

**Updated 1/19/10**

# **FEDERAL PROJECT**

## **BIDDING INSTRUCTIONS**

### FOR ALL PROJECTS:

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

#### For a Paper Bid:

- a) a copy of the Notice to Contractors, b) the completed Acknowledgement of Bid Amendments form, c) the completed Schedule of Items, d) two copies of the completed and signed Contract Offer, Agreement & Award form, e) a Bid Guaranty, 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.*

# 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](mailto: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](mailto: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 information:

Bid Enclosed: Do Not Open

PIN:

Town:

Name of Contractor:

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

**KNOW ALL MEN BY THESE PRESENTS THAT** \_\_\_\_\_

\_\_\_\_\_ of the City/Town of \_\_\_\_\_ and State of \_\_\_\_\_

as Principal, and \_\_\_\_\_ as Surety, a

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

Business in \_\_\_\_\_ and hereby held and firmly bound unto the Treasurer of

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

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

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

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

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

\_\_\_\_\_ and if the Department shall accept said bid

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

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

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

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

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

force, and effect.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

WITNESS:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

WITNESS

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PRINCIPAL:

By \_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

SURETY:

By \_\_\_\_\_

By: \_\_\_\_\_

Name of Local Agency: \_\_\_\_\_

# NOTICE

## Bidders:

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



# 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.

MDOT's DBE Directory of Certified firms can also be obtained at [www.maine.gov/mdot/disadvantaged-business-enterprises/dbe-home.php](http://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 16<sup>th</sup>, 2009. The goal will be submitted for approval to the FHWA on August 1<sup>st</sup>, 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](mailto: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.

**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

W B E•	D B E•	Non DBE	Firm Name	Unit/Item Cost	Unit #	Description of Work & Item Number	Actual \$ Value
<b>Total &gt;</b>							

Contractors must make a good faith effort to include Certified 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.

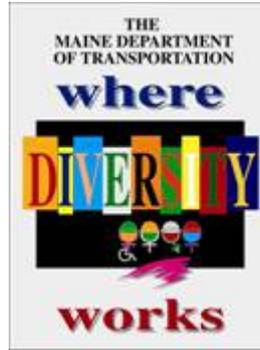
Equal Opportunity Use:

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>



**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/db-home.php](http://www.maine.gov/mdot/disadvantaged-business-enterprises/db-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 Cable Guardrail, Drainage, 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, Child Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on March 24, 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 No. IM-1677(400)E, PIN 16774.00 & STP-1705(500)E, PIN 17055.00

Location: In Cumberland County, the Project No. IM-1677(400)E is located on Interstate 295 northbound, beginning at the Portland/Falmouth town line and extending northerly 12.037 miles to 0.180 miles south of the Desert Road Overpass. In Cumberland County, the Project No. STP-1705(500)E is located 0.20 miles South of Scarborough/South Portland townline and extends 19.86 miles north to the Desert Road off ramp in Freeport.

Outline of Work: Pavement Milling, Hot Mix Asphalt Overlay, Bridge Work, Median Cable Guardrail, Drainage, 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](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 \$7.00 (\$10.50 by mail). Half size plans \$3.50 (\$5.75 by mail), Bid Book \$10 (\$13 by mail), Single Sheets \$2, payment in advance, all non-refundable.

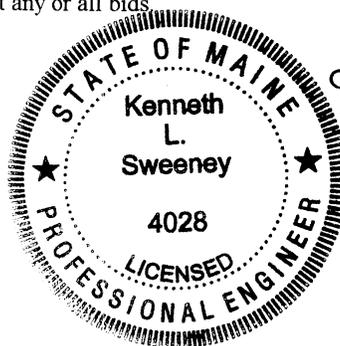
Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of \$175,000 payable to Treasurer, State 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.

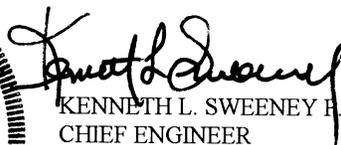
This Contract is subject to all applicable Federal Laws. This contract is subject to compliance with the Disadvantaged Business Enterprise program requirements as set forth by the Maine Department of Transportation.

