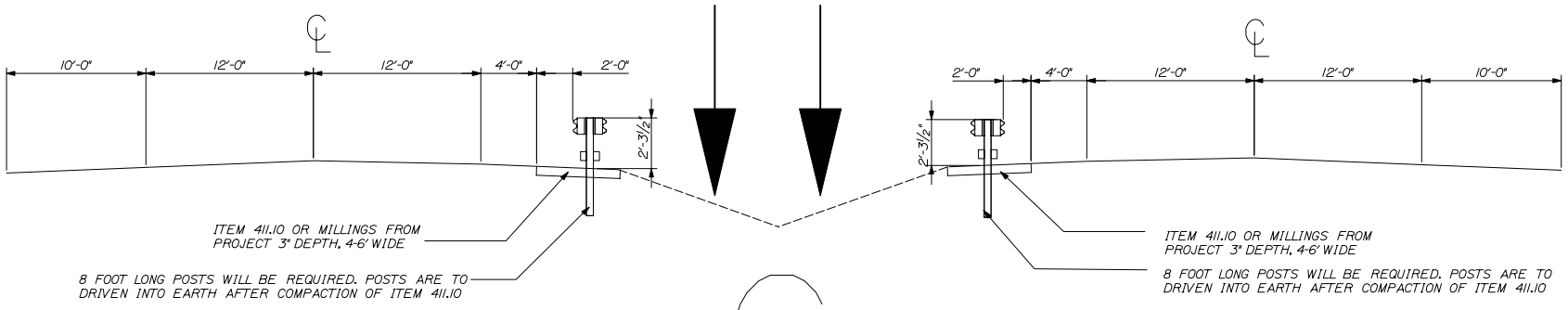
1

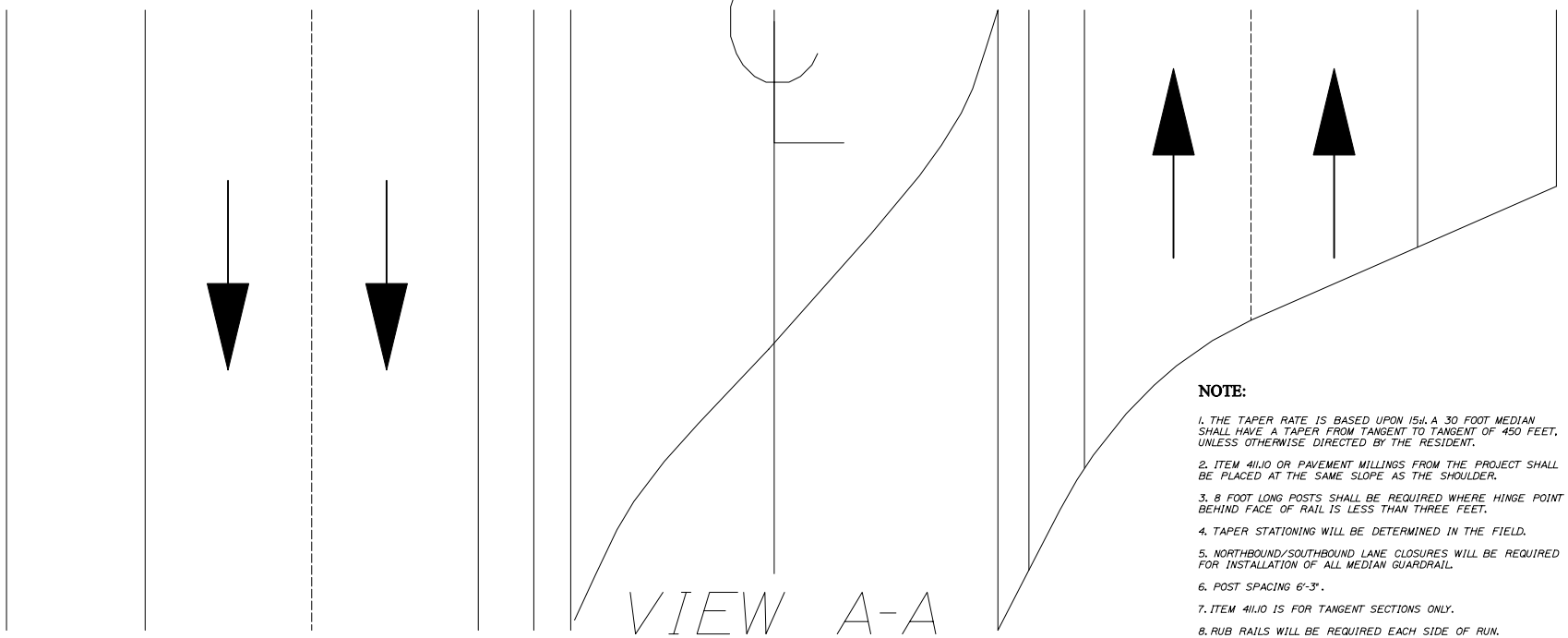
OF 1

Filename: ...\20\HIGHWAY\MSTA\001_Title.dgn Division: HIGHWAY Username: michael.lenko Date:4/9/2010

MEDIAN GUARDRAIL INSTALLATION

VIEW A-A





NOTE:

1. THE TAPER RATE IS BASED UPON 15:1. A 30 FOOT MEDIAN SHALL HAVE A TAPER FROM TANGENT TO TANGENT OF 450 FEET, UNLESS OTHERWISE DIRECTED BY THE RESIDENT.
2. ITEM 411.10 OR PAVEMENT MILLINGS FROM THE PROJECT SHALL BE PLACED AT THE SAME SLOPE AS THE SHOULDER.
3. 8 FOOT LONG POSTS SHALL BE REQUIRED WHERE HINGE POINT BEHIND FACE OF RAIL IS LESS THAN THREE FEET.
4. TAPER STATIONING WILL BE DETERMINED IN THE FIELD.
5. NORTHBOUND/SOUTHBOUND LANE CLOSURES WILL BE REQUIRED FOR INSTALLATION OF ALL MEDIAN GUARDRAIL.
6. POST SPACING 6'-3".
7. ITEM 411.10 IS FOR TANGENT SECTIONS ONLY.
8. RUB RAILS WILL BE REQUIRED EACH SIDE OF RUN.

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

HPP-1705(620)E

PIN 17065.20

HIGHWAY PLANS

PROJ. MANAGER		BY	DATE
DESIGN-DETAILED			
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

SOUTH PORTLAND & PORTLAND
INTERSTATE 295 SOUTHBOUND

TYPICAL SECTIONS

SHEET NUMBER

1

OF 1

Filename: $file$ Division: $wkgroup$ Username: $user$ Date:$date$

STATIONING

Scarborough/South Portland T/L	78+40
State Route 703 Bridge	99+47 (Back of Backwall)
State Route 703 Bridge	101+79 (Back of Backwall)
Begin Project	**105+19**
Scarborough Connector Overpass	129+75
Westbrook Street Bridge	147+92 (Back of Backwall)
Westbrook Street Bridge	149+13(Back of Backwall)
Route One Overpass	203+27
Route One Overpass	210+20
Fore River Bridge	226+47 (Back of Backwall)
Portland/South Portland T/L	229+50
Fore River Bridge	232+53 (Back of Backwall)
Railroad Bridge	252+27 (Back of Backwall)
Railroad Bridge	253+82 (Back of Backwall)
Westbrook Arterial Bridge	258+17 (Back of Backwall)
Westbrook Arterial Bridge	259+83 (Back of Backwall)
Congress Street Bridge	268+58 (Back of Backwall)
Congress Street Bridge	270+66 (Back of Backwall)
St. James Street Bridge	276+46 (Back of Backwall)
St. James Street Bridge	277+58 (Back of Backwall)

STATIONING

Railroad Bridge	279+67 (Back of Backwall)
Railroad Bridge	280+84 (Back of Backwall)
St. John Street Bridge	282+20 (Back of Backwall)
St. John Street Bridge	283+35 (Back of Backwall)
Deering Avenue Overpass	298+58
Forest Avenue Bridge	316+41 (Back of Backwall)
Forest Avenue Bridge	317+70 (Back of Backwall)
Preble Street Bridge	327+42 (Back of Backwall)
Preble Street Bridge	328+59 (Back of Backwall)
Franklin Street Bridge	345+16 (Back of Backwall)
Franklin Street Bridge	346+33 (Back of Backwall)
End Project	**368+50**
End Permanent Concrete Median	373+96
Washington Avenue Overpass	374+51
Tukey's Bridge Joint	384+03
Tukey's Bridge Joint	389+08
Equation	4+48 NB AHD = 389+08 BK

GUARDRAIL PIN 17055.20 South Portland to Portland I-295

CAT TERMINAL Station	INSTALL NEW GUARDRAIL TYPE 3D Station	to Station	l.f.		REMARKS
	105+19 SB	109+37 NB	425.0		Remove End Treatments SB Lane/NB Lane
	116+60 SB	126+00 NB	937.5		Remove End Treatments SB Lane/NB Lane
	133+30 SB	139+90 NB	662.5		Remove End Treatments SB Lane/NB Lane
	213+77 SB	222+98 NB	925.0		Remove End Treatments SB Lane/NB Lane
236+30 – 236+80 NB	234+22 SB	236+30 NB	200.0		Remove Rail/End Treatment(234+22-236+14)SB
237+37 – 237+87 SB	237+87 SB	245+50 NB	762.5		New Rail/Remove End Treatment NB
	260+70 SB	264+64 NB	400.0		Remove Rail/End Treatment(260+70-264+08)SB Remove End Treatment (264+08-264+64)NB
	286+52 SB	294+87 NB	837.5		Remove End Treatments SB Lane/NB Lane
	300+00 SB	304+27 NB	425.0		Remove Rail/End Treatment(300+00-302+78)SB
	318+00 SB	321+67 NB	375.0		Remove End Treatments SB Lane/NB Lane
	337+50 SB	341+67 NB	375.0		Remove Rail/End Treatment(337+50-339+45)SB Remove End Treatment NB
	350+27 SB	354+21 NB	400.0		Remove End Treatments SB Lane/NB Lane
364+75 – 365+25 NB	360+75 SB	364+75 NB	400.0		Remove Rail/End Treatment(360+75-362+11)SB Remove End Treatment NB
365+85 – 366+35 SB	366+35 SB	368+50 SB	225.0		New Rail/Remove End Treatment SB

*** Estimate only**
*** Long Posts will be required**
Note: CAT Terminals

GENERAL NOTES

1. Where deemed necessary 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. As directed by the Resident, all existing Underdrain Outlets shall be located, cleaned out, and ditched as required or replaced as necessary. Payment will be made under appropriate hourly contract items.

8. 350 Flared Terminals and median terminal systems shall be installed concurrently with the placement of each section of beam guardrail and or replacement of end treatments.

9. All guardrail which is removed and not reused on the project shall become property of the Contractor. This shall include end treatments.

10. 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.

11. "Undetermined Locations" shall be determined by the Resident.

12. Stations referenced are approximate.

GENERAL NOTES

13. All work shall be done in accordance with the Maine Department of Transportation's Best Management Practices for Erosion & Sedimentation Control, February, 2008.

14. Reference to left or right is in the direction of stationing which runs south to north.

16. Interstate crossovers shall not be used by Contractor.

17. Milling widths/depths may be adjusted by the Resident.

18. 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.

19. No separate payment for superintendent or foreman will be made for the supervision of work paid under equipment rental items, however supervision is required.

20. 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.

21. The following shall be incidental to the 603 item(s):
    - Any cutting of existing culverts and or connectors necessary to install new culvert replacements or extensions
    - All pipe excavation including any cutting and removal of pavement
    - All ditching at pipe ends
    - Furnishing, placing, grading, and compacting of any new gravel and/or fill material including Granular Borrow used under pipes and for temporary detours to maintain traffic during pipe installation (excavation is also incidental).
    - Granular Borrow under the pipe shall meet the requirements for Underwater Backfill
    - All work necessary to connect to existing pipes
    - Flow lines may be changed by 0.5M [1.5 ft]
    - Any necessary clearing of brush and small trees at culvert ends
    - An 18" wide strip of non woven geotextile meeting the requirements of Item 620.58 shall be placed over all pipe joints

22. Existing culverts and 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.

GENERAL NOTES

23. All ditches that are regraded/excavated must receive erosion control immediately, as directed by the Resident.

24. Temporary erosion control blanket is estimated for use in ditching areas. When used in other areas to conform to Special Provision 656, blanket will not be measured.

25. All pavement grindings/millings will become property of the Contractor.

26. Item #205.512 widening of existing shoulder shall be 5' wide in areas where new guardrail shall be installed. In areas where Item #205.512 widening of existing shoulder is used for guardrail end treatments, Item #205.512 shall conform to the dimensions for shoulder widening for guardrail 350 end terminal on page 606(19) of the Department's standard details book Revision of December 2002.

27. All pipe and rental work to be completed in the area prior to the contractor commencing milling and paving operations in that area unless otherwise authorized by the Resident.

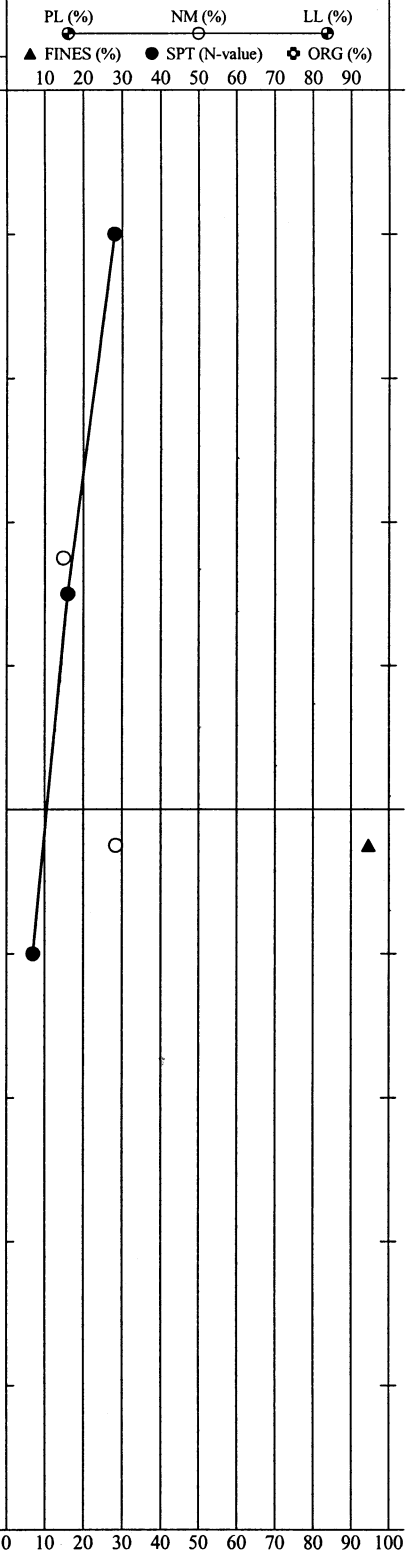
28. Sign Trusses shall follow Special Provision 107 Sign Truss Work.

29. 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.

General Construction Note
Forest Avenue/I-295 Exits
Portland, ME
PIN: 15634.00

There are several potential sources of petroleum and hazardous waste contamination identified by the Maine Department of Environmental Protection (MDEP) along the project. The work proposed for the project suggests any potential contamination should be adjacent to the various locations along the project. However, the Contractor shall remain alert for evidence of contamination and employ appropriate health and safety measures to protect its workers against hazards associated with working near contaminated soils. If the Contractor encounters evidence of soil or groundwater contamination, the Contractor shall secure the excavation, stop work in the contaminated area, and immediately notify the Resident. The Resident shall contact the Hydrogeologist in MDOT's Environmental Office at 207-624-3100 and the Maine Department of Environmental Protection at 800-482-0777. Work may only continue with authorization from the Resident.

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" Or RQD % REC
0	Dark brown, silty fine to medium sand, trace coarse sand, little gravel, medium dense, dry: TOPSOIL (SM)		10.0			
	Brown, fine to medium sand with silt, few coarse sands, trace gravel, medium dense, moist to wet: FILL (SP-SM)			SS-1		8-13-15-16 (N = 28)
	- 2.5' bgs: becomes wet					
	Gray, sandy silt with gravel, medium dense, wet: FILL (ML)			SS-2		5-9-7-12 (N = 16)
	Gray, clay, some silt, trace sand, medium stiff, wet: FILL (CL)					
5			5.0			
	Dark brown, silty sand, trace gravel, loose, wet: FILL (SM)			SS-3		2-3-4-4 (N = 7)
	Bottom of boring at 7.0' bgs					
10			0.0			



DEPTH (ft): 0, 5, 10

BOREHOLE: PID; DATA GRAPH (2500); WELL 361308307 2-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER: Great Works Pump & Test Boring
EQUIPMENT: Rubber-track-mounted CME 45
METHOD: Hollow-Stem Augers
HOLE DIAM.: 4.25" ID
REMARKS: Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

LOGGED BY: RSE CHECKED BY/DATE: TCC/10-2008

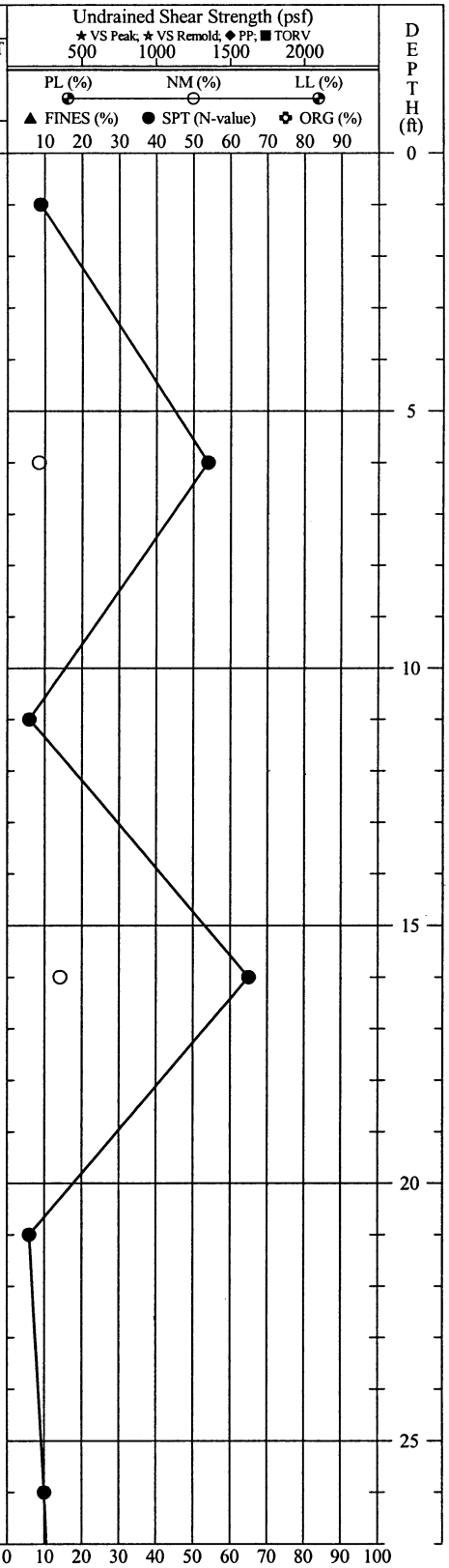
THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-805S
DRILLED: 05/28/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE** 1 **OF** 1

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT (1st 6" / 2nd 6" / 3rd 6" / 4th 6") Or RQD % REC
0	Dark brown, silty fine to medium sand, trace coarse sand, little gravel, loose, dry: TOPSOIL (SM) - occasional roots		10.0	SS-1		2-3-6-5 (N = 9)
	Brown, fine to medium sand with silt, trace gravel, loose, moist: FILL (SP-SM)					
	Dark gray, clay, some silt, stiff, moist, dessicated: FILL (CL)					
	Grayish brown, fine to coarse sand with gravel, loose to very dense, moist to wet: FILL (SP-SM)					
5	- 5.5' bgs: becomes wet		5.0	SS-2		11-12-42-22 (N = 54)
10			0.0	SS-3		4-1-5-7 (N = 6)
15			-5.0	SS-4		20-29-36-39 (N = 65)
20			-10.0	SS-5		5-2-4-5 (N = 6)
25			-15.0	SS-6		10-5-5-4 (N = 10)



BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER:	Great Works Pump & Test Boring
EQUIPMENT:	Rubber-track-mounted CME 45
METHOD:	Rotary Wash with Water (Cased)
HOLE DIAM.:	4"
REMARKS:	Switched from HSA drilling to rotary wash at 12' bgs. All sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

LOGGED BY: RSE CHECKED BY/DATE: TCC/10-2008

THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

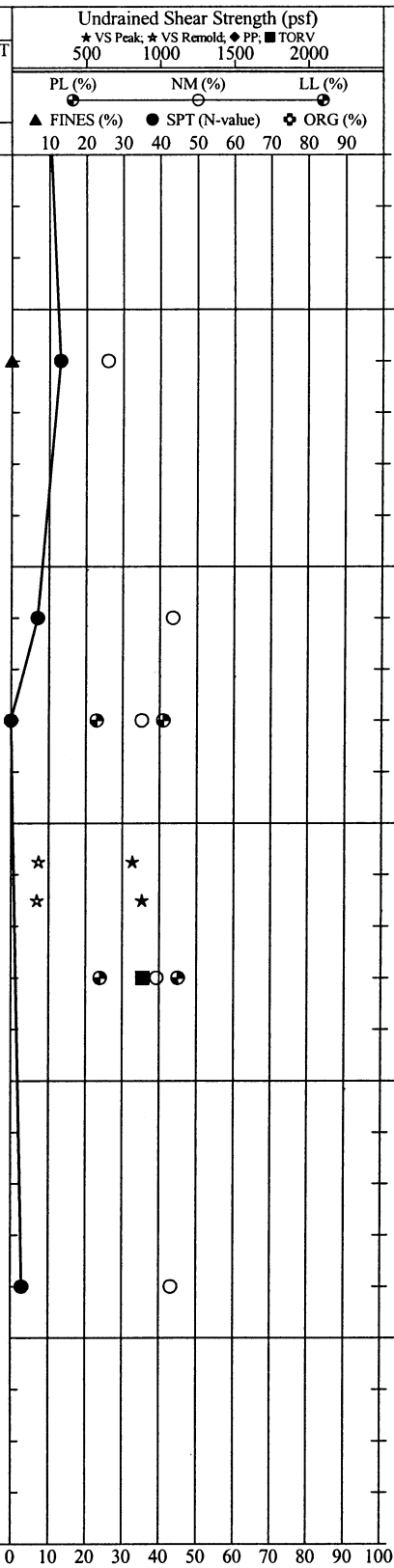
SOIL BORING RECORD

BOREHOLE NO.: SB-806D
DRILLED: 05/28/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE 1 OF 2**

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)
	Grayish brown, fine to coarse sand with gravel, loose to very dense, moist to wet: FILL (SP-SM)		
	Brown, medium sand with gravel (sub rounded to angular), few fine sands, few coarse sands, trace silt, medium dense, wet: FILL (SP)		
30			-20.0
	Dark gray, ORGANIC CLAY to CLAY, medium stiff, wet: FORE RIVER SEDIMENTS (OH/CH)		
35			-25.0
	Dark gray, CLAY, soft, wet: FORE RIVER SEDIMENTS (CL) - occasional organics		
40	Dark gray, CLAY, medium stiff, wet: PRESUMPSCOT (CL)		-30.0
45			-35.0
50	Bottom of boring at 50' bgs		-40.0

SAMPLES IDENT	TYPE	BLOW COUNT (1st 6" / 2nd 6" / 3rd 6" / 4th 6") Or RQD % REC
SS-7		14-6-7-7 (N = 13)
SS-8		3-3-4-6 (N = 7)
SS-9		WR-WH/12"1
VS-10A		
VS-10B		
ST-11		
SS-12		WR-0-3-3 (N = 3)



BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER:	Great Works Pump & Test Boring
EQUIPMENT:	Rubber-track-mounted CME 45
METHOD:	Rotary Wash with Water (Cased)
HOLE DIAM.:	4"
REMARKS:	Switched from HSA drilling to rotary wash at 12' bgs. All sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

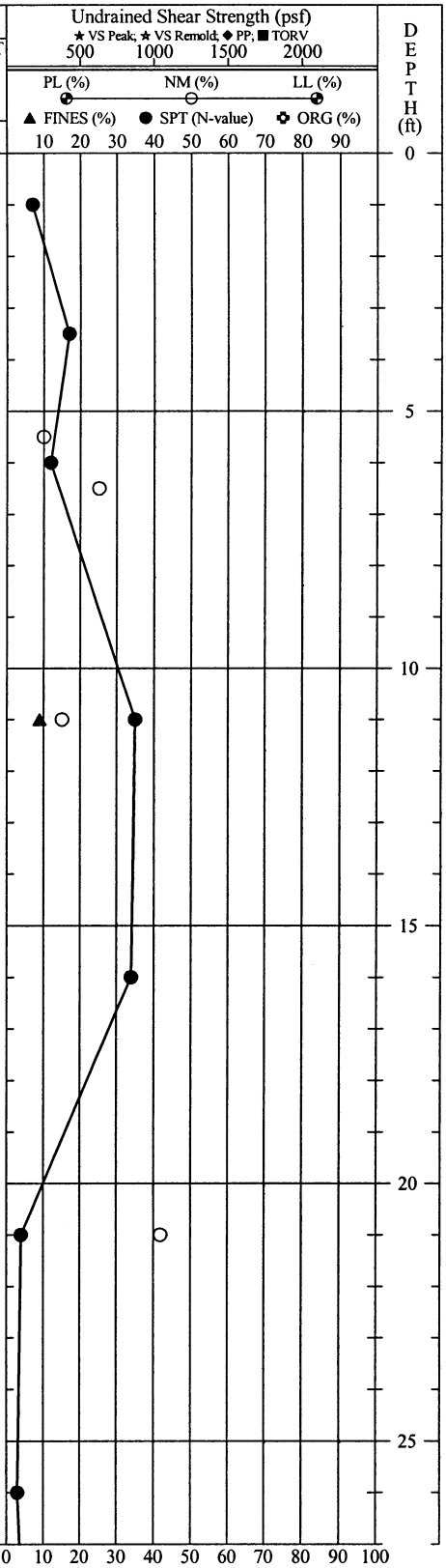
SOIL BORING RECORD

BOREHOLE NO.: SB-806D
DRILLED: 05/28/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE 2 OF 2**

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)
0	Brown, silty fine sand, trace medium to coarse sand, loose, dry: TOPSOIL (SM) - occasional roots/rootlets		11.5
	Light brown to gray, fine to coarse sand, trace silt, medium dense, moist: FILL (SW) - 2.5' to 5.0' bgs: occasional roots		
5	- 5.0' to 5.8' bgs: trace gravel		6.5
	Gray, clay, some silt, moist, stiff: FILL (CL)		
	Light brown to gray, fine to medium sand with silt, few coarse sands, trace gravel, dense, wet: FILL (SW-SM)		
10			1.5
15			-3.5
20			-8.5
	Dark gray, ORGANIC SILT, little sand, soft, wet: FORE RIVER SEDIMENTS (OH)		
25			-13.5

SAMPLES IDENT	TYPE	BLOW COUNT (1st 6" / 2nd 6" / 3rd 6" / 4th 6") Or RQD % REC
SS-1		1-2-5-7 (N = 7)
SS-2		6-6-11-12 (N = 17)
SS-3		7-7-5-5 (N = 12)
SS-4		5-17-18-20 (N = 35)
SS-5		11-18-16-13 (N = 34)
SS-6		2-2-2-2 (N = 4)
SS-7		1-1-2-2 (N = 3)



BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER: Great Works Pump & Test Boring
EQUIPMENT: Rubber-track-mounted CME 45,Hollow-Stem
METHOD: Augers,4.25" ID,10
HOLE DIAM.: Rotary Wash with Water (Cased)
REMARKS: 4"
Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

LOGGED BY: RSE CHECKED BY/DATE: TCC/10-2008

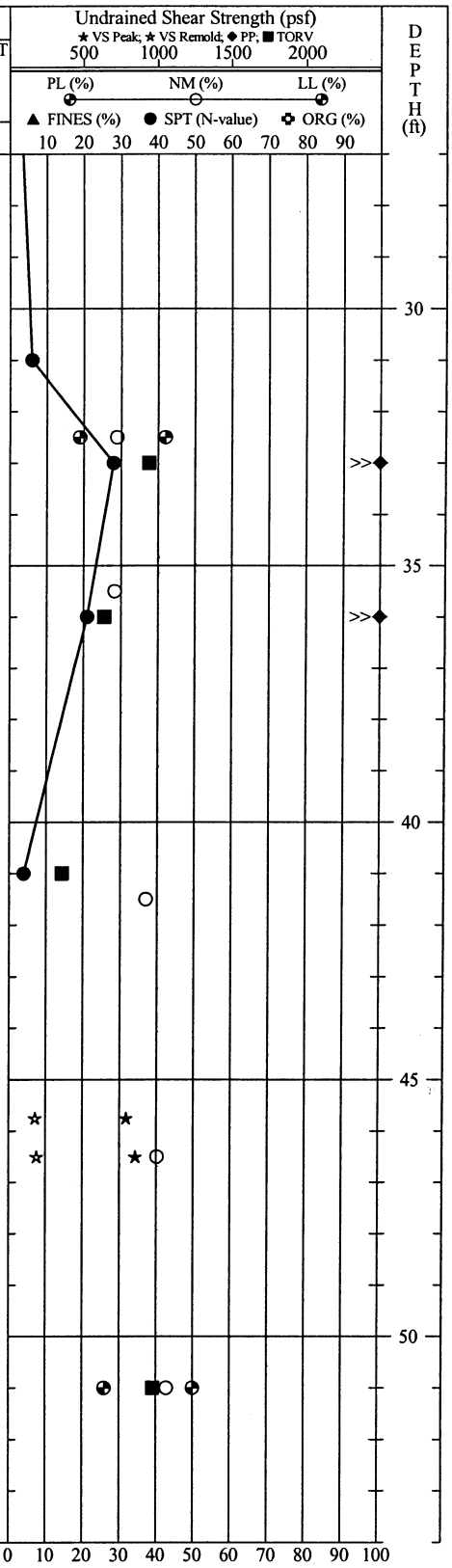
THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-807D
DRILLED: 06/03/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE 1 OF 2**

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" Or RQD % REC
	Dark gray, ORGANIC SILT, little sand, soft, wet: FORE RIVER SEDIMENTS (OH)					
30			-18.5	SS-8		2-2-4-18 (N = 6)
	Olive gray, CLAY, some silt, very stiff, wet, dessicated: PRESUMPSCOT (CL)			SS-9		8-12-16-20 (N = 28)
35	- 35.0' to 37.0' bgs: occasional iron oxide staining		-23.5	SS-10		7-10-11-12 (N = 21)
	Blue gray, CLAY, medium stiff, wet: PRESUMPSCOT (CL)					
40			-28.5	SS-11		2-2-2-3 (N = 4)
45	- split-spoon sample collected from FVST interval; sample logged at SS-13; jar labelled (and lab testing reported) as SS-12		-33.5	VS-12A VS-12B		
50	Blue gray, CLAY, medium stiff, wet: PRESUMPSCOT (CH/CL)		-38.5	ST-14		
	Bottom of boring at 52' bgs					



BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER:	Great Works Pump & Test Boring
EQUIPMENT:	Rubber-track-mounted CME 45,Hollow-Stem
METHOD:	Augers,4.25" ID,10
HOLE DIAM.:	Rotary Wash with Water (Cased)
REMARKS:	4" Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

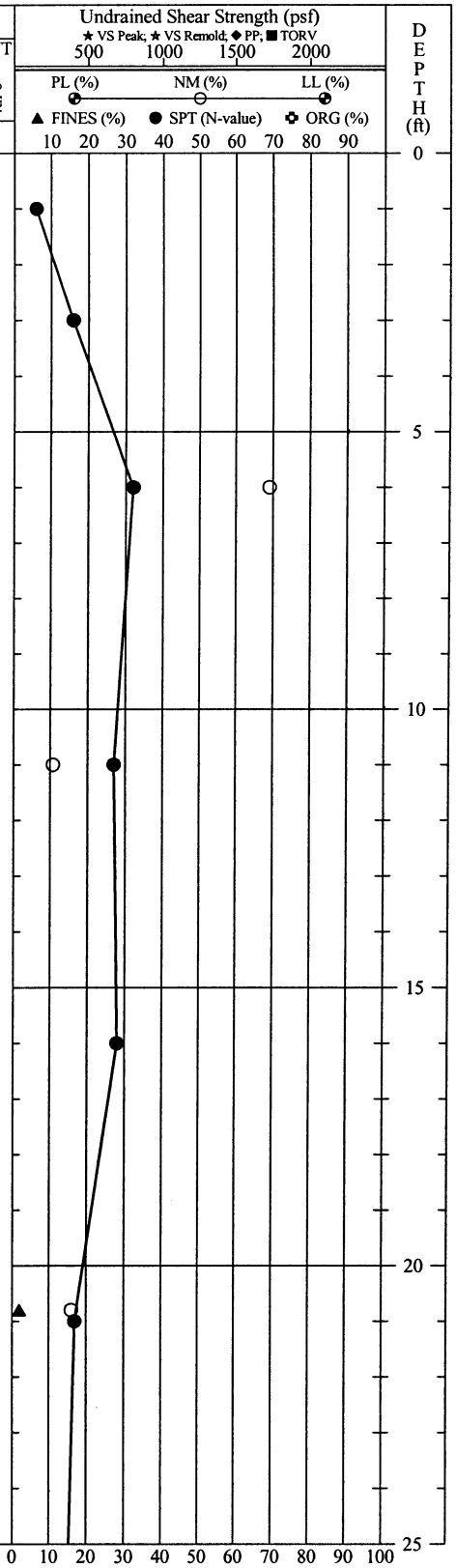
THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-807D
DRILLED: 06/03/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE 2 OF 2**

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" Or RQD % REC
0	Brown, silty fine sand, loose, dry: TOPSOIL (SM) - occasional roots		10.0			
	Light brown, fine to medium sand, trace silt, loose, trace gravel, dry: FILL (SW)			SS-1		2-3-3-3 (N = 6)
	Gray to dark brown, silty sand, trace gravel, medium dense to dense, moist: FILL (SM)			SS-2		6-8-8-9 (N = 16)
5			5.0			
	Olive gray, clay, some silt, very stiff, wet: FILL (CL)			SS-3		7-23-9-10 (N = 32)
	Dark brown to gray, fine to medium sand, trace coarse sand, few to little gravels, trace silt, medium dense, wet: FILL (SP)					
10			0.0	SS-4		11-13-14-14 (N = 27)
15			-5.0	SS-5		8-14-14-17 (N = 28)
20			-10.0	SS-6		9-9-8-8 (N = 17)
25			-15.0			



BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER: Great Works Pump & Test Boring
EQUIPMENT: Rubber-track-mounted CME 45,Hollow-Stem
METHOD: Augers,4.25" ID,10
HOLE DIAM.: Rotary Wash with Water (Cased)
REMARKS: 4"
Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

LOGGED BY: RSE CHECKED BY/DATE: TCC/10-2008

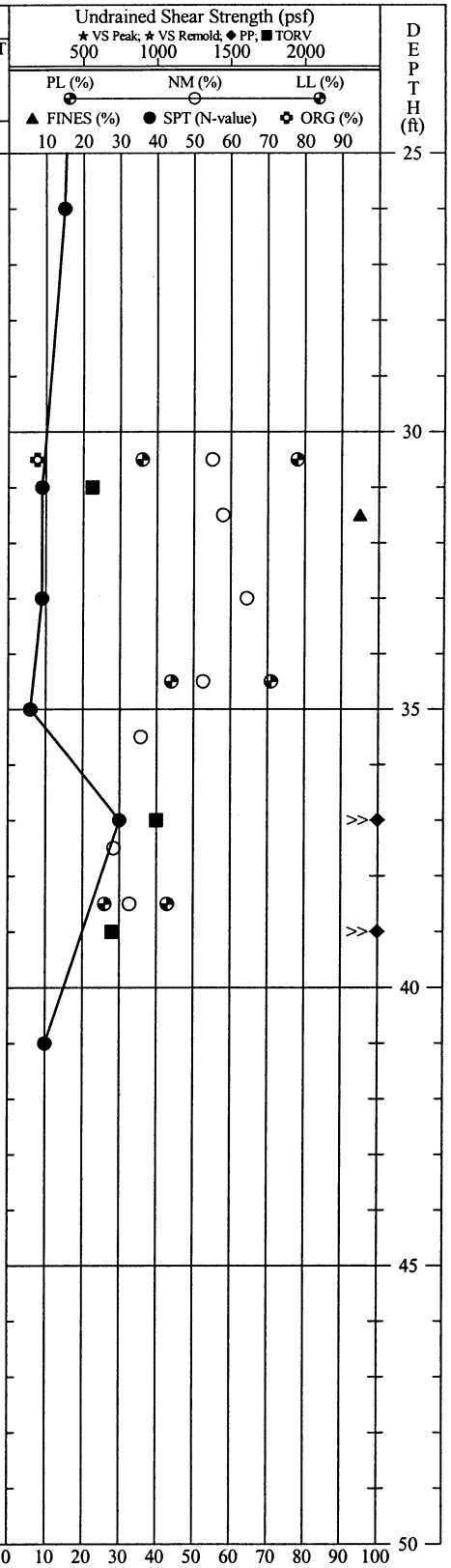
THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-808D
DRILLED: 05/30/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE 1 OF 2**

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT (1st 6" / 2nd 6" / 3rd 6" / 4th 6") Or RQD % REC
25	Dark brown to gray, fine to medium sand, trace coarse sand, few to little gravels, trace silt, medium dense, wet: FILL (SP)		-15.0	SS-7		6-6-9-5 (N = 15)
	Dark gray to black, ORGANIC SILT, little clay, trace sand, medium stiff to stiff, wet: FORE RIVER SEDIMENTS (OH)					
30			-20.0	SS-8		3-4-5-6 (N = 9)
				SS-9		4-5-4-5 (N = 9)
35			-25.0	SS-10		2-3-3-7 (N = 6)
	Gray, CLAY, some silt, very stiff to stiff, wet: PRESUMPSCOT (CL) - occasional partings of fine sand -35.5' to 38.0' bgs: dessicated with occasional olive brown mottling			SS-11		12-15-15-15 (N = 30)
				SS-12		5-8-10 (N = 13)
40	- 40.0' bgs: becomes stiff		-30.0	SS-13		4-5-5-5 (N = 10)
	Bottom of boring at 42' bgs					
45			-35.0			
50			-40.0			



BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER:	Great Works Pump & Test Boring
EQUIPMENT:	Rubber-track-mounted CME 45,Hollow-Stem
METHOD:	Augers,4.25" ID,10
HOLE DIAM.:	Rotary Wash with Water (Cased)
REMARKS:	4" Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

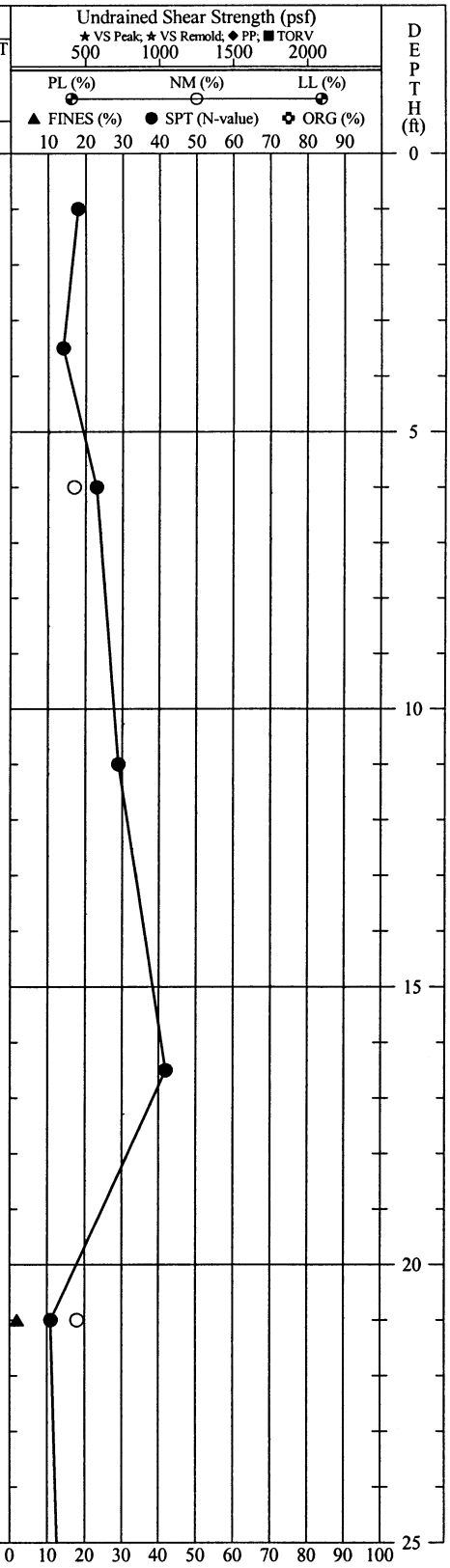
THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-808D
DRILLED: 05/30/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE 2 OF 2**

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT (1st 6" / 2nd 6" / 3rd 6" / 4th 6") Or RQD % REC
0	Brown, silty fine sand, medium dense, dry: TOPSOIL (SM)		10.0			
	Light brown, fine to medium sand, trace silt, medium dense, dry: FILL (SW)			SS-1		6-8-10-7 (N = 18)
	Light brown, silty fine to medium sand, trace clay, medium dense, moist: FILL (SM)			SS-2		6-7-7-7 (N = 14)
5			5.0	SS-3		4-13-10-22 (N = 23)
	Light brown to dark brown, fine to medium sand, few to little gravels, trace silt, medium dense to dense, wet: FILL (SP)					
10			0.0	SS-4		11-12-17-21 (N = 29)
15			-5.0	SS-5		14-22-20-15 (N = 42)
20			-10.0	SS-6		5-5-6-7 (N = 11)
25			-15.0			



BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER: Great Works Pump & Test Boring
EQUIPMENT: Rubber-track-mounted CME 45,Hollow-Stem
METHOD: Augers,4.25" ID,10
HOLE DIAM.: Rotary Wash with Water (Cased)
REMARKS: 4"
Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

LOGGED BY: RSE CHECKED BY/DATE: TCC/10-2008

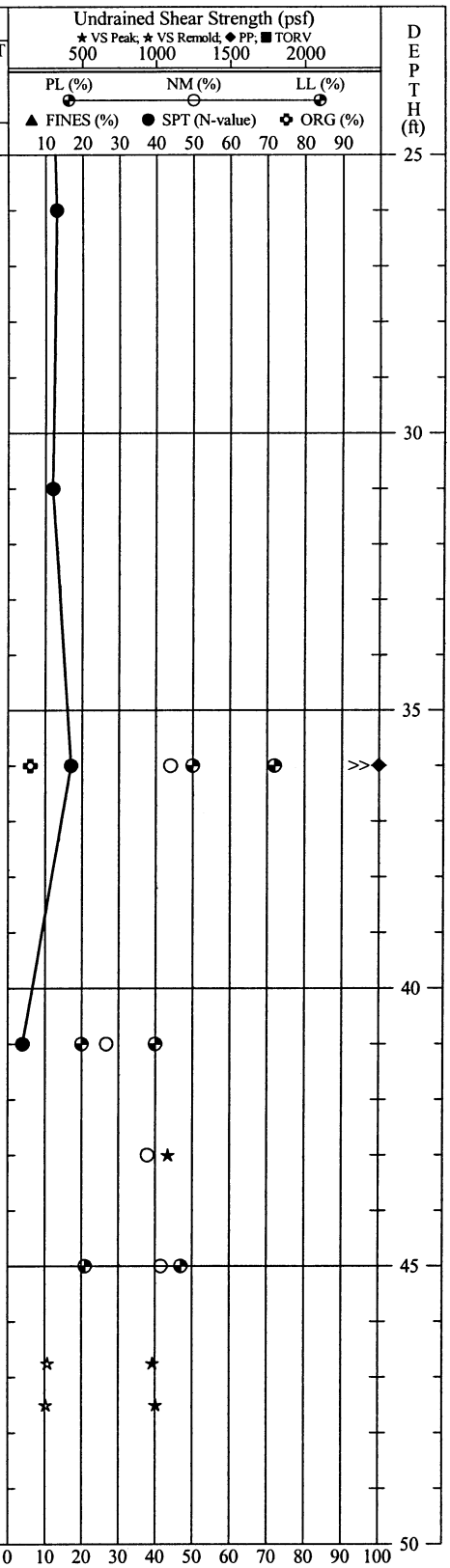
THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-809D
DRILLED: 05/29/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE 1 OF 2**

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT (1st 6" / 2nd 6" / 3rd 6" / 4th 6") Or RQD % REC
25	Light brown to dark brown, fine to medium sand, few to little gravels, trace silt, medium dense to dense, wet: FILL (SP)		-15.0	SS-7		4-5-8-5 (N = 13)
	Dark gray to gray, fine to coarse sand, little gravel, medium dense, wet: FILL (SP)					
30			-20.0	SS-8		4-6-6-5 (N = 12)
35			-25.0			
	Dark gray to black, ORGANIC SILT, trace to few sands, very stiff, wet: FORE RIVER SEDIMENTS (OH) - occasional white shells - occasional organics			SS-9		4-7-10-11 (N = 17)
	- 39.0' bgs: FVST attempted. Limited penetration (too stiff).					
	Dark gray, CLAY, some silt, stiff, wet: PRESUMPSCOT (CL) - occasional black organics/black specs					
40			-30.0	SS-10		WH-1-3-4 (N = 4)
	- No rotation/failure achieved during FVST at max. torque (100 ft-lbs).			VS-11A		
	Gray, CLAY, some silt, little gravel, stiff, wet: PRESUMPSCOT (CL)					
45			-35.0	ST-12		
				VS-13A		
				VS-13B		
	Bottom of boring at 48' bgs					
50			-40.0			



BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER:	Great Works Pump & Test Boring
EQUIPMENT:	Rubber-track-mounted CME 45,Hollow-Stem
METHOD:	Augers,4.25" ID,10
HOLE DIAM.:	Rotary Wash with Water (Cased)
REMARKS:	4" Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

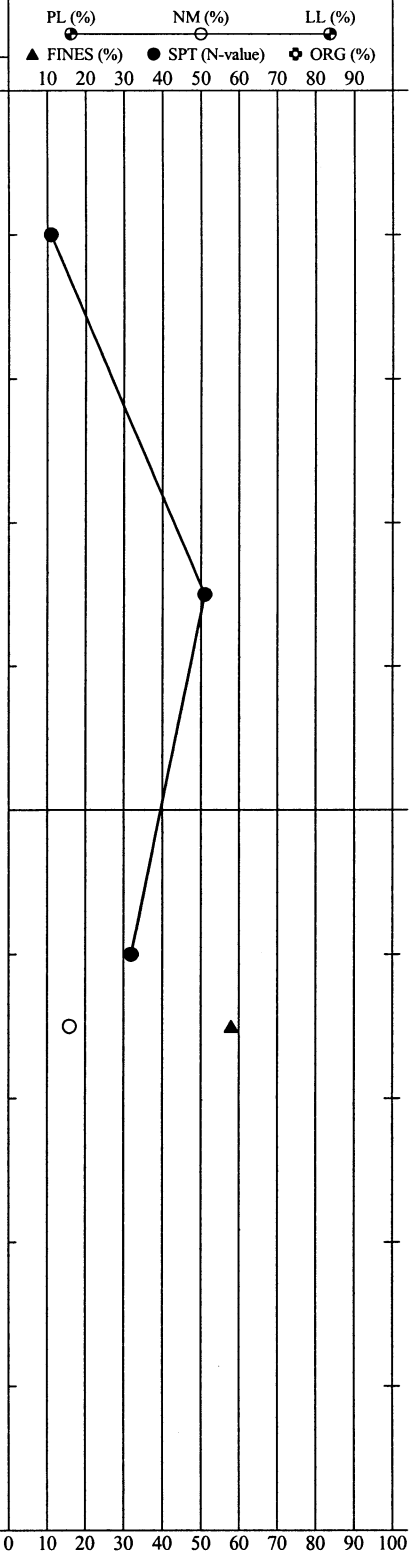
THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-809D
DRILLED: 05/29/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE 2 OF 2**

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" Or RQD % REC
0	Brown, silty fine sand, trace medium to coarse sand, trace gravel, loose, dry: TOPSOIL (SM) - occasional roots		11.0			
	Light brown to brown, silty fine to coarse sand, trace gravel, medium dense to very dense, moist to wet: FILL (SW-SM)			SS-1		3-5-6-7 (N = 11)
	- 2.5' bgs: becomes wet			SS-2		1-31-20-12 (N = 51)
5	Brown, silty fine sand, dense, moist: FILL (SM)		6.0			
	Dark gray, fine sandy silt, trace medium sand, trace coarse sand, trace gravel, dense, moist: FILL (ML)			SS-3		11-22-10-23 (N = 32)
10	Bottom of boring at 7.0' bgs		1.0			