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](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  
March 10, 2010



  
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)

SCHEDULE OF ITEMS

CONTRACT ID: 016774.00

PROJECT(S): IM-1677(400)E  
STP-1705(500)E

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
SECTION 0001 PROJECT ITEMS						
0010	202.202 REMOVING PAVEMENT SURFACE	200000.000 SY				
0020	205.512 WIDENING OF EXISTING SHOULDER	1000.000 SY				
0030	403.208 HOT MIX ASPHALT 12.5 MM HMA SURFACE	1900.000 T				
0040	403.2081 12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	14500.000 T				
0050	403.210 HOT MIX ASPHALT 9.5 MM	250.000 T				
0060	403.211 HOT MIX ASPHALT (SHIMMING)	5500.000 T				
0070	403.2131 12.5 MM POLYMER MODIFIED HMA BASE	7700.000 T				
0080	409.15 BITUMINOUS TACK COAT - APPLIED	16000.000 G				
0090	424.3331 ASPHALT LOW MODULUS CRACK SEALER, APPLIED	3000.000 LB				
0100	424.3333 LOW MODULUS JOINT SEALER, APPLIED	64000.000 LF				

SCHEDULE OF ITEMS

CONTRACT ID: 016774.00

PROJECT(S): IM-1677(400)E  
STP-1705(500)E

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0110	429.34 GRID/ FABRIC FABRIC COMPOSITE PAVEMENT INTERLAYER	SF 250.000				
0120	504.07 CONCRETE PIPE TIES	GP 126.000				
0130	508.14 HIGH PERFORMANCE WATERPROOFING MEMBRANE	LUMP	LUMP			
0140	515.21 PROTECTIVE COATING FOR CONCRETE SURFACES	LUMP	LUMP			
0150	518.50 REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL < 7.9 IN.	SF 125.000				
0160	518.50 REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL < 7.9 IN. CONCRETE SLAB REPAIR	SF 2500.000				
0170	518.51 REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL < 7.9 IN.	SF 50.000				
0180	518.51 REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL < 7.9 IN. CONCRETE SLAB REPAIR	SF 250.000				
0190	518.60 REPAIR OF VERTICAL SURFACES < 7.9 IN.	SF 50.000				

SCHEDULE OF ITEMS

CONTRACT ID: 016774.00

PROJECT(S): IM-1677(400)E  
STP-1705(500)E

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0200	518.61 REPAIR OF VERTICAL SURFACES > 7.9 IN.	15.000 CY				
0210	520.24 BRIDGE JOINT MODIFICATION	1.000 EA				
0220	520.241 BRIDGE JOINT MODIFICATION TYPE 1	6.000 EA				
0230	520.242 BRIDGE JOINT MODIFICATION TYPE 2	1.000 EA				
0240	520.243 BRIDGE JOINT MODIFICATION TYPE 3	1.000 EA				
0250	520.26 LONGITUDINAL BRIDGE JOINT MODIFICATION	5.000 LF				
0260	526.301 TEMPORARY CONCRETE BARRIER TYPE I	LUMP	LUMP			
0270	526.34 PERMANENT CONCRETE TRANSITION BARRIER	20.000 EA				
0280	527.301 ENERGY ABSORBING SYSTEM (C-A-T)	8.000 EA				
0290	603.165 15 INCH REINFORCED CONCRETE PIPE CLASS III	376.000 LF				

SCHEDULE OF ITEMS

CONTRACT ID: 016774.00

PROJECT(S): IM-1677(400)E  
STP-1705(500)E

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0300	603.195 24 INCH REINFORCED CONCRETE PIPE CLASS III	380.000 LF				
0310	603.205 30 INCH REINFORCED CONCRETE PIPE CLASS III	24.000 LF				
0320	603.215 36 INCH REINFORCED CONCRETE PIPE CLASS III	48.000 LF				
0330	603.235 48 INCH REINFORCED CONCRETE PIPE CLASS III	32.000 LF				
0340	603.259 60 INCH CULVERT PIPE OPTION III	16.000 LF				
0350	603.7415 REMOVE & RELAY 15 INCH CONCRETE PIPE	16.000 LF				
0360	603.7418 REMOVE & RELAY 18 INCH CONCRETE PIPE	32.000 LF				
0370	603.7424 REMOVE & RELAY 24 INCH CONCRETE PIPE	240.000 LF				
0380	603.743 REMOVE & RELAY 30 INCH CONCRETE PIPE	40.000 LF				
0390	603.7436 REMOVE & RELAY 36 INCH CONCRETE PIPE	16.000 LF				
0400	603.7448 REMOVE & RELAY 48 INCH CONCRETE PIPE	8.000 LF				