DEPTH (ft): 0, 5, 10

BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER:	Great Works Pump & Test Boring
EQUIPMENT:	Rubber-track-mounted CME 45
METHOD:	Hollow-Stem Augers
HOLE DIAM.:	4.25" ID
REMARKS:	Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

LOGGED BY: RSE CHECKED BY/DATE: TCC/10-2008

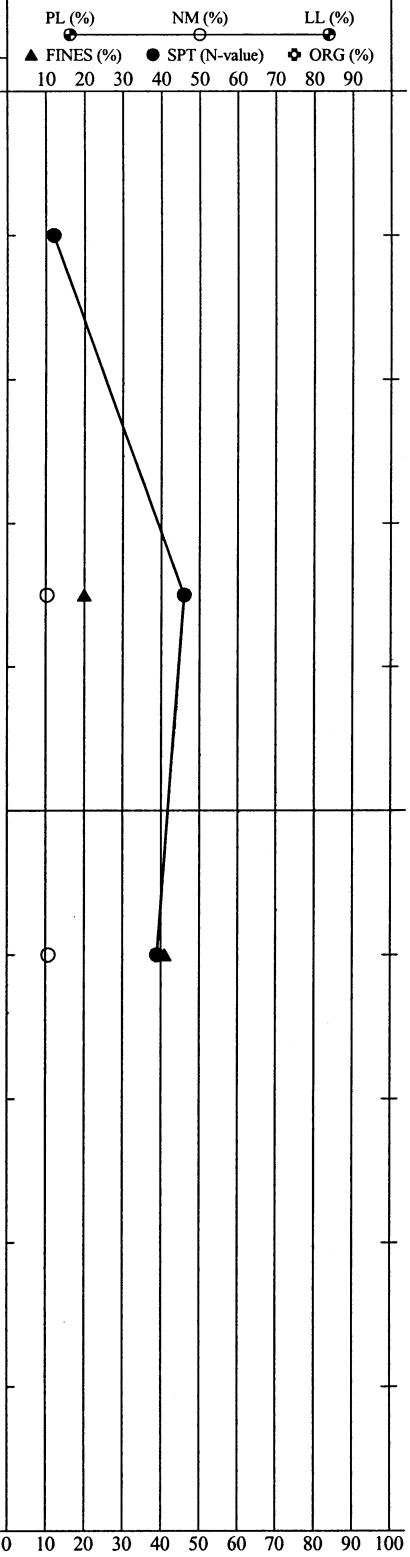
THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-810S
DRILLED: 05/28/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE** 1 **OF** 1

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" Or RQD % REC
0	Brownish gray, silty fine sand, trace medium to coarse sand, loose, dry: TOPSOIL (SM)		13.0			
	Light brown, silty fine to medium sand, trace coarse sand, medium dense to dense, dry to moist: FILL (SM)			SS-1		2-4-8-8 (N = 12)
				SS-2		8-19-27-28 (N = 46)
5	Gray, silty fine to medium sand, trace coarse sand, trace gravel, dense, moist: FILL (SM)		8.0			
				SS-3		12-10-29-11 (N = 39)
	Bottom of boring at 7.0' bgs					
10			3.0			



DEPTH (ft): 0, 5, 10

BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER: Great Works Pump & Test Boring
EQUIPMENT: Rubber-track-mounted CME 45,Hollow-Stem
METHOD: Augers,4.25" ID,10
HOLE DIAM.: Hollow-Stem Augers
REMARKS: 4.25" ID
Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

LOGGED BY: RSE CHECKED BY/DATE: TCC/10-2008

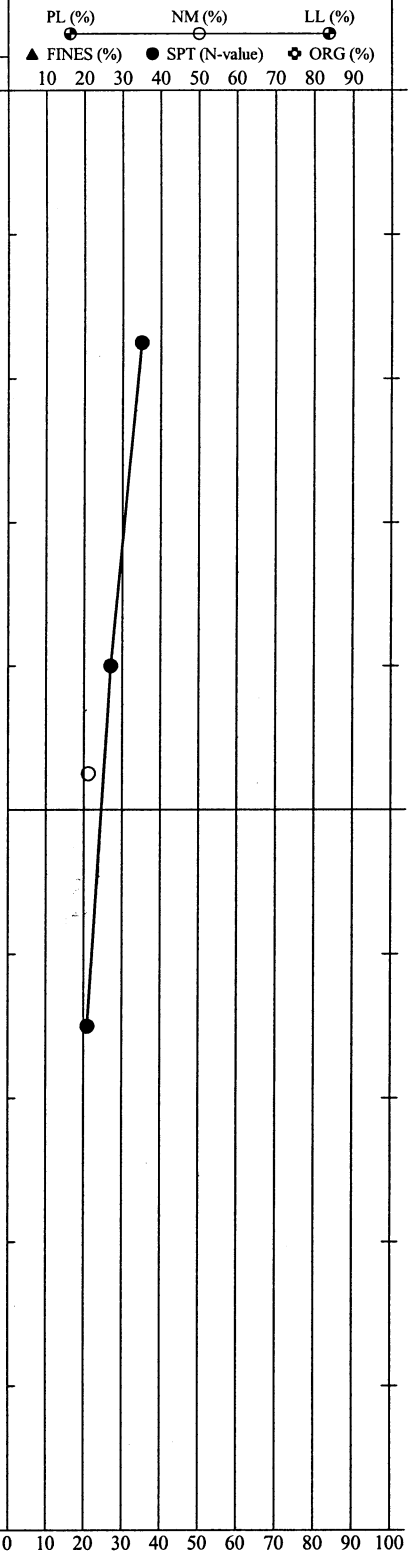
THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-816S
DRILLED: 05/29/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE** 1 **OF** 1

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT (1st 6" / 2nd 6" / 3rd 6" / 4th 6") Or RQD % REC
0	Hot-mix asphaltic concrete pavement		11.5			
	Subbase gravel					
	Light brown to brown, fine to medium sand, trace gravel, dense, dry: FILL (SW)			SS-1		13-17-18-20 (N = 35)
				SS-2		10-14-13-11 (N = 27)
	Dark gray, sandy clay, some silt, very stiff, moist: FILL (CL)					
5			6.5			
	Brownish gray, clay, some silt, very stiff, moist: FILL (CL)			SS-3		14-10-11-9 (N = 21)
	Bottom of boring at 7.5' bgs					
10			1.5			



DEPTH (ft): 0, 5, 10

BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER:	Great Works Pump & Test Boring
EQUIPMENT:	Rubber-track-mounted CME 45,Hollow-Stem
METHOD:	Augers,4.25" ID,10
HOLE DIAM.:	Hollow-Stem Augers
REMARKS:	4.25" ID Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

LOGGED BY: RSE CHECKED BY/DATE: TCC/10-2008

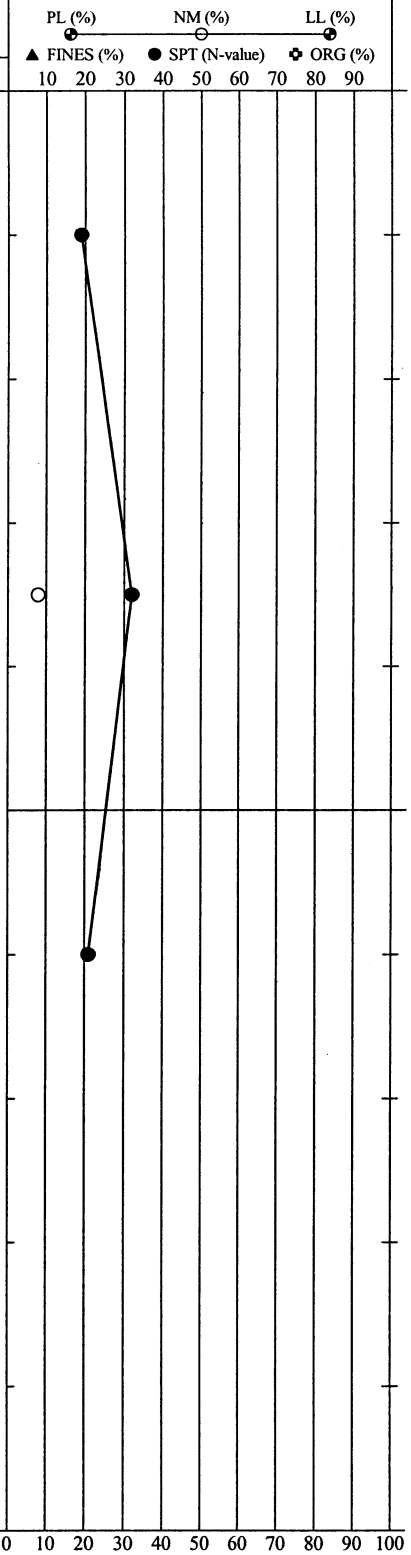
THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-817S
DRILLED: 05/29/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE** 1 **OF** 1

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" Or RQD % REC
0	Dark brown, fine to medium sand, few gravels, medium dense, dry to moist: FILL (SW)		11.5			
				SS-1		3-7-12-12 (N = 19)
	Dark gray, clay with fine sand, hard, moist: FILL (CL)			SS-2		6-12-20-16 (N = 32)
5	Dark gray to brown, silty fine sand, medium dense, moist: FILL (SM)		6.5			
	Dark gray, clay, little silt, very stiff, moist: FILL (CL)			SS-3		7-9-12-12 (N = 21)
	Brown, fine to medium sand, trace silt, trace gravel, medium dense, wet: FILL (SW)					
	Bottom of boring at 7.0' bgs					
10			1.5			



DEPTH (ft): 0, 5, 10

BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER: Great Works Pump & Test Boring
EQUIPMENT: Rubber-track-mounted CME 45
METHOD: Hollow-Stem Augers
HOLE DIAM.: 4.25" ID
REMARKS: Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

LOGGED BY: RSE CHECKED BY/DATE: TCC/10-2008

THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-811S
DRILLED: 05/28/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE** 1 **OF** 1

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" Or RQD % REC	PL (%) NM (%) LL (%) ▲ FINES (%) ● SPT (N-value) ✪ ORG (%) 10 20 30 40 50 60 70 80 90	DEPTH (ft)
0	Dark brown, silty fine sand, trace medium to coarse sand, trace gravel, loose, dry: TOPSOIL (SM) - occasional roots		11.0					0
	Light brown, fine to medium sand, little gravel, medium dense, dry: FILL (SW)			SS-1		3-7-6-5 (N = 13)		
	Dark gray, clay with fine to medium sand, some silt, very stiff, moist: FILL (CL)			SS-2		5-7-15-14 (N = 22)		
5	Light brown to dark brown, silty fine to medium sand, little gravel, medium dense, moist: FILL (SM)		6.0	SS-3		5-7-10-17 (N = 17)		5
	Bottom of boring at 7.0' bgs							
10			1.0				0 10 20 30 40 50 60 70 80 90 100	10

BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER: Great Works Pump & Test Boring
EQUIPMENT: Rubber-track-mounted CME 45
METHOD: Hollow-Stem Augers
HOLE DIAM.: 4.25" ID
REMARKS: Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

LOGGED BY: RSE CHECKED BY/DATE: TCC/10-2008

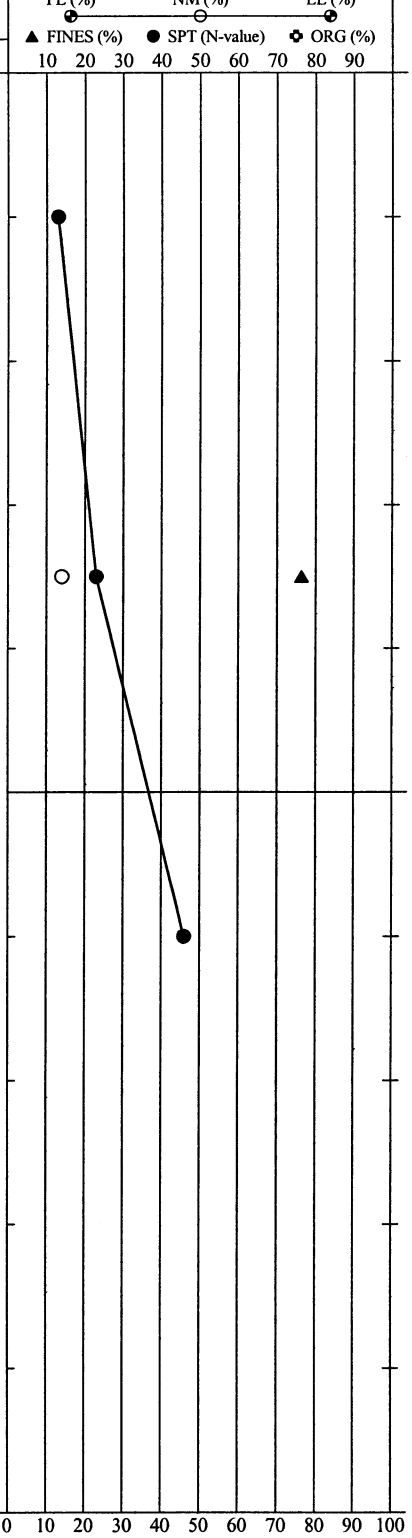
THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-812S
DRILLED: 05/28/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE** 1 **OF** 1

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" Or RQD % REC
0	Brown, silty sand, loose, dry: TOPSOIL (SM)		9.8			
	Brown, fine to medium sand, little gravel, mediumdense, dry to moist: FILL (SW)			SS-1		4-5-8-15 (N = 13)
	Dark gray, clay with fine to medium sand, some silt, very stiff, moist: FILL (CL)			SS-2		6-9-14-25 (N = 23)
	Gray, silty sand, trace gravel, medium dense, moist: FILL (SM)					
5			4.8			
	Dark gray to light brown, fine to coarse sand, dense, wet: FILL (SW)			SS-3		7-21-25-26 (N = 46)
	- 6.5' to 7.0' bgs: occasional 0.25" white stones					
	Bottom of boring at 7.0' bgs					
10			-0.2			



DEPTH (ft): 0, 5, 10

BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER:	Great Works Pump & Test Boring
EQUIPMENT:	Rubber-track-mounted CME 45
METHOD:	Hollow-Stem Augers
HOLE DIAM.:	4.25" ID
REMARKS:	Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

LOGGED BY: RSE CHECKED BY/DATE: TCC/10-2008

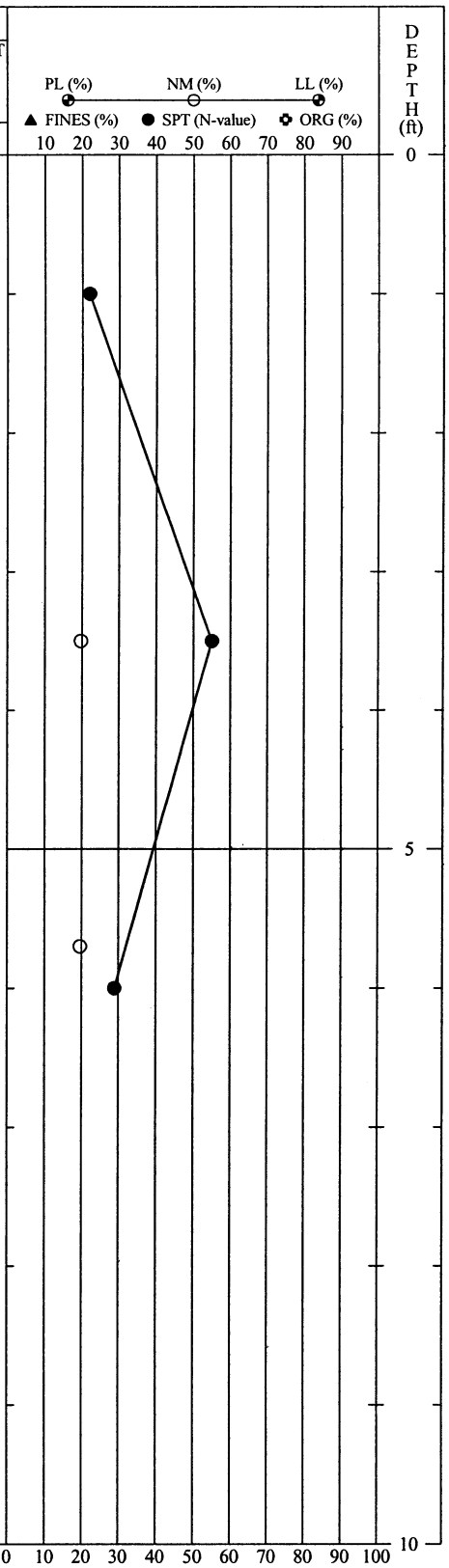
THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-813S
DRILLED: 05/28/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE** 1 **OF** 1

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT (1st 6" / 2nd 6" / 3rd 6" / 4th 6") Or RQD % REC
0	Light brown, silty fine sand, trace medium to coarse sand, trace gravel, loose, dry: TOPSOIL (SM)		13.0			
	Brown, fine to coarse sand, trace gravel, dense, dry: FILL (SW)			SS-1		4-8-14-15 (N = 22)
	Light gray, clay with sand, some silt, very stiff to hard, moist: FILL (CL)			SS-2		12-39-16-18 (N = 55)
5	Dark gray, silty sand, trace fine gravel, medium dense, moist: FILL (SM)		8.0			
	Light gray, clay with sand, some silt, very stiff, moist: FILL (CL)					
	Brown, fine to medium sand with some gravel, dense, wet: FILL (SW) - occasional white stones (0.75" minus)			SS-3		10-10-19-12 (N = 29)
	Bottom of Boring at 7.0' bgs					
10			3.0			



BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER:	Great Works Pump & Test Boring
EQUIPMENT:	Rubber-track-mounted CME 45
METHOD:	Hollow-Stem Augers
HOLE DIAM.:	4.25" ID
REMARKS:	Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

LOGGED BY: RSE CHECKED BY/DATE: TCC/10-2008

THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-814S
DRILLED: 05/28/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE** 1 **OF** 1

MACTEC

DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY TO SYMBOLS AND DESCRIPTIONS FOR EXPLANATION OF SYMBOLS, TERMINOLOGY, AND ABBREVIATIONS	LEGEND	ELEV (ft)	SAMPLES IDENT	TYPE	BLOW COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" Or RQD % REC	PL (%) NM (%) LL (%) ▲ FINES (%) ● SPT (N-value) ✪ ORG (%) 10 20 30 40 50 60 70 80 90	DEPTH (ft)
0	Brown, silty fine to medium sand, trace coarse sand, little gravel, medium dense, dry: TOPSOIL (SM) - occasional roots		14.0					0
	Dark gray, clay with sand, some silt, very stiff, moist: FILL (CL)			SS-1		8-16-16-26 (N = 32)		
				SS-2		17-13-10-15 (N = 23)		
5			9.0					5
	Brown, fine to coarse sand, trace gravel, dense, moist: FILL (SW)							
	Very dark gray, silty fine to medium sand, trace coarse sand, trace gravel, few to little clays, very dense, moist: FILL (SM)			SS-3		20-22-33-50 (N = 55)		
	Bottom of boring at 7.0' bgs							
10			4.0				0 10 20 30 40 50 60 70 80 90 100	10

BOREHOLE: PID; DATA GRAPH (2500); WELL 3613083072-02.GPJ 2007_12-12_PORT_DTMPLT.GDT 12/04/08

DRILLER: Great Works Pump & Test Boring
EQUIPMENT: Rubber-track-mounted CME 45
METHOD: Hollow-Stem Augers
HOLE DIAM.: 4.25" ID
REMARKS: Sampling via 2" split spoons, 140 lb safety hammer (rope and cathead), and AW rods.

LOGGED BY: RSE CHECKED BY/DATE: TCC/10-2008

THIS BOREHOLE RECORD PRESENTS A REASONABLE INTERPRETATION OF THE SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS MAY DIFFER. STRATA INTERFACES (AS SHOWN) ARE APPROXIMATE. ACTUAL TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SOIL BORING RECORD

BOREHOLE NO.: SB-815S
DRILLED: 05/28/08
PROJECT: MaineDOT - I-295 - Exit 7 (PIN 15634)
LOCATION: Portland, Maine
PROJECT NO.: 3613-08-3072-02 **PAGE 1 OF 1**

MACTEC

General Decision Number: ME100003 03/12/2010 ME3

Superseded General Decision Number: ME20080003

State: Maine

Construction Type: Highway

Counties: Androscoggin and Cumberland Counties in Maine.

Highway Construction Projects Excluding Major Bridging (for example: bascule, suspension and spandrel arch bridges; those bridging waters presently navigating or to be navigable; and those involving marine construction in any degree); tunnels, building structures in rest area projects and railroad construction.

Modification Number	Publication Date
0	03/12/2010

* SUME2000-011 10/24/2000

	Rates	Fringes
CARPENTER	$ 11.30	1.95
ELECTRICIAN	$ 17.90	2.30
Laborers:		
Flaggers	$ 7.25	
Landscape	$ 7.99	.72
Unskilled	$ 8.69	1.08
Power equipment operators:		
Backhoes	$ 12.39	2.00
Bulldozers	$ 11.13	1.94
Excavators	$ 11.24	1.31
Loaders	$ 11.19	1.82
Rollers	$ 10.16	1.56
Truck drivers:		
Dump	$ 9.02	1.39
Two axle	$ 9.08	1.28

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

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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)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively

bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

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

SPECIAL PROVISION 105
CONSTRUCTION AREA

A Construction Area located in the **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 is located on I-295 Exit 7/Franklin Street. Construction includes adding a southbound auxiliary lane between Exit 7 and Exit 8, with additional lanes added to both the northbound and southbound off ramps.

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.

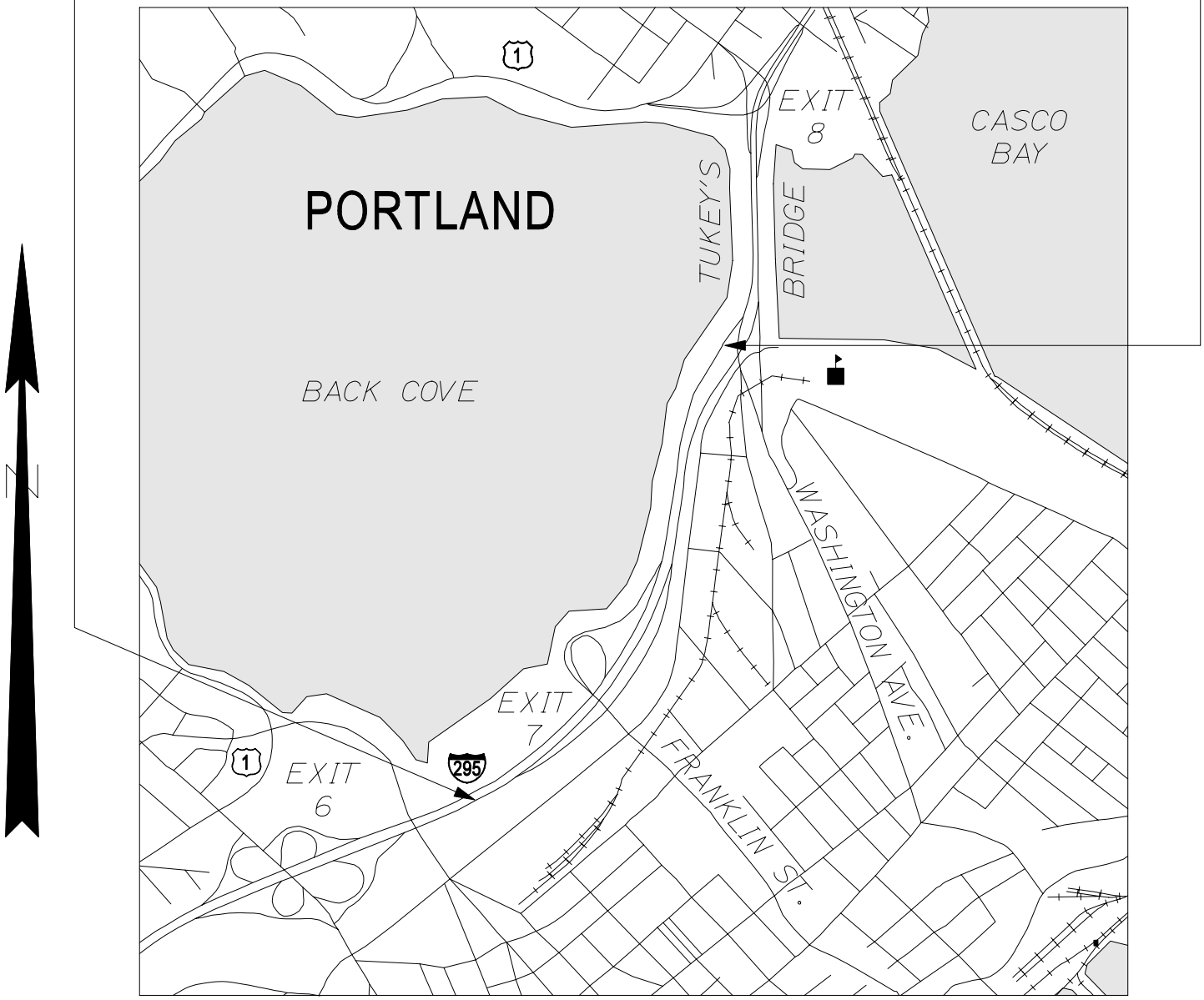
The maximum speed limits for trucks on any town way will be 25 mph (40 km per hour) unless a higher legal limit is specifically agreed upon in writing by the Municipal Officers concerned.

HP-1563(400)E

COMBINED NB & SB RAMPS

BEGIN PROJECT NB OFF RAMP 0+00.00

END PROJECT SB OFF RAMP 48+73.98



LOCATION MAP

0.25 0 0.25 0.50

Scale in Miles

Project No. IM-1678(700)E

SPECIAL PROVISION 105
CONSTRUCTION AREA

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

> In Cumberland County, Project No. IM-1678(700)E is located on I-295 Southbound, beginning 1.06 mi. south of the Cumberland/Falmouth town line and extending southerly 10.628 mi. to 0.03 mi. south of the South Portland/Scarborough town line.

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

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

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

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

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

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

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

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

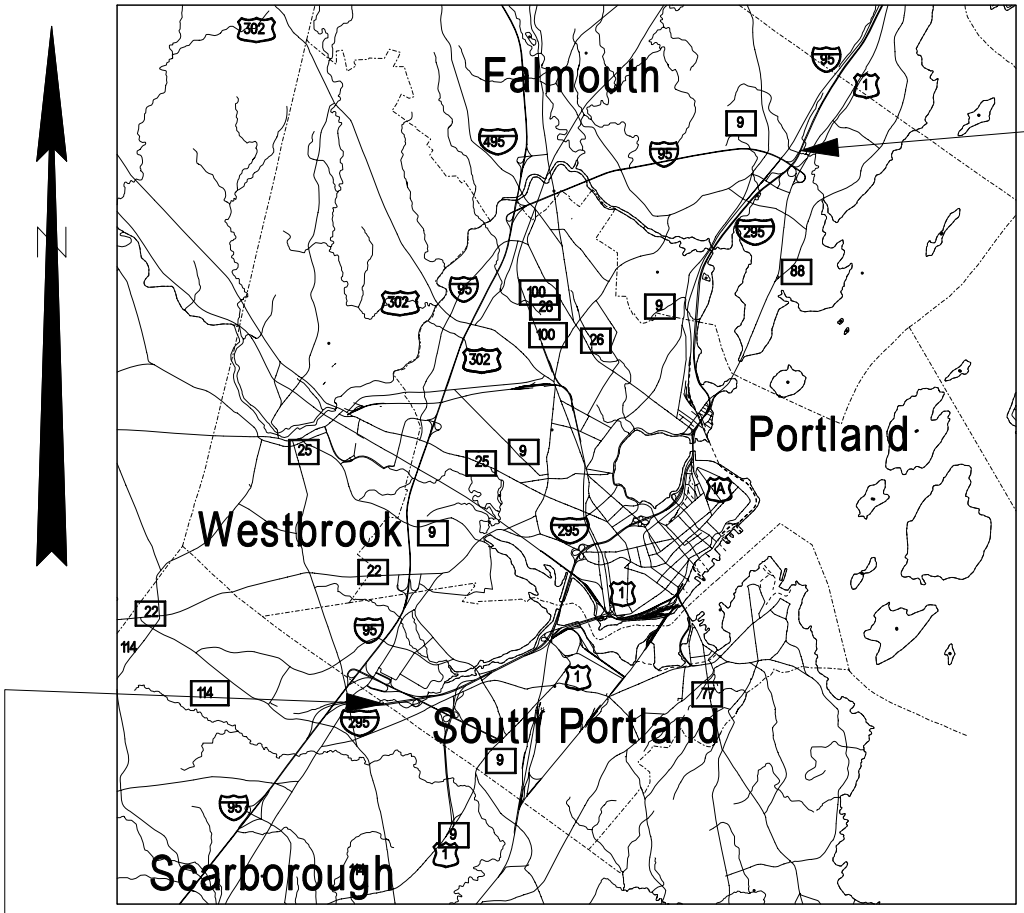
The Municipal Officers for the **Towns of Falmouth and Scarborough and the Cities of Portland and South Portland** agreed that an Overlimit Permit will be issued to the Contractor for the purpose of using loads and equipment on municipal ways in excess of the limits as specified in 29-A MRSA, on the 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.

IM-1678(700)E

END PROJECT STA. 247+73.00



BEGIN PROJECT STA. 68+00.00

LOCATION MAP

2 0 2 4

Scale in Miles

Project No. IM-1705(510)E

SPECIAL PROVISION 105
CONSTRUCTION AREA

A Construction Area located in the **Towns of Falmouth, Cumberland, and Yarmouth 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).

In Cumberland County:

(a) Project No. IM-1705(510)E is located in the median of Interstate 295 northbound & southbound lanes, beginning 0.82 miles south of the Portland/Falmouth town line and extending northerly 9.13 miles to 0.25 mile north of the Bayview Street Overpass.

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

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

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

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

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

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

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

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

The Municipal Officers for the **Towns of Falmouth, Cumberland, and Yarmouth and 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".

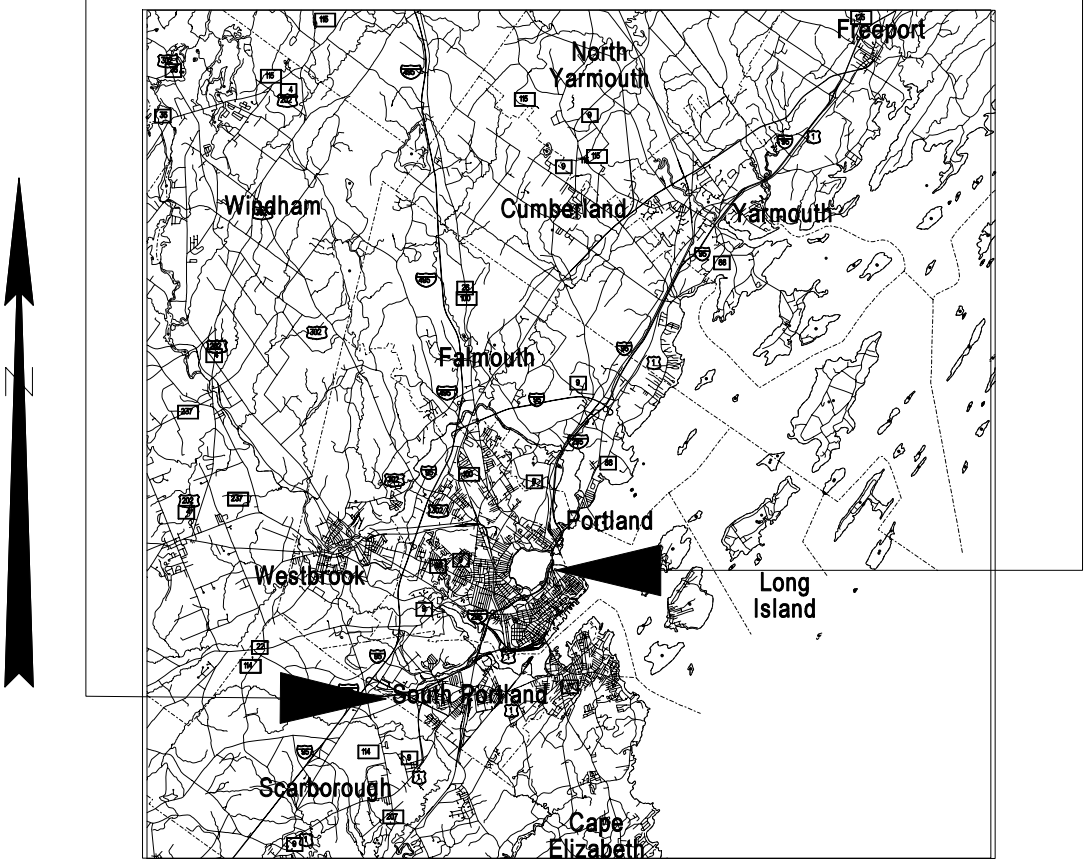
As noted above, a bond may be required by the municipality, the exact amount of said bond to be determined prior to use of any municipal way. The MDOT will assist in determining the bond amount if requested by the municipality.

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.

IM-1705(510)E

BEGIN PROJECT RLM 45.07

END PROJECT RLM 35.94



LOCATION MAP

5 0 5 10

Scale in Miles

Project No. HPP-1705(520)E

SPECIAL PROVISION 105
CONSTRUCTION AREA

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

In Cumberland County:

(a) Project No. HPP-1705(520)E is located in the median of Interstate 295 northbound & southbound lanes, beginning 0.51 miles north of the South Portland/Portland town line and extending northerly 4.98 miles to Tukey's Bridge.

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 **Cities of South Portland and 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".

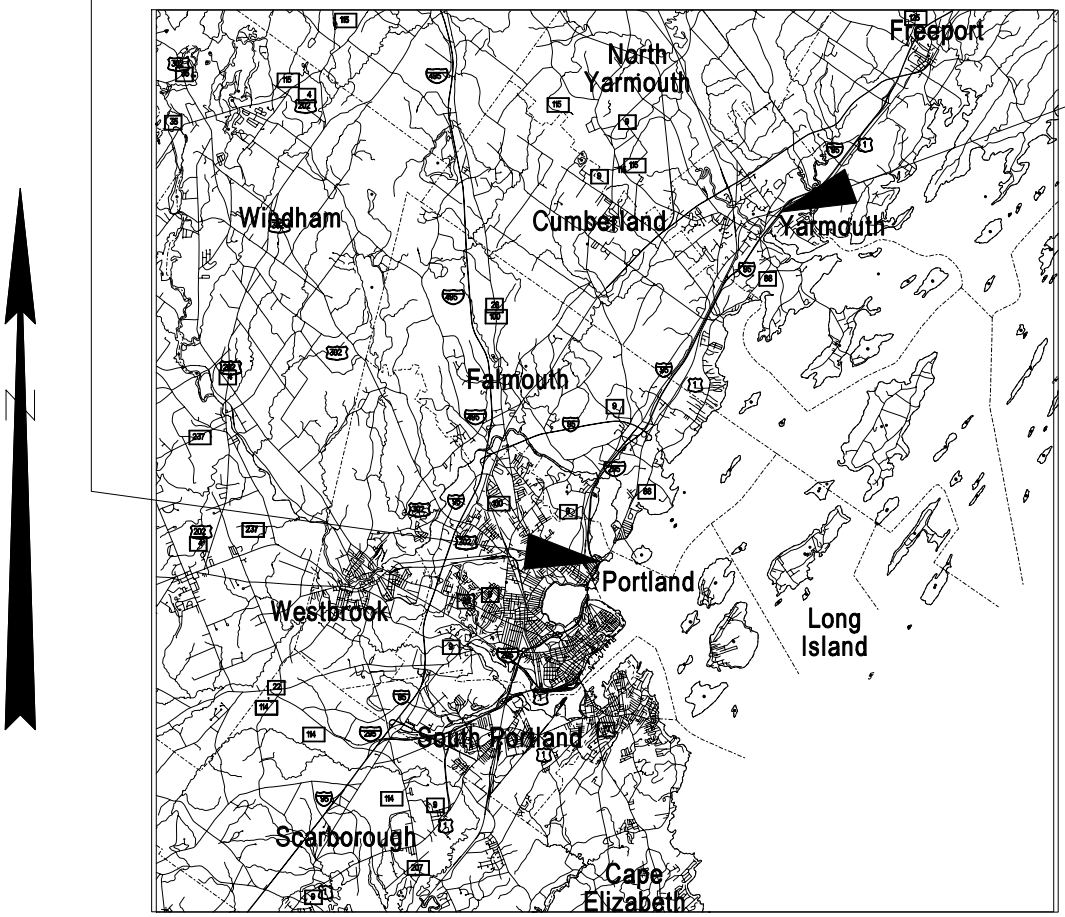
As noted above, a bond may be required by the municipality, the exact amount of said bond to be determined prior to use of any municipal way. The MDOT will assist in determining the bond amount if requested by the municipality.

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.

HPP-1705(520)E

BEGIN PROJECT RLM 46.48

END PROJECT RLM 51.46



LOCATION MAP

5 0 5 10

Scale in Miles

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
MDOT		X
Time Warner Cable	X	
Central Maine Power Company	X	
Fairpoint	X	
Portland Water District		X
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, guy anchor or street light 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.

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. The Contractor and Utilities shall communicate with each other using the names and numbers included in this spec.

Unless otherwise specified, any underground utility facilities shown on the project plans represent approximate locations gathered from available information. The Department cannot certify the level of accuracy of this data. Underground facilities indicated on the topographic sheets (plan views) have been collected from historical records and/or on-site designations provided by the respective utility companies. Underground facilities indicated on the cross-sections have been carried over from the plan view data and may also include further approximations of the elevations (depths) based upon straight-line interpolation from the nearest manholes, gate valves, or test pits.

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.

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.

SUBSURFACE

Maine Department of Transportation

The **Maine Department of Transportation** has site lighting with underground services in the area of the ramps. The scope of the project may require the Contractor to excavate next to these underground services. The Contractor must contact MDOT Traffic Division to have these lines marked and or temporarily disconnected prior to excavating. The contact persons shall be Ron Cote at 446-2305 or Sam Moore at 624-3602 for location and marking of the underground facilities. The contractor shall provide at least a five (5) working day notice, to the Department for marking, before commencing any work in these areas.

The **Portland Water District** has water and sewer lines running along the roads that cross under the Interstate. The also have lines in Marginal Way outside the scope of the project. These lines do not impact the scope of the project but if for some reason the scope changes the Contractor is required to notify **Portland Water District** in advance of any work. The contact for the Portland Water District is Frank Meader at 767-8418. The Contact for **Portland Sewer District** is John Emerson at 874-8468.

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. Title35-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.

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 PLAN AND CONDUCT HIS WORK ACCORDINGLY.

Utility Contacts	Coordinator	Phone
State of Maine	Ron Cote	446-2305
	Sam Moore	624-3602
Central Maine Power Company	Dan Brady	210-0406
Fairpoint	Marty Pease	797-1911
Time Warner Cable	Don Johnson	253-2291
Portland Water District	Frank Meader	767-8418
Portland Sewer District	John Emerson	874-8468

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
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	
Exxon Mobil		X
Portland Pipe Line		X
Pan Am Railroad		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 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.

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.

CMP has major high volt power line that cross the project. The contractor is once again advised to use caution when working in that area with over height machines.

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 or sign 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 site lighting with underground services in the area of the ramps. The contact person shall be Ron Cote at 624-3602 for location and marking of the underground facilities. The contractor shall provide at least a five (5) working day notice, to the Department for marking, before commencing any work in these areas.

The **Portland Water District** has water and sewer lines running along the roads that cross under the Interstate. The Contractor should make sure all lines are marked before doing any drainage improvements on the job. These lines should not impact the scope of the project but if for some reason the scope changes the Contractor is required to notify PWD in advance of any work for marking of their lines. The contact for the Portland Water District is Frank Meader at 767-8418.

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 & Exxon Mobil

Portland Pipeline and Exxon Mobil has pipe lines that cross the Interstate in the area between exit 3 and exit 4. The contractor shall contact William Schwieger at (207)741-2404 and 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.

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. Title35-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.

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 PLAN AND CONDUCT HIS WORK ACCORDINGLY.

Utility Contacts	Coordinator	Phone
State of Maine	Ron Cote	624-3602
	Debbie Morgan (Traffic)	624-3606
Central Maine Power Company	Gary Crabtree	791-8025
Fairpoint	Marty Pease	797-1911
Time Warner Cable	Don Johnson	253-2291
Portland Water District	Frank Meader	767-8418
Maine Com Services	Mark Curtis	441-9532
Maine Turnpike Authority	William Franklin	871-7771
Comcast	Ken Blodgett	729-2623
Exxon Mobil	William Schwieger	741-2404
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

SPECIAL PROVISIONS
SECTION 104
UTILITIES

MEETING

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

GENERAL

Utilities have been notified and will be furnished a project specification book. If utility relocations, though unexpected, become necessary, they will be scheduled in compliance with Section 104.4.6 of the Standard Specifications and will be done by the utilities in conjunction with the work by the Contractor.

Utility/Railroad	Aerial	Underground
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
Yarmouth Water District		X
Maine Turnpike Authority	X	
Oxford Networks	X	
Falmouth Sewer District		X
Exxon Mobil		X
Portland Pipe Line		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.

If the **Contractor** feels temporary relocation is necessary they must notify the **Department** of their concerns prior to construction.

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.

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

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.

CMP has major high volt power line that cross the project. The contractor is once again advised to use caution when working in that area with over height machines.

Underground

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. If guard rail is to be installed in the area of these ramps 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.

Yarmouth Water District

The **North Yarmouth Water District** has a water line that crosses I-295. They have a main passing under the I-295 near Bayview St in Yarmouth. Based on the proposed scope of work this water line 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 **Yarmouth Water District** is Bob MacKinnon at 846-5821.

Portland Water & Sewer District

The Portland Water & Sewer 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 Frank Meader at 774-5961. The Contact for **Portland Sewer District** is John Emerson at 874-8468.

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 & Exxon Mobil

Portland Pipeline and Exxon Mobil has pipe lines that cross the Interstate in the area between exit 3 and exit 4. If guard rail is to be installed in the area of these pipes the contractor shall contact William Schwieger at (207)741-2404 and Ken Brown at (207)767-0449 for location and marking of the facilities. 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.

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.

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 PLAN AND CONDUCT HIS WORK ACCORDINGLY.

The following utilities are known to have facilities in the area of this project:

Central Maine Power Company	Dan Brady	791-1041
Fairpoint	Marty Pease	797-1911
State of Maine	Ron Cote	446-2305
	Debbie Morgan (Traffic)	624-3606
Time Warner Cable	Don Johnson	253-2291
Maine Com Services	Mark Curtis	441-9532
North Yarmouth Water District	Bob MacKinnon	846-5821
Maine Turnpike Authority	William Franklin	871-7771
Falmouth Sewer District	Pete Clark	781-2052
Comcast	Ken Blodgett	729-2623
Portland Water District	Frank Meader	774-5961
Exxon Mobil	William Schwieger	741-2404
Portland Pipe Line	Ken Brown	767-0449
Portland Sewer District	John Emerson	874-8468
Oxford Networks	Scott Crocket	333-3471

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.

Utility Summary for the following Bridges

1505 Presumpscot River
6298 Forest Ave Bridge
6281 Fore River Bridge
1513 State Route 703
6292 Westbrook Arterial Bridge
6297 St John's Bridge
6295 St James Bridge
5617 Sherwood St Bridge
6300 Franklin St Bridge
6294 Congress & Park St Bridge
0816 Washington St Bridge
6299 Preble St Bridge

- **There are no aerial utilities located on this project.**
- **There are no underground utilities associated with this project.**
- **There is no railroad within the limits of this project.**

Utility Summary for the following Bridges

5616 St Lawrence Crossing Bridge

- **There are no aerial utilities located on this project.**
- **There are no underground utilities associated with this project.**

St. Lawrence & Atlantic Railroad
The St. Lawrence & Atlantic Railroad runs under this bridge project. For further information regarding the railroad, see the Protection of Railroad Traffic & Structures Special Provision (PRTS). If any work on the bridge, within the railroad right-of-way or underneath the bridge may affect the railroad, the railroad will provide a flagger.

5618 Kensington St Bridge

Central Maine Power Company has three phase electrical lines crossing overhead over I-295. CMP does not anticipate doing any work at this time. The Contractor must be aware of the overhead lines in the event any crane is brought in during construction.

Fairpoint and Time Warner Cable both have overhead lines that run up to the bridge and then run underground under the bridge.

Portland Water District has a 12" water line under Kensington Street.

6296 St John's Bridge
6291 Portland R/R Bridge

- **There are no aerial utilities located on this project.**
- **There are no underground utilities associated with this project.**

Portland Terminal Railroad
The Portland Terminal Railroad runs under this bridge project. For further information regarding the railroad, see the Protection of Railroad Traffic & Structures Special Provision (PRTS). If any work on the bridge, within the railroad right-of-way or underneath the bridge may affect the railroad, the railroad will provide a flagger.

6249 Westbrook St Bridge

Central Maine Power Company has three phase electrical lines crossing overhead over I-295. CMP does not anticipate doing any work at this time. The Contractor must be aware of the overhead lines in the event any crane is brought in during construction.

Fairpoint, MCI World Com and Time Warner Cable all run aerial crossing overhead over the bridge on I-295. They do not anticipate doing any work at this time. The Contractor must be aware of the overhead lines in the event any crane is brought in during construction.

South Portland Fire Department has a fire alarm cable crossing over the bridge on I-295. They are attached to the utility poles. They do not anticipate doing any work at this time. The Contractor must be aware of the overhead lines in the event any crane is brought in during construction.

3088 Tukey Bridge

- **There are no aerial utilities located on this project.**

Unitil Gas Co and **Fairpoint Communication** have lines that run under the bridge. The bridge re-surfacing does not impact these lines and no relocation or impact is anticipated. Should the scope changes in any way the Contractor must notify the utility immediately.

Maine DOT has street lights on the bridge. The contractor should notify the DOT to determine the impact to the lights prior to work.

The following applies to all bridges:

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.

Temporary utility adjustments are not contemplated unless herein provided for.

Utilities have been notified and will be furnished a project specification book. If utility relocations, though unexpected, become necessary, they will be scheduled in compliance with Section 104 of the Standard Specifications and will be done by the utilities in conjunction with the work by the Contractor.

All utility crossings over highways will provide not less than 20 feet vertical clearance over existing ground in cut or over finished grade in fill, during construction of this project.

Unless otherwise provided, utilities will not be required to make underground installations in frozen ground.

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

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 advised well in advance (generally three weeks) before work, dependent upon other work to be done by the Contractor, in any particular area, is to be commenced by them.

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.*

BLASTING

In addition to any other notice which may be required, the Contractor shall notify an authorized representative of each utility that have plant close to the site not later than 3:00 p.m. on the working day (Monday through Friday) before the Contractor intends to blast. Notice shall state the approximate time of the blast.

DIG SAFE

The contractor will 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. Call 1-888-344-7233.**

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.

THE CONTRACTOR SHALL PLAN AND CONDUCT HIS WORK ACCORDINGLY.

Utility Contacts	Coordinator	Phone
State of Maine	Ron Cote	624-3602
	Debbie Morgan (Traffic)	624-3606
Central Maine Power Company	Gary Crabtree	791-8025
Fairpoint	Marty Pease	797-1911
Time Warner Cable	Don Johnson	253-2291
Portland Water District	Frank Meader	767-8418
Maine Com Services	Mark Curtis	441-9532
Maine Turnpike Authority	William Franklin	871-7771
Comcast	Ken Blodgett	729-2623
Exxon Mobil	William Schwieger	741-2404
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 Gas	Sam Murray	797-8002
St Lawrence Rail Road	Jason Birkel	212-7986

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 St. Lawrence & Atlantic Railroad Company tracks is 100% 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 **2**.

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 **5** 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 **7.62** meters (**25** 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 **7.62** meters (**25** 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 **7.62** meters (**25** 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 **15.24** meters (**50** 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 **7** meters (**23** feet) above the top of high rail and a minimum side clearance of **2.75** meters (**9** 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 Departments Railroad Property Manager or his appointed representative, at least **5** 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 **4** 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.

(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 **5** calendar day(s) before beginning, resuming or suspending work within **50** 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 **2/12/2010.**

Estimated daily rate for four (4) consecutive hours Monday-Friday (straight time): **267.37**

Estimated daily rate for four (4) consecutive hours Saturday, Sunday, Holiday (overtime): **343.16**

Estimated rate for hours worked in excess of eight (8) hours in any one day: **56.84**

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** 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 recollectable 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.

Town: **Portland**
Project/PIN: **016727.00**
2/12/2010

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 Signature	Date
□	
SECTION B - ACTION TAKEN: □	

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

Ver: 12/2000

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

Town: **Portland**
Project/PIN: **016732.00**
2/22/10

SPECIAL PROVISION
PROTECTION OF RAILROAD TRAFFIC AND STRUCTURES

1. GENERAL REQUIREMENTS

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

2. AMOUNT OF RAILROAD WORK

The estimated amount of work to be done within 15.24 Meters (50 feet) of the track of the **Pan Am Railways** is **1%** of the contract.

3. NUMBER OF TRAINS AND TRAIN SPEED

The Contractor is notified that a maximum speed of _____ kph (__**30**__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__**8**___.

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 those 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 _____ meters (__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 _____meters (__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 _____meters (__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 _____meters (__15__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 _____meters (__**22.5**__feet) above the top of high rail and a minimum side clearance of _____ meters (__**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 Departments 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 his Proposal, the Contractor shall have ascertained from the Railroad and from the Department's Railroad Property Manager or his appointed representative, all information relating to its requirements and regulations and all costs in connection with compliance thereto.

11. EXCAVATIONS

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

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, 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.

(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 _____ meters (**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 **3** 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 **2/22/2010**.

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 **07:00** a.m. to **15:30** p.m. unless otherwise noted and agreed to by all parties. *(Note: Does not include lunch period from 12:00 pm to 12:30 pm)*

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 recollectable 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.

Town: **Portland**
Project/PIN: **016732.00**
2/22/10

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 Signature	Date
□	
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.

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

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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

Town: **Portland**
Project/PIN: **016733.00**
2/22/10

SPECIAL PROVISION
PROTECTION OF RAILROAD TRAFFIC AND STRUCTURES

1. GENERAL REQUIREMENTS

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

2. AMOUNT OF RAILROAD WORK

The estimated amount of work to be done within 15.24 Meters (50 feet) of the track of the **Pan Am Railways** is **1%** of the contract.

3. NUMBER OF TRAINS AND TRAIN SPEED

The Contractor is notified that a maximum speed of ____ 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__**13**___.

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 those 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 _____ meters (__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 _____meters (__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 _____meters (__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 _____meters (__15__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 _____meters (__**22.5**__feet) above the top of high rail and a minimum side clearance of _____ meters (__**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 Departments 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 his Proposal, the Contractor shall have ascertained from the Railroad and from the Department's Railroad Property Manager or his appointed representative, all information relating to its requirements and regulations and all costs in connection with compliance thereto.

11. EXCAVATIONS

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

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, 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.

(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 _____ meters (**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 **3** 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 **2/22/2010**.

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 **07:00** a.m. to **15:30** p.m. unless otherwise noted and agreed to by all parties. *(Note: Does not include lunch period from 12:00 pm to 12:30 pm)*

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 recollectable 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.

Town: **Portland**
Project/PIN: **016733.00**
2/22/10

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 Signature	Date
□	
SECTION B - ACTION TAKEN: □	

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

Ver: 12/2000

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

December 30, 2009
Supersedes January 21, 2009

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

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".

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

105.11 Federal Requirements Add the following as the third paragraph:

"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 product was produced entirely within the United States, or (2) a statement that the product was produced within the United States except for minimal quantities of foreign steel and iron valued at $ (actual value)."

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
(LIMITATIONS OF OPERATIONS)

1. **Ramps may be closed between the hours of 7 pm to 6 am with 72 hours notice. These closures will need to be coordinated with the city of Portland and emergency personnel. Work on ramps may continue after these hours with shoulder closures only.**

2. **Interstate Crossovers shall not be allowed to be utilized to change direction. Existing Crossovers shall be closed, throughout the entire length of the project, utilizing drums during construction activities. Crossovers may not be used for storage areas. The contractor will not be allowed to park vehicles in crossovers at any time. These crossovers will be opened at the end of activities for the shift.**

3. **The maximum length of lane closure is 3.0 miles in length from Station 57+50 to 247+73(North of Tukeys Bridge). Lane closures from Station 68+00 to 389+08/4+48 to 57+50 shall be determined from bridge phasing diagrams.**

4. **The Contractor shall abide by all hours indicated within this Special Provision. Work on Sign Truss Installation shall be defined under Special Provision 107 Sign Truss Work.**

5. **The Contractor shall be allowed to work 6 days per week. The working days shall be starting Sunday at 7p.m. through Saturday at 6 a.m., as outlined in this Special Provision Note 9, unless otherwise authorized by the Department, or stated elsewhere in contract documents.**

   Except no work will be allowed on:

   July 2 beginning at 6 a.m. to July 6 at 7 p.m.
   September 3 beginning at 6 a.m. to September 7 at 7 p.m.
   November 24 beginning at 6 a.m. to November 29 at 7 p.m.
   For clarification purposes midnight shall be considered the start of the day, not the end.

6. **The Contractor may utilize multiple paving crews as long as applicable sections of Special Provision 652 are met, provided the Resident is given 72 hours notice.**

7. **All pipe and rental items shall be completed in an area prior to the contractor commencing placement of HMA surface in a given area. Daytime travel lane shoulder closures will be allowed provided there is no infringement upon mainline traffic. This work shall require approval from the Resident. Shoulder closures will not be permitted while any adjacent lane is closed. No work shall be conducted in the following areas under the following times:**

    a. **North of Forest Avenue – No activities between the hours of 6 am to 10 am**
    b. **South of Forest Avenue – No activities between the hours of 2 pm to 6 pm.**

8. **Traffic will be allowed to travel on milled surfaces for up to 120 hours. Lanes will need to be matched up each shift. Uneven lanes will not be permitted. Failure to pave in areas milled will result in a violation of Special Provision 652. The Contractor shall conduct their work accordingly.**

9. **The contractor shall be allowed to enter the roadway during the following hours; Lane closure set and removal shall be considered to be part of this time:**

    a. **Monday beginning 7pm ending Tuesday 6am.**
    b. **Tuesday beginning 7pm ending Wednesday 6am.**
    c. **Wednesday beginning 7pm ending Thursday 6am.**
    d. **Thursday beginning 7pm ending Friday 6am.**
    e. **Friday beginning 7pm ending Saturday 6am.**
    f. **Sunday beginning 7 pm ending Monday at 6am.**

10. **Any circumstance outside of these time frames, the Contractor shall be charged Supplemental Liquidated Damages as outlined in Special Provision 105 (Supplemental Liquidated Damages).**

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(LIMITATIONS OF OPERATIONS)

1. **Ramps may be closed between the hours of 7 pm to 6 am with 72 hours notice. These closures will need to be coordinated with the city of Portland and emergency personnel. Work on ramps may continue after these hours with shoulder closures only.**

2. **Interstate Crossovers shall not be allowed to be utilized to change direction. Existing Crossovers shall be closed, throughout the entire length of the project, utilizing drums during construction activities. Crossovers may not be used for storage areas. The contractor will not be allowed to park vehicles in crossovers at any time. These crossovers will be opened at the end of activities for the shift.**

3. **The Contractor shall abide by all hours indicated within this Special Provision, unless otherwise authorized by the Department.**

4. **The Contractor shall be allowed to work 6 days per week. The working days shall be starting Sunday at 7p.m. through Saturday at 6 a.m., as outlined in this Special Provision Note 6.**

   Except no work will be allowed on:

   July 2 beginning at 6 a.m. to July 6 at 7 p.m.
   September 3 beginning at 6 a.m. to September 7 at 7 p.m.
   November 24 beginning at 6 a.m. to November 29 at 7 p.m.

   For clarification purposes midnight shall be considered the start of the day, not the end.

5. **The contractor shall be allowed to enter the roadway during the following hours; Lane closure set and removal shall be considered to be part of this time:**

   a. **Monday beginning 7pm ending Tuesday 6am.**
   b. **Tuesday beginning 7pm ending Wednesday 6am.**
   c. **Wednesday beginning 7pm ending Thursday 6am.**
   d. **Thursday beginning 7pm ending Friday 6am.**
   e. **Friday beginning 7pm ending Saturday 6am.**
   f. **Sunday beginning 7 pm ending Monday at 6am.**

6. **Any circumstance outside of these time frames, the Contractor shall be charged Supplemental Liquidated Damages as outlined in Special Provision 105 (Supplemental Liquidated Damages).**

Town: Portland-Scarborough
PIN #: 16787.00
Date: 4/7/10

SPECIAL PROVISION
SECTION 105
General Scope of Work
(Environmental Requirements)

In-Water work consists of any activity conducted below the normal high water mark of a river, steam, brook, lake, pond or "Coastal Wetland" areas that are subject to tidal action during the highest tide level for the year which an activity is proposed as identified in the tide tables published by the National Ocean Service. http://www.oceanservice.noaa.gov/ For the full definition of "Coastal Wetlands", please refer to 38 MRSA 480-B(2)

I. In-Water Work shall not be allowed between the dates of 10/2 and 7/14.
(In-Water work is allowed from 7/15 to 10/1.)

II. In-Water work window applies to the following water bodies at the following station #'s:
1. 133+00
2. 174+50

III. Special Conditions:
1.

IV. Approvals:
1. Temporary Soil Erosion and Water Pollution Control Plan

V. All activities are prohibited (including placement and removal of cofferdams unless otherwise permitted by Regulatory Agencies) below the normal high water mark if outside the prescribed in-water work window, except for the following:

1. Work within a cofferdam constructed according to MaineDOT's Standard Specifications and in adherence with the contractors approved "Soil Erosion and Water Pollution Control Plan".

VI. No work is allowed that completely blocks a river, stream, or brook without providing downstream flow. When working in Tidal streams flow needs to be provided in both directions

NOTE: Regulatory Review and Approval is required to modify the existing In-Water work window.

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(LIMITATIONS OF OPERATIONS – BRIDGE WORK)

The Limitations of Operations noted herein are related to bridge work only.

1. For the Presumpscot River bridge work zone, the Contractor will be allowed to utilize weekend lane closures to complete the bridge work. Weekend lane closures are permitted from 6 pm on Friday to 6 am on Monday. One lane of traffic must be maintained during the weekend lane closure. Contractor is allowed a total of 4 weekends to complete the work. Weekend lane closures are limited to non-holiday weekends. Contractor shall notify the Resident at least 1 week before the planned weekend lane closure(s). Contractor shall also setup portable changeable message signs north of the I-295/I-95 split in West Gardiner and north of the Falmouth Spur Exit at least 7 days in advance of the planned weekend lane closure notifying southbound interstate traffic of the planned weekend lane closure and encouraging use of the Maine Turnpike and Falmouth Spur respectively. Contractor will also be allowed nighttime lane closures to complete the bridge work. Nighttime lane closures are permitted from 6 pm to 6 am at this work zone. One lane of traffic must be maintained during nighttime lane closures. Two lanes of traffic must be maintained at all other times.

2. For the Kensington, CNRR and Sherwood Street bridge work zone, the Contractor will be allowed to utilize long term lane closures to complete the bridge work. Two lanes of traffic must be maintained daily from 6 am to 7 pm. Contractor is allowed to close the Veranda Street southbound on-ramp while the long term lane closures are in use. Washington Ave and Veranda Street southbound on-ramps cannot be closed at the same time. Contractor shall prepare a signed detour route for the Veranda Street ramp closure. Contractor shall notify the Resident at least 1 week before the planned ramp closure. Contractor shall also setup portable changeable message sign(s) at least 7 days in advance of the planned ramp closure notifying traffic of the planned closure and detour.

3. For the Washington Avenue bridge work zone, the Contractor will be allowed to utilize long term lane closures to complete the bridge work. Two lanes of traffic must be maintained daily from 6 am to 7 pm. The southbound off-ramp to Baxter Blvd. shall remain open.

4. For the Franklin Arterial bridge work zone, the Contractor will only be allowed nighttime lane closures to complete the bridge work. Nighttime lane closures are permitted from 7 pm to 6 am at this work zone. One lane of mainline traffic must be maintained during nighttime lane closures. Two lanes of mainline traffic must be maintained daily from 6 am to 7 pm. Contractor is allowed to close the Franklin Arterial southbound on-ramp nightly to complete the bridge work. Nighttime ramp closures are permitted from 8pm to 7 am at this work zone. The ramp shall be open at all other times. The Franklin Arterial and Forest Avenue southbound on-ramps cannot be closed at the same time. Contractor shall prepare a signed detour route for any ramp closure. Contractor shall notify the Resident at least 24 hours before any planned nightly ramp closure. Contractor shall also setup portable changeable message sign(s) at least 24 hours in advance of the planned nightly ramp closure notifying traffic of the planned closure and detour.

5. For the Forest Avenue bridge work zone, the Contractor will only be allowed nighttime lane closures to complete the bridge work. Nighttime lane closures are permitted from 7 pm to 6 am at this work zone. One lane of mainline traffic must be maintained during nighttime lane closures. Two lanes of mainline traffic must be maintained daily from 6 am to 7 pm. Contractor is allowed to close the Forest Avenue southbound on-ramp nightly to complete the bridge work. Nighttime ramp closures are permitted from 7pm to 8 am at this work zone. The ramp shall be open at all other times. The Franklin Arterial and Forest Avenue southbound on-ramps cannot be closed at the same time. Contractor shall prepare a signed detour route for any ramp closure. Contractor shall notify the Resident at least 24 hours before any planned nightly ramp closure. Contractor shall also setup portable changeable message sign(s) at least 24 hours in advance of the planned nightly ramp closure notifying traffic of the planned closure and detour.

6. For the St John, PTRR (St. John), St. James and Congress Street bridge work zone, the Contractor will be allowed to utilize long term lane closures to complete the bridge work. Two lanes of traffic must be maintained daily from 6 am to 7 pm. Contractor is allowed to close the Congress Avenue southbound off-ramp and on-ramp while the long term lane closures are in use. The Congress Avenue and Portland Connector southbound on-ramps cannot be closed at the same time. Contractor shall prepare a signed detour route for any ramp closure. Contractor shall notify the Resident at least 1 week before the planned ramp closure. Contractor shall also setup portable changeable message sign(s) at least 7 days in advance of the planned ramp closure notifying traffic of the planned closure and detour.

7. For the Portland Connector bridge work zone, the Contractor will be allowed to utilize long term lane closures to complete the bridge work. Two lanes of traffic must be maintained daily from 6 am to 7 pm.

8. For the PTRR (Fore River) bridge work zone, the Contractor will only be allowed nighttime lane closures to complete the bridge work. Nighttime lane closures are permitted from 7 pm to 6 am at this work zone. One lane of mainline traffic must be maintained during nighttime lane closures. Two lanes of mainline traffic must be maintained daily from 6 am to 7 pm. Contractor is allowed to close the Portland Connector southbound on-ramp nightly to complete the bridge work. Nighttime ramp closures are permitted from 7 pm to 6 am at this work zone. The ramp shall be open at all other times. The Congress Avenue and Portland Connector southbound on-ramps cannot be closed at the same time. Contractor shall prepare a signed detour route for any ramp closure. Contractor shall notify the Resident at least 24 hours before any planned nightly ramp closure. Contractor shall also setup portable changeable message sign(s) at least 24 hours in advance of the planned nightly ramp closure notifying traffic of the planned closure and detour.

9. For the Fore River bridge work zone, the Contractor will be allowed to utilize long term lane closures to complete the bridge work. Two lanes of traffic must be maintained daily from 6 am to 7 pm.

10. For the Westbrook Street bridge work zone, the Contractor will be allowed to utilize long term lane closures to complete the bridge work. Two lanes of traffic must be maintained daily from 6 am to 7 pm. Contractor is allowed to close one lane of the Falmouth Connector two lane exit ramp while the long term lane closures are in use.

11. For the 8239E (State Route 703) bridge work zone, the Contractor will be allowed to utilize long term lane closures to complete the bridge work. One lane of traffic must be maintained at all times.

12. For all work zones allowing long term lane closures, Contractor is also allowed nighttime lane closures to complete the bridge work. Nighttime lane closures are permitted from 7 pm to 6 am unless otherwise noted. One lane of traffic must be maintained during nighttime lane closures.

13. For the duration of the project, Contractor shall setup portable changeable message signs north of the I-295/I-95 split in West Gardiner and north of the Falmouth Spur Exit notifying southbound interstate traffic of the I-295 reconstruction in the Portland area and encouraging use of the Maine Turnpike and Falmouth Spur respectively.

14. Ramps must remain open at all times unless otherwise noted or approved by the Resident.

15. The Contractor shall be charged Supplemental Liquidated Damages as outlined in Special Provision 105 (Supplemental Liquidated Damages) for any closed lanes outside the time frames noted above.

16. The Contractor may utilize multiple bridge repair crews as long as applicable sections of Special Provision 652 are met, provided the Resident is given 72 hours notice. No more than six bridge work zones (temporary or long term) can be ongoing at any time unless otherwise approved by the Resident.

17. Deliveries between 6 am and 7 pm to work zones protected by temporary concrete barrier will be permitted only if there is no infringement upon mainline or ramp traffic.

18. Construction phasing in overlapping and adjacent bridge work zones shall be coordinated to ensure uniformity.

19. The contactor may propose combining bridge work zones as long as no additional impacts to traffic result.

20. The working days and holiday restrictions as outlined in the Limitations of Operations –Highway Work apply to the bridge work as well, unless otherwise noted in this Special Provision.

21. For the Tukey's bridge work zone, the Contractor will be allowed to utilize long term lane closures to complete the outside portions of the bridge work, as defined in the bridge staging plans. Three undivided lanes of traffic (two lanes for the mainline and one lane for Washington Ave ramps) must be maintained daily from 6 am to 7 pm. Contractor is allowed to close one lane of the Washington Ave southbound on-ramp and one lane of the Washington Ave southbound off-ramp (Exit 8) while the long term lane closures are in use. Washington Ave and Veranda Street southbound on-ramps cannot be closed at the same time.

    Contractor will be allowed to utilize weekend lane closures to complete the center portion of the bridge work, as defined in the bridge staging plans. Weekend lane closures are permitted from 6 pm on Friday to 6 am on Monday. Two lanes of traffic (one lane for the mainline and one lane for Washington Ave ramps) must be maintained during the weekend lane closure. The Washington Ave southbound off-ramp shall be closed to mainline traffic but open to Washington Ave on-ramp traffic. Mainline traffic looking to exit onto the Washington Ave southbound off-ramp shall be detoured to the Franklin Arterial exit. Contractor is allowed a total of 3 weekends to complete the work. Weekend lane closures are limited to non-holiday weekends. Contractor shall notify the Resident at least 1 week before the planned weekend lane closure(s). Contractor shall also setup portable changeable message signs north of the I-295/I-95 split in West Gardiner and north of the Falmouth Spur Exit at least 7 days in advance of the planned weekend lane closure notifying southbound interstate traffic of the planned weekend lane closure and encouraging use of the Maine Turnpike and Falmouth Spur respectively.

    Contractor will also be allowed nighttime lane closures to complete the bridge work. Nighttime lane closures are permitted from 7 pm to 6 am at this work zone. Two lanes of traffic (one lane for the mainline and one lane for Washington Ave ramps) must be maintained during nighttime lane closures. If a center work zone is proposed at night, the Washington Ave southbound off-ramp shall be closed to mainline traffic at night but open to Washington Ave on-ramp traffic. Mainline traffic looking to exit onto the Washington Ave southbound off-ramp shall be detoured to the Franklin Arterial exit. Four lanes of traffic must be maintained at all other times, unless otherwise noted above.

22. For the Preble Street bridge work zone, the Contractor will only be allowed nighttime lane closures to complete the bridge work. Nighttime lane closures are permitted from 7 pm to 6 am at this work zone. One lane of mainline traffic must be maintained during nighttime lane closures. Two lanes of mainline traffic must be maintained daily from 6 am to 7 pm. The Forest Avenue southbound off-ramp shall remain open.

SPECIAL PROVISION
SECTION 105
CONTROL OF WORK
(Supplemental Liquidated Damages)

General: Monetary assessments will be made against the Contractor for each ¼ hour there are lane restrictions as specified below.

Definitions of Terms: For this contract the following definitions apply:

(a) Calendar Day: Any portion of the day on the calendar including Saturdays, Sundays, and holidays, beginning and ending at midnight.

(b) Hour: Any continuous 60 minute period or portion of a continuous 60 minute period beginning at the point when a lane and/or shoulder is closed or obstructed by the contractor's operation(s).

(c) 15 Minute Period: Any portion of a 15 minute continuous period.

(d) Obstruction: When the contractor's operation(s) have resulted in the useable lane width of the travel lane or passing lane to be less than that specified in the plan documents.

This contract includes a supplemental liquidated damage procedure under which the contractor is assessed a charge for each lane closure outside the time periods specified under Special Provision 105 Note 9 PINs 16787.00, 17055.10, & 17055.20; Special Provision 105 Note 5 PIN 15634.00. One lane must remain open at **ALL** times. The charge will be assessed for each lane restriction as follows:

One Lane Closed	$2,500/0 - 15 Minutes
	$5,000/ 16 -30 Minutes
	$10,000/ 31-45 Minutes
	$25,000/ 46-60 Minutes

*** These charges will be accumulative in nature. Example: 0 to 15 minutes, the contractor shall be assessed $2500.00. From 16 minutes to 30 minutes the charges will be $5000.00 + $2500.00 = $7500.00, and so on. Times above 60 minutes shall receive an additional assessment of $25,000.00 for each portion of a 15 minute time period.**

*** Work on the bridge decks is exempt from Special Provision 105 (Limitations of Operations) Note 9 & 5.**

The applicable charges will be deducted from any monies due the Contractor for work performed. The deduction will be based on the applicable rate for any and all closures whether work is being performed or not. Deductions will be accomplished through progress payments due the Contractor.

The Contractor shall address in their Traffic Control Plan a contingency plan for opening up both lanes of traffic within one hour of being notified by the Resident. This plan shall be fully detailed, and Permission to open up both lanes shall only be granted if work being performed can safely be stopped to allow lanes to be opened to traffic.

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 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.

IM-1678(700)E, PIN 16787.00/IM-1705(510)E, PIN 17055.10
HPP-1705(520)E, PIN 17055.20/HP-1563(400)E, PIN 15634.00
IM-1779(300)E, PIN 17793.00
Scarborough – Falmouth/Portland – Yarmouth
South Portland – Portland/Portland
Interstate 295
April 7, 2010

SPECIAL PROVISION
SECTION 107
PROSECUTION AND PROGRESS
(CONTRACT TIME)

1. **The contractor will be allowed to commence work anytime on or after June 16, 2010 provided that all applicable plans required under this contract have been submitted and approved and a preconstruction meeting has been held.**

2. **For every weekday not worked once operations commence, the contractor will be charged supplemental liquidated damages per standard specification 107.7.2 (excluding days lost to inclement weather).**

3. **The contractor will not be allowed to have any lane closures July 2, 3, 4, 5, & 6, 2010, September 3, 4, 5, 6, & 7, 2010, November 24, 25, 26, 27, & 28, 2010.**

4. **The completion date for this contract is December 18, 2010. For every calendar day past this date that the contract is not complete, the contractor will be charged $10,000 in liquidated damages.**

SPECIAL PROVISION
SECTION 107 – TIME
Sign Truss Work
(Allowable Work Times)

107.3.1 General

The following paragraphs are added:

The Department encourages the Contractor to schedule and construct the project in a cost effective and timely manner while maintaining traffic on the interstate highway system. Because capacity restrictions result in interference and inconvenience to motorists, it is essential that the highway capacity not be restricted longer than necessary to safely and effectively complete the work. Additionally, the interference and inconvenience results in an administrative cost to the Department and a user cost to motorists. Therefore to minimize construction impacts, these costs will be assessed to the Contractor in the form of supplemental liquidated damages for lane closures and roadway closures that exceed the limitations provided in the contract.

107.3.2 Night Work

The following paragraphs are added:

Lane closures and ramp closures are anticipated to be required for this project. The Contractor is directed that all lanes shall be open between 6 AM and 10 PM on any weekday. No lane closures or ramp closures shall be permitted on Saturdays, Sundays or on state and federal holidays. No lane closures or ramp closures shall be permitted before 10 PM. All lanes shall be reopened to traffic by 6 AM. Lane closures or ramp closures extending beyond 6 AM shall be subject to supplemental liquidated damages. A lane shall be considered reopened when all traffic control devices have been removed from the highway travel lanes and travel in all lanes flows unrestricted. A ramp shall be considered reopened when all traffic control devices have been removed to allow unrestricted travel. Ramp closures and detours shall be subject to the same restrictions and supplemental liquidated damages as described for lane closures.

The removal and installation of overhead sign structures may require full roadway closures for brief periods of time to ensure the safety of the motoring public. Each roadway closure shall be brief and the roadway shall be reopened as soon as the roadway is deemed safe by the uniformed officers in coordination with the Contractor and/or by the Resident Engineer. Subsequent roadway closures shall not begin until queued traffic is released and traffic returns to free-flowing conditions. No more than three (3) roadway closure periods shall be permitted each night. No roadway closures shall be permitted between 5 AM and 11 PM on any weekday. No roadway closures shall be permitted on Saturdays, Sundays or on state and federal holidays. Any alternations to this lane closure and roadway closure schedule shall be at the discretion of the Resident Engineer in accordance with actual highway traffic conditions.

Each roadway closure shall be restricted to 15 minutes between the hours of 11PM and 5AM on weekdays. Sunday night/Monday morning shall be considered a weekday. The roadway closure time period shall begin when traffic is at a full stop as directed by the uniformed officers. The roadway closure time period shall be considered complete when the fifth vehicle in the queue passes the point where the first vehicle was stopped. Any delay in reopening the roadway after the 15 minute period shall be subject to supplemental liquidated damages.

The Contractor shall receive approval from the Resident for every lane closure and roadway closure at least 60 hours in advance of the closure. Lane closures and roadway closures performed without approval of the Resident Engineer shall be considered non-conforming work in accordance with Section 106.8 and the Department shall be entitled to a credit to be deducted from amounts due the Contractor.

SPECIAL PROVISION
SECTION 107 - TIME
(Liquidated Damages)

107.8 Supplemental Liquidated Damages

The following paragraph is added:

The interstate highways are vital to the transportation and commerce of the State of Maine. Interruptions to the free-flow of traffic should be minimized to the degree practical. Excessive interruptions shall be subject to supplemental liquidated damages in accordance with the schedules below. Supplemental liquidated damages shall be cumulative. At the option of the Department, the Contractor also may be held responsible for all specific costs incurred by the Department which are due to any Contractor delay in returning traffic lanes to free-flow operations, in addition to the supplemental liquidated damages

Supplemental Liquidated Damages for Lane Closures

Time of Day All Lanes Reopened		Amount of
Beginning	Ending	Supplemental Liquidated Damages
6:00 AM	6:14 AM	$100 per restricted lane
6:15 AM	6:29 AM	$200 per restricted lane
6:30 AM	6:44 AM	$300 per restricted lane
6:45 AM	6:59 AM	$400 per restricted lane
7:00 AM	7:04 AM	$500 per restricted lane
7:05 AM	7:09 AM	$500 per restricted lane
7:10 AM	7:14 AM	$500 per restricted lane
Each five minutes thereafter		$1000 per restricted lane

Supplemental Liquidated Damages for Roadway Closures

Time of Roadway Closure		Amount of
Beginning	Ending	Supplemental Liquidated Damages
0 min-0 sec	14 min-59 sec	Permitted closure period
15 min-0 sec	19 min-59 sec	$100 per closed approach
20 min-0 sec	20 min-59 sec	$100 per closed approach
21 min-0 sec	21 min-59 sec	$100 per closed approach
22 min-0 sec	22 min-59 sec	$100 per closed approach
Each one minute thereafter		$100 per closed approach

SPECIAL PROVISION
SECTION 107
(PROSECUTION AND PROGRESS)
Sign Truss Work

DESCRIPTION

The purpose of this project is to replace the existing aluminum sign structures with new galvanized steel sign structures. The work includes the replacement of the overhead guide signs when the new steel sign structures are installed. The Replacement of Interstate Trusses and Signs improvements will include but not be limited to the following items:

Location 1: I-295 Northbound at Exit 7

- Replace existing overhead sign structure with new 94' galvanized steel sign.
- Demount two existing guide signs and one existing support sign and replace with new guide signs and support mounted sign on the new structure.
- Extend guardrail 50.0' and install new terminal end along the northbound median.

Location 2: I-295 Southbound at Exit 7

- Replace existing overhead sign structure with new 89' galvanized steel sign.
- Demount three existing guide signs and replace with new guide signs and support mounted sign on the new structure.
- Extend guardrail 100.0' and install new terminal end along the northbound median.

UTILITIES

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 3360-A, Maine "Dig Safe" System. Utilities located within the project limits include highway lighting cables. The location of the highway lighting cables and all other utilities will need to be identified by the owner prior to any excavation.

RIGHT-OF-WAY

It is anticipated that the existing rights-of-way at each project location will be adequate to accommodate the proposed construction. No work or access will be permitted outside the existing rights-of-way.

MAINTENANCE OF TRAFFIC

Traffic shall be maintained in accordance with the Traffic Control Plan (TCP) developed by the Contractor (per Section 652) and approved by the Department. A separate TCP and construction phasing or schedule shall be prepared for each project location.

It is anticipated that most or all of the work shall be performed at night. Short term roadway closures using police officers will be required for the removal and installation of sign structures signs. All lane closures and roadway closures require advanced approval from the Resident. No roadway closures shall be permitted before 11:00 PM or after 5:00 AM. Some work area may require temporary shoulder or single lane closures for traffic barrier construction. Shoulder closures may be permitted during daylight hours at the discretion of the Resident at each project location. No lane closures shall be permitted before 9:00 PM or after 6:00 AM. The minimum lane width allowable shall be 14 feet.

SALVAGE OF EXISTING MATERIALS

Signing materials removed and not reinstalled shall remain the property of MaineDOT including all the aluminum extruded panels, zee bar tube posts, steel H-beams, breakaway devices, and sign hangers. Aluminum panel signs shall be disassembled into one foot sections and delivered to the Belgrade maintenance lot behind the building where other extrusions are located, as well as sign assemblies. Before each delivery, the contractor shall contact the Interstate Signing Supervisor at 207-557-0335. No separate payment will be made for removal, dismantling, stockpiling delivery or disposal of above mentioned material. All other removed equipment and signs shall become the property of the Contractor and shall be disposed of off-site in a manner acceptable to the Resident Engineer.

GEOTECHNICAL AND FOUNDATIONS

Test soil borings at or near the proposed sign structure foundation locations are included in the contract documents to inform the design of the foundation footings. For each foundation, one test boring was conducted. The Contractor's foundation design shall be based on the existing soil conditions. If the soil conditions at the proposed sign structure location differ significantly from the information contained in the soil boring, the Contractor shall inform the Resident Engineer for further direction. All locations should provide a minimum of 5.5 feet from the face of the existing guardrail to the face of the proposed foundation.

STRUCTURAL DESIGN

The cross-sectional information, sign structure dimensions and preliminary foundation designs are for bidding purposes only. The Contractor shall be responsible for verifying existing field conditions and grades at the proposed sign structure locations. Structural design shall be adjusted to meet minimum vertical and horizontal clearances from the roadway and guardrail as shown.

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 403.208 Hot Mix Asphalt - 12.5 mm
Item 403.2081 Hot Mix Asphalt - 12.5 mm (PG 70-28)
Item 403.209 Hot Mix Asphalt - 9.5 mm (sidewalks, drives, & incidentals)
Item 403.210 Hot Mix Asphalt - 9.5 mm
Item 403.2102 Hot Mix Asphalt - 9.5 mm
Item 403.211 Hot Mix Asphalt - Shim
Item 403.212 Hot Mix Asphalt - 4.75 mm
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 PG 70-28)
Item 403.2132 Hot Mix Asphalt - 12.5 mm (Asphalt Rich Base and intermediate course)
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 403.2102: 6.2%
Item 403.207: 5.2%	Item 403.211: 6.2%
Item 403.208: 5.6%	Item 403.212: 6.8%
Item 403.2081: 5.6%	Item 403.213: 5.6%
Item 403.209: 6.2%	Item 403.2131: 5.6%
Item 403.210: 6.2%	Item 403.2132: 5.6%
Item 461.13: 6.4%	

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, 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, 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.

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.

REG/01/14/03

SPECIAL PROVISION
SECTION 202
REMOVING STRUCTURES AND OBSTRUCTIONS
(Shoulder Rumble Strip)

Description This work shall consist of milling a pattern onto highway shoulders at the spacing, offset, width, and depth shown on the plans. Rumble strips shall not be placed across ramp openings, crossover openings, or bridges.

CONSTRUCTION REQUIREMENTS

Removing Material The bituminous material shall be removed by a cold milling machine capable of removing the pavement to the required depth and width. The machine must be adjustable to grind or plane on various cross-slopes. Salvage and disposal of bituminous material shall be in accordance with Section 203.

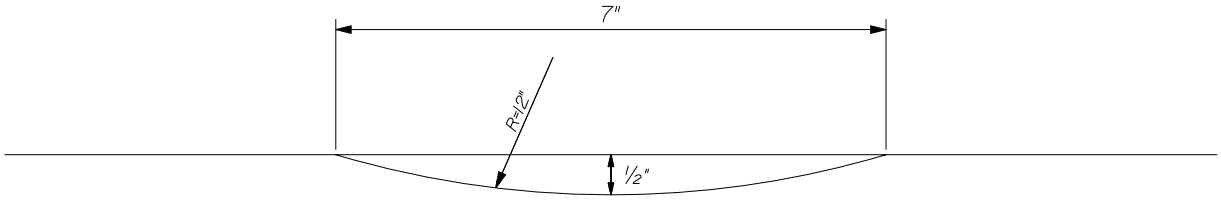
Equipment The equipment shall be a cold milling machine or a cold planing machine specially manufactured for rumble strips. This machine shall be capable of cutting 1200 rumble strips per hour of operation. The Contractor will perform a test section prior to rumble strip installation and at any time as directed by the Resident. The test section will be done to ensure that the machine is capable of milling the rumble strips in accordance with these specifications and the plans.

Method of Measurement Rumble strips will be measured by the meter [foot] longitudinally along the edge of the travelway. For rumbled strips that are broken at regular intervals to permit emergency stopping on shoulders for motorcycles, the length measured for payment shall include the full running length including the regular breaks. Breaks in rumble strip installation for acceleration lanes, deceleration lanes, and crossovers will not be included in the length measured for payment.

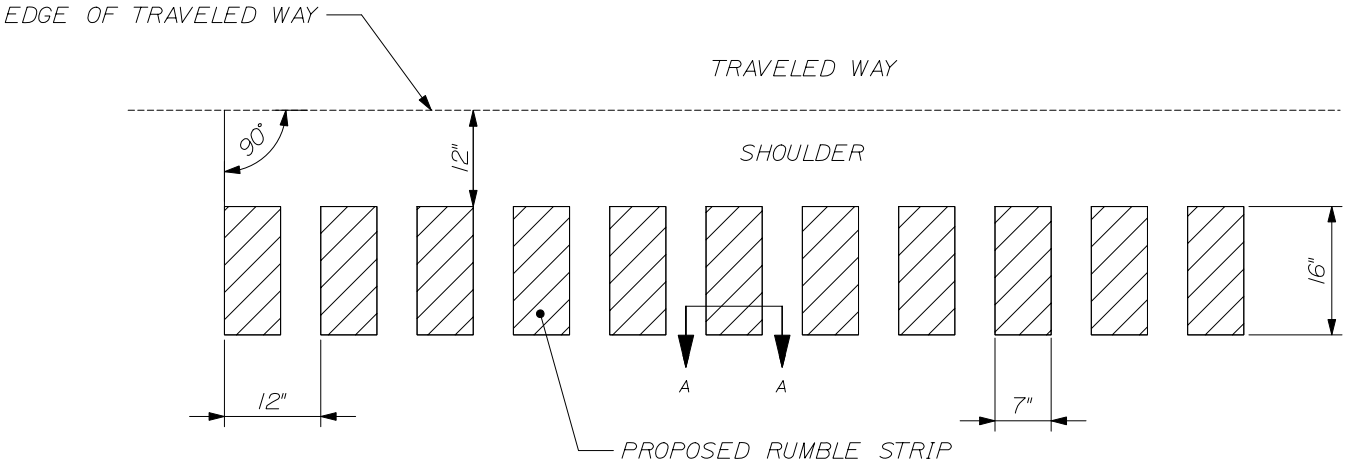
Basis of Payment The accepted quantity of rumble strips will be paid for at the unit price bid per foot [meter] which price will be full compensation for removing and salvaging the bituminous material and for any labor, equipment, and incidentals needed to complete this work.

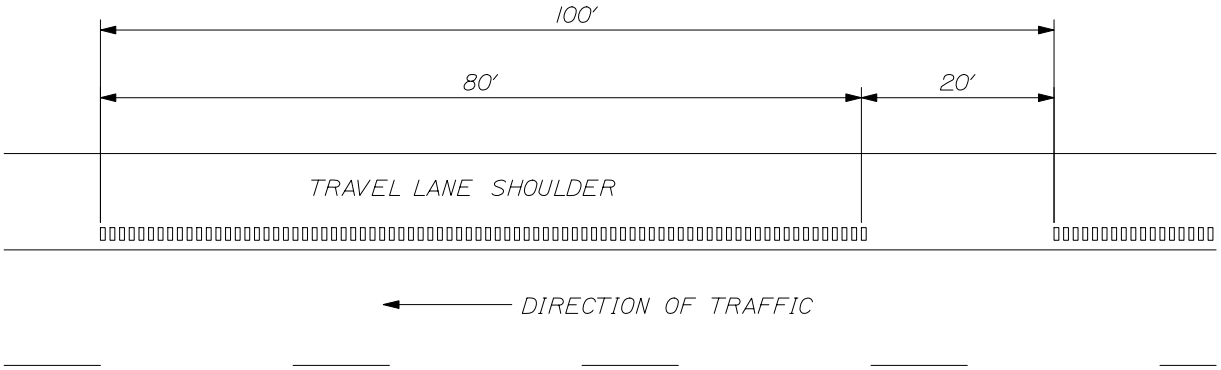
Payment will be made under:

Pay Item	Pay Unit
202.205 Rumble Strip - Shoulder	Foot [Meter]



SECTION A - A





BREAK DETAIL

NOTES:

1. SHOULDER RUMBLE STRIPS SHALL BE PLACED ON THE MEDIAN AND OUTSIDE SHOULDER AS SHOWN IN THE ABOVE DETAIL.

2. ON THE OUTSIDE SHOULDER, THE RUMBLE STRIP PLACEMENT SHALL BE BROKEN FOR A DISTANCE OF 20 FT FOR EVERY 80 FT PLACED.

SHOULDER RUMBLE STRIP DETAIL - INTERSTATE

FALMOUTH TO SCARBOROUGH-16787
I-295
HIGHWAY IMPROVEMENT PROJECT
FEBURARY 11, 2010

SPECIAL PROVISION
SECTION 203
EXCAVATION AND EMBANKMENT
(Dredge Materials)

Description: Dredge Material (See MaineDOT Standard Specifications § 101.2) is regulated as a Special Waste.

Culvert work associated with the I-295 Highway Improvement Project will require the excavation of select Dredge Material at several stream locations. It is anticipated that less than 100-cubic yards of Dredge Material will be excavated at each site. There is onsite Beneficial Use for all of the Dredge Materials.

It is acknowledged that the excavation of Dredge may include some boulders. The Maine Department of Environmental Protection has determined that sound boulders (rock 12-inches or more in diameter), that are free of adhering sediment or other contaminants, shall be deemed to be Inert Fill material and shall not be included in the Dredge Material Quantities.

The contractor shall Beneficially Use all Dredge Material excavated from the various stream locations in areas adjacent to and draining into the dredged water body. No more than 100-cubic yards of Dredge Material may be excavated at each culvert location.

CONSTRUCTION REQUIREMENTS

Management: The contractor shall Beneficially Use all Dredge Material excavated at the individual culvert sites in areas adjacent to and draining into the dredged water body. No more than 100-cubic yards of Dredge Material may be excavated at the individual culvert site.

Method of Measurement: Dredge Material will be measured by the cubic yard of material removed.

Basis of Payment: Payment for the Beneficial Use of Dredge Material will be incidental to the Contract Pay Items.

Payment shall be full compensation for excavation, dewatering, managing, transporting, and placement of the Dredge Materials.

SPECIAL PROVISION
SECTION 205
SHOULDER RECONSTRUCTION

The following additions are made to Section 205 Subsections 205.06 and 205.11 of the December 2002 revision of the Standard Specifications.

205.06 Method of Measurement:

The quantity of widening of existing shoulders measured for payment will be the number of square yards [square meters] measured in place.

205.11 Basis of Payment:

Pay Item	Pay Unit
205.512 Widening of Existing Shoulder	Square Yard

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

<u>401.10 Rollers</u> 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 [¼ 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:

a. 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.
b. 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.
c. 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.
d. 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.
e. Each of the first 2 control tests for a Method A or B lot fall outside the upper or lower limits for VMA, Voids @ Nd, 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.
f. The Flat and Elongated Particles value exceeds 10% by ASTM D4791.
g. There is any visible damage to the aggregate due to over-densification other than on variable depth shim courses.
h. 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 Contactor 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 sublot 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	Table1 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 sublot 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 = (density PF- 1.0)(Q)(P)x0.50

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

PA = (voids @ N_d PF- 1.0)(Q)(P)x0.20 + (VMA @ N_d PF- 1.0)(Q)(P)x0.20 + (PGAB PF- 1.0)(Q)(P)x0.10

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 = (density PF- 1.0)(Q)(P)x0.50

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

PA = (voids @ N_d PF- 1.0)(Q)(P)x0.20 + (VMA @ N_d PF- 1.0)(Q)(P)x0.20 + (PGAB PF- 1.0)(Q)(P)x0.10

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 = (density PF- 1.0)(Q)(P)x0.50

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 = (% Passing Nom. Max PF-1.0)(Q)(P)X0.05+(% passing 2.36 mm PF-1.0)(Q)(P)X0.05+(%passing 0.30 mm PF-1.0)(Q)(P)X0.05+(%passing 0.075 mm PF-1.0)(Q)(P)X0.10+(PGAB PF-1.0)(Q)(P)X0.25

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 Table10: 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 sublot 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:

Pay Item	Pay Unit
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:

Pay Item		Pay Unit
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 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
DIVISION 400
PAVEMENTS

SECTION 401 - HOT MIX ASPHALT PAVEMENT

The Special Provision 400. Section 401 – Hot Mix Asphalt Pavement, subsection 401.06 – Weather and Seasonal Limitations, has been modified with the following revisions. All sections not revised by this Special Provision shall be as outlined in the Special Provision 400 Pavements, Section 401 – Hot Mix Asphalt Pavement. References to Standard Specifications, Special Provisions, or other documents, shall be determined as the most current version available at the time of bid, or as amended.

401.06 Weather and Seasonal Limitations The following section has been added as follows:

When work is to be performed, either by contract requirement or Contractor option, during conditions defined as "night work", the Contractor may place Hot Mix Asphalt Pavements greater than one inch in depth as traveled way wearing course in Zone 1 between the dates of May 30th and the Saturday following September 1st, and in Zone 2 between the dates of May 15th and the Saturday following September 15 th . The wearing course placement may commence provided that the air temperature as determined by an approved thermometer (placed at the paving location) is 10°C [50.0°F] or higher. Once started, the wearing course placement may continue provided that the air temperature as determined by an approved thermometer (placed at the paving location) is at or above 7°C [45.0°F] minimum temperature.

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
			Travelway and Shoulder Widening			
			7" HMA Overlay Areas			
Wearing	12.5mm	403.2081	N/A	1 ½"	1	1,5,7,12,23
Base	12.5mm	403.2131	N/A	1 ½"	1	1,5,8,12,23
Base	12.5mm	403.213	N/A	2"	1	5,8
Base	12.5mm	403.213	N/A	2"	1	4,8
			Shoulders and Guardrail Widening Areas			
			3" HMA Overlay			
Wearing	12.5mm	403.208	N/A	1 ½"	1	5,7,12
Base	12.5mm	403.213	N/A	1 ½"	1	5,8,12
			Travelway Overlay Areas			
			1 ½" HMA Overlay			
Wearing	12.5mm	403.2081	N/A	1 ½"	1	1,5,7,12
Shim	9.5 mm	403.211	N/A	variable	1	2,4,8,11
			Drives, Islands, Misc.			
Wearing	9.5mm	403.209	N/A	2"	1/more	2,3,10,11,14

COMPLEMENTARY NOTES

1. The required PGAB for this mixture will meet a **PG 70-28** to **PG 76-28** grading. 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.
3. The design traffic level for mix placed shall be <0.3 million ESALS.
4. The design traffic level for mix placed shall be 0.3 to <3 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **50 gyrations.**
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**.
7. Section 106.6 Acceptance, (1) Method A.
8. Section 106.6 Acceptance, (2) Method B.
10. Section 106.6 Acceptance, (2) Method D.
11. The combined aggregate gradation required for this item shall be classified as a 9.5mm "**fine graded "** mixture, (using the Primary Control Sieve control point) as defined in 703.09.
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.

14. A mixture meeting the requirements of section 703.09 Grading 'D', with a minimum PGAB content of 6%, and the limits of Special Provision 401, Table 9 (Drives and Sidewalks) for PGAB content and gradation may be substituted for this item. A job mix formula shall be submitted to the department for approval.
23. A tack coat of a RS-1, Item #409.15 shall be applied along the longitudinal centerline construction joint, on the horizontal surface immediately adjacent to the construction joint, and in a minimum width of one foot. The rate of application shall be approximately 0.050 to 0.075 G/SY. This application shall be in addition to the application of tack coats to the construction joint face and horizontal surfaces prior to placing a new lift.

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.

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
			Travel, Passing, and Auxiliary Lanes			
			2" Mill with 2"HMA Resurfacing			
Wearing	12.5mm	403.2081	N/A	2"	1	1,5,7,12,22,23
			Exit 3 Off Ramp			
			1 ½" Mill with 1 ½" HMA Overlay			
			Travelway Lanes			
Wearing	12.5mm	403.2081	N/A	1 ½"	1	1,5,7,12
			Ramps – General			
			1 ½" Mill with 1 ½" HMA Overlay			
			Travelway and Shoulders as outlined in Construction Notes			
			Item #202.202			
Wearing	12.5mm	403.208	N/A	1 ½"	1	5,7,12,19
			3" HMA			
			Guardrail Widenings, Shoulder Widenings			
Wearing	9.5mm	403.210	N/A	3"	2	5,10,12
			Miscellaneous Areas, Delaminated areas			
Shim	9.5 mm	403.211	N/A	variable	1	2,4,7,11

COMPLEMENTARY NOTES

1. The required PGAB for this mixture will meet a **PG 70-28** to **PG 76-28** grading. 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.
4. The design traffic level for mix placed shall be 0.3 to <3 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **50 gyrations.**
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**.
7. Section 106.6 Acceptance, (1) Method A.
10. Section 106.6 Acceptance, (2) Method D.
11. The combined aggregate gradation required for this item shall be classified as a 9.5mm "**fine graded "** mixture, (using the Primary Control Sieve control point) as defined in 703.09.
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 Exit 8 Onramp, and Exit 2 Offramp.
22. The final pavement surface shall be evaluated for smoothness in accordance with the most current version of Special Provision section 402 – Pavement Smoothness. Acceptance limits shall be as outlined under the **Level 1** classification.

23. A tack coat of a RS-1, Item #409.15 shall be applied along the longitudinal centerline construction joint, on the horizontal surface immediately adjacent to the construction joint, and in a minimum width of one foot. The rate of application shall be approximately 0.050 to 0.075 G/SY. This application shall be in addition to the application of tack coats to the construction joint face and horizontal surfaces prior to placing a new lift.

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.