SCHEDULE OF ITEMS

CONTRACT ID: 016774.00

PROJECT(S): IM-1677(400)E  
STP-1705(500)E

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0410	604.164 REBUILDING CATCH BASIN	1.000 EA				
0420	604.18 ADJUSTING MANHOLE OR CATCH BASIN TO GRADE	8.000 EA				
0430	604.182 CLEAN EXISTING CATCH BASIN AND MANHOLE	81.000 EA				
0440	606.1721 BRIDGE TRANSITION - TYPE 1	20.000 EA				
0450	606.178 GUARDRAIL BEAM	200.000 LF				
0460	606.24 GUARDRAIL TYPE 3D - SINGLE RAIL	1200.000 LF				
0470	606.241 GUARDRAIL TYPE 3D - 15 FOOT RADIUS AND LESS	37.500 LF				
0480	606.242 GUARDRAIL TYPE 3D - OVER 15 FOOT RADIUS	37.500 LF				
0490	606.265 TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	10.000 EA				
0500	606.352 REFLECTORIZED BEAM GUARDRAIL DELINEATORS	400.000 EA				

SCHEDULE OF ITEMS

CONTRACT ID: 016774.00

PROJECT(S): IM-1677(400)E  
STP-1705(500)E

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0510	606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	EA 180.000				
0520	606.356 UNDERDRAIN DELINEATOR POST	EA 100.000				
0530	606.362 GUARDRAIL ADJUSTED	LF 2475.000				
0540	606.367 REPLACE UNUSABLE EXISTING GUARDRAIL POSTS	EA 10.000				
0550	606.79 GUARDRAIL 350 FLARED TERMINAL	EA 18.000				
0560	606.901 CABLE BARRIER, HIGH TENSION, TL-3	LF 35000.000				
0570	606.91 CABLE BARRIER TERMINAL, HIGH TENSION, TL-3	EA 24.000				
0580	610.08 PLAIN RIPRAP	CY 250.000				
0590	613.319 EROSION CONTROL BLANKET	SY 2000.000				
0600	615.07 LOAM	CY 200.000				

SCHEDULE OF ITEMS

CONTRACT ID: 016774.00

PROJECT(S): IM-1677(400)E  
STP-1705(500)E

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0610	618.1401 SEEDING METHOD NUMBER 2 - PLAN QUANTITY	150.000 UN				
0620	619.1201 MULCH - PLAN QUANTITY	150.000 UN				
0630	619.1401 EROSION CONTROL MIX	250.000 CY				
0640	620.58 EROSION CONTROL GEOTEXTILE	500.000 SY				
0650	627.18 12 " SOLID WHITE PAVEMENT MARKING	3300.000 LF				
0660	627.744 6" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	215000.000 LF				
0670	627.75 WHITE OR YELLOW PAVEMENT & CURB MARKING	3000.000 SF				
0680	627.781 TEMPORARY 6 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	215000.000 LF				
0690	629.05 HAND LABOR, STRAIGHT TIME	10.000 HR				
0700	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	15.000 HR				

SCHEDULE OF ITEMS

CONTRACT ID: 016774.00

PROJECT(S): IM-1677(400)E  
STP-1705(500)E

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0710	631.122 MINI ALL-PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20.000 HR				
0720	631.133 SKID STEER (INCLUDING OPERATOR)	35.000 HR				
0730	631.14 GRADER (INCLUDING OPERATOR)	15.000 HR				
0740	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	50.000 HR				
0750	631.18 CHAIN SAW RENTAL (INCLUDING OPERATOR)	5.000 HR				
0760	631.22 FRONT END LOADER (INCLUDING OPERATOR)	15.000 HR				
0770	631.32 CULVERT CLEANER (INCLUDING OPERATOR)	10.000 HR				
0780	639.18 FIELD OFFICE TYPE A	1.000 EA				
0790	645.306 FLEXIBLE REFLECTORIZED DELINEATOR	300.000 EA				
0800	652.30 FLASHING ARROW BOARD	2.000 EA				
0810	652.33 DRUM	250.000 EA				

SCHEDULE OF ITEMS

CONTRACT ID: 016774.00

PROJECT(S): IM-1677(400)E  
STP-1705(500)E

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0820	652.34 CONE	300.000 EA				
0830	652.35 CONSTRUCTION SIGNS	1800.000 SF				
0840	652.36 MAINTENANCE OF TRAFFIC CONTROL DEVICES	147.000 CD				
0850	652.38 FLAGGER	50.000 HR				
0860	652.41 PORTABLE CHANGEABLE MESSAGE SIGN	2.000 EA				
0870	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP			
0880	659.10 MOBILIZATION	LUMP	LUMP			
	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. 16774.00 & 17055.00, for the Pavement Milling, Hot Mix Asphalt Overlay, Bridge Work, Drainage, 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 **September 26, 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. 16774.00 & 17055.00, for the Pavement Milling, Hot Mix Asphalt Overlay, Bridge Work, Drainage, 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.  
documents referenced herein.