Scarborough, South Portland
Portland and Falmouth
IM-1779(300)E
I - 295 Southbound
Bridge Resurfacing
April 14, 2010

SPECIAL PROVISION
SECTION 403
HOT MIX ASPHALT OVERLAY

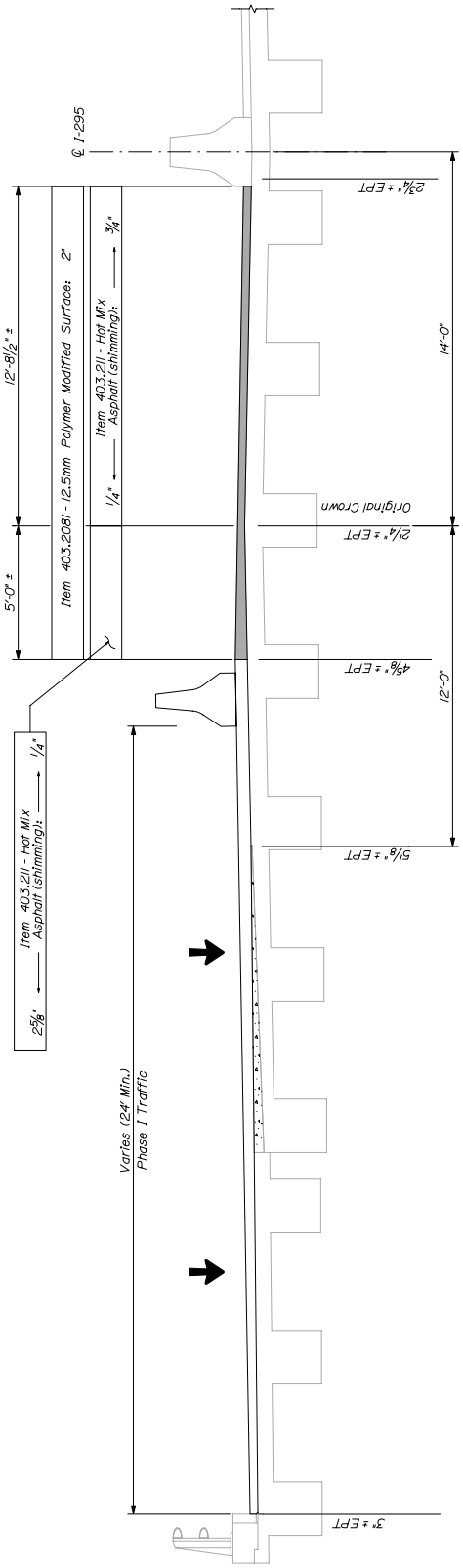
Desc. of Course	Grad. Design	Item Number	Bit Cont. % of Mix	Total Thick	No. Of Layers	Comp. Notes
Franklin Arterial, Forest Avenue, St. John Street, PTRR Bridges, St. James Street, Congress and Park Avenue, Portland Connector, Preble Street and Fore River Bridge						
2 ½" HMA Resurfacing Travel Lanes and Shoulders						
Wearing	12.5mm	403.2081	N/A	1 ½"	1	1,2,5,7,12
Base	9.5mm	403.2101	N/A	1"	1	1,2,5,8
Westbrook Street, and Route 703 Bridge Decks						
3" HMA Resurfacing Travel Lanes and Shoulders						
Wearing	12.5mm	403.2081	N/A	1 ½"	1	1,2,5,7,12
Base	12.5mm	403.2131	N/A	1 ½"	1	1,2,5,8,12
Presumpscot River Bridge						
3 ¾" HMA Resurfacing Travel Lanes and Shoulders						
Wearing	12.5mm	403.2081	N/A	2"	1	1,2,5,7,12
Base	12.5mm	403.2131	N/A	1 ¾"	1	1,2,5,8,12
Kensington Street, CNRR Bridge, Sherwood Street, and Tukey's (Back Cove) Bridge Phased Construction , refer to phase detail sheets						
Wearing	12.5mm	403.2081	N/A	see phase details	1	1,2,5,7,12
Base	12.5mm	403.2131	N/A	see phase details	1	1,2,5,8,12
Shim	9.5 mm	403.211	N/A	see phase details	1	2,5,8,11

COMPLEMENTARY NOTES

1. The required PGAB for this mixture will meet a **PG 70-28** to **PG 76-28** grading. 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**.
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.

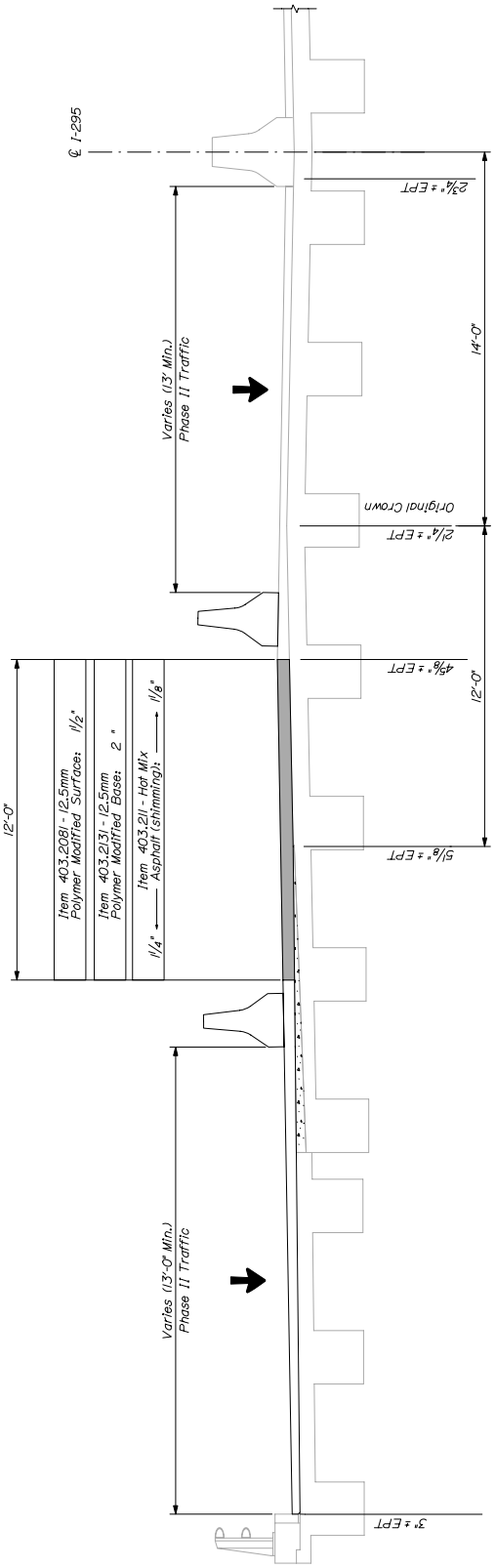
Tack Coat

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
INTERSTATE 295 SOUTHBOUND OVER KENSINGTON STREET, SLRR & CNRR AND SHERWOOD STREET
N.T.S.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	I-295 Portland/South Portland Cumberland	SHEET NUMBER 1 202
17793.00	STAGED CONSTRUCTION PHASING DETAILS	OF6

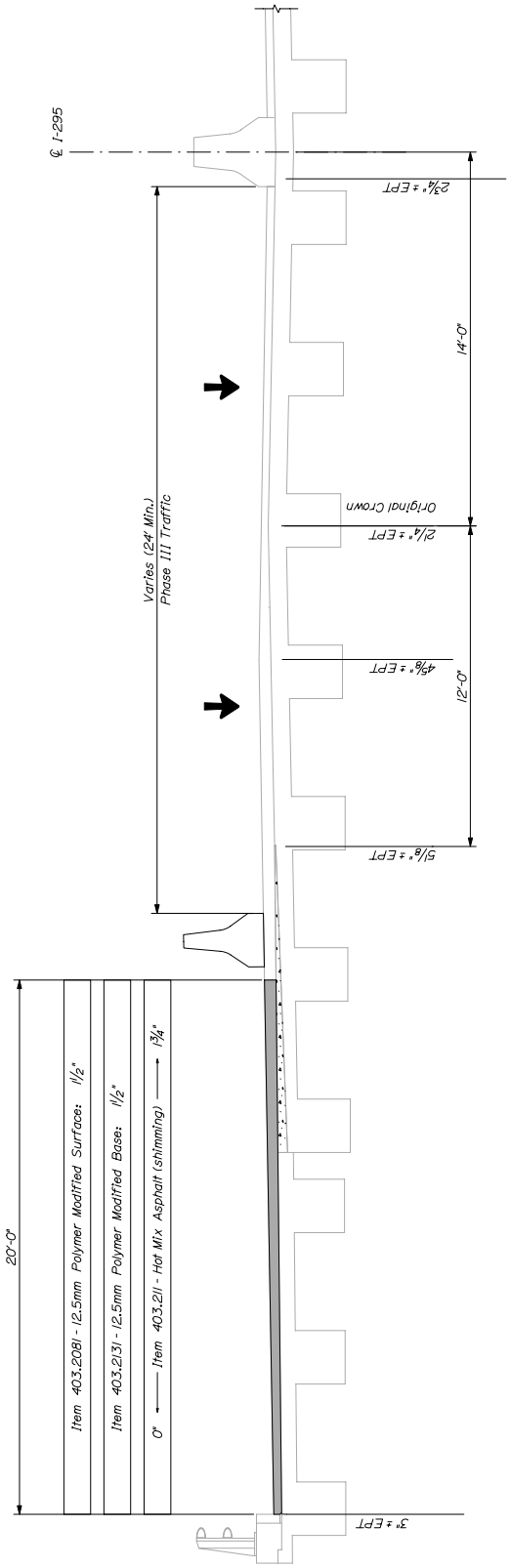


PHASE II - PAVEMENT LIFT THICKNESSES

INTERSTATE 295 SOUTHBOUND OVER KENSINGTON STREET, SLRR & CNRR AND SHERWOOD STREET

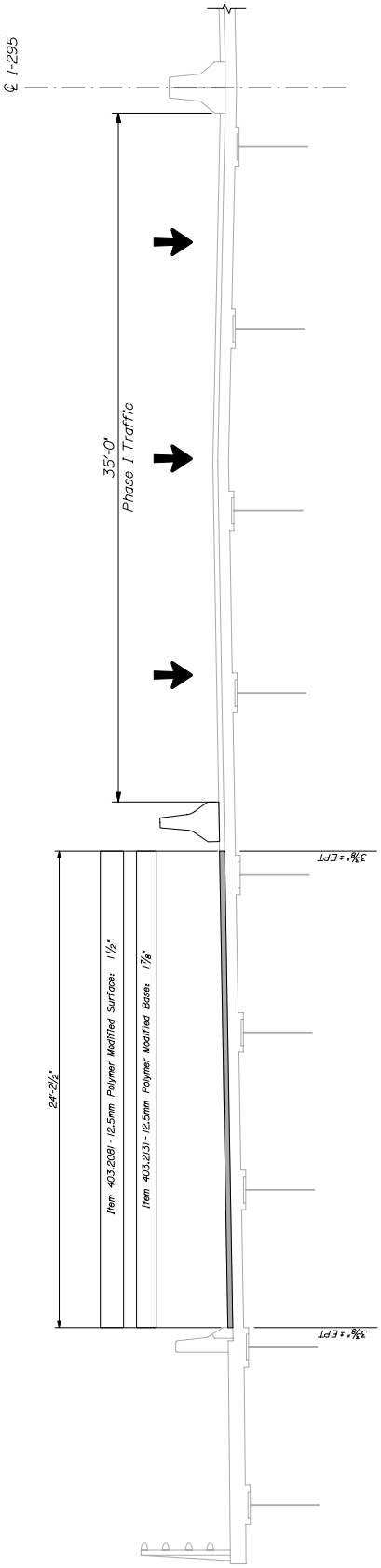
N.T.S.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	I-295 Portland/South Portland Cumberland	SHEET NUMBER 2 203 OF6
17793.00	STAGED CONSTRUCTION PHASING DETAILS	



PHASE III - PAVEMENT LIFT THICKNESSES
INTERSTATE 295 SOUTHBOUND OVER KENSINGTON STREET, SLRR & CNRR
AND SHERWOOD STREET
N.T.S.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	I-295 Portland/South Portland Cumberland	SHEET NUMBER 3 204
17793.00	STAGED CONSTRUCTION PHASING DETAILS	OF6

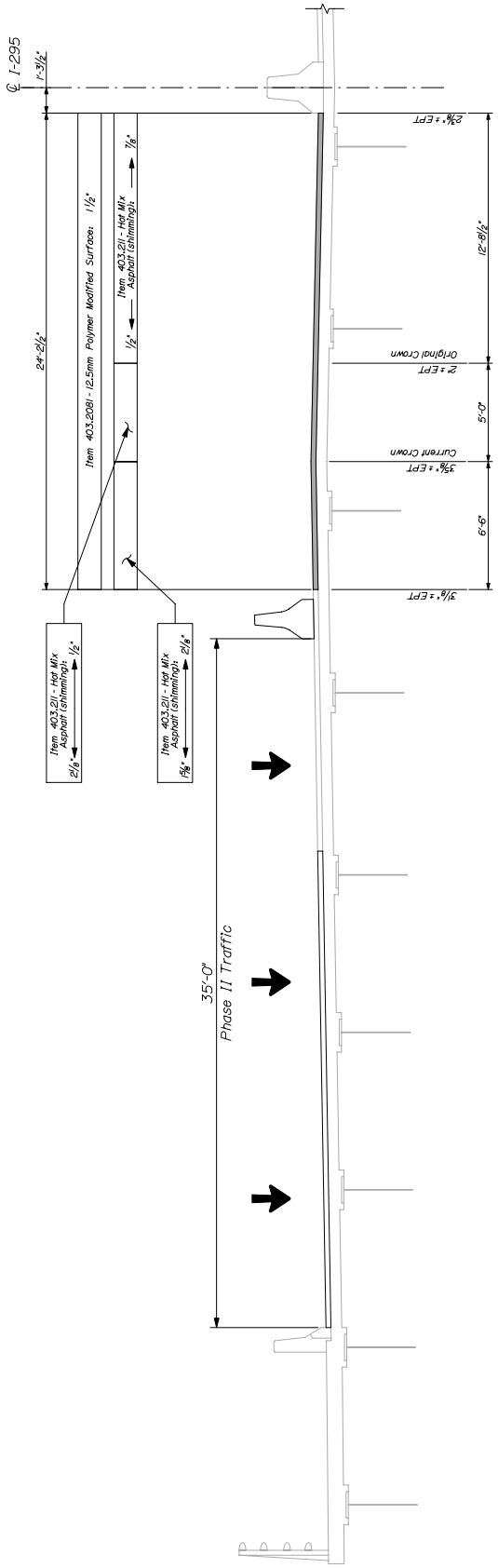


PHASE 1 - PAVEMENT LIFT THICKNESSES

INTERSTATE 295 SOUTHBOUND OVER BACK COVE (TUKEY'S BRIDGE)

N.T.S.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	I-295 Portland/South Portland Cumberland	SHEET NUMBER 4 205
17793.00	STAGED CONSTRUCTION PHASING DETAILS	OF6

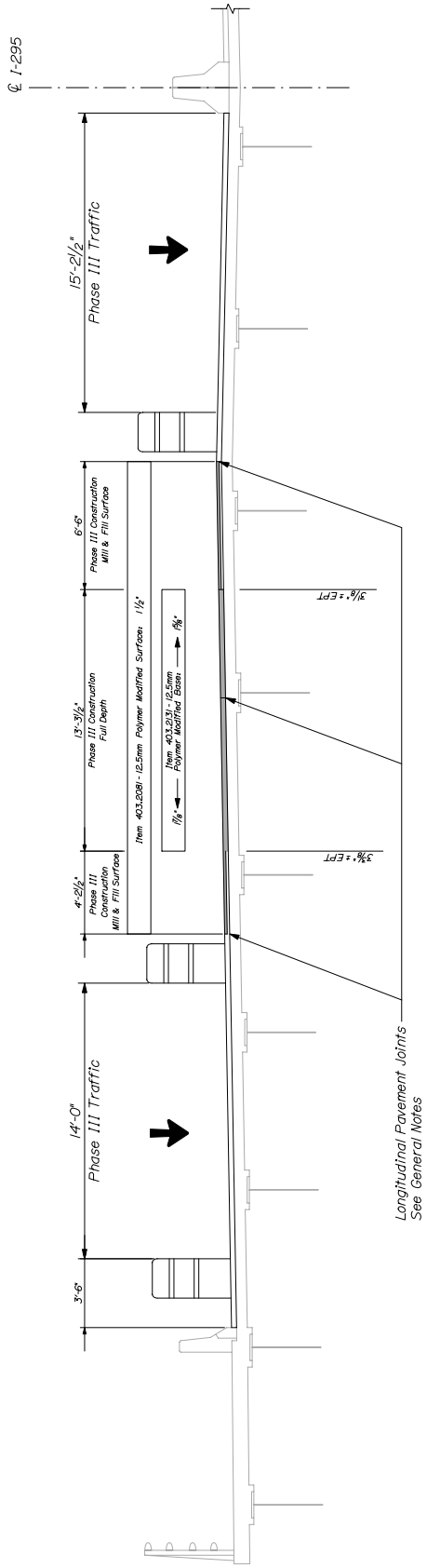


PHASE II - PAVEMENT LIFT THICKNESSES

INTERSTATE 295 SOUTHBOUND OVER BACK COVE (TUKEY'S BRIDGE)

N.T.S.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	I-295 Portland/South Portland Cumberland	SHEET NUMBER 5 206
17793.00	STAGED CONSTRUCTION PHASING DETAILS	OF6



PHASE III - PAVEMENT LIFT THICKNESSES

INTERSTATE 295 SOUTHBOUND OVER BACK COVE (TUKEY'S BRIDGE)

N.T.S.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	I-295 Portland/South Portland Cumberland	SHEET NUMBER 6 207
17793.00	STAGED CONSTRUCTION PHASING DETAILS	OF6

SPECIAL PROVISION
SECTION 424
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 [140ºF]	< 3.0mm [⅛ in]
Bond, non-immersed	Three 12.7mm [½ in] specimens pass 3 cycles @ 200% extension @ -29°C [-20ºF]
Resilience, %	60 min
Asphalt Compatibility, ASTM D5329	pass*

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

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

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 m^3 [4 yd^3] 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 [¼ 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 Glenzoil 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 kilogram (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 kilogram [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:

Pay Item	Pay Unit
424.3331 Low Modulus Crack Sealer, Applied	Kilogram [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 [140ºF]	< 3.0mm [? in]
Bond, non-immersed	Three 12.7mm [½ in] specimens pass 3 cycles @ 200% extension @ -29°C [-20ºF]
Resilience, %	60 min
Asphalt Compatibility, ASTM D5329	pass*

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

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

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 meter [foot] applied.

Basis of Payment The accepted quantity of Low modulus joint sealer will be paid for at the contract unit price per meter [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:

Pay Item	Pay Unit
424.3333 Low Modulus Joint Sealer, Applied	Meter [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 (m^2). 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:

Pay Items		Pay Unit
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	502.29	Structural Concrete Wearing Surface	$450	A
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	520.241	Bridge Joint Modification Type 1	$450	A
LP	520.242	Bridge Joint Modification Type 2	$450	A
LP	520.243	Bridge Joint Modification Type 3	$450	A
LP	520.244	Bridge Joint Modification Type 4	$450	A
LP	520.245	Bridge Joint Modification Type 5	$450	A
LP	520.246	Bridge Joint Modification Type 6	$450	A
LP	520.247	Bridge Joint Modification Type 7	$450	A
LP	526.34	Permanent Concrete Transition Barrier	$450	A

P values listed above reflect the price per cubic yard (YD^3) for all pay adjustment purposes.

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(Bridge Drain – Type A)
(Bridge Drain – Type C)
(Bridge Drain Grate Modification)

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 and Type C, where noted on the Plans and as detailed on the Plans.

The work also consists of field modifying existing bridge drains where noted on the Plans or as directed by the Resident.

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 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. 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.

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. On concrete girder bridges stabilize the new bridge drain off of existing reinforcing steel or temporary supports and form 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 Contactor shall provide an adequate means for securely holding them in the required positions during the placing of concrete.

When existing bridge drain grates are to be modified, the contractor shall repair or replace grate bearing bars and cross bars, cut and repair drain sidewalls as directed by the Resident. All welding shall be undertaken by certified welders in accordance with the requirements of Section 504 – Structural Steel.

502.53 Method of Measurement

Bridge Drain – Type A 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.

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

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 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 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.

Bridge Drain Grate Modification will be paid for at the Contract unit price per each, which price shall be full compensation for repairing or replacing grate bearing bars, cross bars and sidewalls, including all materials, labor, tools, equipment and incidentals necessary for completing the work as directed by the Resident.

Payment will be made under:

Pay Item		Pay Unit
502.70	Bridge Drain – Type A	Each
502.70	Bridge Drain – Type C	Each
502.701	Bridge Drain Grate Modification	Each

SPECIAL PROVISION
SECTION 504
CONCRETE PIPE TIES

Description This work shall consist of furnishing and installing concrete pipe ties in conformance with the Standard Details.

Materials All materials shall meet the requirements shown in the Standard Details.

Method of Measurement Concrete pipe ties shall be measured per Group (2 ties per Group).

Basis of Payment The accepted quantity of concrete pipe ties will be paid for at the contract unit price per Group. Such payment will be full compensation for furnishing, installing, and all other necessary incidentals for satisfactory completion of the work. Any grout or mortar necessary to repair chipping shall be incidental to the installation of the pipe ties.

Pay Item	Pay Unit
504.07 Concrete Pipe Ties	Group

SPECIAL PROVISION
SECTION 507
RAILINGS
(Aluminum Bridge Rail Splice Retrofit)

Description Existing aluminum bridge rail splices designated on the plans or as directed by the Resident shall be retrofitted with two 9.5 mm Ø x 25 mm [⅜"Ø x 1"], Type F, hex washer head tapping screws, in two 8 mm [5/16"] Ø holes, field drilled through the rail bar and splice bar to one side of the rail bar joint, as shown on the Splice Modification Detail, after the recentering of the existing splice bar as required. 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 Retrofits will be measured as the number of rail bar splices modified by the addition of the specified tapping screws. All work necessary for recentering of the existing splice bars and modification of the splice, including but not limited to the removal and subsequent reinstallation of existing pale panels as required to access the rail splices, the disassembly and subsequent reassembly of rail bars to allow retrieval of 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 will be paid for at the contract unit price for each, complete in-place, and accepted.

Pay Item	Pay Unit
507.30 Aluminum Bridge Rail Splice Retrofit	Each

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:

Bridge rail posts	8 each
Bridge rail post preformed pads	12 each
Bridge rail (40 LF sections)	18 lengths
Bridge rail splice bars	18 each
Bridge rail clamp bars	216 each
Bridge rail clamp bar bolts - (½" – 13UNC * 1" stainless steel hex head cap screws)	432 each
Bridge rail clamp bar washers - (1 1/16" OD * 17/32" ID * 3/32" thick stainless steel washers	432 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 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.

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.

Pay Item		Pay Unit
507.0926	Furnish Aluminum Bridge Rail Components	Lump Sum

SPECIAL PROVISION
SECTION 507
RAILINGS
(Aluminum Bridge Rail, 2 Bar Post Replacement)

Description This work shall consist of removing existing damaged 2 bar aluminum bridge rail posts and installing replacement 2 bar aluminum bridge rail posts at locations shown on the plans or as directed by the Resident.

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 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.

Basis of Payment The accepted quantity of Aluminum Bridge Rail, 2 Bar Post Replacement will be paid for at the contract unit price per each, complete in-place and accepted.

Pay Item		Pay Unit
507.0927	Aluminum Bridge Rail, 2 Bar Post Replacement	Each

SPECIAL PROVISION
SECTION 507
RAILINGS
(Aluminum Bridge Rail, Rail Section Replacement)

Description This work shall consist of removing existing damaged aluminum bridge rail sections and installing replacement aluminum bridge rail sections at locations shown on the plans or as directed by the Resident.

Materials Unless otherwise noted, materials will be furnished by the Department. The contractor shall obtain and load 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:

- ⅜”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 applicable 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 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 replacement clamp bars (replacement bridge rail splice bars and bridge rail clamp bars furnished by the Department when required), etc. will be incidental and will not be measured for payment.

Basis of Payment The accepted quantity of Aluminum Bridge Rail, Rail Section Replacement will be paid for at the contract unit price per linear foot, complete in-place and accepted.

Pay Item		Pay Unit
507.0928	Aluminum Bridge Rail, Rail Section Replacement	Linear Foot

SPECIAL PROVISION
SECTION 518
STRUCTURAL CONCRETE REPAIR
(Repairing Granite Curb Bedding Mortar)

Description: This work shall consist of the removal and replacement of existing deteriorated granite curb bedding mortar as shown on the plans and as directed by the Resident.

Materials: Mortar shall be an approved epoxy resin mortar or an approved polymer modified cementitious repair mortar.

Construction Requirements: After the existing wearing surface is removed, the Resident will designate areas where the existing granite bedding mortar is to be repaired.

In areas designated to be 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 Bedding Mortar will be measured for payment by the linear foot along the face of the curb, complete and accepted.

Basis of Payment: Repairing Granite Curb 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:

Pay Item	Pay Unit
518.39 Repairing Granite Curb Bedding Mortar	Linear Foot

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.

This work shall also include the repair of the two pedestrian barrier armored sliding plate joints at I-295 Southbound over Back Cove (Tukey's Bridge) as indicated on the plans, as directed by the Resident, 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 Departments preapproved 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.

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.

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.

Several bridge decks and curbs contain PVC electrical conduit 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 blockout 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 Prequalified 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 1 involves replacing the existing gland seal "in kind" full width, replacing the backwall angle and gland seal extrusion "in kind" curb to curb, and replacing the deck and backwall header concrete, minimum 3 inches depth, curb to curb. The new gland seal shall be from the Department's Prequalified Products List.

- Bridge Joint Modification Type 2 involves replacing the existing compression seal with an appropriately sized compression seal from the Department's Prequalified Products List full width, replacing damaged sections of the WT vertical leg per the Plan details, as directed by the Resident, curb to curb, and replacing the deck and backwall header concrete, minimum 3 inches depth, curb to curb.

- Bridge Joint Modification Type 3 involves replacing the existing joint system full width with a complete new compression seal system full width, including deck concrete, backwall concrete, deck and backwall curbs, and deck and backwall fascias. The appropriately sized new compression seal shall be from the Department's Prequalified Products List.

- Bridge Joint Modification Type 4 (Washington Ave, north abutment) involves welding variable depth shim plates onto the existing gland seal extrusions curb to curb, replacing the existing gland seal "in kind" full width, and replacing the backwall header concrete, minimum 3 inches depth, curb to curb. The thickness of the required shim plates will be field determined by the Resident.

- Bridge Joint Modification Type 4 (Washington Ave, south abutment) involves replacing the existing gland seal extrusions "in kind" to the limits shown on the plans in an elevated position, replacing the existing gland seal "in kind" full width, and replacing the backwall header concrete, minimum 3 inches depth, curb to curb. The new gland seals and gland seal extrusions shall be from the Department's Prequalified Products List. The elevation of the proposed gland seal extrusion will vary across the bridge deck and shall be field determined by the Resident.

- Bridge Joint Modification Type 5 involves replacing the existing joint system full width with a complete new gland seal system full width, including deck concrete, backwall concrete, deck and backwall curbs, and deck and backwall fascias. The appropriately sized new gland seal and gland seal extrusions shall be from the Department's Prequalified 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, backwall concrete, deck and backwall curbs and overhangs, and deck and backwall fascias.

- Bridge Joint Modification Type 7 involves replacing the existing gland seal "in kind" full width, and replacing the deck and backwall header concrete, minimum 3 inches depth, curb to curb. The work may also include replacing damaged sections of gland seal extrusion "in kind", and installing gusset plates, per the Plan details as directed by the Resident. At I-295 Southbound over Back Cove (Tukey's Bridge) Bridge Joint Modification Type 7 also involves repair of the two pedestrian barrier armored sliding plate joints at the bridge abutments that separate the southbound roadway from the pedestrian walkway.

  The repair of the two pedestrian barrier armored joints involves removing and salvaging the existing armored joints sliding plate assemblies including embedded portions, removal of existing barrier concrete within a distance of 2'-0" from the joint armor on the damaged side of the joint, salvage or replacement of existing armor plate shear connectors, salvage of reinforcing steel to allow field splicing of additional longitudinal reinforcing, field splicing additional longitudinal reinforcing steel to extend the existing reinforcing steel the length of the armored joints; drilling and grouting new stirrups over full salvaged and extended longitudinal reinforcing bars into deck at 8" o.c. (minimum of 4 per joint), resetting of the armored joint assemblies, forming, casting and curing new barrier concrete, and reinstalling the existing armored joint sliding plates.

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 distractive 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.

Method of Measurement Bridge Joint Modification Types 1, 2, 3, 4, 5, 6 and 7 will be measured by each unit, complete in place and accepted for the type(s) identified on the plans and described in this specification.

Temporary structures and approaches will be not be measured separately but shall be incidental to the various Bridge Joint Modification pay items.

The repair of the two pedestrian barrier armored joints at I-295 Southbound over Back Cove (Tukey's Bridge) will not be measured separately but shall be incidental to pay item 520.247 Bridge Joint Modifications- Type 7.

Basis of Payment The accepted quantity of Bridge Joint Modification Types 1, 2, 3, 4, 5, 6 and 7 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, salvaging existing electrical conduit, installing new conduit expansion couplings, removing and resetting bridge rail posts and bridge rail, repairing armored joints in concrete barrier (Tukey's Bridge only), 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:

Pay Item	Pay Unit
520.241 Bridge Joint Modifications- Type 1	Each
520.242 Bridge Joint Modifications- Type 2	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
520.247 Bridge Joint Modifications- Type 7	Each

SPECIAL PROVISION
SECTION 524
TEMPORARY STRUCTURAL SUPPORTS

524.01 Description

The following paragraphs are added:

This work shall consist of the jacking and temporary support of the existing superstructure for removal of the existing steel rocker bearings, masonry plates and sole plates, and the installation of replacement steel rocker bearings, masonry plates, sole plates and anchor rods. All girders at each abutment must be jacked and temporarily supported simultaneously. Traffic shall remain operational on the bridge during all jacking, temporary support and bearing replacement operations.

This work shall also consist of designing, fabricating, erecting, operating, maintaining, and dismantling the jacking systems and temporary structural supports required to perform the work. The approximate jacking and temporary support loads are at follows:

Presumpscot River, Southbound - Abutments 1 & 2:

- Unfactored Dead Load = 59 kips per bearing
- Unfactored Live Load = 107 kips per bearing (impact included)

524.02 Materials

The following paragraphs are added:

Materials used for supports shall be structural grade sawn timber, structural steel, or a combination of both at the Contractor's option. All support materials, whether new or used, shall be sound and of adequate cross section for the intended loads.

524.03 Design

The following sentence is added:

Design, detail and load requirements shall conform to the most current edition of the AASHTO LRFD Bridge Design Specifications, applicable Interim Specifications, and these Specifications, unless otherwise noted on the Plans.

524.04 Erection and Removal

The following paragraphs are added:

The existing superstructure end spans shall be raised by jacking at each abutment. A minimum of two jacking points shall be used at each abutment location. The jacking shall be synchronized so that all portions of the girders are raised by approximately equal amounts simultaneously. A maximum of 1/8 inch differential movement between adjacent girders will be allowed during the jacking operation. The superstructure may be raised a maximum of 1/2 inch above the existing backwall.

The Contractor may support the jacking systems and temporary structural support systems off of the abutment seats, the abutment footings, or Contractor-furnished blocking systems. Bracing shall be provided to prevent lateral movement of the superstructure and to maintain the superstructure in a stable condition during jacking operations and while temporarily supported.

All fabrication of structural steel shall be done in conformance with the latest AASHTO, American Welding Society, and MaineDOT Specifications.

524.28 Method of Measurement

This subsection is deleted and replaced with the following:

Temporary Structural Supports at the southbound Presumpscot River Bridge will be measured as one lump sum consisting of all jacking and temporary structural supports satisfactorily designed, erected, maintained, and dismantled. Temporary supports used by the Contractor for their convenience will not be measured for payment. The removal and reinstallation of h existing highway appurtenances (e.g. rip-rap, drainage troughs, etc) to facilitate the erection of temporary supports will not be measured for payments, but will be considered incidental to the work under this specification.

524.29 Basis of Payment

This subsection is deleted and replaced with the following:

The accepted quantity of temporary structural supports will be paid for at the Contract lump sum price which price shall be full compensation for all materials, equipment, labor and incidentals necessary for the design, erection, maintenance, and dismantling of such supports 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, relocating snow fence posts and modifying snow fencing, bridge curb modifications, and construction of support corbels as shown on the plans and in the locations indicated on the plans.

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:

Several bridge decks and curbs contain PVC electrical conduit 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:

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 each. Such 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, modifying existing bridge curbs, relocating snow fence posts and modifying snow fencing, structural concrete, reinforcing steel, and all materials, equipment, labor and incidentals required to complete the work as shown on the plans and in the locations shown on the plans.

February 23, 2010
Supersedes December 10, 1992

SPECIAL PROVISION
SECTION 527
ENERGY ABSORBING UNIT
(C-A-T System)

Description This work consists of furnishing and installing a C-A-T crash cushion as a permanent energy absorbing system in accordance with these specifications at location(s) shown on the plans or established by the Resident.

Materials The energy absorbing system shall be the C-A-T System as manufactured by Syro Steel Company of Girard, Ohio as approved and crash tested by the Federal Highway Administration.

Installation A set of installation drawings will be provided to the Resident for the system installed. The system shall be installed in accordance with the manufacturer's recommendations and the installation drawings.

Method of Measurement Energy absorbing system will be measured by each unit, complete in place and accepted.

Basis of Payment The accepted quantity of energy absorbing system will be paid for at the contract unit price which shall include the tail end length required and all incidentals necessary.

Payment will be made under:

Pay Item	Pay Unit
527.301 Energy Absorbing System (C-A-T)	Each

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 [½ 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.

Anchorages 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.

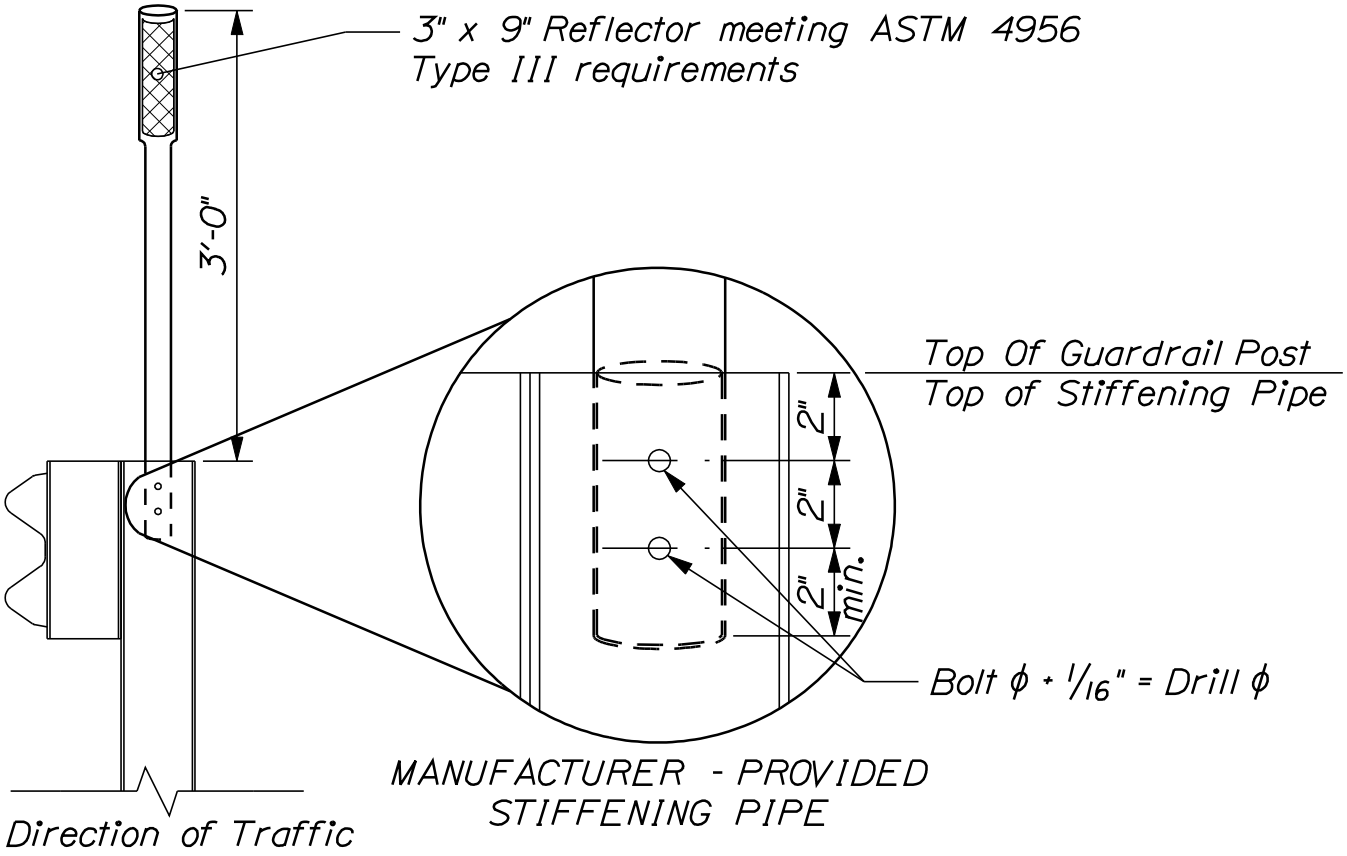
Payment will be made under:

	Pay Item	Pay Unit
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 + 1/16".
   b. Wood post attachment - attach marker with 2, 5/16" diameter zinc-coated lag bolts, having 2" of embedment into wood post.
   c. Steel post attachment - attach marker with 2, 1/4" diameter zinc-coated bolt, washer and nut assemblies, having 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 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, as 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 meter [foot] of rail.

Basis of Payment The quantity of Guardrail, Remove and Dispose, will be paid for at the contract unit price per meter [foot].

Payment will made under:

Pay Item	Pay Unit
606.363 Guardrail, Remove and Dispose	Meter [Foot]

SPECIAL PROVISIONS
SECTION 621 LANDSCAPE
(Plant Species Specification and Quantities List)

The following list of items provides the estimated quantities for use on this project. The scientific name of the plant material is provided along with the common name in parenthesis.

The contractor shall follow MDOT Standard Specifications Rev. December, 2002 for landscape materials and installation procedures (sec 621).

The MDOT Landscape Architect or his designee will be available to inspect plant materials and stake the location of plant materials at the time of planting.

In accordance with Section 104.5.9, a separate Performance Bond will not be required for the Landscape portion of this contract. The requirement for a Maintenance Bond for a Two-Year Establishment period will be required incidental to the planting for this project.

PLANT MATERIALS

ITEM NO	Description	Unit	Quantity	Total
621.010	Evergreen Trees 15” – 18” BR/Cont.	Ea.		50
	Larix decidua (Larch)		50	
621.014	Evergreen Trees 18” – 24” Group A Cont.	Ea.		50
	Picea abies (Norway Spruce)		50	
621.025	Evergreen Trees 3’ – 4’ Group A B&B/Cont.	Ea.		60
	Thuja occidentalis (Eastern Cedar)		60	
621.026	Evergreen Trees 3’ – 4’ Group B B&B/Cont.			50
	Picea abies (Norway Spruce)		50	
621.541	Deciduous shrubs 18” - 24” Group A Cont.			240
	Amelanchier canadensis (Shadblow)		60	
	Cornus mas (Cornellian Cherry)		60	
	Myrica pensylvanica (Bayberry)		60	
	Rosa rugusa (Beach Rose)		60	

* * *

SPECIAL PROVISION
SECTION 627
PAVEMENT MARKINGS
(Temporary Pavement Marking Line, White or Yellow)

Description:

The following sentence is added:

All temporary pavement marking lines shall be 6 inches in width.

SPECIAL PROVISION
SECTION 627
PAVEMENT MARKINGS

The following additions are made to Section 627 Subsection 627.10 of the December 2002 revision of the Standard Specifications.

627.10 Basis of Payment:

Pay Item		Pay Unit
627.733	4" White or Yellow Painted Pavement Marking Line	LF
627.744	6" White or Yellow Painted Pavement Marking Line	LF
627.781	Temporary 6" Painted Pavement Marking Line, White or Yellow	LF

SPECIAL PROVISION
SECTION 631
EQUIPMENT RENTAL
EQUIPMENT REQUIREMENTS

The following are added to Subsection 631.01, 631.02 and 631.08.

631.01 Description

This item is to be used in areas not accessible with other equipment and will only be used when authorized by the Resident.

631.02 General

Equipment	Description	Minimum Size
Mini-All Purpose Excavator	Track mounted	89 hp [66.1 kW]

Operating Weight	Bucket Range
27,100 lbs. [12,300 kg]	.5 -.98 Cu. Yd. [.38 - .75 Cu. M]

631.08 Basis of Payment

Payment will be made under:

Pay Item		Pay Unit
631. 122	Mini – All Purpose Excavator (including Operator)	Hour

SPECIAL PROVISION
SECTION 631
EQUIPMENT RENTAL
EQUIPMENT REQUIREMENTS

The following are added to Subsection 631.02 and 631.08

631.02 General

Equipment	Description	Minimum Size
Skid Steer	Pneumatic tired with pushing blade	34.3 kW[46 hp]

631.08 Basis of Payment

Payment will be made under:

Pay Item		Pay Unit
631.133	Skid Steer (including Operator)	Hour

May 3, 2005

SPECIAL PROVISION
SECTION 634
Highway Lighting
and
SECTION 643
Traffic Signals

634.08 Service
643.09 Service Connection
Add the following to each of these sections:

METER POSITION
All meter mounting devices shall be installed so that the meters will be upright (plumb). They shall be installed with the top of the meter not less than 48 inches nor more than 60 inches from the floor or final grade. Exceptions to this height requirement will be made where special permission has been given to install group or modular metering, overall meter enclosures or pole-mounted meters.
Level grade shall be maintained for a minimum of 36 inches in front of the meter enclosure to provide a safe working space. In order to meet this requirement on uneven terrain, as an option, the contractor may install a pressure treated wood platform.

For any **non-residential** (industrial or commercial) self-contained meter socket, the **by-pass requirements** are as follows:
Meter Socket By-Pass
Single-Phase:
100 or 150 amp *Single handle lever operated by-pass required.

The Contractor shall meet all requirements and regulations of Utility Companies when installing equipment on their poles and for the service connection. It is the responsibility of the Contractor to contact the Utility Companies to determine specific requirements.

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 when tested, was functioning as intended.
(YEAR)

Electrician's Signature _____

Electricain's License # _____

SPECIAL PROVISION
SECTION 643 – TRAFFIC SIGNALS
(Queue Detection System)

The following paragraph is added to 643.01 Description:

This work consists of furnishing and installing all equipment necessary to provide a functional queue detection system. The Contractor shall furnish all labor, materials, tools, programming, integration, testing and appurtenances required to complete the work as specified in the plans.

The following sections are added after 643.024 Miscellaneous Materials:

643.025 Queue Detection System Materials The queue detection system shall be a non-intrusive, radar-based presence detection system that can detect vehicles traveling at between 0 and 10 miles per hour (MPH). The system shall detect vehicles stopped within a user-defined queue detection zone for a given time period and trigger a contact closure at the traffic signal control cabinet to preempt the signal operations.

System hardware – The queue detection system shall include a non-intrusive, radar-based detection device; a pole-mounted equipment cabinet; two-channel contact closure cards suitable for use with TS-1 or TS-2 detector racks; and manufacturer specified cables and hardware.

a) Non-Intrusive Radar-Based Detection Device – The detection device shall be a radar-based system that is mounted outside of the traveled way. The device shall strictly comply with FCC requirements and transmit signals only within the FCC allocated bandwidth of at least 245 MHz. The bandwidth of the transmit signal shall not vary by more than 1 percent under all temperature, weather and other operating conditions over the expected life of the device. The radar antennas shall be internal printed circuit boards. The device shall support at least four user-defined queue detection zones. The system shall have a method for automatically defining the travel lane. This auto-configuration shall not prohibit the user from manually adjusting the configuration.

b) Equipment Cabinet – The equipment cabinet shall be a pole-mounted NEMA 3R cabinet. The cabinet shall include an AC/DC power supply and conversion unit, surge protection equipment, communication connection points, and ancillary terminal blocks, mounting hardware and wiring. The power supply and converter shall be power rated at 48W for temperatures less than 140 degrees F. The power supply shall produce an output voltage of 24 VDC. Surge protection shall meet or exceed the EN 61000-4-5 Class 4 specifications. The cabinet shall also include a workman's pad (48"x36"x4") at the base of the pole facing the cabinet door. The cabinet shall include a main breaker to disconnect all power to the cabinet and its equipment. Each cabinet shall be furnished with two keys for the cabinet door lock.

c) Two-channel contact closure cards – The contact closure cards shall be NEMA TS-1 and TS-2 compatible for rack mounted detector racks. The cards shall received data packets over an RS-485 bus at a baud rate of 9600 bps.

d) Cables and other hardware – Mounting hardware shall be weather-resistant and capable of supporting a minimum of 20 pound loading. The mounting hardware shall be capable of securely fastening the detection device to the support structure at an appropriate aim angle for the device. Cables shall include RS-485 conductors (twisted pair) and the entire cable shall be shielded. Cable shall not be spliced. Cable shall terminate at cable end connectors conforming to MIL-C-26482.

The following sections shall replace 643.06 Microwave Detector Installation:

643.06 Queue Detection System Installation The queue detection system shall be installed in accordance with the manufacturer's recommendations. The detection device shall be installed no closer than 6 feet from the area to be detected and such that the field of view is not occluded by poles, signs, trees or other structures. Contractor shall be responsible for furnishing and installing all ancillary equipment required to make the system operational. Each system installation shall include manufacturer-provided technical support for the physical installation, configuration, troubleshooting, maintenance and software upgrades for a minimum of two years following final acceptance of the system. Each system installation shall include a two year warranty from final acceptance.

The following paragraph is added to 643.18 Method of Measurement:

Each queue detection system furnished, installed, programmed, tested, and integrated in to the traffic signal's operations will each be measured for payment by the lump sum, complete and operational.

The following paragraphs are added to 643.19 Basis of Payment:

Queue detection system will be paid for at the contract lump sum price for Video Detection System, which payment will be full compensation for furnishing, installing, programming, testing and integrating all materials and equipment, including the detection device, equipment cabinet, two-channel contact closure cards, cables, ancillary equipment, and for all labor, tools, materials, incidentals, and appurtenances required for a complete functioning installation.

Pedestal poles and foundations for mounting equipment, conduit, and pull boxes shall be paid for as indicated in 626 and 643.

May 3, 1999
Supersedes December 19, 1995

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 one of the following:

Manufacturer	Model
Safe-Hit Corp.	Safe-Hit Co-extruded Type SH248GP3
	Safe-Hit Co-extruded Type SH254GP3
	Safe-Hit Co-extruded Type SH348GP3

Construction Requirements Flexible delineators shall be installed in accordance with Section 645.062 Installation of Delineators, except that the mounted height of the delineator shall be 1200 mm [4 ft] above the edge of shoulder.

Method of Measurement Flexible reflectorized delineators will be measured by the number of units complete in place.

Basis of Payment The accepted reflectorized delineators will be paid for at the contract unit price each. Such payment will be full compensation for furnishing and installing the delineator and all associated hardware complete in place.

Payment will be made under:

Pay Item	Pay Unit
645.306 Flexible Reflectorized Delineator	Each

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 one of the following or approved equal:

Manufacturer	Model
Safe-Hit Corp.	Surface Mount Delineator - SH248SMT-WS Surface Mount Delineator – SH348SMT-WS

Delineator shall 48 inches in height, with a post color orange and a reflective sheeting of white (silver).

Construction Requirements: Flexible delineators shall be installed in accordance with manufactures 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 Residents satisfaction when the construction activity is complete.

Payment will be made under:

Pay Item	Pay Unit
645.306 Flexible Reflectorized Delineator	Each

SPECIAL PROVISION
SECTION 645 - HIGHWAY SIGNING
(Sign Foundations)

The following paragraph is added to 645.01 Description:

This work consists of performing soil borings, and designing, furnishing, and installing drilled shafts for foundations for bridge, cantilever and butterfly sign support structures. The Contractor shall furnish all labor, materials and appurtenances required to complete the work as specified. The Contractor is expected to furnish the proposed drilled shafts with length and diameter shown on the approved Contractor's Working Drawings.

645.021 Materials is amended by adding the following language:

The materials shall meet the requirements specified in the following sections of Divisions 500 – Structures and 700 - Materials

Reinforcing Steel	709.01
Concrete (Class LP)	502
Steel Casings	711.01

Add after the first paragraph of 645.024 Bridge, Cantilever and Butterfly Support Structure Foundations the following paragraphs:

For estimating and bidding purposes, drilled shaft foundations for bridge and cantilever support structure foundations shall have minimum diameter of 3 feet and a minimum depth of 15 feet. Shafts with diameters up to 5 feet may be required by the actual design. The minimum diameter for non-redundant drilled shaft sign foundations is 4 feet. Geotechnical design of foundations shall take into account sloping ground. Whereas most of the bending moment in drilled shafts occur with the upper 10 feet of the ground surface, construction joints will not be allowed in drilled shafts near the surface.

Design calculations that consist of computer program generated output shall be supplemented with at least one hand calculation with graphics demonstrating the design methodology used. Design calculations shall provide thorough documentation of the sources of equations used and material properties.

For the strength limit design, the lateral capacity of drilled shafts shall be calculated using the Broms method and a factor of safety of 2.5 to 3.0, to determine the required drilled shaft length. The lateral soil resistance in the upper 6.0 feet of the shaft, or 1.5 times the shaft diameter, whichever is greater, is to be neglected for all soil types A factor of safety of 1.5 for ultimate shaft torsional capacity to resist torsional loads is required.

For the serviceability design, use COM624P or LPILE software to estimate the lateral deflection and bending moment with depth for the drilled shaft. A maximum lateral deflection at the shaft top of 0.5 inch is permissible, to avoid accumulation of irrecoverable deformation with cyclic wind loads. Deflection at the bottom of the shaft shall be checked to be equal to zero to assure a fixed condition. The design shall assume either cohesive or cohesionless soil conditions, as indicated by geotechnical explorations. The highest possible groundwater table elevation should be used in the design, and saturated strength parameters assumed

645.024 Bridge, Cantilever and Butterfly Support Structure Foundations is amended by adding the following paragraphs, (a.) through (p)., after paragraph 2:

a. Qualifications of Drilled Shaft Contractor

Qualified contractors or specialized drilled shaft subcontractors shall perform construction of the drilled shafts, including excavating, placing casing and reinforcement, and placing concrete. The Contractor shall submit to the Resident for review and acceptance the qualifications of the drilled shaft subcontractor and personnel at least 45 calendar days prior to construction of the drilled shafts. Drilled shaft construction shall not begin until the Resident has reviewed and accepted the subcontractor qualifications.

b. Exploratory Boring

An exploratory boring of subsurface conditions, soil properties and groundwater conditions was performed by the Engineer as part of the foundation design. A copy of the boring log is included in the Contract Documents for each foundation location.

c. Contractor Drilled Shaft Installation Plan

The Contractor shall submit to the Resident for review, a written installation plan of procedures to follow when excavating the drilled shaft hole, placing the casing, reinforcement and concrete and monitoring the concrete placement through soil and rock. The installation plan shall be submitted for approval at least 45 calendar days before constructing the drilled shafts. The installation plan shall include the following information:

- Details of the sequence proposed for the overall drilled shaft construction operation.
- The drilled shaft Contractor's quality assurance methods to monitor the shaft installations
- Procedures used for maintaining correct horizontal and vertical alignment of the excavation.
- Method used to advance the casing when a casing is used.

- When a temporary steel casing is used, provide details of the methods to extract the temporary casing and to maintain the concrete slump to keep it workable by adding admixtures such as retarders or superplasticizers.
- Excavation techniques using augers or drilling buckets.
- Details regarding the shaft inspection devices for cleanliness and defects.
- Drilling equipment to be used including sizes, capacities, drilling tools, and supplemental equipment.
- Temporary steel casing size, length, and thickness (if used).
- When slurry is used, slurry shall be identified by manufacturer and type.
- Methods to advance the shafts and shaft depth when slurry is introduced into the hole.
- Details of methods to clean the shaft excavation.
- Proposed methods to remove obstructions such as boulders that are encountered.
- Details of reinforcement cage construction and placement, support and handling of the cage, and the Contractor's proposed centralization methods.
- The proposed concrete mix design including the concrete supplier, aggregate sources, aggregate gradation, admixtures, water-cement ratio, compressive strength results, slump, slump loss versus time (with due consideration to ambient placement temperatures), and yield test results. The maximum aggregate size for the drilled shaft concrete shall be ¾-inch.
- Details of concrete placement including proposed operational procedures for free fall, tremie, or pumping methods. A list of the proposed equipment to be used such as tremies, concrete pumps, casings, etc. shall be included.

Failure to demonstrate the adequacy of methods or equipment to the Resident is cause for the Resident to require appropriate alterations in equipment and/or methods by the Contractor to eliminate unsatisfactory results at no cost to the Department.

d. <u>Hole Excavation</u>

All precautions shall be taken to prevent damage to existing structures and utilities. These measures shall include but are not limited to, selecting construction methods and procedures that will prevent excessive caving of the shaft excavation, monitoring and controlling the vibrations from the driving of casing or drilling of the shaft. The Contractor shall provide equipment with the capacity to excavate as shown in the Plans. No additional payment will be made if larger equipment than initially proposed must be mobilized. When objects such as large boulders are encountered, they shall be removed.

Excavations required for the shafts shall be constructed to the dimensions and elevations shown on the approved Working Drawings. The methods and equipment used shall be suitable for the intended purpose and materials encountered. Either the dry method, wet method, temporary casing method or permanent casing method will be used as necessary to produce sound, durable concrete foundation shafts free of defects. When a particular

method of construction is required on the Working Drawings, that method shall be used. If no particular method is specified for use, the Contractor shall select and use the method as determined by site conditions.

The Contractor shall excavate shafts using non-displacement methods such as rotary drilling, augering or other effective methods to advance the excavation through overburden materials.

If the excavation operation is stopped, the shaft cavity shall be protected by installation of a safety cover. It shall be the Contractor's responsibility to ensure the safety of the shaft excavation, surrounding soil and the stability of the side walls. A temporary casing, slurry or other methods approved by the Resident shall be used if necessary to ensure such safety and stability.

The Contractor shall use appropriate means such as a cleanout bucket or air lift to clean the bottom of the excavation of all shafts.

Excavated soil, rock and slurry shall be properly collected, transported, placed and disposed of. Methods of handling, collection, storage, transportation, and disposal shall follow all local, state and federal laws and regulations. Payment for handling of excavated slurry, soil and rock from the shafts shall not be paid separately but shall be incidental to sign support structure pay item.

i. Dry Construction Method. The dry construction method shall be used only at sites where the groundwater table and site conditions are suitable to permit construction of the shaft in a relatively dry excavation, and where the sides and bottom of the shaft remain stable without any caving, sloughing or swelling and may be visually inspected prior to placing the concrete. The dry method consists of excavating the drilled shaft hole, removing accumulated water and loose material from the excavation, placing the reinforcing cage, and placing the shaft concrete in a relatively dry excavation. The rate of flow of water into the hole should not be more than 12 inches within a one-hour period. There shall not be more than 3 inches of water in the bottom of the hole when the initial concrete is being placed.

ii. Wet Construction Method. The wet construction method shall be used at sites where a dry excavation cannot be maintained for placement of the shaft concrete. This method consists of using water or slurry to contain seepage and groundwater movement. This method may also be appropriate to maintain stability of the hole perimeter while advancing the excavation to its final depth, placing the reinforcing cage and shaft concrete. This procedure may require desanding and cleaning the slurry, final cleaning of the excavation by means of a bailing bucket, air lift, submersible pump, cleanout bucket or other devices; and requires placing the shaft concrete with a tremie or concrete pump.

The water or slurry fluid elevation inside the shaft excavation during the drilling operations shall be higher than the static water table.

For shafts without a permanent casing temporary surface casings shall be provided to aid shaft alignment and position, and to prevent sloughing of the top of the shaft excavation, unless it is demonstrated to the satisfaction of the Resident that the surface casing is not required. Surface casing is defined as the amount of the casing required from the ground surface to a point in the shaft excavation where sloughing of the surrounding soil does not occur.

iii. Temporary Casing Construction Method**.** The temporary casing construction method is appropriate when the stability of the excavated hole and/or the effects of groundwater must be controlled. The steel casing is driven or spun into the hole and the auger either drills inside the casing or ahead of the casing. As the hole advances, the casing is driven further into the hole either to a layer of stale soil or until the tip elevation of the shaft is reached. Temporary casings shall be removed while the concrete remains workable. As the casing is being withdrawn, a 5 foot minimum head of fresh concrete in the casing shall be maintained so that all the fluid trapped behind the casing is displaced upward without contaminating the shaft concrete. The required minimum concrete head may have to be increased to counteract groundwater head inside the casing. Movement of the casing by rotating, exerting downward pressure and tapping to facilitate extraction will be permitted. Casing extraction shall be at a slow, uniform rate with the pull in line with the shaft axis. Fresh concrete shall fill in any voids left by the casing or unstable soil. The elevation of the top of the steel cage shall be carefully checked before and after casing extraction.

iv. Permanent Casing Construction Method. This method generally consists of driving or drilling a casing to a prescribed depth before excavation begins. If full excavation cannot be attained, the Contractor may either excavate material within the embedded portion of the casing or excavate a pilot hole ahead of the casing until the casing reaches the desired penetration. The pilot hole shall be no larger than one-half the diameter of the shaft and shall be centered in the shaft. The casing shall be continuous. After the installation of the casing and the excavation of the shaft is complete, the reinforcing steel shall be placed, followed by the placement of the shaft concrete.

e. Casings

Use smooth, watertight, steel casings of ample strength to withstand handling and driving stresses and the concrete and surrounding earth pressures. The outside diameter of the steel casing shall be equal to or greater than the plan diameter of the shaft.

When practical, install the casing in a manner that will produce a positive seal at the bottom of the casing to prevent piping of soil materials into the shaft excavation.

If it becomes necessary to remove a casing and substitute a longer or larger diameter casing through caving soils, the excavation shall be stabilized with slurry or backfill before the new casing is installed. Other methods approved by the Resident may be used to control the stability of the excavation and protect the integrity of the foundation soils.

Splices for steel casings shall be made by full penetration butt welding the entire cross section in conformance with the requirements in AASHTO/AWS D1.1.

f. Slurry

Slurry used in the drilling process shall be a mineral or a polymer slurry. The level of the slurry shall be maintained at a height sufficient to prevent caving of the hole. The use of slurry containing polymers shall be approved by the Resident before use, and will only be permitted if the Contractor demonstrates to the Resident that the stability of the hole perimeter can be maintained while advancing the excavation to its final depth. If stability of the hole perimeter cannot be maintained, the use of slurry containing polymers shall be discontinued and an approved mineral slurry shall be used.

To aid in assuring proper usage of slurries containing polymers, the slurry manufacturer shall furnish technical assistance to the Contractor and Resident through a technical representative who is a full-time employee of the manufacturer. The representative shall be present at the site during the drilling of the first shaft to insure that the slurry is mixed and managed properly.

The approval of slurry containing polymers does not relieve the Contractor of responsibility to maintain the stability of the excavation. Slurries containing polymers shall meet the manufacturer's requirements. Slurries consisting of water mixed with the natural soils will not be allowed.

g. Excavation Inspection

The Contractor shall provide equipment for checking the dimensions and alignment of each shaft excavation. The dimensions and alignment shall be determined by the Contractor. Final shaft depth shall be measured after final inspection.

At the time of concrete placement, the bottom of the completed drilled shaft excavation shall be cleaned of loose soil.

The Contractor shall keep a daily construction record documenting, at a minimum,

- methods of advancing casing, excavating spoils, and cleaning the excavation, and observations relative to these operations,

- description of each soil layer encountered and excavated, including depth of layer, composition, moisture content and quality;

- depth of bedrock if encountered.

h. Shaft Inspection

The Contractor shall provide all labor, equipment, material, and other necessary items to perform inspections of the bottoms of the shaft using cameras or mirrors and lights. The Resident may require a different bottom cleaning procedure (e.g., jetting or air-lifting) at the Contractor's expense. Shafs bottoms and sidewalls shall be inspected within 4 hours prior to placing the rebar cage in the shaft. If more time has elapsed, the inspection shall be repeated. After the rebar cage is placed in the shaft, the shaft shall be sounded to determine if material accumulated on the bottom of the shaft during the cage placement. If there is additional sediment accumulation, the rebar cage shall be removed and the bottom of the shaft shall be recleaned and reinspect.

The bottom of each shaft shall be covered with 0.5 inches or less of sediment over no more than 50% of the base at the time of concrete placement. The maximum depth of sediment or any other debris at any one place on the bottom of the shaft excavation shall not exceed 1.0 inch. Shaft cleanliness will be demonstrated by the Contractor and documented in writing for review by the Resident.

i. Reinforcing Steel Cage

Place the reinforcing steel cage as a unit immediately after inspection of the excavation and before concrete placement. If the concrete is not placed immediately after the cage is installed, the cage may have to be removed before placing the concrete to verify the integrity of the excavated area and to ensure loose material is removed from the bottom of the hole.

Tie and support the reinforcing steel so it remains within the required tolerances. Spacers shall be of adequate dimensions and spacing to insure a minimum annular space between the outside of the cage and the side of the hole or casing as called for on the Working Drawings. Internal stiffeners and cross bracing shall be removed as the cage is placed in the borehole so as not to interfere with the placement of concrete.

The cage shall be supported from the top by some positive method, to minimize its slumping downward during concrete placement and/or extraction of the casing. If the reinforcing steel cage is not maintained within tolerances, make acceptable corrections and do not construct additional shafts until the method of reinforcing steel cage support has been approved.

If the bottom of the constructed shaft elevation is lower than the bottom of the shaft elevation in the Plans, a minimum of one half the longitudinal bars required in the portion of the shaft nearest the theoretical tip elevation shall be extended the additional length by adding longitudinal reinforcing bars at the bottom of the cage. Ties or spiral bars shall be continued for the extra depth. All longitudinal bars must be spliced with mechanical couplers. Welding to the reinforcing steel will not be permitted unless specifically shown in either the Plans or Special Provisions, in which case reinforcing steel shall conform to ASTM A706.

Cylindrical concrete feet (bottom supports), if approved by the Resident, may be provided to insure that the bottom of the cage is maintained the proper distance above the base of the shaft. Steel skids or chairs, or skids or chairs constructed from any other electrical conductor shall not be permitted.

j. Concrete for Drilled Shafts

Concrete shall be Class LP in accordance with Section 502 – Structural Concrete. The concrete mix design shall be submitted for approval as a part of the Contractor's drilled shaft installation plan noted is section (c.) above.

Concrete shall be placed as soon as possible after reinforcing steel placement. Concrete shall be placed in one continuous operation from bottom to top of the shaft or to an optional construction joint if shown on the approved Working Drawings. Continue placing concrete until acceptable quality concrete is evident at the top of the shaft. Concrete shall not be vibrated with a vibrator. Care shall be taken when removing the casing (if required) so that the reinforcing steel cage is not deformed by the force of the downward flowing concrete. The elapsed time from the beginning of concrete placement in temporary cased shafts, until casing extraction is begun, shall not exceed 1 hour.

Concrete shall not be placed in any drilled shaft excavation without prior approval from the Resident. The drilled shaft excavation shall be inspected immediately before the concrete is placed. A light powerful enough to thoroughly inspect the reinforcing steel cage, the sides and the bottom of the drilled shaft should be provided by the Contractor for the dry construction method. The inspection for the wet construction method shall be limited to probing and measuring.

If the elevation of the top of the shaft is below ground at the time of concrete placement, a casing shall be used to prevent caving of materials into fresh concrete.

k. Free Fall Concrete Placement

The concrete can be placed in a dry drilled shaft excavation by the free fall method provided the concrete falls to its final position through air without striking the sides of the

hole, the reinforcing steel cage or any other obstruction. A centering drop chute, at least 3 feet in length shall be used with the free fall method. The height of free fall of concrete shall be limited to 3 to 4 feet, preventing segregation. If the concrete placement causes the shaft excavation to cave or slough or if the concrete strikes the rebar cage or sidewall, the height of free fall shall be reduced and/or the rate of concrete flow into the excavation shall be reduced.

If the Resident determines that dewatering is not practical or placement by free fall method can not be accomplished, the Resident shall require that the concrete be placed by means of a tremie or a concrete pump.

l. Tremie

A gravity tremie may be used for concrete placement in lieu of a concrete pump in either wet or dry holes. For uncased wet holes, the drilled shaft excavation shall be maintained full of slurry or water to such a depth that water does not flow into the shaft excavation at any time. Tremies used to place concrete shall consist of a tube of sufficient length, weight and diameter to discharge concrete at the shaft base elevation. The tremie shall not contain aluminum parts that will have contact with the concrete. The inside diameter of the tremie shall be not less than 10 inches. The inside and outside surfaces of the tremie shall be clean and smooth to permit both flow of concrete and unimpeded withdrawal during concreting. The wall thickness of the tremie shall be adequate to prevent crimping or sharp bends that restrict concrete placement.

The tremie used for concrete placement shall be watertight. Underwater placement shall not begin until the tremie is placed to the shaft bottom elevation. Valves, bottom plates or plugs shall be used so that concrete discharge can begin within one tremie diameter of the base. Plugs shall either be removed from the excavation or be of a material, approved by the Resident, which will not cause a defect in the shaft if not removed. The discharge end of the tremie shall be constructed to permit the free radial flow of concrete during placement operations. The tremie discharge end shall be immersed at least 10 feet in concrete at all times after starting the flow of concrete.

Concrete between the tremie discharge end and the top of the pour shall remain fluid throughout the duration of placement such that rise of the concrete during placement is not hampered.

If the tremie line orifice is removed from the fluid concrete column at any time during the concrete pour, and discharges concrete above the rising concrete level, the drilled shaft shall be considered defective.

m. Pumped Concrete

Concrete may be pumped into either wet or dry holes. For uncased wet holes, the drilled shaft excavation shall be maintained full of slurry or water to such a depth that water does not flow into the shaft excavation at any time. The concrete shall then be placed by means of a concrete pump. The concrete pump pipe shall have a diameter that is not less than 4 inches and be constructed with watertight joints. The concrete pump equipment shall be so arranged that no vibrations result which might damage fresh concrete. Pipes carrying concrete from the pump to the shaft should be arranged with a minimum number of bends. The pipe used to convey the concrete to the bottom of the drilled shaft excavation shall be anchored to the steel casing or another suitable stationary object to prevent the pipe from undulating during the initial placement of the concrete. Concrete placement shall not begin until the pump line orifice is at the shaft base elevation.

The pumping equipment shall be suitable in kind and adequate in capacity for the work required. The use of aluminum pipe as a conveyance for the concrete will not be permitted. An adequate quantity of grout, mortar or concrete with coarse aggregate omitted shall be pumped through the equipment ahead of the specification concrete to provide lubrication to the pumping system. The concrete used for lubrication shall not be placed in the shaft. The lubrication process will not be repeated as long as the pumping operations are continuous. The operation of the pump shall be such that a continuous stream of concrete without air pockets is produced. In order to prevent the contamination of the concrete placed initially at the bottom of the shaft, the outlet end of the pumping pipe shall be sealed with a diaphragm or plug that is flushed out when the hydrostatic pressure from the column of concrete exceeds that of the water in the shaft. Plugs shall either be removed from the excavation or be of a material, approved by the Resident, which will not cause a defect in the shaft if not removed. The initial rate of concrete placement must be carefully controlled so as not to lift or displace the cage of reinforcing steel. The conveying system shall be water tight, and the outlet end shall always remain well below the top of the freshly placed concrete. The preferred concrete placement procedure is to maintain the outlet end of the pumping system at approximately 10 feet below the top of the fresh concrete. When the concrete reaches the top of the drilled shaft column, all laitance shall be removed.

Concrete between the pump discharge end and the top of the pour shall remain fluid throughout the duration of placement such that rise of the concrete during placement is not hampered.

If the concrete pump line orifice is removed from the fluid concrete column at any time during the concrete pour, and discharges concrete above the rising concrete level, the drilled shaft shall be considered defective.

n. Drilled Shaft Installation Restrictions

A fixed template, adequate to maintain the cage position will be required for when the Contractor fails to demonstrate satisfactorily that he can properly maintain cage position and alignment without use of a template.

Shafts installed using slurry shall be completed within 72 hours of introducing slurry into the shaft excavation, unless otherwise approved by the Resident. Regardless, the Contractor shall be responsible for maintaining an open shaft excavation throughout the installation, inspection, cleaning, cage placement and concreting operations.

Drilling or placing/advancing casing in the vicinity of a drilled shaft excavation with freshly placed concrete and curing concrete shall not occur within three shaft diameters or 20 feet of the centerline of the concrete shaft, whichever is greater, until the concrete has attained a minimum compressive strength of 2,000 psi. When the Contractor must use impact methods to resolve an obstruction during placement or advancement of casing, or during clean out of the shaft, such work shall not occur within four shaft diameters or 30 feet of the centerline of the concrete shaft, whichever is greater, until the concrete has attained a minimum compressive strength of 3,000 psi.

The layer of water-diluted concrete which has floated to the top during placement shall be removed to the depth directed by the Resident and wasted. In no case shall the removed layer be less than 18 inches thick. Only concrete which meets specification requirements shall remain as a part of the drilled shaft.

o. Obstructions

Obstructions at drilled shaft locations shall be removed by the Contractor. Such obstructions may include natural materials such as boulders or intrusions of geotechnical materials not shown in the boring logs. Special procedures and/or tools shall be employed by the Contractor only after the hole cannot be advanced using conventional augers, drilling buckets, under-reaming tools, or other tools as required for this project. Such special procedures/tools, if required, may include but are not limited to: chisels, boulder breakers, air tools, hand excavation, temporary casing, and increasing the hole diameter. No additional payment for obstructions will be made.

p. Construction Tolerances

The drilled shafts shall be positioned within 3.0 inches of the plan location in the horizontal plane at the plan elevation for the top of the shaft. The vertical alignment of the shaft shall not vary from the required alignment by more than 0.1875 in/ft of depth. The supported structures shall be constructed at their plan location. All corrections required to construct the supported elements (anchor bots, anchor plates, poles, etc) at

their plan locations shall be at the expense of the Contractor."

The following paragraphs are added to 645.08 Method of Measurement:

The acceptance of each drilled shaft for bridge, cantilever and butterfly sign support foundations shall be the decision of the Resident, based on the shaft integrity and other information on the shaft placement. Drilled shaft foundations for bridge, cantilever and butterfly type sign supports will be measured by each sign unit.

In the case that any drilled shaft is determined to be unacceptable, the Contractor shall submit a plan for remedial repairs and working drawings stamped by a Professional Resident to the Resident for approval registered in the State of Maine. All labor and materials required to perform remedial shaft repairs shall be provided at no cost to the Department and with no extension of the contract time.

The following paragraph is added after paragraph 3 of 645.09 Basis of Payment:

Payment for accepted bridge, cantilever and butterfly type sign support drilled shaft foundations shall be paid for at the Contract lump sum price for the respective sign support pay items. Such price will be full compensation for providing drilled shaft design calculations and Working Drawings, making all excavations, any necessary groundwater pumping, furnishing, placing and removing any required casings, for furnishing and placing all concrete and reinforcing steel, for furnishing all tools, labor and equipment necessary to complete the work. No extra payment will be made for steel casings left in place.

SPECIAL PROVISION
SECTION 645 - HIGHWAY SIGNING

645.01 Description This work shall consist of furnishing and installing new signs, sign supports, delineators, and breakaway devices and removing, relocating and/or modifying existing signs and sign supports, in accordance with these specifications and in reasonably close conformity with the plans.

645.02 General All equipment shall be new unless otherwise specified. Requests for substitution of any specified material shall be submitted in writing with all documentation (specifications, mill certifications, etc.) in order to enable the Department to evaluate the proposal. Substitutes for specified material may be accepted, upon approval of the Fabrication Engineer. Substitutes shall give equal or better service than the specified material. Where an existing system is to be modified, the existing material shall be removed, upgraded, or disposed of as directed by the contract documents.

645.021 Materials Materials shall meet the requirements specified in the following Sections of Division 700 - Materials:

Reflective Sheeting	719.01
Demountable High Intensity Reflectorized Letters, Numerals, Symbols and Borders	719.02
Aluminum Extrusions	719.03
Aluminum Sheets	719.04
Plywood	719.05
Demountable Reflectorized Delineators	719.06
Assembly Hardware	719.07
Steel Supports	720.03
Steel H-beam Poles	720.06
Anchor Bolts	720.07
U-Channel Posts	720.08
Wood Sign Posts	720.12

Paint for the edge and back of plywood and field coat paint for wood sign posts shall be an exterior grade dark green enamel conforming to Federal Specifications TT-P-71b.

Engineering Grade reflective sheeting shall not be permitted for new signs.

645.022 Sign Layout Drawings The Contractor shall submit 3 sets of sign-face, layout-detail, and scale drawings. Fabrication of the signs shall not begin until the Contractor has received approval of these drawings. The drawings shall contain complete detailed information and dimensions. One set of drawings will be returned to the Contractor, who will submit corrected drawings, if required. The drawings shall be detailed using the same units used on the plans.

645.023 Support Structures The design, materials and fabrication of sign support structures and foundations shall meet the requirements of the current edition of AASHTO "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals" and interims thereto, except as otherwise indicated within these specifications or on the plans. Beam mounted signs and their supports shall be designed using wind speeds as determined from the 25-year mean recurrence interval isotach map. Minimum design default values for these structures shall be: $I_r = 0.87$; $C_v = 0.93$; $K_z = 0.87$; and G = 1.14. Bridge, cantilever, and butterfly sign supports and associated signs and hardware shall be designed using the wind speeds as determined from the 50 year mean recurrence interval isotach map, as contained in the above referenced AASHTO Specifications. Minimum design default values for these structures shall be: $I_r = 1.00$; $C_v = 1.00$; $K_z = 0.94$; and G = 1.14. Minimum fatigue design default values for cantilever & butterfly sign support structures shall be classified as Fatigue Category I with Fatigue Importance Factors (I_f) of 1.0 for Galloping, 1.0 for Natural Wind Gusts and 1.0 for Truck-Induced Gusts. Bridge type sign support structures supporting variable message signs (VMS) shall also use these fatigue criteria in their design.

Minimum fatigue design default values for bridge type structures, without VMS, shall be classified as Fatigue Category II with Importance Factors (I_f) of 0.65 for Galloping, 0.75 for Natural Wind Gusts and 0.89 for Truck-Induced Gusts. For sign supports, as described in 645.023, b., mounted on bridge structures and approaches to bridge structures, the mounting height shall be measured as the distance of the mounted sign(s) center of gravity to one of the following:

For bridges over bodies of water: above the prevailing water level or, in the case of tidal waters, above mean high tide.

For overpass structures: above the lower roadway level.

For approach ramps: above the average adjacent ground level, if said ground level is more than 10 feet below the base of the structure.

All cantilever and butterfly type sign support structures shall be equipped with an approved damping or energy-absorbing device.

After execution of the contract and before any shop work has commenced, the Contractor shall submit 3 sets of drawings, and computations if prescribed below, of all sign supports proposed to be furnished and erected under this contract. The drawings shall be of sufficient detail to indicate material and/or dimensional conformance with these specifications and the contract drawings and, in the case of bridge, cantilever and butterfly type sign supports, shall be sufficiently detailed to show all structural significant details.

Approval for deviations from the contract drawings and/or specifications shall be requested in writing and shall be approved by the Fabrication Engineer before being incorporated in the manufacturer's drawings. Requests for substitution of all specified material shall be submitted in writing, with full documentation (specifications, mill certification, etc.) enabling the Department to evaluate the proposal.

Sign support structures and anchor bolts shall meet the requirements specified in Section 720 as well as the current edition of AASHTO "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals".

A Certificate of Compliance shall be provided for all material in accordance with the requirements of the General Statement of Division 700 - Materials.

a. Beam Mounted Signs The beams for beam-mounted signs shall be of the size, material and shape designated in the contract documents. The Contractor shall be fully responsible for the adequacy and design of any structural details not shown on the plans, and each drawing shall contain a reference to the design criteria and sealed and signed by a Professional Engineer licensed in accordance with the State of Maine regulations that described design criteria have been met by all parts of the structure designed and/or detailed by the Contractor. Approval of the drawings will signify only approval of the size, material and length of the beam.

b. Bridge, Cantilever, and Butterfly Type Sign Supports The Contractor shall be responsible for the design of the support structure including its foundation. Foundation design shall follow requirements of Section 645.024 - Bridge, Cantilever, and Butterfly Support Structure Foundations, as well as this Section.

Signs shall be placed on the support structure such that the bottom edges are aligned (unless written consent from the Fabrication Engineer is obtained), while accommodating the minimum height requirement - see Section 645.06. The Contractor shall use the Contract Drawings in order to determine the approximate horizontal placement of signs. Installation shall be in accordance with Section 645.06 - Installation of Type I Signs. The structure and foundation shall be designed to accommodate a minimum of 1.5 times the sign area on each structure as shown on the contract documents. This additional theoretical sign load shall be computed by: For single signs increasing the sign widths an additional 25% without changing the horizontal midpoint of the sign; for multiple signs the sign widths shall be increased 25% toward the outside sign edges. The height shall be increased 25% without changing the bottom edge elevation of the signs. Some locations include a given Design Sign Area to accommodate expected future sign requirements. These Design Sign Areas shall substitute for the theoretical sign load at locations where a Design Sign Area is given.

Bridge type structures shall be designed using either a tri-chord, four-chord truss, or monotube structure as the overhead member. The tri-chord truss, four chord truss, and monotube components shall be round. Each of the two upright members supporting the bridge type overhead truss member shall consist of a minimum of two vertical legs. A four chord truss configuration or monotube shall be required if the Contract Documents specify placing signs on both sides of the overhead structure (two way traffic beneath structure). Cantilever and butterfly type structures shall be designed using either a tri-chord, four-chord truss or monotube overhead member. A monotube structure, bridge or cantilever type, shall consist of a single monotube serving as both column posts and span. Bolted splices shall be located in the horizontal portion of the span and/or the vertical portion of the column post. The upright member of a cantilever or butterfly-type support structure shall have a maximum horizontal deflection of L/40, where L is the length of upright member, as determined from design loads calculated in accordance with the AASHTO "Standard Specification for Structural Supports for Highway Signs, Luminaires and Traffic Signals".

The base plates of uprights for all types of support structures shall have heavy hex leveling nut with 2 hardened flat washers. The distance between the bottom of the base plates to the top of the foundations shall not exceed twice the diameter of the anchor bolts. Grout, or other materials, shall not be placed between base plates and the top of foundations. In addition to the required detail drawings, the Contractor shall submit 3 copies of the design computations, including fatigue considerations, in accordance with Section 11, Fatigue Design, in the AASHTO "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals", and interims thereto, for the entire structure. Erection lifting points shall be clearly depicted on the shop drawing. The Contractor shall submit the bending process of monotube components for review.

The computations shall be sufficiently detailed to allow the Engineer to check and approve the computations. Computer printouts will not be accepted unless they meet the above criteria. All plans and design calculations, sign support structure and foundation, shall be sealed and signed by a Professional Engineer licensed in accordance with the State of Maine regulations. Approval will be based on the applicable provisions of Section 105.7 - Working Drawings.

Overhead sign panel mounting devices shall be designed accommodating the requirements of appropriate sign panel tilting included in this specification. The design of this assembly shall include fastening sign panels directly to steel or aluminum members as further described in Section 719.07, as well as other applicable Sections, plans and specifications.

c. Bridge Overpass Mounted Sign Supports Overpass mounted sign supports shall be constructed to the configuration and sizes and of the material shown on the Contract Documents. Approval will be based on the applicable provisions of Section 105.7 - Working Drawings. Fastening sign panels directly to steel or aluminum members shall be as described in Section 719.07, as well as other applicable Sections, plans and specifications.

d. Breakaway Supports for Sign Supports Breakaway supports for sign supports will be required only for those locations indicated on the Contract Documents. Breakaway supports, approved by the Resident, using load-concentrating couplings shall be supplied for use at all locations designated as breakaway. Breakaway Support Certification of both breakaway and structural adequacy shall be provided by the Manufacturer. Design calculations or test data of production samples to support certification shall be provided. Breakaway support components shall provide the same or greater structural strength as the support post or pole utilizing the breakaway device. On multi-pole sign supports designated as breakaway, each pole shall be equipped with breakaway hinges immediately below the lower edge of the sign. Hinges relying on the friction between the hinge and the pole face for transmitting the design moment will not be accepted for use. Breakaway devices are subject to the applicable provisions of Section 721.

645.024 Bridge, Cantilever and Butterfly Support Structure Foundations The Contractor may select a foundation system meeting the design criteria of Section 13 of the current edition of AASHTO "Standard Specifications for Structural Supports for Highway Sign, Luminaries and Traffic Signals", unless otherwise specified by the Department. Geotechnical design of the foundations shall be in accordance with Section 13 of the afore-mentioned AASHTO code. The design criteria for the resistance of drilled caisson and spread footing foundations against overturning, sliding and bearing capacity failure shall meet the requirements of Section 4 of the current edition of AASHTO "Standard Specifications for Highway Bridges". The structural design of foundations shall meet the requirements of the current edition of AASHTO "Standard Specifications for Highway Bridges". The Contractor shall submit to the Fabrication Engineer for approval, detailed plans and calculations of the proposed sign foundation, sealed and signed by a licensed Professional Engineer in accordance with the State of Maine regulations, Construction of the foundation shall not commence until the Department has approved the foundation design.

Soil borings have been conducted at all proposed sign structure foundation locations. The Contractor shall design foundations in accordance with the existing soil conditions. If the existing soil conditions vary materially from the soil borings provided, the Contractor shall stop work and inform the Resident Engineer of the changed conditions.

All unsuitable material (peat, organic material, material that has been dumped, etc.) within the limits of a footing must be removed at the direction of the Resident and the shaft depth of drilled caissons shall be increased to bear on suitable material. No additional payment will be provided for the removal of unsuitable material or for replacing unsuitable material with suitable fill. Concrete for the footing shall be placed immediately after excavation to prevent water from collecting in the excavated area. The structural design of foundations shall meet the requirements of the current edition of AASHTO "Standard Specifications for Highway Bridges". Concrete shall be Class LP in accordance with Section 502 - Structural Concrete. Drilled shaft foundation holes, except in ledge, shall be excavated by auger method to the neat line of the outside dimensions of the footing without disturbing the soil around or below the proposed footing. Precast foundations shall not be permitted. In areas where rock or ledge is encountered above the proposed bottom of footing, the Contractor will have the option of removing rock and placing the footing at the design depth shown on the Contractor's Working Drawings, or constructing a grouted rock-anchored foundation system. This rock-anchored system shall be designed by the Contractor and approved by the Department. Back fill for pedestal foundations shall be granular borrow for underwater back fill meeting the requirements of Section 703.20 - Gravel Borrow, of the Standard Specification. The granular borrow shall be placed in layers not exceeding 6 inches in depth before compaction. Each layer of back fill shall be thoroughly compacted by use of power tampers to at least 95% of the maximum density as measured in the field per AASHTO T191 or by an approved method using calibrated nuclear device. All back filling and compacting shall be in accordance with the applicable provisions of Section 206, of the Standard Specifications. The Contractor shall submit 3 copies of all foundation design work, structural and geotechnical, together with computations and plans used for design purposes, as specified in Section 645.023.

645.03 Classification of Signs Sign sizes, color and legend designs shall conform to these specifications, the plans, and MUTCD requirements. The signs are classed according to the intended use as follows:

a. Type I guide signs shall consist of high intensity, reflectorized sheeting or reflectorized, demountable letters, numerals, symbols and border mounted on a high intensity, reflective sheeting background adhered to a sign panel constructed of extruded aluminum planks.

b. Type I regulatory, warning, and route marker assembly signs shall consist of high intensity, reflective sheeting letters, numerals, symbols, and border on a high intensity, reflective sheeting background adhered to a sign panel constructed of sheet aluminum.

c. Type II guide signs shall consist of engineering grade, reflective sheeting letters, numerals, symbols and border on an engineering grade, reflective sheeting background attached to a sign panel constructed of plywood.

d. Type II regulatory, warning and route marker assembly signs shall consist of engineering grade reflective sheeting letters, numerals, symbols and border on an engineering grade reflective sheeting background adhered to a sign panel constructed of sheet aluminum or plywood.

645.04 Fabrication of Type I Guide Signs

a. Panels The panels for this type sign shall be shop-fabricated from aluminum planks to the sizes designated on the approved shop drawings. Cut edges shall be true, smooth, and free from burrs or ragged breaks. Flame cutting will not be permitted. Bolt holes may be drilled to finished size or punched to finished size, provided the diameter of the punched hole is at least twice the thickness of the metal being punched.

Fabrication of extruded aluminum sign planks, including punching or drilling holes and cutting to length, shall be completed before the metal degreasing and the application of the reflective sheeting. The bolts required for fastening the extruded aluminum planks together shall conform to the designs used in standard commercial processes for the type of extruded aluminum panels to be used as approved.

All route shields shall be on an overlay aluminum sheet of 0.080 inch minimum thickness and shall be in full color with reflective background; they shall not have demountable numerals and borders.

b. Reflective Sheeting The high intensity reflective sheeting shall be applied to the extruded aluminum plank in accordance with the current recommendations of the sheeting Manufacturer.

The reflective sheeting shall cover the complete panel and shall not be trimmed to conform to the border. The reflective sheeting shall overlap into the side recess of the individual planks. There shall be no paint applied to the sign panels. The surface of all completed sign panels shall be flat and free of defects. Extruded aluminum molding shall be placed on the edges of the extruded panels, as shown on the plans.

c. Text The design of upper and lower case letters, numerals and symbols, and the arrangement and spacing of texts shall be as provided on the plans and in conformance with the MUTCD and Standard Highway Signs.

Text for Guide Signs shall be composed of demountable letters, numerals, symbols, and borders and shall be high-intensity, reflective sheeting. The demountable text shall be applied to the panels by use of aluminum pop rivets, in accordance with standard commercial processes, as approved. All demountable letters, numerals, symbols, and borders shall be the same manufacturer's make for the entire project. Cutout high-intensity, reflective sheeting text shall be applied to the sign panel with a pre-coated, adhesive backing.

645.041 Fabrication of Type I Regulatory, Warning and Route Marker Assembly Signs and Type II Sheet Aluminum Regulatory, Warning and Route Marker Assembly Signs

a. Panels Sheet aluminum sign panels shall be shop-fabricated to the size shown on the plans. The corners shall be rounded to the indicated radius where shown.

Bolt holes may be drilled or punched to finished size provided the diameter of the punched hole is at least twice the thickness of the metal being punched. Cut edges shall be true, smooth, and free from burrs or ragged breaks. Flame cutting will not be permitted. Punching or drilling of holes and cutting to size shall be completed before metal degreasing and the application of reflective sheeting.

b. Reflective Sheeting The high intensity or engineering grade reflective sheeting shall be applied to the sheet aluminum sign panels in accordance with the current recommendations of the sheeting Manufacturer. The reflective sheeting colors shall conform to the MUTCD standard highway sign colors for each type of sign. Surface of all panels shall be flat and free from defects.

c. Text The text for regulatory, warning, confirmation and route marker assembly signs shall be composed of: High intensity reflective sheeting letters, numerals, symbols and borders; or the silver letters may be formed by applying transparent ink to the reflective sheeting background where the silk screen process is used; or other methods to form the text may be used, when approved in advance.

645.042 Fabrication of Type II Guide Signs and Type II Plywood, Regulatory, Warning and Route Marker Assembly Signs

a. Panels Fabrication of all sign panels from high-density, overlaid plywood shall be performed in a uniform manner. All fabrication, including cutting, drilling, and edge routing, shall be completed prior to painting and application of reflective sheeting to the high-density, overlaid plywood. Panels shall be cut to size and shall be plywood. Panels shall be cut to size and shall be free of warping, open checks, open splits, open joints, open cracks, loose knots and other defects resulting from fabrication. Corners shall be left square. The surface of all sign panels shall be flat.

The edge and back of the plywood shall be painted with an exterior grade dark green paint.

b. Blanks Sign blanks shall be cut to shape using a saw blade that does not tear plywood grain. Holes shall be clean-cut and uniform. All cracks, open checks, open splits and other defects occurring on the edge surfaces shall be filled with a synthetic wood filler and sanded smooth prior to sealing and painting. The sign blank edges shall be sealed using an approved sealer/primer. The edges shall then be painted with an exterior grade, dark green paint.

The surface shall not be painted before application of reflective sheeting. Before applying reflective sheeting, dirt or wax shall be removed by one of the following methods:

1. The surface shall be buffed lightly with solvent-soaked steel wool, fine or medium, using organic solvents, such as lacquer thinner, xylol, heptane, benzene or naphtha, and wiped dry with clean cloths.

2. The panel shall be sanded lightly with fine-grade paper, cleaned with solvent, and wiped dry using clean cloths.

c. Reflective Sheeting The engineering grade reflective sheeting shall be applied directly to the cleaned high-density surface in accordance with the recommendations of the reflective sheeting manufacturer.

d. Text The text for regulatory, warning, confirmation and route marker assembly signs shall be composed of cutout, engineering-grade reflective sheeting letters, numerals, symbols and borders or the silver letters may be formed by applying transparent ink to the reflective sheeting background where the silk screen process is used. Other methods to form the text may be used when approved in advance.

The design of the letters, numerals, and symbols, the spacing of the text and the size and spacing of the border shall conform to the MUTCD and Standard Highway Signs.

645.06 Installation of Type I Signs The sign locations shown on the plans are approximate; exact locations will be determined in the field by the Resident. Signs stockpiled before erection shall be stored in a vertical position and completely covered to avoid staining, weathering, and dirt accumulation.

a. Sign Supports Poles for single and multiple support roadside signs shall be erected plumb, using the leveling nuts supplied with the anchor bolts. When signs are supported by more than one pole, all poles shall be carefully aligned to avoid warping of the sign panel.

Bridge, butterfly and cantilever type sign supports and their foundations shall be constructed, assembled and erected, in accordance with the manufacturer's details, as approved. All horizontal supports spanning the roadway shall be level and shall have permanent camber as described in Section 10 of the current edition of AASHTO "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals", and interims thereto. If, at any time after their erection, bridge, butterfly or cantilever type sign supports are to remain for a period in excess of 72 hours without the sign(s) for which they were designed being in place, suitable vibration damping devices, approved by the Resident, shall be installed until such time as the sign(s) can be erected.

Bridge-mounted sign supports shall be fabricated and assembled in accordance with the details as shown on the Contract Documents.

Where aluminum surfaces are in contact with concrete or dissimilar metals, the contacting surface shall be thoroughly coated with an approved, aluminum impregnated caulking compound or the surfaces shall be separated by another approved material. Before signs are attached, aluminum sign supports shall be cleaned of all dirt and discoloration using methods recommended by the manufacturer.

b. Sign Panels Extruded aluminum planks for sign panels shall be bolted together, as indicated on the plans. Extruded aluminum molding shall be placed on the edges of the extruded panels. Sign panels shall be attached to the posts to provide the vertical and horizontal clearances from the roadway as indicated on the plans. Sign panels on overhead structures shall provide a minimum vertical clearance of 18 feet to the highest point of the roadway surface under the sign(s). Sign panels on bridge-mounted sign supports shall be installed with the bottom edge of the sign approximately 4 inches above the bottom of the bridge beam.

Sign panels mounted over the roadway shall tilt in the direction of the approaching traffic in such a manner that the angle between the sign face and the roadway grade, at the sign location shall be 85º +/- 3º.

Ground-mounted signs located 4 to 30 feet from the edge of shoulder shall form an angle of 93º between the approach roadway and the sign.

Signs located more than 30 feet from the edge of the shoulder shall form an angle between the approach roadway and the sign face equal to 87º -1º for each additional 10 feet beyond 30 feet.

Unless otherwise shown on the plans, or designated by the Resident, a minimum lateral clearance of 4 feet shall be provided between the edge of the shoulder and the edge of any sign panel.

The elevation of the bottom edge of guide sign panels shall be 7 feet above the elevation of the edge of the traveled way, at the sign location, or in case of a curb section, 7 feet above the elevation of the outer edge of the roadway, unless authorized otherwise.

Signs located 30 feet or more from the edge of traveled way shall be 5 feet above the elevation of the edge of shoulder.

In the event that a second sign is to be placed under the main sign, the elevation of the bottom edge of the principal sign shall be a minimum of 8 feet above the outer edge of the traveled way, or a minimum of 8 feet above the edge of the traveled way, in curbed sections; the bottom edge of the second sign must be at least 5 feet above the edge of the traveled way.

The elevation of the bottom edge of the regulatory, warning and route marker sign panels shall be 6 feet above the elevation of the edge of the pavement, or edge of roadway in curbed sections, at the sign location. The elevation of the bottom edge of these sign panels above the elevation of the edge of the pavement on all crossing or connecting roadways shall be 5 feet in rural areas or 7 feet in urban areas. Field conditions may require some variation in elevations, as directed.

Each sign shall have at least two fasteners connecting it to the sign poles, except signs of 1 foot or less in height may have one fastener.

645.061 Installation of Type II Signs The exact sign locations will be determined in the field. Signs stockpiled before erection shall be stored in a vertical position and completely covered to avoid staining, weathering, and dirt accumulation.

a. Sign Supports Support posts for Type II signs shall be U-channel posts weighing 2½ pounds per foot for signs of less than 6.24 ft² in area, 4 inch by 4 inch wood posts or two U-channel posts weighing 2½ lb/ft for signs of area 6.24 ft² to 9 ft², 4 inch by 6 inch wood posts for signs of area 9 ft² to 16 ft², and 6 inch by 6 inch wood posts for signs of area over 16 ft². All signs 60 inches wide or wider shall be mounted on two wood posts. Wood posts shall be set to a depth of 4 feet. U-channel posts shall be set to a minimum depth of 30 inches. Leading signs less than 9 ft² on the apex of islands will be installed on U-channel posts. When it is necessary to set sign posts in bedrock, holes shall be excavated to the required depth and size at the locations indicated on the plans. The excavated material will be satisfactorily disposed of, as directed, and the posts set to the required depth.

When installing pressure-treated sign posts, the cut end of the posts shall not be buried in the ground.

Backfilling around the posts shall be with excavated material unless the excavated material is considered unsatisfactory, in which case the backfill shall be granular material conforming to the requirements of Section 703.19 - Granular Borrow. Backfill shall be thoroughly tamped in layers not exceeding 8 inches in depth.

When directed, the area around the posts shall be loamed and seeded in accordance with the applicable provisions of Section 615 and Section 618.

The Contractor shall be responsible for and shall repair all damage to underground drainage structures, utilities, or lighting conduits encountered during placing the posts.

b. Mounting Type II signs shall be mounted using assembly hardware specified in Section 719.07.

645.062 Installation of Delineators Posts for delineators shall be erected so that posts and assemblies will be plumb. All posts, which are bent or otherwise damaged, shall be removed and properly replaced. Posts shall be driven 4 feet from the outside edge of shoulder, 4 feet from the face of curb and 4 feet from the normal edge of shoulder in guardrail sections. A suitable driving cap shall be used and after driving, the top of the post shall have substantially the same cross sectional dimensions as the body of the post.

When bedrock is encountered in erecting posts, the depth to be drilled into the rock shall be determined by the Resident.

After the posts are driven, delineators shall be mounted 4 feet above the elevation of the edge of the traveled way. In the event that a delineator is required to be installed on a bridge structure, it shall be installed by use of a bracket as shown on the plans.

645.063 Installation of Breakaway Devices Breakaway devices shall be installed at locations indicated on the plans by an approved method. Each sign and pole shall be carefully demounted for reinstallation at the same or at a new location. Manufacturer's installation information shall be provided on the project.

If required, poles shall be cut in such a manner that no rough edges will remain. No flame cutting will be permitted. Cut edges on steel poles shall be painted in accordance with Section 645.07.

Existing foundations shall be modified for attachment of the breakaway device as shown on the plans or approved.

Breakaway devices shall be attached to new foundations in accordance with the recommendations of the breakaway device manufacturer and as approved.

645.07 Demounting and Reinstalling Existing Signs and Poles Signing materials removed and not reinstalled shall remain the property of MaineDOT including all the aluminum extruded panels, zee bar tube posts, steel H-beams, breakaway devices and sign hangers. Extruded aluminum panels shall be disassembled into one foot sections and delivered to the Belgrade maintenance lot (behind the main building) or as directed. Contractor shall arrange delivery with the Interstate Signing Supervisor (207-557-0335) at least 48 hours before the planned delivery. No separate payment will be made for removal, dismantling, stockpiling delivery or disposal of above mentioned material.
Existing sign structures and all other equipment designated for removal shall be removed from the highway right of way and shall become the property of the Contractor.

Existing sign panels, poles, foundations, and sign hardware, damaged because of the Contractor's operations shall be replaced or repaired by the Contractor to the satisfaction of the Resident Engineer.

New or relocated regulatory, warning, confirmation or route marker assembly signs shall be installed the same working day as the corresponding existing signs are demounted. All new or relocated guide signs shall be installed within two working days of the time the corresponding existing sign is demounted. Before the Contractor demounts any regulatory or warning sign, they shall erect a similar easel mounted sign at a designated location. The Contractor shall maintain this temporary sign in place until the permanent sign is installed.

Existing signs and poles shall be reinstalled in accordance with the applicable requirements for installing new signs and poles.

Relocated steel posts and clamps shall be field painted two coats after the posts have been erected. The first coat shall be a zinc-dust primer paint meeting Federal Specification TT-P-641B Type II. The second coat shall be bright aluminum paint, aluminum-dust Type II, Class 3 brightness, meeting Federal Specification TT-A-468 with a minimum of 2 lb/gal, with vehicle meeting or exceeding Federal Specification TT-V-109. Scratches shall be touched up after the erection of the sign panels. The touchup shall be with both primer and finish coat. Sign pole surfaces to be painted shall be cleaned and dry when the paint is applied. No painting shall be done in damp weather nor when the air temperature is below 40°F.

645.08 Method of Measurement Demount Signs, Demount Poles, Reinstall Signs, and Reinstall Poles will be measured by each unit.

Bridge, cantilever and butterfly type sign supports, including the foundations, support structures and sign panels, complete in place, as called for on the plans, will be measured by each unit.

Bridge Overpass-Mounted Guide Signs, including supports, will be measured by each unit in place.

Breakaway devices (1 per pole) shall be measured by the unit complete in place and accepted.