This award consummates the Contract, and the

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. 16774.00 & 17055.00, for the Pavement Milling, Hot Mix Asphalt Overlay, Bridge Work, Drainage, 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 **September 26, 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. 16774.00 & 17055.00, for the Pavement Milling, Hot Mix Asphalt Overlay, Bridge Work, Drainage, 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.  
documents referenced herein.

This award consummates the Contract, and the

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:

**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.**

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.

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

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

\_\_\_\_\_  
Date

\_\_\_\_\_  
**(Sign Here)**  
(Signature of Legally Authorized Representative of the Contractor)

\_\_\_\_\_  
**(Witness Sign Here)**  
Witness

\_\_\_\_\_  
**(Print Name Here)**  
(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)

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.....

.....

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 .....

.....

## 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				PROJECT INFORMATION PROJECT NUMBER: 1318 PROJECT NAME: FALMOUTH, CUMBERLAND, YARMOUTH & FREEPORT I-295 NORTHBOUND PROJECT MANAGER: ROBERT HOUGH SIGNATURE: <i>[Signature]</i> DATE: 2/24/10		TITLE SHEET 1-295 NORTHBOUND FALMOUTH, CUMBERLAND, YARMOUTH & FREEPORT TITLE SHEET		SHEET NUMBER 1 OF 1	
APPROVED: <i>[Signature]</i> DATE: 2/25/10		CHIEF ENGINEER: <i>[Signature]</i> COMMISSIONER: <i>[Signature]</i>		PROJECT COMPLETION DATE: _____ CONTRACT NO.: _____ PROJECT RESIDENT: _____ CONTRACT NO.: _____		PROJECT RESIDENT: _____ CONTRACT NO.: _____ PROJECT RESIDENT: _____ CONTRACT NO.: _____		PROJECT COMPLETION DATE: _____ CONTRACT NO.: _____ PROJECT RESIDENT: _____ CONTRACT NO.: _____	

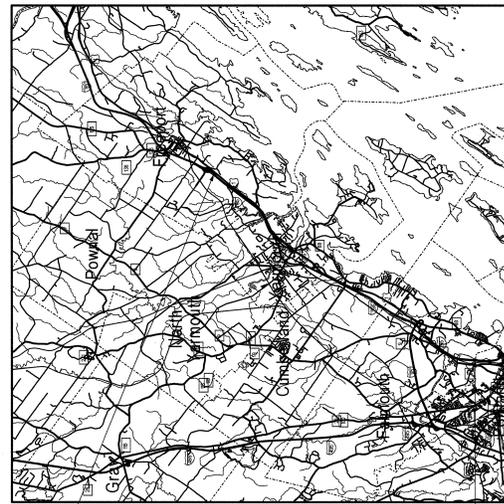
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION



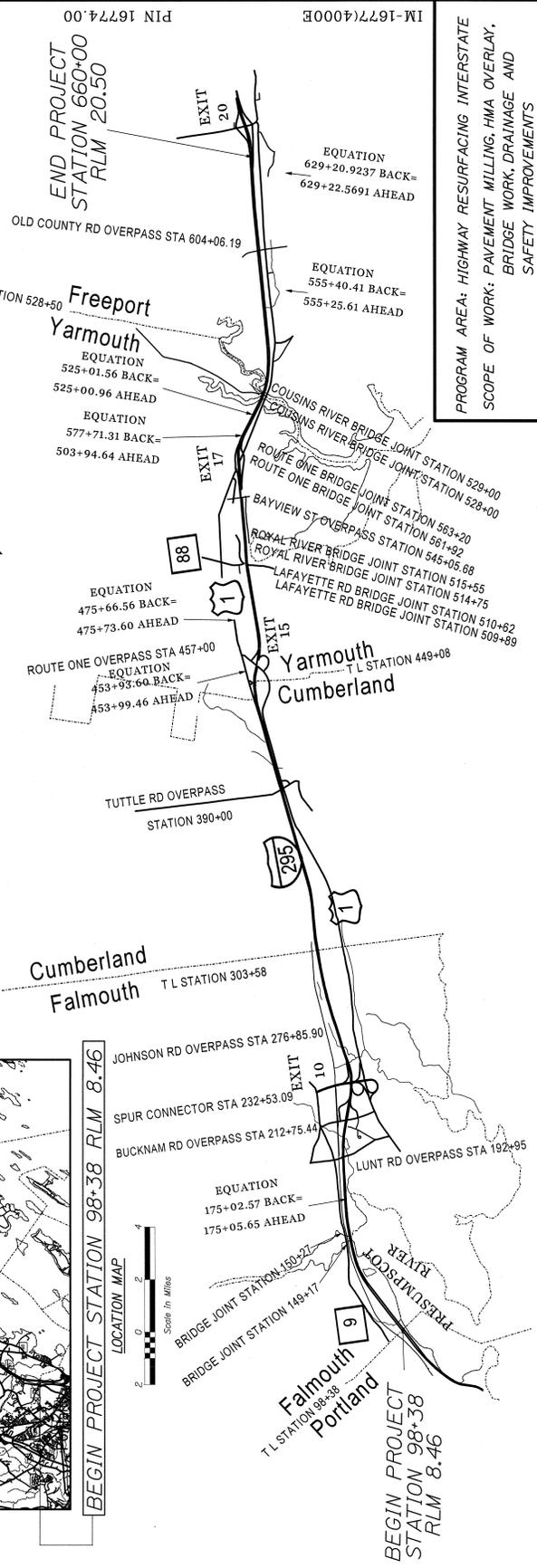
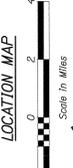
**FALMOUTH, CUMBERLAND,  
YARMOUTH, & FREEPORT  
CUMBERLAND COUNTY  
I-295 NORTHBOUND  
IM-1677(400)E**

PROJECT LENGTH : 12.037 MILES  
HIGHWAY PRESERVATION

END PROJECT STATION 660+00 RLM 20.50



BEGIN PROJECT STATION 98+38 RLM 8.46



**TRAFFIC DATA**

Current (2009) AADT ..... 23150  
 Design Speed (mph) ..... 65  
 Functional Class: PRINCIPAL ARTERIAL INTERSTATE

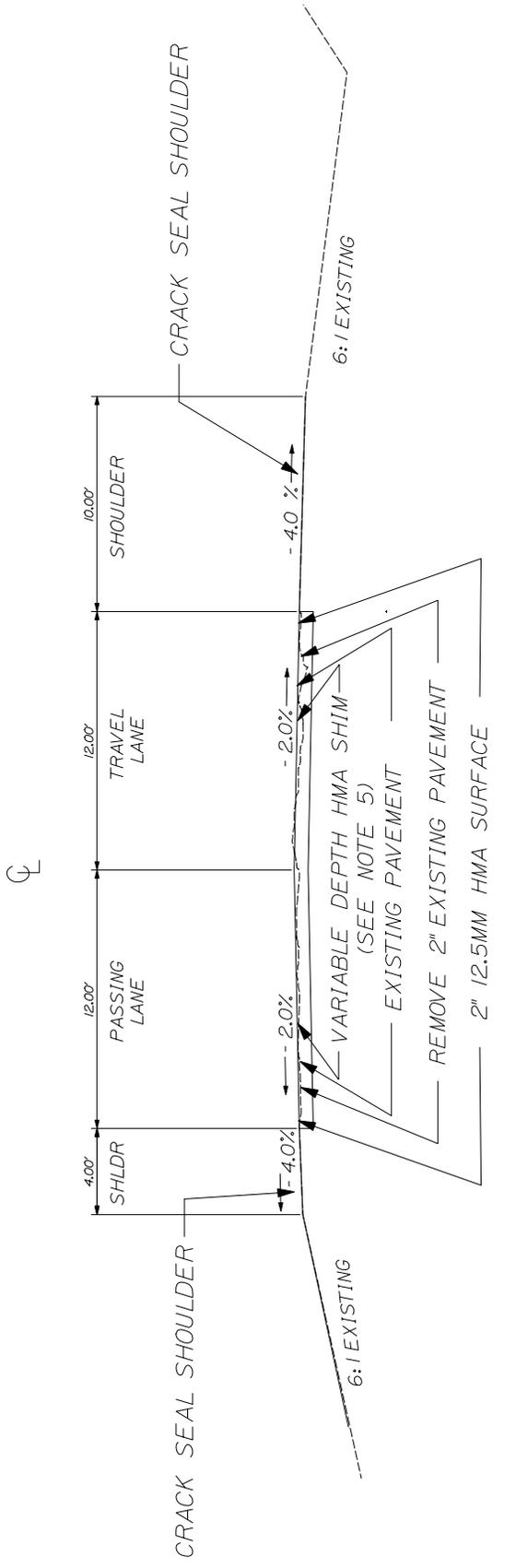
SEC 1	SEC 2	SEC 3	SEC 4	SEC 5
US 1 FALMOUTH TO EXIT 19	FALMOUTH TO EXIT 11	FALMOUTH PRR TO EXIT 14	US 1 YARMOUTH TO EXIT 17	US 1 YARMOUTH TO EXIT 20
23150	21930	25350	21510	23330