The area of roadside guide signs, regulatory, warning, confirmation and route marker assembly signs of the respective types, will be measured by the area in square feet, computed to nearest hundredth of a square foot, as determined by the overall height multiplied by the overall width.

Aluminum poles for roadside guide signs, Type I will be measured by the number of units of each diameter, complete in place. Steel H-beam poles will be measured for payment by the pound, determined from the nominal weight per foot for each size and the lengths as indicated on the plans.

Demountable reflectorized delineators will be measured by the number of units of each type in place.

645.09 Basis of Payment The accepted demounted signs and demounted poles will be paid for at the contract unit price each for the respective item specified. Such price will be full compensation for delivering signs and poles not to be reinstalled to a site designated by the Resident, removal and off-site disposal of sign structures, removal of sign structure foundations to 12 inches below grade, placement of loam, seed and mulch to reestablish turf in the disturbed area, and all other incidentals necessary to complete the work.

The accepted reinstalled signs or reinstalled poles will be paid for at the contract unit price each. Such price will be full compensation for furnishing new hardware, when required, and all incidentals necessary to complete the installations. All signs or poles designated to be reinstalled that are damaged by the Contractor shall be replaced by the Contractor with new signs or poles conforming to the applicable Specifications at no additional cost to the State.

The accepted bridge, cantilever and butterfly type sign supports will be paid for at the contract lump sum price for the respective items. Such price will be full compensation for the signs, support structures, foundations, placement of loam, seed and mulch to reestablish turf in the disturbed area, and all other incidentals necessary to complete the work.

The bridge, cantilever and butterfly type sign supports to be removed will not be paid for directly but will be considered incidental to the installation of the new structure.

The accepted guide signs-overpass mounted, will be paid for at the contract lump sum price for the respective items, which price will be full compensation for the signs, supports and incidentals necessary to complete the work.

The accepted roadside guide signs and regulatory, warning, confirmation, and route marker assembly signs will be paid for at the contract unit price per square foot. Such payment will be full compensation for furnishing and installing signs, assembly hardware, and all incidentals necessary to complete the work.

The accepted aluminum poles will be paid for at the contract unit price each for the specified diameter, complete in place.

The accepted demountable reflectorized delineators will be paid for at the contract unit price each for the type specified, which payment will be full compensation for delineator and post or bridge rail mounting, complete in place.

Payment for breakaway devices shall be full compensation for furnishing and installing the device, all required pole cutting, for adapting the pole to the breakaway device, for adapting the concrete base to the breakaway device and all other incidentals necessary to complete the work. Separate payment will be made at the respective contract unit prices for demounting and reinstalling the signs and the poles at multi-pole

installations. At single-pole installations, separate payment will be made at the respective contract unit prices for demounting and reinstalling the poles only.

The accepted quantity of steel H-beam poles will be paid for at the contract unit price per pound, complete in place as shown on the plans or as designated.

Excavating rock will be paid for as provided in Section 206.
Payment will be made under:

Pay Item		Pay Unit
645.103	Demount Guide Sign	Each
645.106	Demount Regulatory, Warning, Confirmation and Route Marker Assembly Sign	Each
645.108	Demount Pole	Each
645.113	Reinstall Guide Sign	Each
645.116	Reinstall Regulatory, Warning, Confirmation and Route Marker Assembly Sign	Each
645.118	Reinstall Pole	Each
645.12	Overhead Guide Sign: (STA X + XXX)	Lump Sum
645.13	Bridge Overpass-Mounted Guide Sign: (STA X + XXX) (Left/Right XX)	Lump Sum
645.14	Special Work No.: ____	Lump Sum
645.15	Cantilever Guide Sign: (STA X + XXX)	Lump Sum
645.161	Breakaway Device Single Pole	Each
645.162	Breakaway Device Multi Pole	Each
645.251	Roadside Guide Signs, Type I	Square Foot
645.261	Bridge Guide Sign, Type I	Square Foot
645.271	Regulatory, Warning, Confirmation and Route Assembly Sign, Type I	Square Foot
645.281	5 Inch Aluminum Pole	Each
645.282	6 Inch Aluminum Pole	Each
645.283	7 Inch Aluminum Pole	Each
645.284	8 Inch Aluminum Pole	Each
645.285	10 Inch Aluminum Pole	Each
645.286	12 Inch Aluminum Pole	Each
645.289	Steel H-Beam Poles	Pounds
645.291	Roadside Guide Signs Type II	Square Foot
645.292	Regulatory, Warning, Confirmation and Route Marker Assembly Signs Type II	Square Foot
645.301	Demountable Reflectorized Delineator, Single	Each
645.302	Demountable Reflectorized Delineator, Double	Each

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

April 17, 2007
Supersedes May 10, 2006

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 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
More Than	**Including**	**Damages per Violation**
$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

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	End Road Work

Work Areas Interstate. At the work sites, signs, flashing arrow boards and channeling devices as shown on the Work Zone Signing details shall be used as directed by the Resident.

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
Speed Limit 55* [1] (Existing speed limit signs will be covered when in use)
Fines Doubled* [1]
Work Zone [1]
Do Not Pass*
Right/Left Merge Symbol (W 4-2)
End Work Zone
Resume Speed
Exit (green with white legend and border)
Road Work Ahead
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
Caution Rumble Strip

* White with black legend and border

[1] In addition to work zone package these signs will also be required at the end of any on ramps that are within the lane closure

The above lists of Approach signs and Work Area signs are representative of the contract requirements. Other sign legends may be required.

General Requirements-Interstate.

State Police shall be required for Item 652.381 on the Interstate system. Off system the contractor shall use local police of sheriff's department for Item 652.381.

The contractor will coordinate with city of Portland, and emergency services as to planned detour routes and ramp closures. A 72 hour notice shall be required for all detours and ramp closures. This shall be detailed within the Contractor's Traffic Control Plan.

There shall be no diverting of traffic between northbound and southbound lanes.

The Contractor shall provide a minimum traveled way width of 14 Feet through an expressway lane closure.

The maximum length of lane closure is 3.0 miles in length from Station 57+50 to 247+73 (North of Tukeys Bridge). Lane closures from Station 68+00 to 389+08/4+48 to 57+50 shall be determined from bridge phasing diagrams.

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.

Lane closures shall be separated by at least 2 miles.

All construction work shall be confined to the lane 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.

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

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

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.

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.

A temporary pavement marking line, or at the Contractor's option temporary approved raised pavement markers, shall be placed from the existing lane edge line through the length of the taper in overnight lane closures. Temporary painted lines shall only be used where the pavement is to be overlaid. Temporary plastic lines or raised pavement markers shall be used on pavement that it not to be overlaid. Removing existing pavement markings and **installing and removing raised pavement markers in lane closures** shall be incidental to item 652.36.
Placing all other 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.

12:1 paved tapers shall be placed at all Ramps immediately following paving and/or milling operations.

Interstate crossovers shall not be used by the contractor at any time.

Northbound lane closures for guardrail modifications will be required under this contract. The contractor will provide 72 hours notice prior to commencing any work involving a Northbound lane closure. Temporary sign packages and message boards shall be used for all Northbound lane closures.

The Contractor, his Subcontractor or 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 shall use cones in the work areas in lieu of Drums)**
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 feet 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.

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.

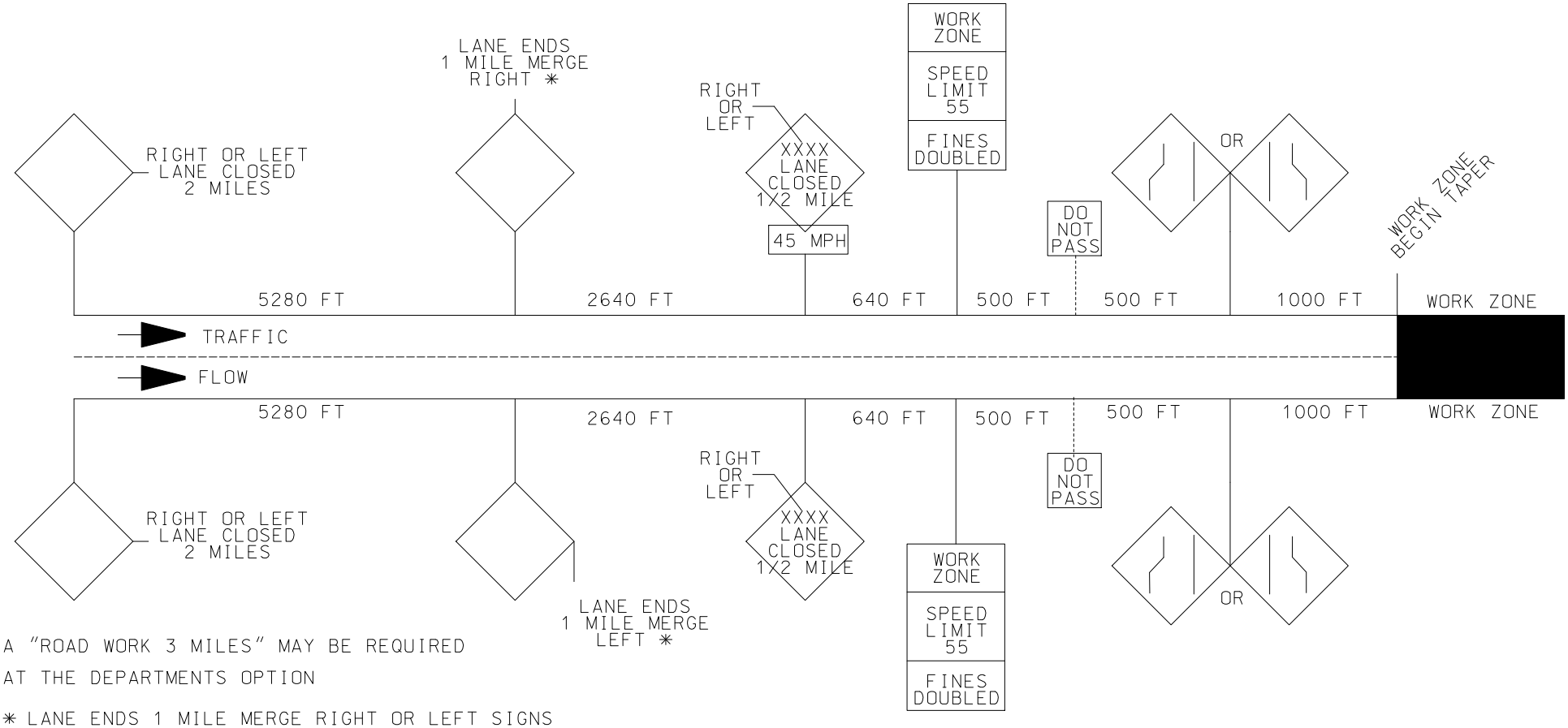
Roadside Recovery Area. The Contractor shall not store material nor park equipment within 15 feet of the edge of the established travel lanes.

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

Vehicles shall not be parked in the median, including crossovers. Crossovers shall not be blocked from the normal use of maintenance or State Police Forces. All median crossovers shall have drums placed across during working hours to prevent crossing traffic. These drums shall be removed after each shift.

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.

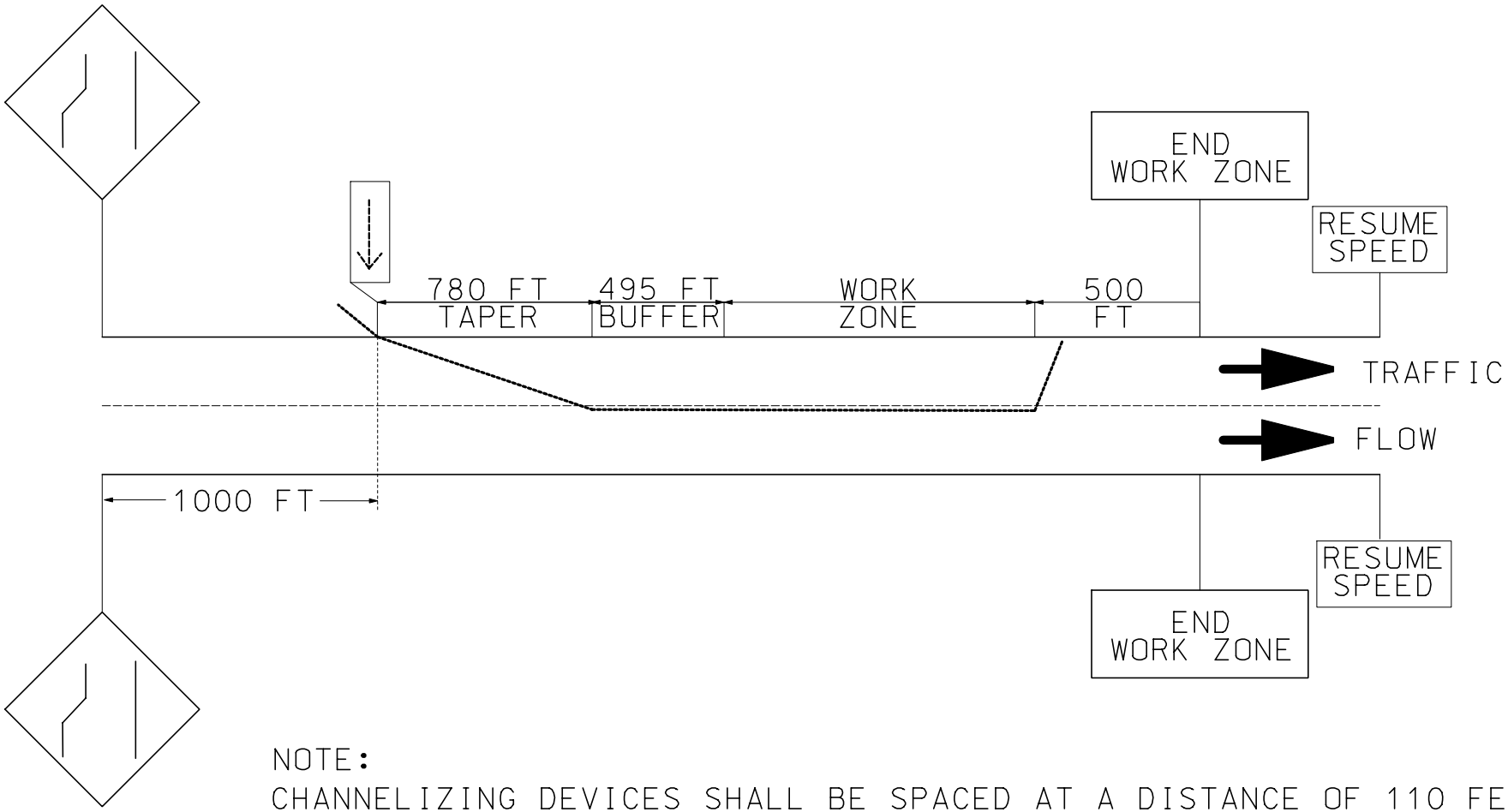
WORK ZONE SIGNING



A "ROAD WORK 3 MILES" MAY BE REQUIRED
AT THE DEPARTMENTS OPTION

✳ LANE ENDS 1 MILE MERGE RIGHT OR LEFT SIGNS
SHALL ONLY BE PLACED ON SIDE OF ROAD THAT NEEDS TO MERGE

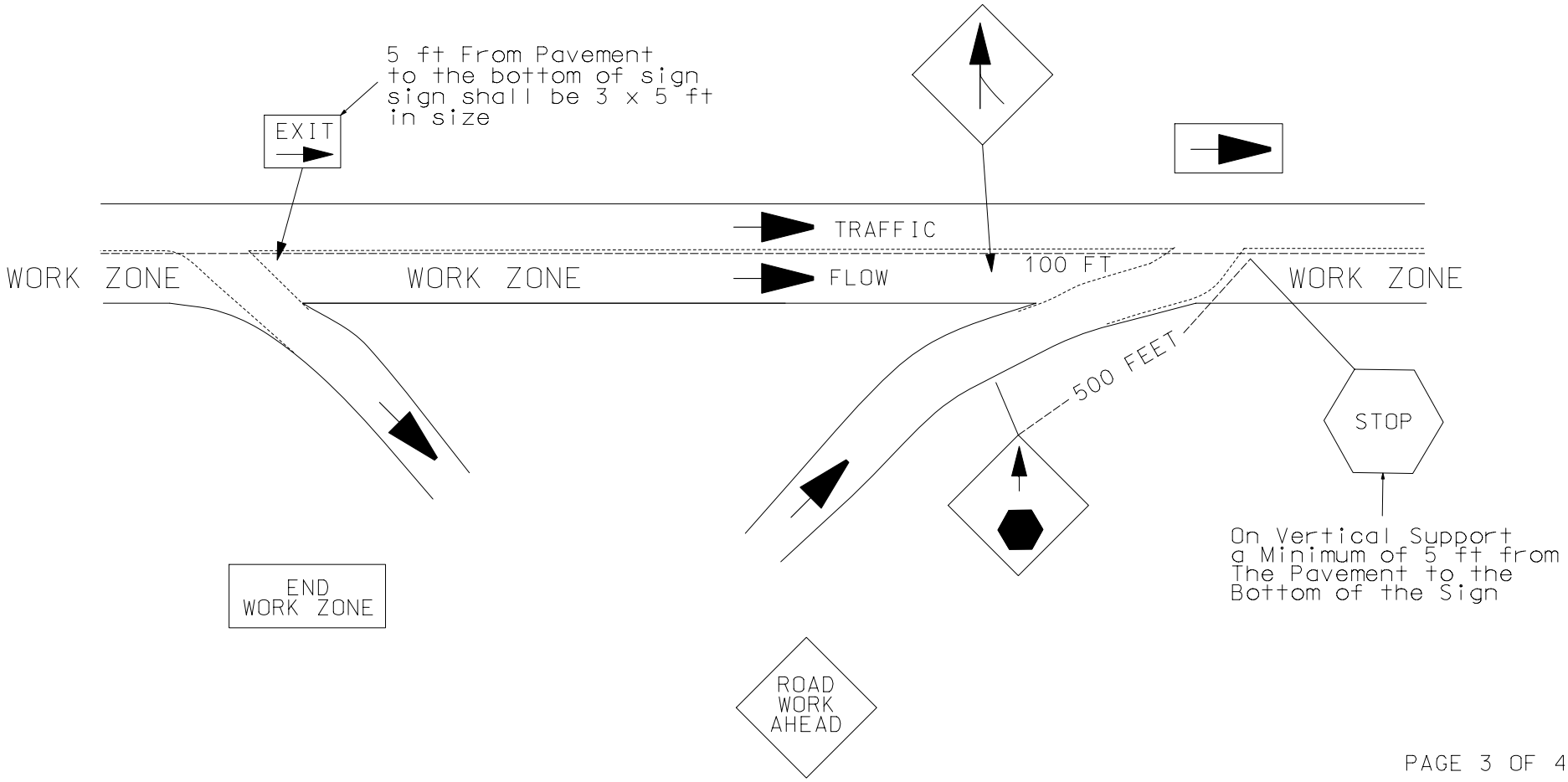
WORK ZONE



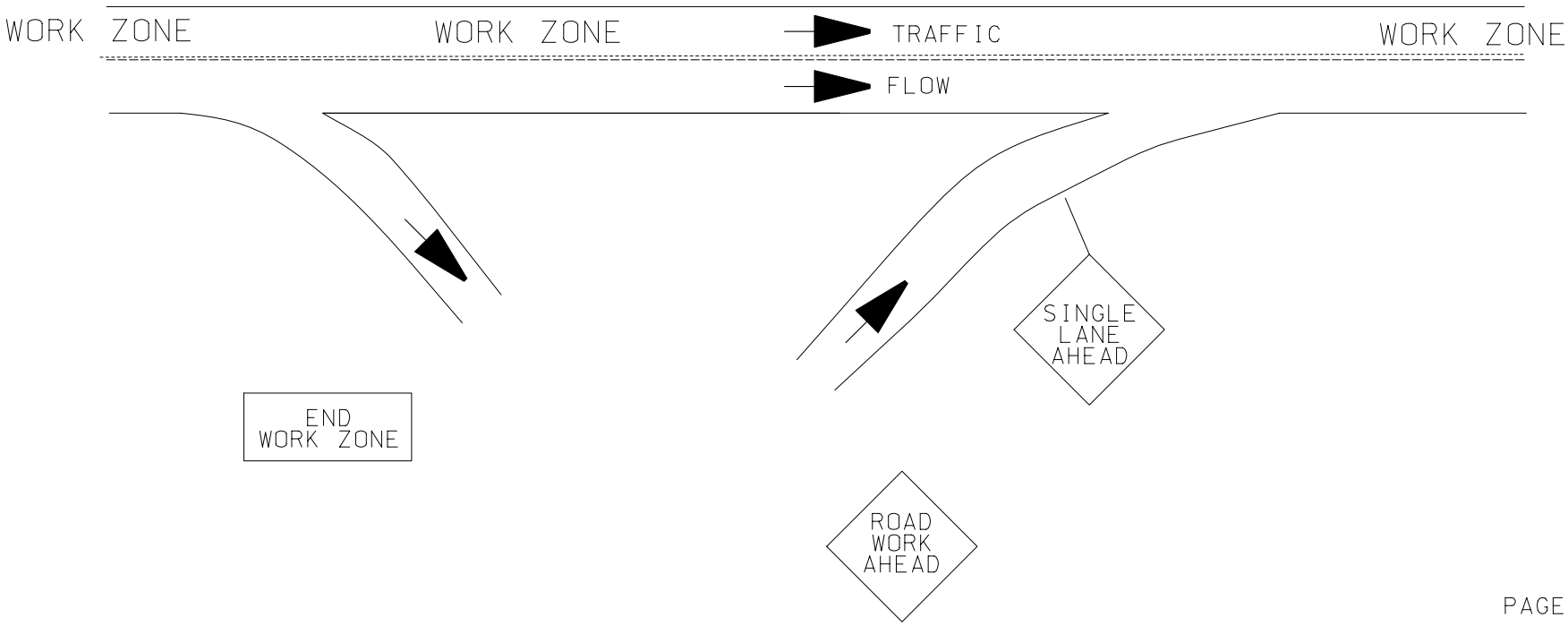
NOTE:

CHANNELIZING DEVICES SHALL BE SPACED AT A DISTANCE OF 110 FEET APART WITH 3 DEVICES ACROSS THE CLOSED LANE EVERY 1500 FEET. DEVICES IN THE TAPER SHALL BE SPACED AT 55 FEET APART.

RAMPS – RIGHT LANE CLOSED



RAMPS – LEFT LANE CLOSED



SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC – BRIDGE WORK

The Maintenance of Traffic noted herein is related to bridge work only.

652.1 Description: The following paragraphs are added:

The Contractor shall provide a Traffic Control Plan (TCP) to the Resident, in accordance with Subsection 105.7 of the Standard Specifications. The Contractor shall not commence work in the field until the Department approves the TCP. The Contractor shall provide Traffic Control Supervisor(s) who will be responsible for providing traffic control management in compliance with the contract and the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD), including supervision of personnel for the installation, inspection and maintenance of all traffic control devices. The Traffic Control Supervisor(s) or a qualified substitute, shall maintain the traffic control devices 7 days a week and 24 hrs a day.

No disruptions of traffic will be allowed before the TCP is reviewed and approved by the Department.

The TCP shall show all construction signs, speed signs, channelization devices, temporary concrete barrier, flexible delineators, work zone crash cushions, flashing arrows boards, portable changeable signs and temporary pavement markings, for all work zones. The TCP shall show how adjacent work zones are coordinated.

652.2 Signs: The following is added:

Bridge work zone signing shall include the following signs:

Bridge Work 1 mile
Right or Left Lane Closed 2 Miles
Lane Ends 1 mile Merge Right or Left Now
Right or Left Lane Closed 1/2 Mile
Speed Limit 45* [1] (Existing speed limit signs will be covered when in use)
Speed Limit 40* [1] (Existing speed limit signs will be covered when in use)
45 mph Speed Zone Ahead
40 mph Speed Zone Ahead
Fines Double* [1]
Work Zone [1]
Do Not Pass*
Right/Left Merge Symbol (W 4-2)
Stay in Lane*
Double Lane Shift (Right or Left)
Center Lane Closed Ahead
Double Lane Split (Custom)
Single Lane Shift (Right or Left)
End Work Zone
Exit (green with white legend and border)

Road Work Ahead
Bump
Trucks Entering
Left Turning Trucks with 500 Feet Advisory Plate
Flagger Sign
Grooved Pavement
Caution Rumble Strip
Ramp Closed
Detour Signs

* White with black legend and border
[1] In addition to work zone package these signs will also be required at the end of any on ramps that are within the work zone

The above list of Approach signs and Bridge work zone signs are representative of the contract requirements. Other signs may be required.

Signing relating to Wide Loads:

Due to lane width restrictions in bridge work zones, all loads in excess of 10'-0" wide will need to exit I-295 prior to Presumpscot River southbound. The contractor shall provide signing on I-295 southbound north of Yarmouth Exit 15 directing wide loads, in excess of 14'-6" to depart I-295 at Exit 15. The contractor shall provide signing on I-295 southbound north of the Falmouth Spur directing wide loads, in excess of 10-0" up to 14'-6" to depart I-295 onto the Falmouth Spur (Exit 11). Additionally the contractor shall provide signing on all southbound on-ramps within the project area directing wide loads not to enter I-295 southbound.

<u>Signs Include:</u>

Wide Loads / In Excess of 14'-6"/ Not Permitted On Turnpike
Seek Alternate Route

Wide Loads / In Excess of 14'-6"/ Must Depart Exit 15
Seek Alternate Route

Wide Loads / In Excess of 14'-6"/ Depart This Exit

Wide Loads / In Excess of 10'-0"/ Must Depart Exit 11
Seek Alternate Route

Wide Loads / In Excess of 10'-0"/ Depart This Exit

Wide Loads / In Excess of 10'-0"/ Not Permitted I-295 South
Seek Alternate Route

652.3.4 General: The following is added:

All bridge work zones with an interior lane closure shall have Flexible Reflectorized Delineators installed at 40' spacing on the center line in advance of the split and along the approach tapers. The length of delineator usage shall be shown on the TCP. The Department has the right to require additional delineators be installed. Work zone specific length requirements are noted below:

Kensington Street/ CNRR/ Sherwood Street Work Zone - Extend delineators northerly on I-295 SB beyond the "S-Curves" approaching this work zone (3600 ft. +/-)

St. John Street/ PTRR (St. John)/St. James Street Work Zone - Extend delineators northerly beyond the approach curves (1600 ft. +/-)

All other Work Zones – Extend delineators northerly 1000 ft. +/-.

Advance signing for ramp exits in locations of long term lane closures shall be included in the TCP. Signing shall direct traffic into the proper lane well in advance of the work zone.

TCP shall include proposed detour routes for all long term and nightly ramp closures.

Detour routes may require modifications to the timing and phasing of local road traffic signals. The contractor shall coordinate any necessary signal modifications with the Municipality, METRO bus service and the Resident. The coordination associated with signal modifications shall be considered incidental to the 652 pay items. No separate payment will be made.

There shall be no diverting of traffic between northbound and southbound lanes. Interstate crossovers shall not be used by the contractor at any time.

The bridge work zone minimum travel lane widths are shown on the Plans.

SPECIAL PROVISION
SECTION 656
Temporary Soil Erosion and Water Pollution Control

The following is added to Section 656 regarding Project Specific Information and Requirements. All references to the Maine Department of Transportation Best Management Practices for Erosion and Sedimentation Control (a.k.a. Best Management Practices manual or BMP Manual) are a reference to the latest revision of said manual. The latest version is dated "February 2008" and is available at:

http://www.maine.gov/mdot/environmental-office-homepage/surface-water-resources.php

Procedures specified shall be according to the BMP Manual unless stated otherwise.

Project Specific Information and Requirements

The following information and requirements apply specifically to this Project. The temporary soil erosion and water pollution control measures associated with this work shall be addressed in the Soil Erosion and Water Pollution Control Plan (SEWPCP.)

1. **This project is in the ----------watershed, which is Classified as -------waters by Maine DEP and is considered SENSITIVE in accordance with Section IID of the 2008 BMP Manual**

2. Newly disturbed earth shall be mulched by the end of each workday. Mulch shall be maintained on a daily basis.

3. The SEWPCP shall describe the location and method of temporary erosion and sediment control for existing and proposed catch basins, outlet areas and culvert inlets and outlets.

4. **If water is flowing within the drainage system, the water shall be diverted to a stable area or conduit and work shall be conducted in the dry.** The Contractor's plan shall address when and where the diversions will be necessary.

5. Dust control items other than those under Standard Specification 637, if applicable, shall be included in the plan.

6. Permanent slope stabilization measures shall be applied within one week of the last soil disturbance. Temporary slope stabilization is required on a daily basis.

SPECIAL PROVISION
SECTION 656
Temporary Soil Erosion and Water Pollution Control

7. Permanent seeding shall be done in accordance with *Special Provision, Section 618, Seeding* unless the Contract states otherwise.

8. Culvert inlet and outlet protection shall be installed within 48 hours of culvert installation, or prior to a storm event, whichever is sooner.

9. Temporary winter stabilization must be used between November 1st and April 1st or outside of that time period if the ground is frozen or snow covered. Temporary winter stabilization involves, at a minimum, covering all disturbed soils and seeded ground that is not Acceptable Work with an approved method. If temporary winter stabilization practices are used then spring procedures for permanent stabilization shall also be described in the SEWPCP. Use of these methods for over-winter temporary erosion control will be incidental to the contract and be paid for as part of Pay Item 656.75.

10. **A preconstruction field review is mandatory for this project. The preconstruction field review shall take place before commencing any work that involves soil disturbance or potential impacts on water quality. Attendees shall include the Environmental Coordinator, the preparer of the SEWPCP, the Construction Manager, and a representative from the Department's ENV Water Resources Unit. The date and time shall be set by the Contractor in consultation with the Construction Manager and ENV Water Resources Unit representative.**

11. Due to the project sensitivity, **CONSTRUCTION SHALL BE PHASED** to limit the amount of disturbed area. The Contractor's SEWPCP shall include specific provisions for phasing the work. Each section must be stabilized to the approval of the MaineDOT Resident and the Water Resources Unit before work can begin on any subsequent section.

12. **DRAINAGE WORK SHALL NOT COMMENCE UNTIL AFTER APRIL 1ST OF ANY YEAR DUE TO HIGH GROUNDWATER LEVELS AND NUMEROUS INTERMITTENT STREAMS.** This date shall only be adjustable upon approval of both the Construction Manager and a representative from the Water Resources Unit.

SPECIAL PROVISION
SECTION 656
Temporary Soil Erosion and Water Pollution Control

The following is added to Section 656 regarding Project Specific Information and Requirements. All references to the Maine Department of Transportation Best Management Practices for Erosion and Sedimentation Control (a.k.a. Best Management Practices manual or BMP Manual) are a reference to the latest revision of said manual. The latest version is dated "February 2008" (available at http://www.maine.gov/mdot/environmental-office-homepage/surface-water-resources.php .) **Procedures specified shall be according to the BMP Manual unless stated otherwise.**

Project Specific Information and Requirements

The following information and requirements apply specifically to this Project. The temporary soil erosion and water pollution control measures associated with this work shall be addressed in the Soil Erosion and Water Pollution Control Plan (SEWPCP.)

- Newly disturbed earth shall be mulched or otherwise stabilized by the end of each workday. Mulch shall be maintained on a daily basis.

- The SEWPCP shall describe the location and method of temporary erosion and sediment control for existing and proposed catch basins, outlet areas and culvert inlets and outlets.
- **If water is flowing within the drainage system, the water shall be diverted to a stable area or conduit and work shall be conducted in the dry.** The Contractor's plan shall address when and where the diversions will be necessary.

- All disturbed ditches shall be stabilized by the end of each workday. Stabilization shall be maintained on a daily basis.
- Erosion control blanket shall be installed in the bottoms of all ditches except where a stone lining is planned. Seed shall be applied prior to the placement of the blanket.
- Culvert inlet and outlet protection shall be installed within 48 hours of culvert installation, or prior to a storm event, whichever is sooner.
- Permanent slope stabilization measures shall be applied within one week of the last soil disturbance. Temporary slope stabilization is required on a daily basis.

- If check dams are used, they shall be constructed of stone in accordance with BMP Manual, Section III.E.1. *Hay Bale Temporary Check Dams* **are not allowed**. Delete all reference to them.

- Dust control items other than those under *Standard Specification, Section 637 – Dust Control*, if applicable, shall be included in the plan.

SPECIAL PROVISION
SECTION 656
Temporary Soil Erosion and Water Pollution Control

- Temporary winter stabilization must be used between November 1st and April 1st or outside of that time period if the ground is frozen or snow covered. Temporary winter stabilization involves, at a minimum, covering all disturbed soils and seeded ground that is not Acceptable Work with an approved method. If temporary winter stabilization practices are used then spring procedures for permanent stabilization shall also be described in the SEWPCP. Use of these methods for over-winter temporary erosion control will be incidental to the contract and be paid for as part of Pay Item 656.75
- Demolition debris (including debris from wearing surface removal, saw cut slurry, dust, concrete debris, etc.) shall be contained and shall not be allowed to discharge to any resource. All demolition debris shall be disposed of in accordance with *Standard Specifications, Section 202.03, Removing Existing Superstructure, Structural Concrete, Railings, Curbs, Sidewalks and Bridges*. Containment and disposal of demolition debris shall be addressed in the Contractor's SEWPCP.
- The Contractor's SEWPCP shall address in-stream work at the following locations:

  sta. 174+50 sta. 133+00

- Stream flow shall be maintained at all times.
- A cofferdam sedimentation basin is required if cofferdams are used. The basin shall be located in an upland area where the water can settle and seep into the ground or be released slowly to the resource in a manner that will not cause erosion. The location of such a cofferdam sedimentation basin shall be addressed in the SEWPCP.
- Prior to release to a natural resource, any impounded water that has been in contact with concrete placed during construction must have a pH between 6.0 and 8.5, must be within one pH unit of the background pH level of the resource and shall have turbidity no greater than the receiving resource. This requirement is applicable to concrete that is placed or spilled (including leakage from forms) as well as indirect contact via tools or equipment. Water not meeting release criteria shall be addressed in the SEWPCP. Discharging impounded water to the stream must take place in a manner that does not disturb the stream bottom or cause erosion.
- The Contractor shall be responsible for monitoring pH with a calibrated meter accurate to 0.1 units. A record of pH measurements shall be kept in the Environmental Coordinator's log (*Standard Specification, Section 656.4.4 Inspection and Record Keeping*.)

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

Detail #	Description	Revision Date
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

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."
Delete the entire Section 104.5.9 and replace with the following:

"104.5.9 Landscape Subcontractors The Contractor shall retain only Landscape Subcontractors that are certified by the Department's Environmental Office Landscape Unit."

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 More Than	Up to and Including	Amount of Liquidated Damages per Calendar Day
$0	$100,000	$100
$100,000	$300,000	$200
$300,000	$500,000	$400
$500,000	$1,000,000	$575
$1,000,000	$2,000,000	$750
$2,000,000	$4,000,000	$900
$4,000,000	and more	$1,875

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 dated 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: "Equitable Adjustments will be established by mutual Agreement for compensable items listed in Section 109.7.3-Compensable Items, based upon Unit or Lump Sum Prices. 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 Replace with the following: "The Contractor is entitled to compensation for the following items, with respect to agreed upon Unit or Lump Sum Prices:

1. Labor expenses for non-salaried Workers and salaried foremen.

2. Costs for Materials.

3. A 15 % markup on the totals of Items 1 and 2 of this subsection 109.7.3 for home office overhead and profit of the Contractor, its Subcontractors and suppliers, and any lower tier Subcontractors or suppliers, with no mark-ups on mark-ups.

4. Cost for Equipment, based on Blue Book Rates or leased rates, as set forth in Section 109.7.5(C), or the Contractor's Actual Costs if determined by the Department to be lower.

5. Time.

6. Subcontractor quoted Work, as set forth below in Section 109.7.5 (F)."

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."

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. Stockpiled at commercial or approved sites for commercial or MaineDOT use.

3. 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 sublot 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:

Organic Content	Percent by Volume
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 warranteed 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 15º 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…"
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. Breaker flaggers will not be paid for separately, but shall be considered incidental to the appropriate pay item."

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 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.

The following minimum light levels are required for Night Work lighting;

Level I: (5 foot-candles)

- All work operations by Contractor's personnel in areas of general construction operations, including layout and measurements ahead of the actual work, , cleaning and sweeping, , and seeding.
- Areas where crew movement may take place.
- Stockpile areas.
- At the area of lane closure, continuously through the lane closure, including the setup and removal of the closures.
- State Field Offices and facilities.

Level II: (10 foot-candles)

- On and around (360 degrees) construction equipment in the work zone.
- 50 feet ahead of, 100 feet behind, and along the sides of paving or milling machines in the work zone.

Level III: (20 foot-candles)

- Flagging Stations
- Pavement or structural crack and pothole filling.
- Pavement patching and repairs.
- Installation of signal equipment, or other electrical or mechanical equipment.
- Curb work, drainage, sidewalk work, excavation, landscaping, and any other work using ground labor, supervision, or inspection.

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 360º. 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.

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 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/m^2 [80 lb/ft^2] ground contact pressure…" to "…crawler type bulldozer of not more than 4875 kg/m^2 [2000 lb/ft^2] ground contact pressure…"

653.06 Compaction In the last sentence; change "…not more than 390 kg/m^2 [80 lb/ft^2] ground contact…" to "…not more than 4875 kg/m^2 [2000 lb/ft^2] 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 (March 2002 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 (March 2002 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
⅜ 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 it's entirety, the last sentence which begins "This pipe and resins…" and replace with the following; "The manufacturing plants of polyethylene pipe shall be certified by the Eastern States Consortium. Polyethylene pipe shall be accepted based on third party certification by the AASHTO's National Transportation Product Evaluation Program."

SECTION 709
REINFORCING STEEL AND WELDED STEEL WIRE FABIC

709.03 Steel Strand Change the second paragraph from "…shall be 12mm [½ 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 [½ 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 [½ 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 then 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."

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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.

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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 that 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.

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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:

Goals for female participation in each trade 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 0.5%
(Androscoggin)

6403 Portland, ME 0.6%
(Cumberland, Sagadahoc)

Non-SMSA Counties: 0.5%
(Franklin, Kennebec, Knox, Lincoln, Oxford, Somerset, York)

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 and 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 take 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 make 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 through 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 sat 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

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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 by 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) 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.

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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. <u>NONSEGREGATED FACILITIES</u> (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 that the applicable wage rate and fringe benefits or cash equivalent for the classification of worked 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 that $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.

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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

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO:
ATTENTION OF:

MAINE PROGRAMMATIC GENERAL PERMIT (PGP)
AUTHORIZATION LETTER AND SCREENING SUMMARY

OFFICE OF ENVIRONMENTAL SERVICES
MAINE DEPT. OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333

CORPS PERMIT # NAE-2010-00450
CORPS PGP ID# 10-066
STATE ID# PBR

DESCRIPTION OF WORK:
Place fill below the ordinary high water line of two unnamed streams at Falmouth, Maine in order to rehabilitate two existing deteriorated culverts beneath I-295 southbound. This work is associated with a larger reconstruction project of the highway's southbound lane between Falmouth and Scarborough, Maine. Approximately 2,100 s.f. (0.048 acres) of stream bed will be impacted by the project. This work is shown on the attached plans entitled "ME DOT – I-295 SOUTHBOUND RECONSTRUCTION, FALMOUTH – SCARBOROUGH, ME" in three sheets undated. DOT PIN: 16787.00

LAT/LONG COORDINATES : 43.7200205° N 70.2473057° W **USGS QUAD:** PORTLAND EAST, ME

I. CORPS DETERMINATION:
Based on our review of the information you provided, we have determined that your project will have only minimal individual and cumulative impacts on waters and wetlands of the United States. **Your work is therefore authorized by the U.S. Army Corps of Engineers under the enclosed Federal Permit, the Maine Programmatic General Permit (PGP).** Accordingly, other than possibly performing a compliance inspection (condition 23 of the permit) at some later date, we do not plan to take any further action on this project.

You must perform the activity authorized herein in compliance with all the terms and conditions of the PGP [including any attached Additional Conditions and any conditions placed on the State 401 Water Quality Certification including any required mitigation]. Please review the enclosed PGP carefully, including the PGP conditions beginning on page 7, to familiarize yourself with its contents. You are responsible for complying with all of the PGP requirements; therefore you should be certain that whoever does the work fully understands all of the conditions. You may wish to discuss the conditions of this authorization with your contractor to ensure the contractor can accomplish the work in a manner that conforms to all requirements.

If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

Condition 38 of the PGP (page 15) provides one year for completion of work that has commenced or is under contract to commence prior to the expiration of the PGP on October 11, 2010. You will need to apply for reauthorization for any work within Corps jurisdiction that is not completed by October 11, 2011.

This authorization presumes the work shown on your plans noted above is in waters of the U.S. Should you desire to appeal our jurisdiction, please submit a request for an approved jurisdictional determination in writing to the undersigned.

No work may be started unless and until all other required local, State and Federal licenses and permits have been obtained. **This includes but is not limited to a Flood Hazard Development Permit issued by the town if necessary.**

II. STATE ACTIONS: PENDING [X], ISSUED[ ], DENIED [ ] DATE _____

APPLICATION TYPE: PBR: X TIER 1: ___ TIER 2 : ___ TIER 3: ___ LURC: ___ DMR LEASE: ___ NA: ___

III. FEDERAL ACTIONS:

JOINT PROCESSING MEETING: 3/11/10 LEVEL OF REVIEW: CATEGORY 1: ___ CATEGORY 2: X

AUTHORITY (Based on a review of plans and/or State/Federal applications): SEC 10 ___, 404 X 10/404 ___, 103 ___

EXCLUSIONS: The exclusionary criteria identified in the general permit do not apply to this project.

FEDERAL RESOURCE AGENCY OBJECTIONS: EPA NO, USF&WS NO, NMFS NO

If you have any questions on this matter, please contact my staff at 207-623-8367 at our Manchester, Maine Project Office. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at http://per2.nwp.usace.army.mil/survey.html

Jay L. Clement
JAY L. CLEMENT
SENIOR PROJECT MANAGER
MAINE PROJECT OFFICE

For Jay L. Clement 3/15/10
FRANK J. DEL GIUDICE **DATE**
CHIEF, PERMITS & ENFORCEMENT BRANCH
REGULATORY DIVISION

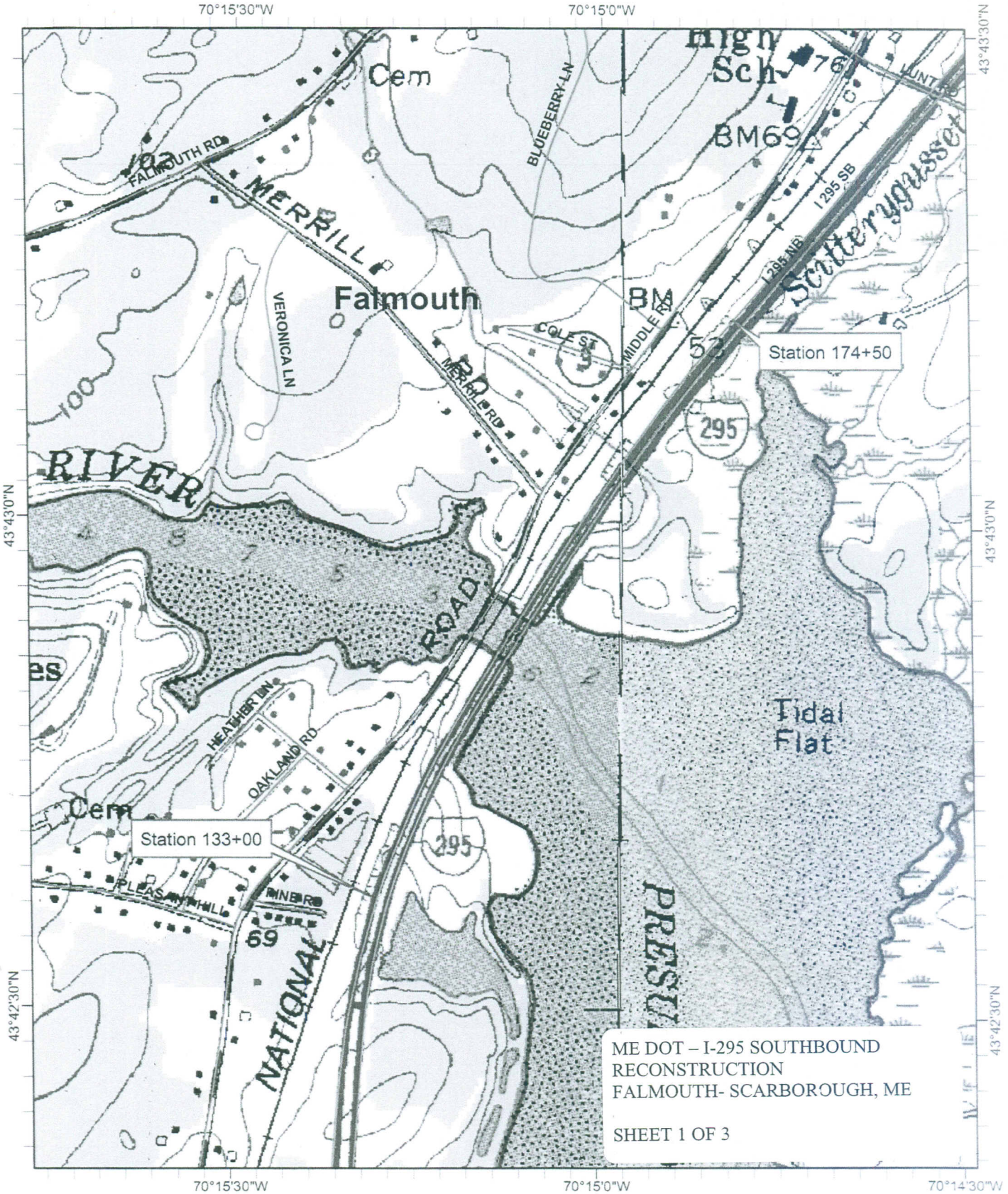
US Army Corps
of Engineers ®
New England District

PLEASE NOTE THE FOLLOWING GENERAL CONDITIONS FOR
DEPARTMENT OF THE ARMY
PROGRAMMATIC GENERAL PERMIT
NO. NAE-2010-00467

1. The permittee shall assure that a copy of this permit is at the work site whenever work is being performed and that all personnel performing work at the site of the work authorized by this permit are fully aware of the terms and conditions of the permit. This permit, including its drawings and any appendices and other attachments, shall be made a part of any and all contracts and sub-contracts for work which affects areas of Corps of Engineers' jurisdiction at the site of the work authorized by this permit. This shall be done by including the entire permit in the specifications for the work. If the permit is issued after construction specifications but before receipt of bids or quotes, the entire permit shall be included as an addendum to the specifications. The term "entire permit" includes permit amendments. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions of the entire permit, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps of Engineers jurisdiction.

2. Adequate sedimentation and erosion control devices, such as geotextile silt fences or other devices capable of filtering the fines involved, shall be installed and properly maintained to minimize impacts during construction. These devices must be removed upon completion of work and stabilization of disturbed areas. The sediment collected by these devices must also be removed and placed upland, in a manner that will prevent its later erosion and transport to a waterway or wetland.

3. All exposed soils resulting from the construction will be promptly seeded and mulched in order to achieve vegetative stabilization.