PROGRAM AREA: HIGHWAY RESURFACING INTERSTATE  
 BRIDGE WORK, DRAINAGE AND  
 SAFETY IMPROVEMENTS

SECTION 1 MILL & FILL 2" +/- -  
 STATIONS 98+38 TO 264+87\*\*  
 SECTION 3 MILL & FILL 2" +/- -  
 STATIONS 514+75 TO 660+00\*\*

CRACK SEAL EXISTING HMA SHOULDERS  
 2" HOT MIX ASPHALT PAVEMENT

- NOTE:**
1. THE PAVEMENT BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
  2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
  3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
  4. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "HOLLOW" SHALL NOT EXCEED 0%.
  5. VARIABLE DEPTH SHIM IS TO BE PLACED IF DELAMINATION OCCURS DURING MILLING OPERATIONS OR AS DIRECTED BY THE RESIDENT.
  6. MILLING WIDTHS & DEPTHS TO BE DETERMINED BY BRIDGE PLANS OR AS DIRECTED BY THE RESIDENT.



NORMAL SECTION

\*\* EQUATION AREAS AND BRIDGE DECKS WITHIN LIMITS SEE NOTE 6.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	IM-1677(400)E	16774.00 PIN HIGHWAY PLANS
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PROJ. NUMBER	BY	DATE
PERSON-DESIGNED		
DESIGN-DATE		
DESIGN-REVISIONS		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		
P.E. NUMBER	SIGNATURE	DATE

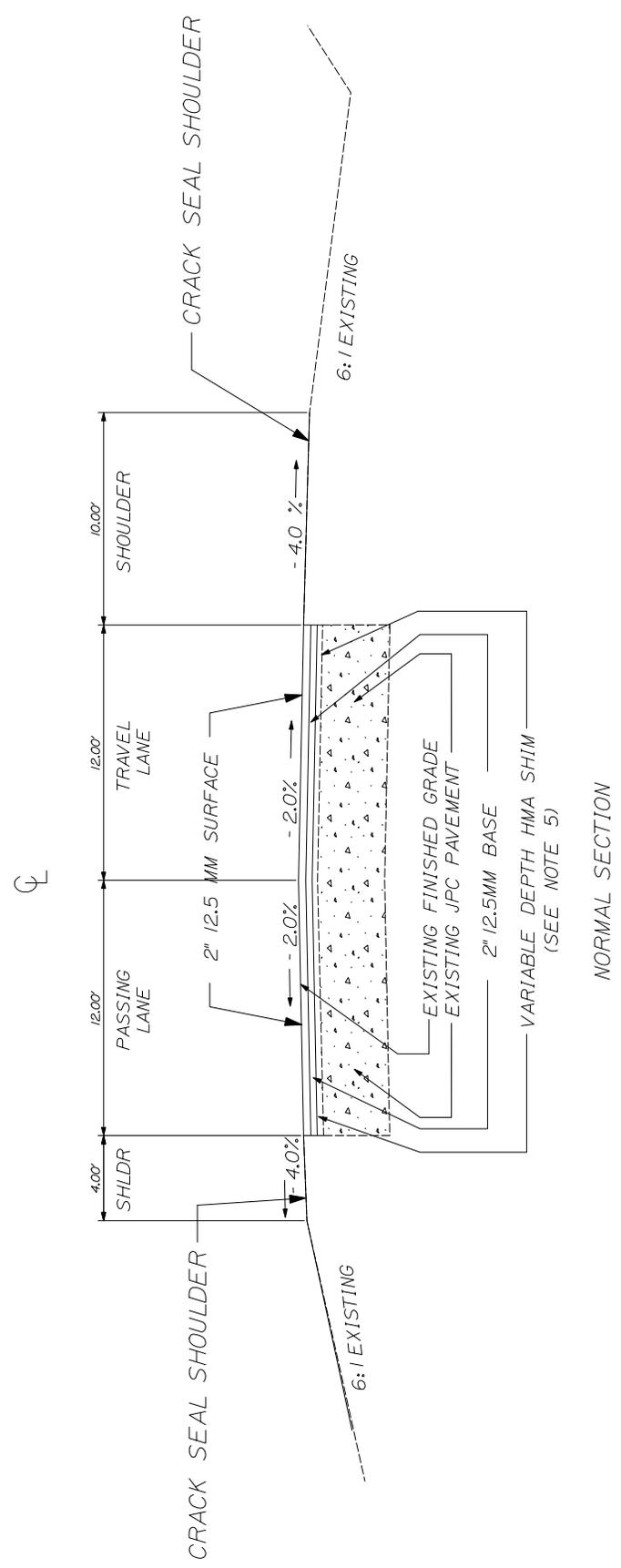
FALMOUTH, CUMBERLAND,  
 YARMOUTH, & FREEPORT  
 I-295 NORTHBOUND  
 TYPICAL SECTIONS