Date: 3/4/10
Road Names: I295
Town(s): Falmouth - Scarborough
1 inch = 785 feet

Location: 043 36'13"N 070 35'0"W
Project ID: 16787.00
Project Manager: N/A
Page 1

MEDOT ENV OFFICE

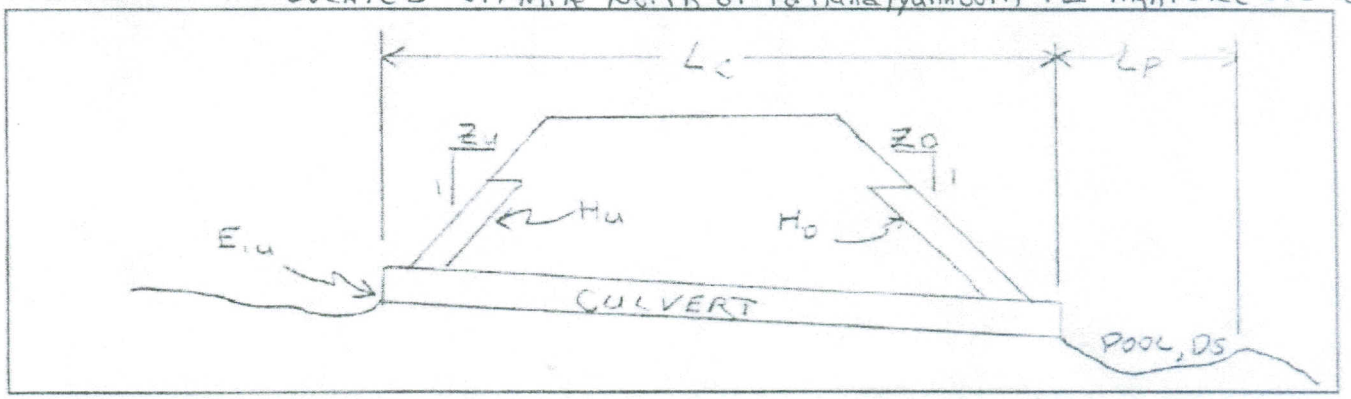
ACOE Screening - Culvert Replacement Field Sheet

Project Name: Scarborough to Falmouth Investigator's Name: Michael Lenko Date: 3/1/10

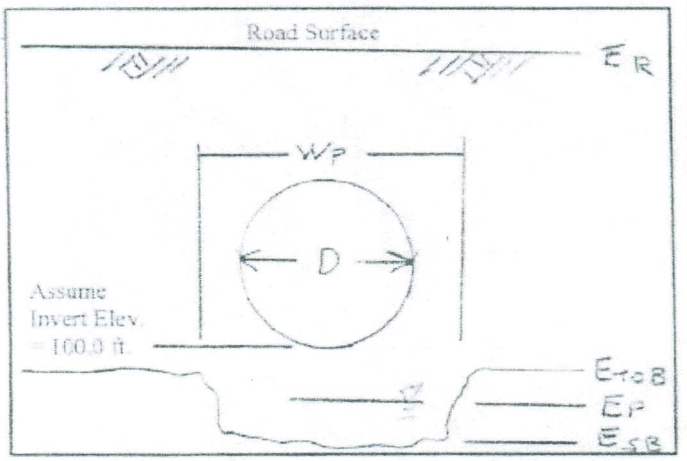
Project PIN: 16787.00 Culvert Location: 133+00 CULVERT @ INLET ELEVATION TO REMAIN UNCHANGED. ADDITIONAL 6' LENGTH IS TO PROVIDE 5:1 SLOPE. SLOPE TO BE RIPRAPPED. ELEVATIONS FROM AS BUILT DRAWINGS.

Additional Notes: LOCATED 0.7 mile North of Portland/Yarmouth TL Rightside 295 South

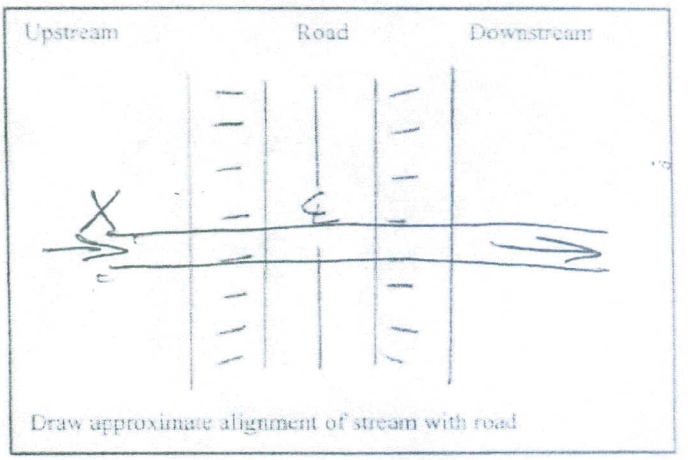
Profile of Culvert



Cross Section of Culvert



Plan View of Culvert



	All dimensions in feet	Existing	Proposed
L_C	Length of Culvert	210.0'	216.0'
L_P	Length of Pool, DS	8.0'	8.0'
W_P	Width of Pool, DS	4.0'	4.0'
E_{IU}	Elevation Invert US	10.9'	10.9'
E_P	Elevation of Water-DS Pool	9.1'	9.1'
E_{SB}	Elevation of Streambed one pipe diameter DS	9.1'	9.1'

	All dimensions in feet	Existing	Proposed
E_R	Elevation of CL Road	29.3'	29.3'
E_{TOB}	Elev. of Top of Bank, DS	12.5'	12.5'
H_U*	Headwall Treatment, US	V, RR	RR
H_D*	Headwall Treatment, DS	V, RR	V, RR
Z_U	Slope Value, US	3:1	5:1
Z_D	Slope Value, DS	4:1	4:1

US = Upstream; DS = Downstream; HW

Elevation of lowest downstream invert is assumed to be 100.0 all other elevations relative to it.

* Types of Headwall Treatment: RR - Rip Rap; CC - Concrete; SB - Stone Block; V - Vegetation (may enter multiple values)

	All dimensions in feet	Existing Pipe 1	Existing Pipe 2	Existing Pipe 3	Proposed Pipe 1	Proposed Pipe 2	Proposed Pipe 3
D	Diameter of Pipe	2.0'			2.0'		
P_T	Type of Pipe *	CMP			RCP		
P_S	Shape of Pipe **	ROUND			ROUND		

* Types of Pipes: RCP - Reinforced Concrete Pipe; CMP - Corrugated Metal Pipe; HDPE- High Density Poly; Stone Box (may enter multiple values)

** Shape of Pipes: Round; Oval (for diameter enter horizontal dimension); Box (for diameter enter horizonta dimension)

ME DOT – I-295 SOUTHBOUND RECONSTRUCTION
FALMOUTH- SCARBOROUGH, ME

SHEET 2 OF 3

MDOT ENV OFFICE

ACOE Screening - Culvert Replacement Field Sheet

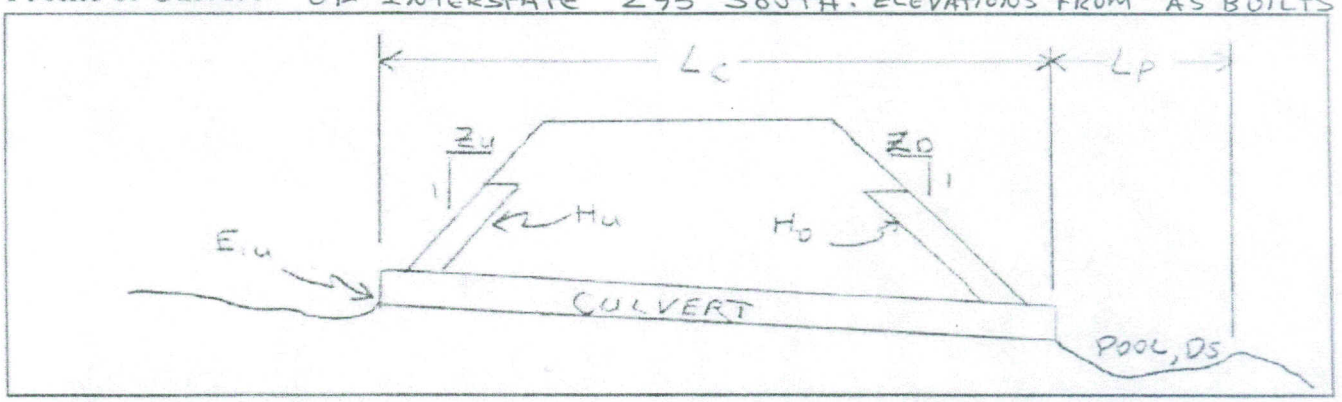
3/26/02

Project Name: Scarborough to Falmouth Investigator's Name: Michael Lenko Date: 3/1/10

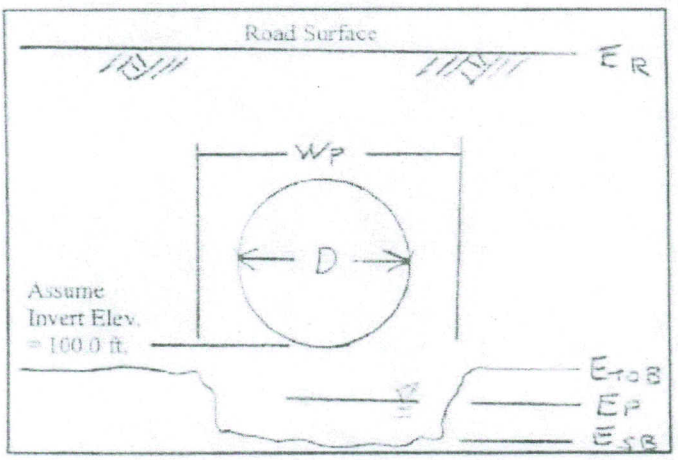
Project PIN: 16787.00 Culvert Location: 174+50

Additional Notes: Remove 24 CMP / REPLACE 32' RCP ON INLET SIDE RIP RAP EMBANKMENT TO ACHEIVE 5:1 SLOPE. CULVERT IS LOCATED 1.4 miles North Portland/Yarmouth TOWN LINE RT SIDE OF INTERSTATE 295 SOUTH. ELEVATIONS FROM AS BUILTS.

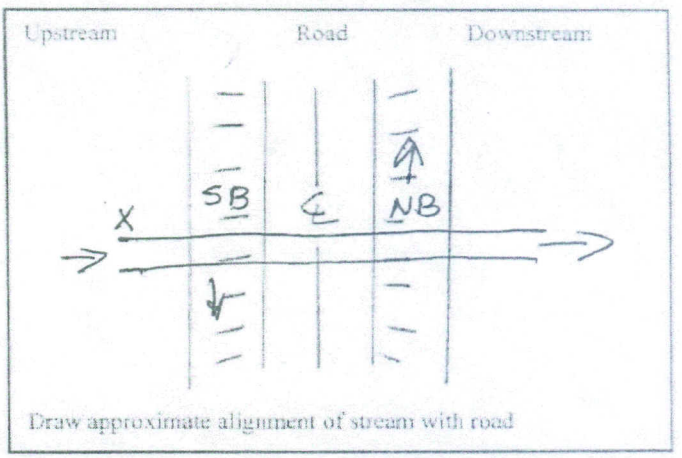
Profile of Culvert



Cross Section of Culvert



Plan View of Culvert



	All dimensions in feet	Existing	Proposed
L_C	Length of Culvert	106.0'	112.0'
L_P	Length of Pool, DS	6.0'	6.0'
W_P	Width of Pool, DS	5.0'	5.0'
E_{IU}	Elevation Invert US	22.0'	22.0'
E_P	Elevation of Water-DS Pool	15.7'	15.7'
E_{SB}	Elevation of Streambed one pipe diameter DS	15.7'	15.7'

	All dimensions in feet	Existing	Proposed
E_R	Elevation of CL Road	32.0'	32.0'
E_{TOB}	Elev. of Top of Bank, DS	19.3'	19.3'
H_U*	Headwall Treatment, US	V, RR	RR
H_D*	Headwall Treatment, DS	V, RR	V, RR
Z_U	Slope Value, US	3:1	5:1
Z_D	Slope Value, DS	4:1	4:1

US = Upstream; DS = Downstream; HW

Elevation of lowest downstream invert is assumed to be 100.0 all other elevations relative to it.

* Types of Headwall Treatment: RR - Rip Rap; CC - Concrete; SB - Stone Block, V - Vegetation (may enter multiple values)

	All dimensions in feet	Existing Pipe 1	Existing Pipe 2	Existing Pipe 3	Proposed Pipe 1	Proposed Pipe 2	Proposed Pipe 3
D	Diameter of Pipe	2.0'			2.0'		
P_T	Type of Pipe *	CMP			RCP		
P_S	Shape of Pipe **	ROUND			ROUND		

* Types of Pipes: RCP - Reinforced Concrete Pipe, CMP - Corrugated Metal Pipe, HDPE- High Density Polyethy Stone Box (may enter multiple values)

** Shape of Pipes: Round, Oval (for diameter enter horizontal dimension), Box (for diameter enter horizontal di dimension)

US Army Corps of Engineers®
New England District

PGP
WORK-START NOTIFICATION FORM
(Minimum Notice: Two weeks before work begins)

```
*************************************************************************
*  MAIL TO:  U.S. Army Corps of Engineers, New England District         *
*            Policy Analysis/Technical Support Branch                   *
*            Regulatory Division                                        *
*            696 Virginia Road                                          *
*            Concord, Massachusetts 01742-2751                          *
*************************************************************************
```

Corps of Engineers Permit No. [NAE-2010-00450] was issued to [MaineDOT]. This work is located in 2 unnamed streams in Falmouth, Maine. The permit authorized the permittee to rehabilitate 2 existing culverts.

The people (e.g., contractor) listed below will do the work, and they understand the permit's conditions and limitations.

PLEASE PRINT OR TYPE

Name of Person/Firm: _____

Business Address: _____

_____

_____

_____

Telephone Numbers: (____) _____ (____) _____

Proposed Work Dates: **Start:** _____ **Finish:** _____

Permittee's Signature: _____ **Date:** _____

Printed Name: _____ **Title:** _____

****

FOR USE BY THE CORPS OF ENGINEERS

PM: _____ **Submittals Required:** _____

Inspection Recommendation: _____

_____

_____

US Army Corps of Engineers®
New England District

(Minimum Notice: Permittee must sign and return notification within one month of the completion of work.)

COMPLIANCE CERTIFICATION FORM

USACE Project Number: NAE-2010-00450

Name of Permittee: Maine DOT

Permit Issuance Date: 3/15/2010

Please sign this certification and return it to the following address upon completion of the activity and any mitigation required by the permit. You must submit this after the mitigation is complete, but not the mitigation monitoring, which requires separate submittals.

```
*********************************************************************
* MAIL TO:  U.S. Army Corps of Engineers, New England District      *
*           Policy Analysis/Technical Support Branch, ATTN: Marie Farese *
*           Regulatory Division                                     *
*           696 Virginia Road                                       *
*           Concord, Massachusetts 01742-2751                       *
*********************************************************************
```

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.

_____ _____
Signature of Permittee Date

_____ _____
Printed Name Date of Work Completion

Telephone Number (_____)_____

DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)

PERMIT BY RULE NOTIFICATION FORM

(For use with DEP Regulation, Chapter 305)

■ **MDOT PIN: 16787.00**

Name of Applicant: State of Maine Department of Transportation **Name of Contact:** Laurie Rowe
Mailing Address: 16 Station State House **Town/City:** Augusta **State:** Me. **Zip Code:** 04330-0016
Daytime Telephone #: 215-5072 **Name of Wetland, Water Body or Stream:** 2 Unnamed tribs to Casco Bay
Detailed Directions to Site: I-295 SB, beginning at the Exit 11 Off Ramp and extending southerly to the Turnpike Toll Booth in Scarborough

Town/City: Falmouth to Scarborough **Map #:** N/A **Lot #:** N/A **County:** Cumberland

Description of Project: Project scope is to **Mill and Fill overlay with guardrail, ditching, pipe end replacements, bridge wearing surfaces, median guardrail and other safety improvements.** The project will be performed in accordance with erosion control measures conforming with the latest versions of the *State of Maine Department of Transportation Standard Specifications for Highways and Bridges* and the *Department of Transportation's Best Management Practices for Erosion and Sediment Control.*

Part of a larger project? ☐Yes ☒No

(**CHECK ONE**) This project... ☒ does ☐ does not ...involve work below mean low water.

I am filing notice of my intent to carry out work which meets the requirements for Permit By Rule (PBR) under DEP Regulation, Chapter 305. I have a copy of PBR Sections checked below. I have read and will comply with all of the standards.

☐Sec. (2) Soil Disturbance	☐Sec. (8) Shoreline stabilization	☐Sec. (14) Piers, Wharves & Pilings
☐Sec. (3) Intake Pipes	☒Sec. (9) Utility Crossing	☐Sec. (15) Public Boat Ramps
☐Sec. (4) Replacement of Structures	☐Sec. (10) Stream Crossing	☐Sec. (16) Coastal Sand Dune Projects
☐Sec. (5) REPEALED	☐Sec. (11) State Transport. Facilities	☐Sec. (17) Transfers/Permit Extension
☐Sec. (6) Movement of Rocks or Vegetation	☐Sec. (12) Restoration of Natural Areas	☐Sec. (18) Maintenance Dredging
☐Sec. (7) Outfall Pipes	☐Sec. (13) F&W Creation/Enhance/Water Quality Improvement	

I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules. I also understand that ***this permit is not valid until approved by the Department or 14 days after receipt by the Department, whichever is less.***

I have attached all of the following required submittals. **NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS:**

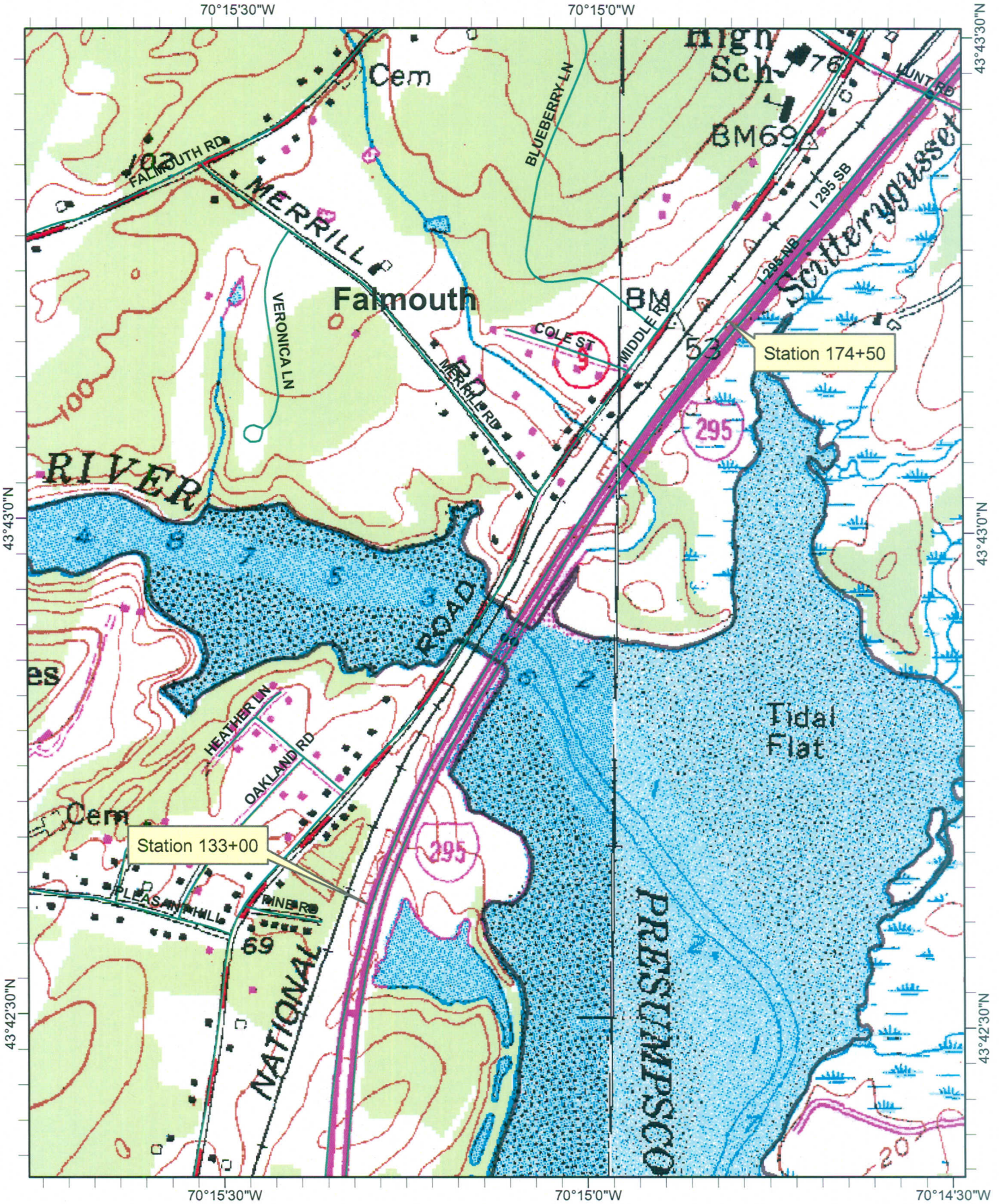
- ■ **A $55 (non-refundable) payment shall be done by internal billing.**
- ■ ***Attach*** **a U.S.G.S. topo map or Maine Atlas & Gazetteer map with the project site clearly marked.**
- ☐ ***Attach*** **photographs showing existing site conditions (unless not required under standards).**

Signature of Applicant: for Derek Van Dusen **Date:** 3·4·10
Judy Gates, MaineDOT Env Office Director

Keep the bottom copy as a record of permit. Send the form with attachments via certified mail to the Maine Dept. of Environmental Protection **at the appropriate regional office listed below**. The DEP will send a copy to the Town Office as evidence of the DEP's receipt of notification. No further authorization by DEP will be issued after receipt of notice. Permits are valid for two years. **Work carried out in violation of any standard is subject to enforcement action.**

AUGUSTA DEP STATE HOUSE STATION 17 AUGUSTA, ME 04333-0017 (207)287-2111 PORTLAND DEP 312 CANCO ROAD PORTLAND, ME 04103 (207)822-6300 BANGOR DEP 106 HOGAN ROAD BANGOR, ME 04401 (207)941-4570 PRESQUE ISLE DEP 1235 CENTRAL DRIVE PRESQUE ISLE, ME 04769 (207)764-0477

OFFICE USE ONLY	Ck.#	Staff	Staff	
PBR # FP	Date	Acc. Date	Def. Date	After Photos



Date: 3/4/10
Road Names: I295
Town(s): Falmouth - Scarborough
1 inch = 785 feet

Location: 043 36'13"N 070 35'0"W
Project ID: 16787.00
Project Manager: N/A
Page 1

Chapter 305: PERMIT BY RULE Section 11
State Transportation Facilities

1. **Introduction.** A "permit by rule" or "PBR", when approved by the Department of Environmental Protection (DEP), is an approval for an activity that requires a permit under the Natural Resources Protection Act (NRPA). Only those activities described in this chapter may proceed under the PBR process. A PBR activity will not significantly affect the environment if carried out in accordance with this chapter, and generally has less of an impact on the environment than an activity requiring an individual permit. A PBR satisfies the Natural Resources Protection Act (NRPA) permit requirement and Water Quality Certification requirement.

   If a proposed activity is not described in this chapter, or will not be conducted in accordance with the standards of this chapter, the applicant must obtain an individual permit prior to beginning the activity.

   A. **Location of activity.** The location of an activity may affect whether an activity qualifies for PBR, and whether review by the Department of Inland Fisheries and Wildlife is required.

      (1) Type of resource. For some types of activities, the availability of a PBR is affected by the type of natural resource in or adjacent to which the activity is proposed. For example, an applicant proposing an activity consisting of "Movement of rocks or vegetation" may receive a PBR only if the activity will take place in a great pond, river, stream or brook. Limitations concerning the location of activities are addressed in the "Applicability" provision in each section of this chapter.

      (2) Essential habitat. Essential habitats include areas critical to the survival of threatened and endangered species such as the bald eagle, least tern, roseate tern, and piping plover. If the activity is located in essential habitat, such as near an eagle nesting site, a PBR is only available if the applicant obtains written approval from the Department of Inland Fisheries and Wildlife (IF&W). This approval from IF&W must be submitted to the DEP with the PBR notification form, and the applicant must follow any conditions stated in the IF&W approval.

NOTE: Maps showing areas of essential habitat are available from the Department of Inland Fisheries and Wildlife regional headquarters, municipal offices, the Land Use Regulation Commission (for unorganized territories) and DEP regional offices. If the activity is located in essential habitat, IF&W must be contacted to request and obtain a "certification of review and approval".

   B. **Notification.** The applicant must file notice of the activity with the DEP prior to beginning work on the activity. The notification must be on a form provided by the DEP and must include any submissions required in this chapter. The applicant must keep a copy to serve as the permit.

      The notification form must be sent to the DEP by certified mail (return receipt requested), or hand delivered to the DEP and date stamped by the department.

C. Effective period

(1) Beginning of period. The PBR becomes effective 14 calendar days after the DEP receives the notification form, unless the DEP approves or denies the PBR prior to that date. If the DEP does not speak with or write to the applicant within this 14 day period regarding the PBR notification, the applicant may proceed to carry out the activity.

There are three exceptions regarding the effective date of an approved PBR:

(a) Activities listed in Section 10 (Stream crossings) occurring in association with forest management are exempt from the 14 day waiting period.

(b) Activities listed in Section 2 (Soil disturbance) and Section 10 (Stream crossings) performed or supervised by individuals currently certified in erosion control practices by the DEP are exempt from the 14 day waiting period. To be certified in erosion control practices, an individual must successfully complete all course requirements of the Voluntary Contractor Certification Program administered by the DEP's Nonpoint Source Training and Resource Center.

(c) Activities that are part of a larger project requiring a permit under the Site Location of Development or the Storm Water Management Acts may not proceed until any required permit under those laws is obtained.

NOTE: Activities that are part of a larger project may require other permits from the DEP also. These other laws may prohibit the start of construction of any part of the project unless a permit under that law is obtained. In these cases, while not a violation of this rule, starting work on a PBR approved activity would be a violation of those other applicable laws.

(2) End of period. The PBR is generally effective for 2 years from the date of approval, except that a PBR for "Replacement of structures" under Section 4 is effective for 3 years.

NOTE: Activities that qualify under this chapter may need to meet other local, state and federal requirements. Examples -- (1) If an activity extends below the low water line of a lake, coastal wetland or international boundary water, the applicant should contact the Bureau of Parks and Lands (287-3061) concerning possible lease or easement requirements, or (2) If an activity will involve work below the mean high water line in navigable waters of the United States, the applicant should contact the Army Corps of Engineers (623-8367).

D. Discretionary authority. Notwithstanding compliance with the PBR applicability requirements and standards set forth in this chapter, the DEP may require an individual permit application to be filed in any case where credible evidence indicates that the activity:

(1) May violate the standards of the NRPA (38 M.R.S.A. Section 480-D);

(2) Could lead to significant environmental impacts, including cumulative impacts; or

(3) Could adversely impact a resource of special concern.

If an individual permit is required pursuant to this subsection, the DEP shall notify the applicant in writing within the 14 calendar day waiting period described in sub-section (C) above. When the DEP notifies an applicant than an individual permit is required, no work may be conducted unless and until the individual permit is obtained.

E. Violations. A violation of law occurs when a person, or his or her agent, performs or causes to be performed any activity subject to the NRPA without first obtaining a permit from the DEP, or acts contrary to the provisions of a permit. The person, his or her agent, or both, may be held responsible for the violation. Commonly, the "person" is the landowner, and the "agent" is the contractor carrying out the activity. A violation occurs when:

(1) An activity occurs that is not allowed under PBR, whether or not a PBR notification form has been filed with and/or approved by the DEP;

(2) An activity occurs that is allowed under PBR, but a PBR for the activity has not become effective prior to the beginning of the activity; or

(3) An activity occurs that is allowed under PBR and a PBR for the activity is in effect, but the standards specified in this chapter are not met.

See the "applicability" provision under each activity for rules concerning what activities are allowed under PBR. A PBR is only valid for the person listed on the notification form, or for his or her agent.

Each day that a violation occurs or continues is considered a separate offense. Violations are subject to criminal penalties and civil penalties of not less than $100 nor more than $10,000 for each day of that violation (38 M.R.S.A. Section 349).

NOTE: A local Code Enforcement Officer (CEO) may take enforcement action for a violation of the Natural Resources Protection Act if he or she is authorized to represent a municipality in District Court, and he or she has been certified as familiar with court procedures, 30-A M.R.S.A. Section 4452(7).

Chapter 305 Section 11

State transportation facilities

A. Applicability

(1) This section applies to the maintenance, repair, reconstruction, rehabilitation, replacement or minor construction of a State Transportation Facility carried out by, or under the authority of, the Maine Department of Transportation or the Maine Turnpike Authority, including any testing or preconstruction engineering, and associated technical support services.

(2) This section does not apply to an activity within a coastal sand dune system.

NOTE: The construction of a transportation facility other than roads and associated facilities may be subject to the Storm Water Management Law, 38 M.R.S.A. Section 420-D.

B. Standards

(1) Photographs of the area to be altered by the activity must be taken before work on the site begins. The photographs must be kept on file and be made available at the request of the DEP.

(2) The activity must be reviewed by the Department of Inland Fisheries and Wildlife, the Department of Marine Resources, the Atlantic Salmon Authority, and the DEP's Division of Environmental Assessment prior to the notification being filed with the DEP. The activity must be performed according to any recommendations from these authorities.

(3) The activity must be performed in accordance with erosion control measures conforming with the State of Maine Department of Transportation Standard Specifications for Highways and Bridges Revision of April 1995 and with the Department of Transportation's Best Management Practices for Erosion and Sediment Control, September 1997.

NOTE: Guidance on the use of erosion control best management practices can be obtained from the on site Construction Manager.

(4) Alignment changes may not exceed a distance of 200 feet between the old and new center lines in any natural resource.

(5) The activity may not alter more than 300 feet of shoreline (both shores added together) within a mile stretch of any river, stream or brook, including any bridge width or length of culvert.

(6) The activity may not alter more than 150 feet of shoreline (both shores added together) within a mile stretch of any outstanding river segment identified in 38 M.R.S.A. 480-P, including any bridge width or length of culvert.

(7) The activity must minimize wetland intrusion. The activity is exempt from the provisions of Chapter 310, the Wetland Protection Rules, if the activity alters less than 15,000 square feet of natural resources per mile of roadway (centerline measurement) provided that the following impacts are not exceeded within the 15,000 square foot area:

(a) 1,000 square feet of coastal wetland consisting of salt tolerant vegetation or shellfish habitat; or

(b) 5,000 square feet of coastal wetland not containing salt tolerant vegetation or shellfish habitat; or

(c) 1,000 square feet of a great pond.

All other activities must be performed in compliance with all sections of Chapter 310, the Wetland Protection Rules, except 310.2(C), 5(A), 9(1), 9(B) and 9(C).

(8) The activity may not permanently block any fish passage in any watercourse containing fish. The applicant must improve passage beyond what restriction may already exist unless the Department of Inland Fisheries and Wildlife, the Department of Marine Resources, the Atlantic Salmon Authority and the DEP's Division of Environmental Assessment concur that the improvement is not necessary.

(9) Rocks may not be removed from below the normal high water line of any coastal wetland, freshwater wetland, great pond, river, stream or brook except to the minimum extent necessary for completion of work within the limits of construction.

(10) If work is performed in a river, stream or brook that is less than three feet deep at the time and location of the activity, with the exception of culvert installation, the applicant must divert flow away from the activity while work is in progress.

(a) Diversion may be accomplished by the use of stable, inert material. No more than two thirds (2/3) of stream width may be diverted at one time.

(b) Any material used to divert water flow must be completely removed upon completion of the activity, and the stream bottom must be restored to its original condition.

(c) A pump may be operated, where necessary, for a temporary diversion. The pump outlet must be located and operated such that erosion or the discharge of sediment to the water is prevented.

NOTE: Guidance on the appropriate location of a diversion and materials which should be used for a stream diversion can be obtained from the on site Construction Manager.

(11) Wheeled or tracked equipment may not operate in the water. Equipment operating on the shore may reach into the water with a bucket or similar extension. Equipment may cross streams on rock, gravel or ledge bottom.

(12) All wheeled or tracked equipment that must travel or work in a vegetated wetland area must travel and work on mats or platforms.

(13) Any debris or excavated material must be stockpiled either outside the wetland or on mats or platforms. Hay bales or silt fence must be used, where necessary, to prevent sedimentation. Any debris generated during the activity must be prevented from washing downstream and must be removed from the wetland or water body. Disposal of debris must be in conformance

with the Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Section 1301 et seq.

(14) Work below the normal high water line of a great pond, river, stream or brook must be done at low water except for emergency work or work agreed to by the resource agencies listed in paragraph 2 above. Measures, such as a silt boom or staked fencing, must be employed to reduce and isolate turbidity.

(15) Perimeter controls must be installed before the work starts. Disturbance of natural resources beyond the construction limits shown on the plans is not allowed under this rule.

NOTE: Guidance on the location of construction limits can be obtained from the on site Construction Manager.

(16) The use of untreated lumber is preferred. Lumber pressure treated with chromated copper arsenate (CCA) may be used, provided it is cured on dry land in a manner that exposes all surfaces to the air for a period of at least 21 days prior to construction. Wood treated with creosote or pentachlorophenol may not be used where it will contact water.

(17) A temporary road for equipment access must be constructed of crushed stone, blasted ledge, or similar materials that will not cause sedimentation or restrict fish passage. Such roads must be completely removed at the completion of the activity. In addition, any such temporary roads which are in rivers, streams or brooks, must allow for a passage of stormwater flows associated with a 10-year storm.

(18) Soil may not be disturbed during any period when soils are saturated due to rain or snow melt, except as necessary to protect work in progress or as required for bridge maintenance activities. Areas where soils are saturated (i.e. water drips from the soil when squeezed by hand, or the soil is capable of being rolled into a rod 1/8th inch in diameter that does not crumble) must be immediately mulched if they are disturbed.

(19) Disturbed soil must be protected within one week from the time it was last actively worked, and prior to any storm event, using temporary or permanent measures such as the placement of riprap, sod, mulch, erosion control blankets, or other comparable measures.

(20) Hay bale or straw mulch, where used, must be applied at a rate of at least one bale per 500 square feet (1 to 2 tons per acre).

(21) If mulch is likely to be moved because of steep slopes or wind exposure, it must be anchored with netting, peg and twine, binder or other suitable method and must be maintained until a catch of vegetation is established over the entire disturbed area.

(22) In addition to the placement of riprap, sod, erosion control blankets or mulch, additional steps must be taken where necessary to prevent sedimentation of the water Evidence of sedimentation includes visible sheet, rill or gully erosion, discoloration of water by suspended particles and/or slumping of banks. Silt fences, staked hay bales and other sedimentation control measures, where planned for, must be in place prior to the commencement of an activity, but must also be installed whenever necessary to prevent erosion and sedimentation.

NOTE: Guidance on the location and proper installation of erosion control measures can be obtained from the on site Construction Manager.

(23) Temporary erosion control measures must be maintained and inspected weekly until the site is permanently stabilized with vegetation or other permanent control measures. Erosion control measures must also be inspected immediately prior to and following storms.

(24) Permanent erosion control measures protecting all disturbed areas must be implemented within 30 days from the time the areas were last actively worked, or for fall and winter activities by the following June 15, except where precluded by the type of activity (e.g. riprap, road surfaces, etc.). The permanent erosion control measures must be maintained.

(25) The applicant shall immediately take appropriate measures to prevent erosion or sedimentation from occurring or to correct any existing problems, regardless of the time of year.

(26) Non-native species may not be planted in restored areas.

(27) Disposal of debris must be in conformance with Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Sections 1301 et seq.

(28) Disturbance of vegetation must be avoided, if possible. Where vegetation is disturbed outside of the area covered by any road or structure construction, it must be reestablished immediately upon completion of the activity and must be maintained.

(29) A vegetated area at least 25 feet wide must be established and maintained between any new stormwater outfall structure and the high water line of any open water body. A velocity reducing structure must be constructed at the outlet of the stormwater outfall that will create sheet flow of stormwater, and prevent erosion of soil within the vegetated buffer. If the 25 foot vegetated buffer is not practicable, the applicant must explain the reason for a lesser setback in writing. Approval from the DEP must be in writing and any recommendations must be incorporated into the activity.

C. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

(1) Diversion. A rerouting of a river, stream or brook to a location outside of its established channel.

(2) Fill. a. (verb) To put into or upon, supply to, or allow to enter a water body or wetland any earth, rock, gravel, sand, silt, clay, peat, or debris; b. (noun) Material, other than structures, placed in or immediately adjacent to a wetland or water body.

(3) Floodplain wetlands. Freshwater wetlands that are inundated with flood water during a 100-year flood event based on flood insurance maps produced by the Federal Emergency Agency or other site specific information.

(4) Riprap. Rocks that are fit into place, usually without mortar, on a slope as defined in the State of Maine, Department of Transportation, Standard Specifications for Highway and Bridges, revision of April 1995.

Applicant: General Public, State of Maine
Permit Number: NAE-2005-2164

Effective Date: October 11, 2005
Expiration Date: October 11, 2010

DEPARTMENT OF THE ARMY
PROGRAMMATIC GENERAL PERMIT
STATE OF MAINE

The New England District of the U.S. Army Corps of Engineers hereby issues a Programmatic General Permit (PGP) that expedites review of minimal impact work in coastal and inland waters and wetlands within the State of Maine.

I. GENERAL CRITERIA

Activities with minimal impacts, as specified by the terms and conditions of this PGP and on the attached Appendix A, Definition of Categories, are either:

Category 1: Non-reporting. Eligible without screening (provided the authorizations are obtained which this permit states are necessary for activities to be eligible for authorization under this non-reporting category), or,

Category 2: Reporting. Require screening and a written determination of eligibility under the PGP by the Corps after coordination with the U.S. Fish and Wildlife Service (U.S. FWS), U.S. Environmental Protection Agency (EPA) and the National Marine Fisheries Service (NMFS).

This PGP does not affect the Corps Individual Permit review process or activities exempt from Corps jurisdiction.

II. ACTIVITIES COVERED:

Work and structures that are located in, or that affect, navigable waters of the United States (U.S.) (Corps regulates under Section 10 of the Rivers and Harbors Act of 1899); the discharge of dredged of fill material into waters of the United States (Corps regulates under Section 404 of the Clean Water Act); and the transportation of dredged material for the purpose of disposal in the ocean (Corps regulates under Section 103 of the Marine Protection, Research and Sanctuaries Act).

III. PROCEDURES:

A. State Approvals

For projects authorized pursuant to this PGP, the following State approvals are also required. The applicable permits must be obtained in order for this PGP authorization to be valid (applicants are responsible for ensuring that all required State permits and approvals have been applied for and obtained):

- Maine Department of Environmental Protection (DEP): Natural Resources Protection Act (NRPA) permit, including permit-by-rule and general permit authorizations (NRPA permit issuance constitutes both the state permit and the WQC); Site Location of Development Act permit; and Maine Waterway Development and Conservation Act permit.
- Maine Department of Conservation: Land Use Regulation Commission (LURC) permit.
- Maine Department of Marine Resources: Lease.
- Maine Department of Conservation, Bureau of Parks and Lands, Submerged Lands: Lease

NOTE: This PGP may authorize projects that are not regulated by the State of Maine (e.g., seasonal floats or moorings).

B. Corps Authorizations

CATEGORY 1 (Non-Reporting)

Eligibility Criteria

Activities in Maine may proceed without application or notification to the Corps if they:

- Are subject to Corps jurisdiction (see General Condition 2, Page 7),
- Meet the definition of Category 1 in Appendix A - Definition of Categories, and
- Meet the General Conditions of the PGP (see Pages 7 - 15).

If the State or the Corps does not contact the applicant for DEP's Tier One permits during the DEP's Tier One 30-day review period, Corps approval may be assumed and the project may proceed. Refer to the Federal Screening Procedures (see Page 4) for additional information regarding screening.

Project proponents seeking Category 1 authorizations are not relieved of the obligation to comply with this PGP's General Conditions (see Page 7) and other Federal laws such as the National Historic Preservation Act, the Endangered Species Act (ESA) and the Wild and Scenic Rivers Act. Therefore, consultation with the Corps and/or outside experts such as the Maine Historic Preservation Commission and the appropriate Indian tribes is recommended when there is a high likelihood of the presence of resources of concern.

Although Category 1 projects are non-reporting, the Corps reserves the right to require screening under Category 2 or Individual Permit review if there are concerns for the aquatic environment or any other factor of the public interest (see General Condition 4, Discretionary Authority, Page 7).

Work that is not regulated by the State of Maine, but is subject to Corps jurisdiction, is eligible for Corps authorization under this PGP in accordance with the review thresholds and conditions contained herein. The Maine DEP and LURC have waived WQC for projects authorized under Categories 1 and 2 of this PGP and not subject to jurisdiction under the NRPA and LURC Land Use Districts and Standards.

Enforcement cases. This PGP does not apply to any existing or proposed activity in Corps jurisdiction associated with an on-going Corps or EPA enforcement action until such time as the enforcement action is resolved or the Corps determines that the activity may proceed independently without compromising the enforcement action. The Corps may choose not to accept applications or issue permits to any applicant with outstanding violations.

CATEGORY 2 (Reporting – Requiring Screening)

Eligibility Criteria

Activities in Maine require written approval from the Corps if they:

- Are subject to Corps jurisdiction (see General Condition 2, Page 7),
- Meet the definition of Category 2 in Appendix A - Definition of Categories, and
- Meet the General Conditions of the PGP (see Pages 7 - 15),

These projects will be reviewed through interagency screening (see Federal Screening Procedures below) to determine whether such activities may be authorized under this PGP. To be eligible and

subsequently authorized, an activity must result in minimal impacts to the aquatic environment as determined by the Corps based on comments from the review team and the criteria listed above. Mitigation may be required to compensate for unavoidable impacts to ensure net effects of a project are minimal.

For Category 2 projects, applicants must obtain a written authorization from the Corps and State approvals as stated on Page 1.

To ensure compliance with the conditions of this PGP, consultation with the Corps and outside experts is required. This includes consultation with the Maine Historic Preservation Commission and the appropriate Native American Indian tribes to ensure compliance with Condition 8. Also, note the review thresholds under Category 2 apply to single and complete projects only (see General Condition 5).

Enforcement cases. See previous section.

Application Procedures

The Corps must review and approve in writing all Category 2 activities. Generally, the State will provide the Corps with a copy of State applications received, but it is ultimately the applicant's responsibility to ensure the Corps receives the application from the State. Therefore, it is recommended that applicants either verify with the Corps receipt of their application from the State (DEP or LURC), or apply directly to the Corps with either a copy of their State application or a Corps application (ENG Form 4345). Applicants must apply directly to the Corps using ENG Form 4345 if the work is not State regulated.

Upon receipt of the application, the Corps will determine if it:
(a) requires additional information (see "information typically required" on the following page);
(b) is appropriate for screening with the Federal resource agencies (see Category 2 Federal Screening Procedures on the following page);
(c) is ineligible under the terms and/or conditions of this PGP; or
(d) will require Individual Permit review, regardless of whether the terms and conditions of this PGP are met, based on concerns for the aquatic environment or any other factor of the public interest (see General Condition 4, Discretionary Authority).

If open water disposal is proposed, the Corps will make a suitability determination, fully coordinated with the Federal resource agencies, before coordinating a project at a joint processing meeting.

All Category 2 applicants shall submit a copy of their application materials to the Maine Historic Preservation Commission and the Indian tribe(s) listed on Page 17, at the same time, or before, they apply to the DEP, LURC, or the Corps, to be reviewed for the presence of historic, archaeological or tribal resources in the permit area that the proposed work may affect. Submittals to the DEP or Corps shall include information to indicate that this has been done (a copy of the applicant's cover letter to Maine Historic Preservation Commission and tribes or a copy of the Historic Preservation Commission and tribal response letters is acceptable).

Information Typically Required

The following information may not be necessary for all projects. Please see www.nae.usace.army.mil for a more comprehensive checklist. Select "Regulatory/Permitting," "Forms" and then "Application and Plan Guideline Checklist." Please check with our Maine office for project-specific requirements.

(a) purpose of project;
(b) 8½"x 11" locus map. 8½"x 11" plan views of the entire property, including property lines, and project limits with existing and proposed conditions;
(c) typical cross-section views of all wetland and waterway fill areas and wetland replication areas;
(d) legible, reproducible plans. Show mean low water (MLW), mean high water (MHW) and high tide line (HTL) elevations in navigable waters;
(e) each plan should show the NGVD 1929 equivalent for the project's vertical datum (MLW, MLLW, MHW, HTL or other tidal datum for tidal projects) with the vertical units. Do not use local datum;
(f) wetland delineation for the site, Corps wetland delineation data sheets (see web site), and calculations of waterway and wetland impact areas (see General Condition 2);
(g) delineation of submerged aquatic vegetation, e.g., eel grass beds, in tidal waters;
(h) volume, type and source of fill material to be discharged into waters and wetlands, including the area(s) (in square feet or acres) of fill in wetlands, below ordinary high water in inland waters and below the high tide line in coastal waters;
(i) limits of any Federal Navigation Project in the vicinity and State Plane Coordinates for the limits of the proposed work closest to the Federal Navigation Project;
(j) on-site alternatives analysis. Please contact Corps for guidance;
(k) identify and describe potential impacts to Essential Fish Habitat. See General Condition 11 and contact Corps for guidance;
(l) photographs of wetland/waterway to be impacted.

Information typically required for dredging projects:
(a) sediment testing, including physical (e.g., grain-size analysis), chemical and biological testing. For projects proposing open water disposal, applicants are encouraged to contact the Corps as early as possible regarding sampling and testing protocols. Sampling and testing of sediments without such contact should not occur and, if done, would be at the applicant's risk.
(b) the area in square feet and volume of material to be dredged below mean high water;
(c) existing and proposed water depths;
(d) type of dredging equipment to be used;
(e) nature of material (e.g., silty sand);
(f) any existing sediment grain size and bulk sediment chemistry data for the proposed or any nearby projects;
(g) information on the location and nature of municipal or industrial discharges and occurrence of any contaminant spills in or near the project area, location of the disposal site (include locus sheet);
(h) shellfish survey;
(i) identify and describe potential impacts to Essential Fish Habitat (see General Condition 11);
(j) delineation of submerged aquatic vegetation (e.g., eelgrass beds).

Federal Screening Procedures
The Corps will review all complete applications for Category 2 projects requiring Corps approval at interagency screening meetings (or "joint processing" meetings) with the Federal resource agencies (U.S. FWS, EPA and NMFS) to determine whether such activities may be authorized under this PGP. The Federal resource agencies will comprise the interagency review team. The meetings are held at the Corps every three weeks, or coordinated as necessary to provide applicants with a timely response. The Corps and Federal resource agencies, at the branch chief or equivalent level, may agree on certain activities that do not need to be coordinated at these meetings.

If the Corps and Federal resource agencies determine that the activity is eligible for the PGP, the Corps will send an authorization letter directly to the applicant. The Corps will generally issue an eligibility determination within the State's review period, not to exceed 60 days. If the Corps determines that the activity is not eligible under the PGP or that additional information is required, the Corps will notify the applicant in writing and will send a copy of this notification to DEP or LURC.

For projects reviewed with the Federal resource agencies, the agencies may recommend, within ten business days, either 1) special conditions for projects to avoid or minimize adverse environmental effects and to ensure the terms and conditions of the PGP are met, or 2) Individual Permit review. The Corps will determine that a project is ineligible under this PGP and will begin its Individual Permit review procedures if any one of the Federal resource agencies, within ten business days of the screening meeting, expresses a concern within their area of expertise, states the resource or species that could be impacted by the project, and describes the impacts that, either individually or cumulatively, will be more than minimal.

This ten-day notice may be spoken and is not required to be fully documented, but must be confirmed with a written response within an additional ten working days from the date of the spoken comment. Written responses must be signed by the Federal resource agency field supervisor or branch chief, as appropriate, and must identify the affected resource within their area of expertise. The intent of the spoken notification is to allow the Corps to give timely notification to the applicant that additional information is needed and/or an Individual Permit may be required. The Corps may reinstate a project's eligibility under the PGP provided the Federal agencies' concerns are satisfied. The Federal resource agencies may request additional information within their area of expertise within ten business days of the screening meeting. This information shall be commensurate to the level of impact and agreed upon by the Corps. The agencies are allowed an additional ten business days after their receipt of additional information to provide special conditions or a written Individual Permit request to the Corps.

If the applicant is unable to resolve the concerns, the Corps, independently or at the request of the Federal resource agencies, will require an Individual Permit for the project. The applicant will be notified of this in writing, along with information about submitting the necessary application materials.

Minerals Management Service (MMS) Review

Projects with construction of solid fill structures or discharge of fill that may extend beyond the coastline or the baseline from which the territorial sea is measured (i.e., mean low water), must be coordinated with Minerals Management Service (MMS), Outer Continental Shelf (OCS) Survey Group, pursuant to the Submerged Lands Act (43 USC, Section 1301-1315, 33 CFR 320.4(f)). The Corps will forward project information to MMS for their review. The MMS will coordinate their determination with the Department of the Interior (DOI) Solicitor's Office. The DOI will have 15 calendar days from the date MMS is in receipt of project information to determine if the baseline will be affected. No notification to the Corps within 15-day review period will constitute a "no effect" determination. Otherwise, the solicitor's notification to the Corps may be spoken but must be followed with a written confirmation within ten business days from the date of the spoken notification. This procedure will be eliminated if the State of Maine provides a written waiver of interest in any increase in submerged lands caused by a change in the baseline resulting from solid fill structures or fills authorized under this PGP.

Emergency Situations Procedures

Emergency situations are limited to sudden, unexpected occurrences that could potentially result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process an application under standard procedures. If an emergency situation requires action in less than 30 days after the occurrence, it qualifies for the amended notification procedures described below.

Notification Procedures for Emergency Situations:

Any project proponent may request emergency authorization from the Corps, however the Corps will determine if a project qualifies for these emergency situation procedures. The Federal resource agencies, the Maine Historic Preservation Commission and the tribes will each designate an emergency contact and an alternate in the event the regular contact is unavailable. When an application for Category 2 work is received that the Corps determines is an "emergency" as defined above, the Corps will fax a copy of the plans and Determination of Eligibility to the agency representatives and their alternates. The resource agencies would then have 16 business hours to notify the Corps if they have any comments on authorization of the project under the PGP. Objections to the Corps determination of an "emergency" situation will not be accepted. If no response is received within 16 business hours, the Corps will proceed with a decision on the application. If the resource agencies have comments on the proposal, they will have 16 business hours to put their comments in writing. If written comments from the Federal agencies are not received within 16 business hours, the Corps will proceed with a decision on the application.

If a Federal agency requests that an Individual Permit be required for a project or requests modifications to the project based on concerns within their area(s) of expertise, the Corps will notify the applicant within one business day of receipt of that request that the project as proposed does not qualify for authorization under this PGP and the emergency Individual Permit procedures may be followed. In any event, the Corps will notify the applicant within 16 business hours of commencement of the screening process as to whether the project may proceed under this PGP.

IV. CORPS AUTHORIZATION: INDIVIDUAL PERMIT

Work that is defined in the Individual Permit category of Appendix A – Definition of Categories, or that does not meet the terms and conditions of this PGP, will require an application for an Individual Permit from the Corps (see 33 CFR Part 325.1). The screening procedures outlined for Category 2 projects will only serve to delay project review in such cases. The applicant should submit the appropriate application materials (including the Corps application form) at the earliest possible date. General information and application forms can be obtained at our web site or by calling us (see Page 16). Individual water quality certification and coastal zone management consistency concurrence are required when applicable from the State of Maine before Corps permit issuance. The Federal resource agencies' comments are due within ten working days after the Public Notice's expiration date, unless the Corps receives and approves a written request for a time extension within ten working days after the notice's expiration.

V. PROGRAMMATIC GENERAL PERMIT CONDITIONS:

The following conditions apply to activities authorized under this Maine PGP, including all Category 1 (non-reporting) and Category 2 (reporting – requiring screening) activities:

General Requirements

1. Other Permits. Authorization under this PGP does not obviate the need to obtain other Federal, State, or local authorizations required by law. This includes, but is not limited to, the project proponent obtaining a Flood Hazard Development Permit issued by the town, if necessary. Inquiries may be directed to the municipality or to the Maine Floodplain Management Coordinator at (207) 287-8063. See http://www.maine.gov.

2. Federal Jurisdictional Boundaries. Applicability of this PGP shall be evaluated with reference to Federal jurisdictional boundaries. Applicants are responsible for ensuring that the boundaries used satisfy the Federal criteria defined at 33 CFR 328-329. These sections prescribe the policy, practice and procedures to be used in determining the extent of jurisdiction of the Corps concerning "waters of the U.S." and "navigable waters of the U.S." Wetland boundaries shall be delineated in accordance with the January 1987 Corps of Engineers Wetlands Delineation Manual, located at http://www.usace.army.mil/inet/functions/cw/cecwo/reg/ wlman87.pdf. The U.S. FWS publishes the National List of Plant Species that Occur in Wetlands, located at http://www.nwi.fws.gov. The Natural Resources Conservation Service (NRCS) develops the hydric soil definition and criteria, and publishes the current hydric soil lists, located at http://soils.usda.gov/use/hydric/.

3. Minimal Effects. Projects authorized by this PGP shall have no more than minimal individual and cumulative adverse environmental impacts as determined by the Corps.

4. Discretionary Authority. Notwithstanding compliance with the terms and conditions of this permit, the Corps retains discretionary authority to require Category 2 or Individual Permit review based on concerns for the aquatic environment or for any other factor of the public interest [33 CFR 320.4(a)]. This authority is invoked on a case-by-case basis whenever the Corps determines that the potential consequences of the proposal warrant Individual Permit review based on the concerns stated above. This authority may be invoked for projects with cumulative environmental impacts that are more than minimal or if there is a special resource or concern associated with a particular project that is not already covered by the remaining conditions of the PGP and that warrants greater review. Whenever the Corps notifies an applicant that an Individual Permit may be required, authorization under this PGP is void and no work may be conducted until the individual Corps permit is obtained or until the Corps notifies the applicant that further review has demonstrated that the work may proceed under this PGP.

5. Single and Complete Projects. This PGP shall not be used for piecemeal work and shall be applied to single and complete projects. All components of a single project shall be treated together as constituting one single and complete project and/or all planned phases of a multi-phased project (e.g., subdivisions should include all work such as roads, utilities, and lot development) unless the Corps determines that a component has independent utility. (The *Independent Utility* test is used to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.) For linear projects, such as power lines or pipelines with multiple

crossings, the "single and complete project" (i.e., single and complete crossing) will apply to each crossing of a separate water of the U.S. (i.e., single waterbody) at that location; except that for linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project, and may be reviewed for Category 1 eligibility. (However, individual channels in a braided stream or river, or individual arms of a large, irregularly-shaped wetland or lake, etc., are not separate waterbodies.) If any crossing requires a Category 2 activity, then the entire linear project shall be reviewed as one project under Category 2. Also, this PGP shall not be used for any activity that is part of an overall project for which an Individual Permit is required, unless the Corps determines the activity has independent utility.

6. Permit On-Site. For Category 2 projects, the permittee shall ensure that a copy of this PGP and the accompanying authorization letter are at the work site (and the project office) authorized by this PGP whenever work is being performed, and that all personnel with operation control of the site ensure that all appropriate personnel performing work are fully aware of its terms and conditions. The entire permit authorization shall be made a part of any and all contracts and sub-contracts for work that affects areas of Corps jurisdiction at the site of the work authorized by this PGP. This shall be achieved by including the entire permit authorization in the specifications for work. The term "entire permit authorization" means this PGP and the authorization letter (including its drawings, plans, appendices and other attachments) and also includes permit modifications. If the authorization letter is issued after the construction specifications, but before receipt of bids or quotes, the entire permit authorization shall be included as an addendum to the specifications. If the authorization letter is issued after receipt of bids or quotes, the entire permit authorization shall be included in the contract or sub-contract as a change order. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions contained within the entire PGP authorization, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps jurisdiction.

National Concerns

7. St. John/St. Croix Rivers. This covers work within the Saint John and Saint Croix River basins that requires approval of the International Joint Commission. This includes any temporary or permanent use, obstruction or diversion of international boundary waters which could affect the natural flow or levels of waters on the Canadian side of the line, as well as any construction or maintenance of remedial works, protective works, dams, or other obstructions in waters downstream from boundary waters when the activity could raise the natural level of water on the Canadian side of the boundary.

8. Historic Properties. Any activity authorized by this PGP shall comply with Section 106 of the National Historic Preservation Act. Information on the location and existence of historic resources can be obtained from the Maine Historic Preservation Commission, the National Register of Historic Places, and the Penobscot, Passamaquoddy, Micmac, and Maliseet Tribal Historic Preservation Officers. See Page 17 for historic properties contacts. If the permittee, either prior to construction or during construction of the work authorized herein, encounters a previously unidentified archaeological or other cultural resource, within the area subject to Department of the Army jurisdiction, that might be eligible for listing in the National Register of Historic Places, he/she shall stop work and immediately notify the District Engineer and the Maine Historic Preservation Commission and/or applicable Tribe(s).

9. National Lands. Activities authorized by this PGP shall not impinge upon the value of any National Wildlife Refuge, National Forest, National Marine Sanctuary, National Park or any other area administered by the National Park Service.

10. Endangered Species. No activity may be authorized under this PGP which:

- is likely to adversely affect a threatened or endangered species, a proposed species, designated critical habitat, or proposed critical habitat as identified under the Federal ESA,
- would result in a "take" of any threatened or endangered species of fish or wildlife, or
- would result in any other violation of Section 9 of the ESA protecting threatened or endangered species of plants.

Applicants shall notify the Corps if any listed species or critical habitat, or proposed species or critical habitat, is in the vicinity of the project and shall not begin work until notified by the District Engineer (DE) that the requirements of the ESA have been satisfied and that the activity is authorized. Information on the location of threatened and endangered species and their critical habitat can be obtained from the U.S. FWS and NMFS (see Page 16 for addresses).

11. Essential Fish Habitat. As part of the PGP screening process, the Corps will coordinate with NMFS in accordance with the 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act to protect and conserve the habitat of marine, estuarine and anadromous finfish, mollusks, and crustaceans. This habitat is termed "Essential Fish Habitat (EFH)", and is broadly defined to include "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." Applicants may be required to describe and identify potential impacts to EFH. Conservation recommendations made by NMFS will normally be included as a permit requirement by the Corps. For additional information, see the EFH regulations at 50 CFR Part 600 (http://www.nmfs.noaa.gov). Additional information on the location of EFH can be obtained from NMFS (see Page 16 for contact information).

Any work in any aquatic habitat in the following rivers and streams, including all tributaries to the extent that they are currently or were historically accessible for salmon migration, shall not be authorized under Category 1 of the PGP and must be screened for potential impacts to EFH.

Androscoggin River	Hobart Stream	Passagassawaukeag River	Saco River
Aroostook River	Kennebec River	Patten Stream	Sheepscot River
Boyden River	Machias River	Penobscot River	St. Croix River
Dennys River	Narraguagus River	Pleasant River	Tunk Stream
Ducktrap River	Orland River	Presumpscot River	Union River
East Machias River			

12. Wild and Scenic Rivers. Any activity that occurs in a component of, or within 0.25 mile up or downstream of, the main stem or tributaries of a river segment of the National Wild and Scenic River System, must be reviewed by the Corps under the procedures of Category 2 of this PGP regardless of size of impact. This condition applies to both designated Wild and Scenic Rivers and rivers designated by Congress as study rivers for possible inclusion while such rivers are in an official study status. The Corps will consult with the National Park Service (NPS) with regard to potential impacts of the proposed work on the resource values of the Wild and Scenic River. The culmination of this coordination will be a determination by the NPS and the Corps that the work: (1) may proceed as proposed; (2) may proceed with recommended conditions; or (3) could pose a direct and adverse effect on the resource values of the river and an individual permit is required. If

preapplication consultation between the applicant and the NPS has occurred whereby NPS has made a determination that the proposed project is appropriate for authorization under this PGP (with respect to Wild and Scenic River issues), this determination should be furnished to the Corps with submission of the application. (See NPS address on Page 16.) National Wild and Scenic Rivers System segments for Maine as of September 2005 include: Allagash River beginning at Telos Dam continuing to Allagash checkpoint at Eliza Hole Rapids, approximately 3 miles upstream of the confluence with the St. John River (length = 92 miles).

13. Federal Navigation Project. Any structure or work that extends closer to the horizontal limits of any Corps Federal Navigation Project (See Appendix B) than a distance of three times the project's authorized depth shall be subject to removal at the owner's expense prior to any future Corps dredging or the performance of periodic hydrographic surveys.

14. Navigation. (a) There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein. (b) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

15. Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following: (a) damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes; (b) damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States (U.S.) in the public interest; (c) damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit; (d) design or construction deficiencies associated with the permitted work; (e) damage claims associated with any future modification, suspension, or revocation of this permit.

Minimization of Environmental Impacts

16. Minimization. Discharges of dredged or fill material into waters of the United States, including wetlands, shall be avoided and minimized to the maximum extent practicable. Permittees may only fill those jurisdictional wetlands that the Corps authorizes to be filled and impact those wetlands that the Corps authorizes as secondary impacts. For coastal structures such as piers and docks, the height above the marsh at all points should be equal to or exceed the width of the deck. The height shall be measured from the marsh substrate to the bottom of the longitudinal support beam. This will help ensure sunlight reaches the area beneath the structure.

17. Heavy Equipment in Wetlands. Heavy equipment, other than fixed equipment (drill rigs, fixed cranes, etc.), working within wetlands shall not be stored, maintained or repaired in wetlands unless it is less environmentally damaging otherwise, and as much as possible shall not be operated there. Where construction requires heavy equipment operation in wetlands, the equipment shall

either have low ground pressure (<3 psi), or shall not be located directly on wetland soils and vegetation; it shall be placed on swamp or timber mats that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation. (See General Condition 18 below.) Other support structures that are less impacting and are capable of safely supporting equipment may be used with written Corps authorization. Similarly, not using mats during frozen, dry or other conditions may be allowed with written Corps authorization. An adequate supply of spill containment equipment shall be maintained on site.

NOTE: "Swamp mats" is a generic term used to describe structures that distribute equipment weight to prevent wetland damage while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes, and they include large timbers bolted or cabled together (timber mats). Corduroy roads, which are not considered to be swamp mats, are cut trees and/or saplings with the crowns and branches removed, and the trunks lined up next to one another.

18. Temporary Fill. Fill placed into waters of the U.S. (including wetlands) totaling greater than or equal to 4,300 SF (15,000 SF if a DEP Tier One Permit is issued) in total area (i.e., the sum of permanent and temporary fill areas) exceeds the Category 1 threshold and may not be discharged without written authorization from the Corps. When temporary fill is used (e.g., access roads, swamp mats, cofferdams), it shall be stabilized and maintained during construction in such a way as to prevent soil eroding into portions of waters of the U.S. where it is not authorized. Swamp or timber mats (see Gen.Cond. 17 above) are considered as temporary fill when they are removed immediately upon work completion. The area must be restored in accordance with Gen.Cond. 19.

- Unconfined temporary fill authorized for discharge into flowing water (rivers and streams) shall consist only of clean washed stone.
- Temporary fill authorized for discharge into wetlands shall be placed on geotextile fabric laid on the pre-construction wetland grade. (Swamp and timber mats are excluded from this requirement.)
- Temporary fill shall be removed as soon as it is no longer needed, and it shall be disposed of at an upland site and suitably contained to prevent subsequent erosion into waters of the U.S.
- Waters of the U.S. where temporary fill was discharged shall be restored (see Gen.Cond. 19).
- No temporary work shall drain a water of the U.S. by providing a conduit for water on or below the surface.

19. Restoration.

- Upon completion of construction, all disturbed wetland areas (the disturbance of these areas must be authorized) shall be stabilized with a wetland seed mix containing only plant species native to New England.
- The <u>introduction</u> or <u>spread</u> of invasive plant species in disturbed areas shall be controlled.
- In areas of authorized temporary disturbance, if trees are cut they shall be cut at ground level and not uprooted in order to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.
- Wetland areas where permanent disturbance is not authorized shall be restored to their original condition and elevation, which under no circumstances shall be higher than the pre-construction elevation. Original condition means careful protection and/or removal of existing soil and vegetation, and replacement back to the original location such that the original soil layering and vegetation schemes are approximately the same, unless otherwise authorized.

20. Coastal Bank Stabilization. Projects involving construction or reconstruction/maintenance of bank stabilization structures within Corps jurisdiction should be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable. For example, vertical bulkheads should only be used in situations where reflected wave energy can be tolerated. This generally eliminates bodies of water where the reflected wave energy may interfere with or impact on harbors, marinas, or other developed shore areas. A revetment is sloped and is typically employed to absorb the direct impact of waves more effectively than a vertical seawall. It typically has a less adverse effect on the beach in front of it, abutting properties and wildlife. For more information, see the Corps Coastal Engineering Manual (supersedes the Shore Protection Manual), located at http://chl.erdc.usace.army.mil. Select "Products/ Services," "Publications." Part 5, Chapter 7-8, a(2)c is particularly relevant.

21. Sedimentation and Erosion Control. Adequate sedimentation and erosion control management measures, practices and devices, such as phased construction, vegetated filter strips, geotextile silt fences, hay bales or other devices, shall be installed and properly maintained to reduce erosion and retain sediment on-site during and after construction. They shall be capable of preventing erosion, of collecting sediment, suspended and floating materials, and of filtering fine sediment. These devices must be removed in a timely manner upon completion of work, but not until the disturbed areas have been stabilized. The sediment collected by these devices shall be removed and placed at an upland location in a manner that will prevent its later erosion into a waterway or wetland. All exposed soil and other fills shall be permanently stabilized at the earliest practicable date.

22. Waterway Crossings.
(a) All temporary and permanent crossings of waterbodies (waterways and wetlands) shall be suitably culverted, bridged, or otherwise designed to withstand and to prevent the restriction of high flows, to maintain existing low flows, and to not obstruct the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction. (NOTE: Areas of fill and/or cofferdams must be included in total waterway/wetlands impacts to determine applicability of this PGP).
(b) Aquatic Life Movements. No activity may substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. For new permanent crossings, open bottom arches, bridge spans or embedded culverts are generally preferred over traditional culverts and should be installed when practicable. Coordination with the Corps is recommended for Category 1 projects when site constraints (e.g., placing footings) may render open bottom arches, bridge spans or embedded culverts impractical. In these cases, well-designed culverts may actually perform better. Culverts shall be installed with their inverts embedded below existing streambed grade to avoid "hanging" and associated impediments to fish passage. The "Design of Road Culverts for Fish Passage" provides design guidance and is available at www.nae.usace.army.mil, "Regulatory/Permitting," "Other."
(c) Culverts at waterbody crossings shall be installed in such a manner as to preserve hydraulic connectivity, at its present level, between the wetlands on either side of the road. The permittee shall take necessary measures to correct wetland damage due to lack of hydraulic connectivity.
(d) Culverts and bridges shall span the waterway a minimum of 1.2 times the bankfull width in probable fish bearing waterways to qualify as a Category 1 non-reporting activity. See "Design of Road Culverts for Fish Passage," referenced in (b) above, for information on bankfull width.

(e) Projects using slip lining (retrofitting an existing culvert by inserting a smaller diameter pipe), plastic pipes, and High Density Polyethylene Pipes (HDPP) are not allowed as non-reporting Category 1 activities, either as new work or maintenance activities.
(f) Waterbody crossings shall be culverted to at least municipal or State standards. The Maine DEP's stream crossing standards are at 06-096, Chapter 305: Permit by Rule, Section 10. Stream crossings (bridges, culverts and fords).
(g) Waterway crossings proposed by the Maine Dept. of Transportation should conform to the MDOT Fish Passage Policy and Design Guides.
(h) Construction equipment shall not cross streams without the use of temporary bridges, culverts, or cofferdams.
(i) For projects that otherwise meet the terms of Category 1, in-stream construction work shall be conducted during the low flow period July 15 - October 1 in any year. Projects that are not to be conducted during that time period are ineligible for Category 1 and shall be screened pursuant to Category 2, regardless of the waterway and wetland fill and/or impact area.

23. Discharge of Pollutants. All activities involving any discharge of pollutants into waters of the U.S. authorized under this PGP shall be consistent with applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the CWA (33 USC 1251) and applicable State and local laws. If applicable water quality standards, limitations, etc., are revised or modified during the term of this PGP, the authorized work shall be modified to conform with these standards within six months of the effective date of such revision or modification, or within a longer period of time deemed reasonable by the District Engineer in consultation with the Regional Administrator of the EPA. Applicants may presume that State water quality standards are met with the issuance of a LURC or DEP NRPA permit.

24. Spawning Areas. Discharges of dredged or fill material, and/or suspended sediment producing activities in fish and shellfish spawning or nursery areas and amphibian and waterfowl breeding areas during spawning or breeding seasons shall be avoided. During all times of year, impacts to these areas shall be avoided or minimized to the maximum extent practicable.

25. Storage of Seasonal Structures. Coastal structures, such as pier sections and floats, that are removed from the waterway for a portion of the year (often referred to as seasonal structures) shall be stored in an upland location located above mean high water (MHW) and not in tidal wetlands. These seasonal structures may be stored on the fixed, pile-supported portion of the structure that is seaward of MHW. This is intended to prevent structures from being stored on the marsh substrate and the substrate seaward of MHW. Seasonal storage of structures in navigable waters, e.g., in a protected cove on a mooring, requires Corps and local harbormaster approval.

26. Environmental Functions and Values. The permittee shall make every reasonable effort to carry out the construction or operation of the work authorized herein in a manner so as to maintain as much as is practicable, and minimize any adverse impacts on existing fish, wildlife, and natural environmental functions and values.

27. Protection of Vernal Pools. Impacts to uplands in proximity (within 500 feet) to the vernal pools referenced in Appendix A - Definitions of Categories, shall be minimized to the maximum extent possible.

Procedural Conditions

28. Cranberry Development Projects. For cranberry development projects authorized under the PGP, the following conditions apply:

- If a cranberry bog is abandoned for any reason, the area must be allowed to revert to natural wetlands unless an Individual Permit is obtained from the Corps allowing the discharge of fill for an alternate use.
- No stream diversion shall be allowed under this permit.
- No impoundment of perennial streams shall be allowed under this permit.
- The project shall be designed and constructed to not cause flood damage on adjacent properties.

29. Inspections. The permittee shall allow the District Engineer (DE) or his authorized representative(s) to make periodic inspections at any time deemed necessary in order to ensure that the work is being performed in accordance with the terms and conditions of this permit. The DE may also require post-construction engineering drawings for completed work and post-dredging survey drawings for any dredging work.

30. Work Start Notification Form and Compliance Certification. Every permittee who receives a written Category 1 or 2 PGP authorization from the Corps must submit a 1) Work Start Notification Form (WSNF) two weeks before work commencement, and 2) signed Compliance Certification Form within one month following the completion of the authorized work and any required mitigation (but not mitigation monitoring, which requires separate submittals). The Corps will forward the blank WSNF and Compliance Certification Form with the authorization letter. The Compliance Certification Form will include: (a) a statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions; (b) a statement that any required mitigation was completed in accordance with the permit conditions; and (c) the signature of the permittee certifying the completion of the work and mitigation.

31. Maintenance. The permittee shall maintain the work or structures authorized herein in good condition and in conformance with the terms and conditions of this permit. This does not include maintenance of dredging projects. Maintenance dredging is subject to the review thresholds in Appendix A and/or any conditions included in a written Corps authorization. Maintenance dredging includes only those areas and depths previously authorized and dredged. Some maintenance activities may not be subject to regulation under Section 404 in accordance with 33 CFR 323.4(a)(2).

32. Property Rights. This permit does not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of Federal, State, or local laws or regulations. If property associated with work authorized by the PGP is sold, the PGP authorization is automatically transferred to the new property owner. The new property owner should provide this information to the Corps in writing. No acknowledgement from the Corps is necessary.

33. Modification, Suspension, and Revocation. This permit may be either modified, suspended, or revoked, in whole or in part, pursuant to the policies and procedures of 33 CFR 325.7. Any such action shall not be the basis for any claim for damages against the United States.

34. Restoration. The permittee, upon receipt of a notice of revocation of authorization under this permit, shall restore the wetland or waterway to its former condition without expense to the United States and as directed by the Secretary of the Army or his authorized representative. If the permittee fails to comply with such a directive, the Secretary or his designee may restore the wetland or waterway to its former condition, by contract or otherwise, and recover the cost from the permittee.

35. Special Conditions. The Corps, independently or at the request of the Federal resource agencies, may impose other special conditions on a project authorized pursuant to this general permit that are determined necessary to minimize adverse environmental effects or based on any other factor of the public interest. Failure to comply with all conditions of the authorization, including special conditions, will constitute a permit violation and may subject the permittee to criminal, civil, or administrative penalties or restoration.

36. False or Incomplete Information. If the Corps makes a determination regarding the eligibility of a project under this permit and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the permittee, the permit shall not be valid and the government may institute appropriate legal proceedings.

37. Abandonment. If the permittee decides to abandon the activity authorized under this general permit, unless such abandonment is merely the transfer of property to a third party, he/she must restore the area to the satisfaction of the District Engineer.

Duration of Authorization/Grandfathering:

38. Duration of Authorization. This PGP expires five years from the effective date listed at the top of Page 1. Activities authorized under Category 1 of this PGP that have commenced (i.e., are under construction) or are under contract to commence in reliance upon this PGP's authorization will remain authorized provided the activity is completed within 12 months of the PGP's expiration date. Activities authorized under Category 2 of this PGP will remain authorized in accordance with the project-specific date that the Corps provides to the permittee in the PGP authorization letter, unless:
(a) The PGP is either modified or revoked, or
(b) Discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 325.2 (e)(2).

39. Previously Authorized Activities.
(a) Activities completed under the authorizations of past PGPs that were in effect at the time the activity was completed will continue to be authorized by those PGPs.
(b) Completed projects that have received written verification or approval from the Corps, based on applications made to the Corps prior to issuance of this PGP or the previous nationwide permits, regional general permits, or letters of permission shall remain authorized as specified in each authorization.
(c) Activities authorized pursuant to 33 CFR Part 330.3 ("Activities occurring before certain dates") are not affected by this PGP.

VI. CONTACTS FOR MAINE PROGRAMMATIC GENERAL PERMIT:

1. FEDERAL

U.S. Army Corps of Engineers
Maine Project Office
675 Western Avenue #3
Manchester, Maine 04351
(207) 623-8367
(207) 623-8206 (fax)

Federal Endangered Species
U.S. Fish and Wildlife Service
Maine Field Office
1168 Main Street
Old Town, Maine 04468
(207) 827-5938
207-827-6099 (fax)

Federal Endangered Species & Essential Fish Habitat
National Marine Fisheries Service
One Blackburn Drive
Gloucester, Massachusetts 01939
(978) 281-9102
(978) 281-9301 (fax)

Wild and Scenic Rivers
National Park Service
North Atlantic Region
15 State Street
Boston, Massachusetts 02109
(617) 223-5203

Bridge Permits
Commander (obr)
First Coast Guard District
One South Street - Battery Bldg
New York, New York 10004
(212) 668-7021

2. STATE OF MAINE

Maine Department of Environmental Protection
(For State Permits & Water Quality Certifications)
Division of Land Resource Regulation
Bureau of Land and Water Quality
17 State House Station
Augusta, Maine 04333
(207) 287-2111

Southern Maine Regional Office
312 Canco Road
Portland, Maine 04103
(201) 822-6300

Eastern Maine Regional Office
106 Hogan Road
Bangor, Maine 04401
(207) 941-4570

Northern Maine Regional Office
1235 Central Drive - Skyway Park
Presque Isle, Maine 04769
(207) 764-0477

Maine Land Use Regulation Commission (LURC)
[call (800) 452-8711 for appropriate LURC office]
22 State House Station
Augusta, ME 04333-0022
(207) 287-2631
(207) 287-7439 (fax)

45 Radar Road
Ashland, ME 04732-3600
(207) 435-7963
(207) 435-7184 (fax)

Lakeview Drive
P.O. Box 1107
Greenville, ME 04441
(207) 695-2466
(207) 695-2380 (fax)

(For CZM Determinations)
State Planning Office
Coastal Program
184 State Street
State House Station 38
Augusta, Maine 04333
(207) 287-1009

(For Submerged Lands Leases)
Maine Department of Conservation
Bureau of Parks and Lands
22 State House Station
Augusta, Maine 04333
(207) 287-3061

191 Main Street
East Millinocket, ME 04430
(207) 746-2244
(207) 746-2243

(For Aquaculture Leases)
Maine Department of Marine Resources
P.O. Box 8
West Boothbay Harbor, Maine 04575
(207) 633-9500

3. HISTORIC PROPERTIES

Maine Historic Preservation Commission
State House Station 65
Augusta, Maine 04333-0065
(207) 287-2132
(207) 287-2335 (fax)

Aroostook Band of Micmacs
Attn: Mr. Williams Phillips, Chief
7 Northern Road
Presque Isle, Maine 04769
(207) 764-1972
(207) 764-7667 (fax)

Houlton Band of Maliseet Indians
Attn: Tribal Chief
88 Bell Road
Littleton, Maine 04730
(207) 532-4273, x215
(207) 532-2660 (fax)

Passamaquoddy Tribe of Indians
Pleasant Point Reservation
Attn: Tribal Council
P.O. Box 343
Perry, Maine 04667
(207) 853-2600
(207) 853-6039 (fax)

Passamaquoddy Tribe of Indians
Indian Township Reservation
Attn: Donald Soctomah, THPO
P.O. Box 301
Princeton, Maine 04668
(207) 796-2301
(207) 796-5256 (fax)

Penobscot Indian Nation
Indian Island Reservation
Attn: Ms. Bonnie Newsom, THPO
12 Wabanaki Way
Indian Island, Maine 04468
(207) 817-7471
(207) 817-7450 (fax)

4. ORGANIZATIONAL WEBSITES:

Army Corps of Engineers	www.nae.usace.army.mil (click "Regulatory/Permitting")
Corps of Engineers Headquarters	www.usace.army.mil (click "Services for the Public")
Environmental Protection Agency	www.epa.gov/owow/wetlands/
National Marine Fisheries Service	www.nmfs.noaa.gov
U.S. Fish and Wildlife Service	www.fws.gov
National Park Service	www.nps.gov/rivers/index.html
State of Maine	www.maine.gov
State of Maine -Aquaculture Guidelines	www.maine.gov/dmr/aquaculture/index.htm

for Christine J. Grey 10-11-05
District Engineer Date

APPENDIX A: DEFINITION OF CATEGORIES

A. INLAND WATERS AND WETLANDS	**Inland Waters and Wetlands:** Waters that are regulated under Section 404 of the Clean Water Act, including rivers, streams, lakes, ponds and wetlands, and excluding Section 10 Navigable Waters of the U.S. The jurisdictional limits are the ordinary high water (OHW) mark in the absence of adjacent wetlands, beyond the OHW mark to the limit of adjacent wetlands when adjacent wetlands are present, and the wetland limit when only wetlands are present. For the purposes of this PGP, fill placed in the area between the mean high water (MHW) and the high tide line (HTL), and in the bordering and contiguous wetlands[1] to tidal waters are reviewed in the Navigable Waters section. (See II. Navigable Waters on the next page.)		
	CATEGORY 1	**CATEGORY 2**	**INDIVIDUAL PERMIT**
(a) NEW FILL/ EXCAVATION DISCHARGES	<4,300 SF inland waterway and/or wetland fill and associated secondary impacts (e.g., areas drained, flooded, cleared or excavated). Fill area includes all temporary and permanent fill, and excavation discharges (except for incidental fallback). Swamp mats are considered as fill. [See General Condition (GC) 18.] Provided: • In-stream (e.g., rivers, streams, brooks, etc.) work limited to Jul 15 - Oct 1 • In-stream work of up to 4,300 SF of fill below OHW in waterways not designated as EFH for Atlantic salmon (see GC 11, Page 9) and performed in accordance with Maine Permit By Rule standards or a LURC permit. • Waterway crossings shall comply with GC 22. • Projects covered by a DEP Tier One permit with no cumulative impacts >15,000 SF in inland wetlands from previous permits, unauthorized work, and/or other state permits. • Subdivision fill complies with GC 5, Single and Complete Projects (see Page 7). This category excludes: • Dams, dikes or activities involving water diversions.[2] • Non-State approved sediment releases/sluices from dams. • Open trench excavation in flowing waters (see GC 22, Page 12).	4,300 SF to <3 acres inland waterway and/or wetland fill and associated secondary impacts (e.g., areas drained, flooded, cleared or excavated). Fill area includes all temporary and permanent fill, and excavation discharges (except for incidental fallback). Swamp mats filling any area ≥4,300 SF are reviewed in Category 2. (See GC 18, Page 11.) Includes: In-stream work, including crossings (other than spanned crossing as described in Category 1) with any discharge of fill below ordinary high water in perennial waterways designated as EFH for Atlantic salmon. Time of year restrictions determined case-by-case. Projects with proactive restoration as a primary purpose with impacts of any area ≥4,300 SF. The Corps, in consultation with State & Federal agencies, must determine that net adverse effects are not more than minimal. Specific activities with impacts of any area ≥4,300 SF required to affect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority. Wetlands must be restored in place.	≥3 acres inland waterway and/or wetland fill and secondary impacts (e.g., areas drained, flooded, cleared or excavated). Fill area includes all temporary and permanent fill, and excavation discharges (except for incidental fallback).[5] EIS required by the Corps. In-stream work exceeding Category 2 limits.

	CATEGORY 1	CATEGORY 2	INDIVIDUAL PERMIT
	• Work in waters designated as EFH for Atlantic salmon (see GC 11, Page 9), unless the waterway is crossed with a span and footprints of the span abutments are outside ordinary high water with no more than 4,300 SF of associated wetland impact. • Work in Special Inland Waters or Wetlands[3] (vernal pools). • Work in special aquatic sites (SAS)[4] other than wetlands. • Work within ¼ mile of a Wild and Scenic River (see GC 12, Page 9). • Work on National Lands (see GC 9, Pg. 9). • Work affecting threatened or endangered species (see GC 10, Page 9) or EFH salmon migration (see GC 11, Page 9).		
(b) BANK STABILIZATION PROJECTS	Inland bank stabilization <100 FT long and <1 CY of fill per linear foot below OHW. <u>Provided</u>: • In-stream work limited to Jul 15 - Oct 1. • No work in special inland waters & wetlands[3] and SAS[4]. • No open trench excavation in flowing waters (see GC 22, Page 12). • No structures angled steeper than 3H:1V allowed. Only rough-faced stone or fiber roll revetments allowed. • No work affects threatened or endangered species (see GC 10, Page 9) or EFH (see GC 11, Page 9).	Inland bank stabilization ≥100 FT long and/or ≥1 CY of fill per linear foot, or any amount with fill in wetlands.	
(c) REPAIR AND MAINTENANCE OF AUTHORIZED FILLS	Repair or maintenance of existing, currently serviceable, authorized fills with no substantial expansion or change in use. *Conditions of the original authorization apply, however minor deviations in fill design allowed.[6]	Replacement of non-serviceable fills, or repair/maintenance of serviceable fill, with expansion <3 acres, or with a change in use.	Replacement of non-serviceable fill, or repair/maintenance of serviceable fill, with expansion ≥1 acre.

II. NAVIGABLE WATERS	**Navigable Waters of the United States**: Waters that are subject to the ebb and flow of the tide and Federally designated navigable rivers (the Penobscot River, Kennebec River, and Lake Umbagog) (Section 10 Rivers and Harbors Act of 1899). The jurisdictional limits are the mean high water (MHW) line in tidal waters and the ordinary high water (OHW) mark in non-tidal portions of the Federally designated navigable rivers. For the purposes of this PGP, fill placed in the area between the mean high water (MHW) and the high tide line (HTL), and in the bordering and contiguous wetlands[1] to tidal waters are also reviewed in this Navigable Waters section.		
	CATEGORY 1	**CATEGORY 2**	**INDIVIDUAL PERMIT**
(a) FILL	Discharges of dredged or fill material incidental to the construction of bridges across navigable waters of the United States, including cofferdams, abutments, foundation seals, piers, and temporary construction and access fills provided the U.S. Coast Guard authorizes such discharges as part of the bridge permit. Causeways and approach fills are not included in this category and require Category 2 or Individual Permit authorization.	<1 acre fill and/or secondary waterway impacts (e.g., areas drained, flooded or cleared). Fill includes temporary and permanent waterway fill. Temporary fill or excavation <1 acre in SAS[4]. Permanent fill or excavation <1,000 SF in SAS[4]. Permanent fill and/or excavation ≥1,000 SF in SAS[5] when associated with a project with proactive restoration as a primary purpose. The Corps, in consultation with Federal & state agencies, must determine that net adverse effects are not more than minimal. Specific activities with impacts of any area required to affect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority. Wetlands must be restored in place.	≥1 acre waterway fill and/or secondary waterways or wetland impacts (e.g., areas drained, flooded or cleared). Fill includes temporary and permanent waterway fill. Temporary fill or excavation ≥1 acre in SAS[4]. Permanent fill or excavation ≥1,000 SF in SAS[4] other than as specified in Cat. 2 EIS required by the Corps.
(b) REPAIR AND MAINTENANCE WORK	Repair or maintenance of existing, currently serviceable, authorized structure or fill with no substantial expansion or change in use. *Conditions of the original authorization apply. Must be rebuilt in same footprint, however minor deviations in structure design allowed[6]	Replacement of non-serviceable structures and fills or repair/maintenance of serviceable structures or fills, with fill, replacement or expansion <1 acre, or with a change in use.	Replacement of non-serviceable structures and fills or repair/ maintenance of serviceable structures or fill, with replacement or expansion ≥1 acre.

	CATEGORY 1	CATEGORY 2	INDIVIDUAL PERMIT
(c) DREDGING AND ASSOCIATED DISPOSAL	Maintenance dredging for navigational purposes <1,000 cy with upland disposal. Includes return water from upland contained disposal area. Provided: • Proper siltation controls are used. • Dredging & disposal operation limited to November 1 - January 15. • No impact to special aquatic sites[4]. • No dredging in intertidal areas. • No work affects threatened or endangered species (see GC 10, Page 9) or EFH salmon migration (see GC 11, Page 9).	Maintenance dredging ≥1,000 CY, new dredging <25,000 CY, or projects not meeting Category 1. Includes return water from upland contained disposal areas. Provided: • Disposal includes 1) upland, 2) beach nourishment (above MHW) of any area provided dredging's primary purpose is navigation or sand is from an upland source and Corps, in consultation w/Federal and State agencies, determines the net adverse effects are not more than minimal; and 3) open water & confined aquatic disposal, if Corps, in consultation with Federal and State agencies, finds the material suitable.	Maintenance dredging and/or disposal (any amount) in or affecting a SAS[4]. See II(a) above for dredge disposal in wetlands or waters. New dredging ≥25,000 CY, or any amount in or affecting SAS[4]. Beach nourishment associated with dredging when the primary purpose is not navigation (i.e., aggregate/sand mining) or the material is from an upland source.
(d) MOORINGS	Private, non-commercial, non-rental, single-boat moorings authorized by the local harbormaster. Provided: • Not associated with any boating facility[7] • Not located in a Federal Navigation Project other than a Federal Anchorage. Moorings in Federal Anchorage not associated with a boating facility[7]. • No interference with navigation • Not located in vegetated shallows[8] • Within ¼ mile of the owner's residence or a public access point.[9] Minor relocation of previously authorized moorings and moored floats consistent with Harbormaster recommendations, provided it is also consistent with local regulations, is not located in vegetated shallows, and does not interfere with navigation.	Moorings associated with a boating facility[7]. Moorings that don't meet the terms in Category 1 and don't require an Individual Permit. Moorings located such that they, and/or vessels docked or moored at them, are within the buffer zone of the horizontal limits[10] of a Corps Federal Channel. (See Appendix B.) The buffer zone is equal to three times the authorized depth of that channel.	Moorings within the horizontal limits[10], or with moored vessels that extend, into the horizontal limits of a Federal Navigation Project (See App. B), except those in Federal Anchorages under Category 1. Note: Federal Navigation Projects include both Federal Channels and Federal Anchorages.

	CATEGORY 1	CATEGORY 2	INDIVIDUAL PERMIT
(e) STRUCTURES AND FLOATS	Reconfiguration of existing authorized structures or floats. Provided: • Structures not positioned over vegetated shallows[8] or salt marsh. • Floats supported off substrate at low tide. • No dredging, additional slips or expansion. • No work affects threatened or endangered species (see GC 10, Page 9) or EFH salmon migration (see GC 11, Page 9)..	Private structures or floats, including floatways/skidways, built to access waterway (seasonal and permanent) Expansions to existing boating facilities[7]. Compliance with the following is recommended, but not required: • Pile-supported structures <400 SF, with attached floats totaling ≤200 SF. • Bottom anchored floats ≤200 SF. • Structures are ≤4' wide and have at least a 1:1 height:width ratio[11]. • Floats supported above the substrate during all tides. • Structures & floats not located within 25' of any vegetated shallows[8]. • Moored vessels not positioned over SAS[4]. • No structure located within 25' of the riparian property boundary. • No structure extends across >25% of the waterway width at mean low water. • Not located within the buffer zone of the horizontal limits[10] of a Corps Federal Navigation Project (FNP) (See App. B). The buffer zone is equal to three times the authorized depth of that FNP.	Structures or floats, including floatways/skidways, located such that they and/or vessels docked or moored at them are within the horizontal limits of a Corps Federal Navigation Project (see App. B). Structures and floats associated with a new or previously unauthorized boating facility[7]. Note: Federal Navigation Projects include both Federal Channels and Federal Anchorages.
(f) MISCELLANEOUS	Temporary buoys, markers, floats, etc. for recreational use during specific events, provided they are removed within 30 days after use is discontinued. The placement of aids to navigation and regulatory markers which are approved by and installed in accordance with the requirements of the U.S. Coast Guard. (See 33 CFR part 66, Chapter I, subchapter C)."	Structures or work in or affecting tidal or navigable waters, that are not defined under any of the previous headings listed above. Includes, but is not limited to, utility lines, aerial transmission lines, pipelines, outfalls, boat ramps, floatways/skidways, bridges, tunnels and horizontal directional drilling activities seaward of the MHW line.	EIS required by the Corps. Shellfish/finfish (other than Atlantic salmon), or other aquaculture facilities with more than minimal individual and cumulative impacts to environmental resources or navigation. A 25' eelgrass set back is recommended.

	Oil spill clean-up temporary structures or fill. Fish/wildlife harvesting structures/fill (as defined by 33 CFR 330, App. A-4) Scientific measurement devices and survey activities such as exploratory drilling, surveying and sampling activitities. Does not include oil and gas exploration and fill for roads or construction pads. Shellfish seeding (brushing the flats[12]) projects. Provided: • No work in National Wildlife Refuges. • No work affects threatened or endangered species (see GC 10, Page 9) or EFH salmon migration (see GC 11, Page 9).	Shellfish/finfish (other than Atlantic salmon), or other aquaculture facilities with no more than minimal individual and cumulative impacts to environmental resources or navigation. A 25' eelgrass set back is recommended. Aquaculture guidelines are provided at: www.maine.gov/dmr/aquaculture/index.htm.	Aquaculture guidelines are provided at: www.maine.gov/dmr/aquaculture/index.htm.

[1] **Bordering and Contiguous Wetlands:** A bordering wetland is immediately next to its adjacent waterbody and may lie at, or below, the ordinary highwater mark (MHW in navigable waters) of that waterbody and is directly influenced by its hydrologic regime. Contiguous wetlands extend landward from their adjacent waterbody to a point where a natur or manmade discontinuity exists. Contiguous wetlands include bordering wetlands as well as wetlands that are situated immediately above the ordinary highwater mark and above th normal hydrologic influence of their adjacent waterbody. Note, with respect to the Federally designated navigable rivers, the wetlands bordering and contiguous to the tidally influenced portions of those rivers are reviewed under "II. Navigable Waters."

[2] **Water Diversions:** Water diversions are activities such as bypass pumping or water withdrawals. Temporary flume pipes, culverts or cofferdams where normal flows are maintaine within the stream boundary's confines aren't water diversions. "Normal flows" are defined as no change in flow from pre-project conditions.

[3] **Special Inland Waters and Wetlands:** Vernal Pools - Temporary to permanent bodies of water occurring in shallow depressions that fill during the spring and fall and may dry during the summer. Vernal pools have no permanent or viable populations of predatory fish. Vernal pools provide the primary breeding habitat for wood frogs, spotted salamanders, blue-spotted salamanders, and fairy shrimp, and provide habitat for other wildlife including several endangered and threatened species.

[4] **Special Aquatic Sites:** Includes wetlands and saltmarsh, mudflats, riffles and pools, and vegetated shallows.

[5] **IP Required:** The greater the impacts, the more likely an Individual Permit will be required. The Corps will determine the need for compensatory mitigation on a case-by-case basi

[6] **Maintenance:** Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards, which are necessary to make repair, rehabilitation, or replacement are permitted, provided the adverse environmental effects resulting from such repair, rehabilitatior or replacement are minimal. No seaward expansion for bulkheads or any other fill activity is considered Category 1 maintenance. Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

[7] **Boating Facilities:** Facilities that provide, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockominiums, etc.

[8] **Vegetated Shallows:** Subtidal areas that support rooted aquatic vegetation such as eelgrass

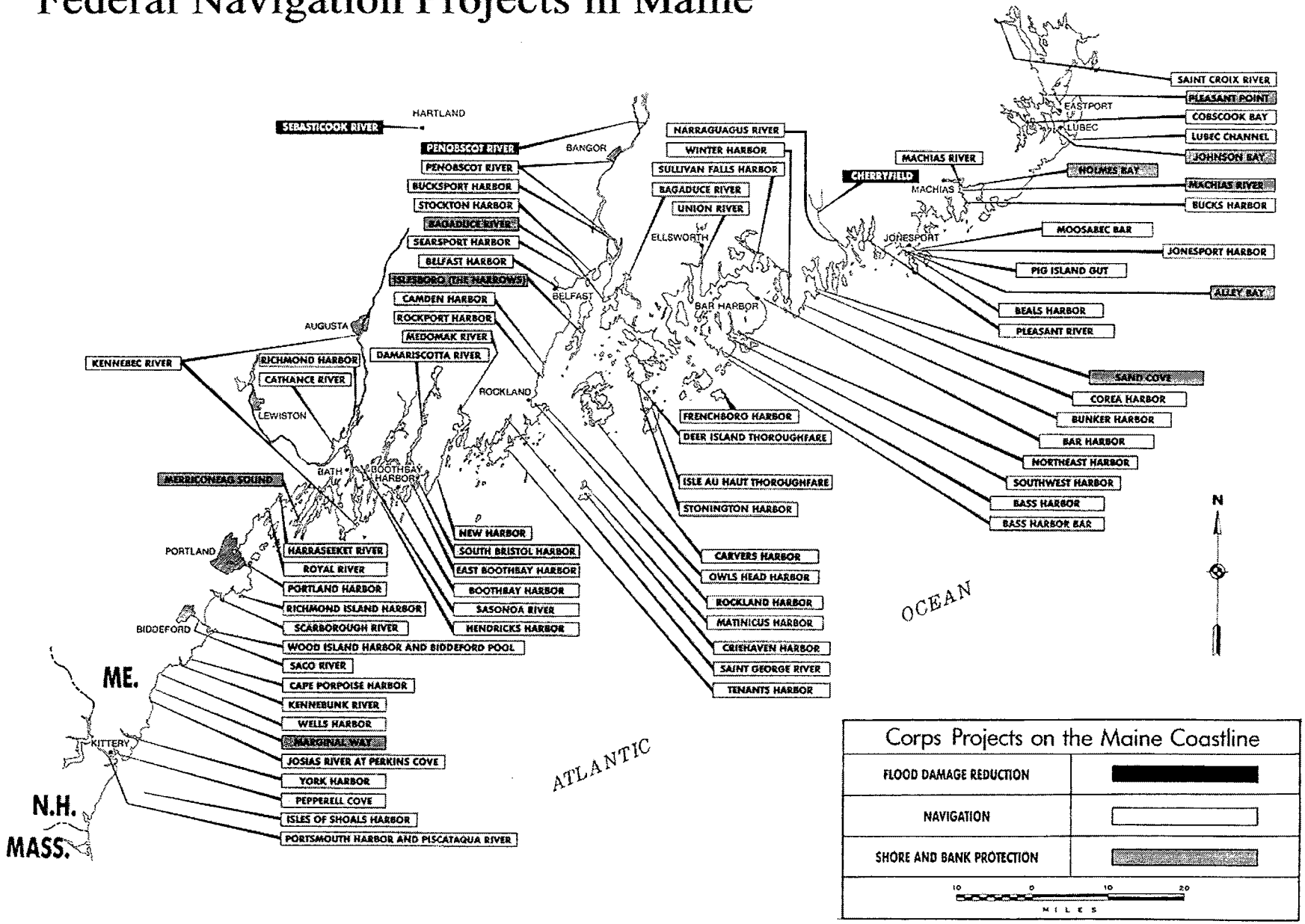
[9] **Mooring Location:** Cannot be at a remote location to create a convenient transient anchorage.

[10] **Horizontal Limits:** The outer edge of a Federal Navigation Project (FNP). Contact the Corps of Engineers for information on FNP's.

[11] **Structures:** The height of structures shall at all points be equal to or exceed the width of the deck. For the purpose of this definition, height shall be measured from the marsh substrate to the bottom of the longitudinal support beam.

[12] **Brushing the Flats:** The placement of tree boughs, wooden lath structure, or small-mesh fencing on mudflats to enhance recruitment of soft-shell clams (*Mya arenaria*).

Federal Navigation Projects in Maine



Environmental Summary Sheet

Pin: 15634.00 **Date Submitted: 3/2/10**
Town: Portland
CPD Team Leader: Ben Condon
NEPA Complete: 12/4/09

☒ **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:*

Environmental Summary Sheet

Pin: 16787.00 & 17055.10 & 17055.20 **Date Submitted: 4/7/10**
Town: Falmouth-Scarborough
CPD Team Leader: Laurie Rowe

NEPA Complete: 4/7/10

☒ **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**
Permit by Rule (PBR)
**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.**
Category 2

MaineDOT Resident **must** fill out a **"Work Start Notification Form"** and a **"Compliance Certification Form" (when project has been completed)** and send them to the address listed on the forms.
**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:*

Environmental Summary Sheet

Pin: 17793.00 **Date Submitted: 4/6/10**
Town: Falmouth, Portland and South Portland (18 total projects)
Bridge #s: 1505, 6298, 0816, 6294, 5616, 6300, 5618, 6296, 6291, 5617, 6295, 6297, 6292, 6249, 1513, 6299, 3088 & 6281
CPD Team Leader: Ben Condon

NEPA Complete: 4/6/10

☒ **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:*