SHEET NUMBER  
 1  
 OF 5  
 NOT TO SCALE

- NOTE:**
1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
  2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
  3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
  4. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY GROSS SLOPES "HOLLOWER" 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 & DEPTHS TO BE DETERMINED BY BRIDGE PLANS OR AS DIRECTED BY THE RESIDENT.

**SECTION 2 MILL & FILL 4 1/4" +/-  
STATIONS 264+87 TO 514+75\*\***

**CRACK SEAL EXISTING HMA SHOULDERS  
4 1/4" HOT MIX ASPHALT PAVEMENT**



\*\* EQUATION AREAS AND BRIDGE DECKS WITHIN LIMITS SEE NOTE 6.

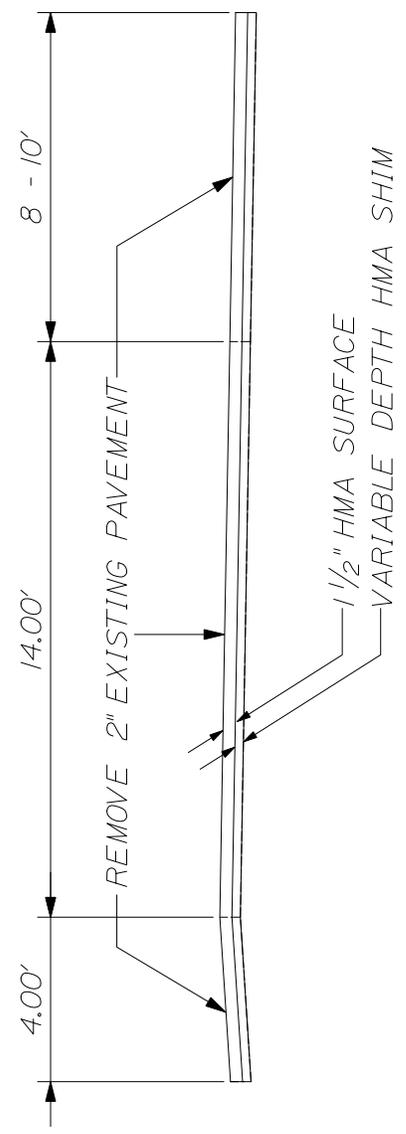
NORMAL SECTION

PROJ. NUMBER	
BY	
DATE	
SIGNATURE	
P.E. NUMBER	
DATE	

- NOTE:**
1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
  2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
  3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
  4. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.

EXIT 17 OFF & ON RAMP  
EXIT 20 OFF RAMP  
 2" MILL & FILL  
 FULL WIDTH

NORMAL SECTIONS



PROJ. NUMBER	
DESIGN-REVIEWED	
DESIGNED BY	
CHECKED BY	
DATE	
BY	
DATE	
SIGNATURE	
P.E. NUMBER	
DATE	

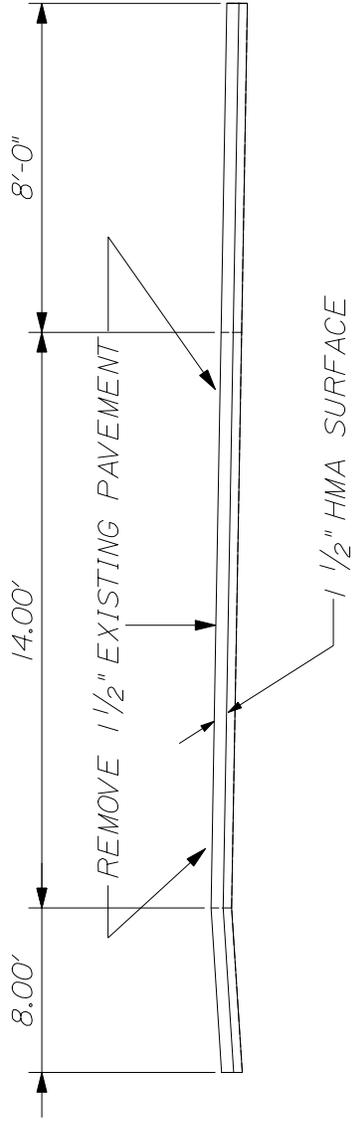
NOT TO SCALE

**NOTE:**

1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
4. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.

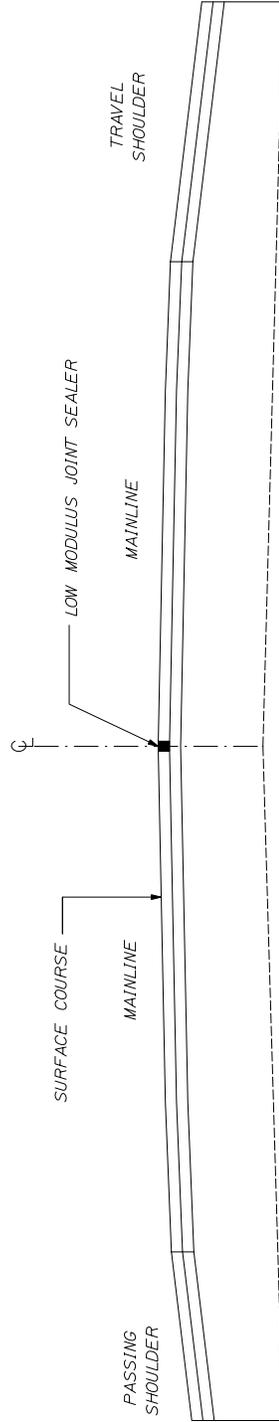
OFF RAMP EXIT 15  
 1 1/2" MILL & FILL  
 MAINLINE ONLY

NORMAL SECTIONS



# 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. THE SEALER SHALL BE APPLIED TO THE ENTIRE FACE OF THE JOINT. (1/8") COATING TYPICAL. APPLIED TO ALL CENTERLINE LONGITUDINAL JOINTS ON THE WEARING SURF AREAS 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.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	IM-1677(400)E	16774.00 PIN HIGHWAY PLANS
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PROJ. NUMBER	BY	DATE
DESIGN-TEAM		
DESIGN-REVIEWER		
DESIGN-DATE		
REVISIONS		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		
DATE		
P.E. NUMBER		
SIGNATURE		

FALMOUTH, CUMBERLAND,  
YARMOUTH, & FREEPORT  
1-295 NORTHBOUND  
TYPICAL SECTIONS

SHEET NUMBER  
5  
OF 5  
NOT TO SCALE

## STATIONING

Begin Project	98+38 Portland/Falmouth Town Line	
Back of Back wall	149+28 Presumpscot River Bridge	
Back of Back wall	152+13 Presumpscot River Bridge	
Equation	175+02.57 Back= 175+05.65 Ahead	Equation = -3.08'
Lunt Road Overpass	192+95	
Bucknam Road Overpass	212+75.44	
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 Back= 453+99.46 Ahead	Equation = 15.86'
Route 1 Overpass	457+00	
Equation	475+66.56 Back= 475+73.60 Ahead	Equation = -7.04'
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	

## **STATIONING**

Bridge Joint	562+79 Route One Bridge
Bridge Joint	564+07 Route One Bridge
Equation	577+71.31 Back= 503+94.64 Ahead      Equation = 7376.67'
Equation	525+01.56 Back= 525+00.96 Ahead      Equation = 0.60'
Bridge Joint	528+00 Cousins River Bridge
Yarmouth/Freeport Town Line	528+50
Bridge Joint	529+00 Cousins River Bridge
Equation	555+40.41 Back= 555+25.61 Ahead      Equation = 14.80'
Old County Road Overpass	604+06.19
Equation	629+20.9237 Back= 629+22.5691 Ahead      Equation = -1.6454'
End Project	660+00

**RAMP STATIONING**

Exit 10 Bucknam Road  
Off Ramp

STA. @ X*	STA. @ I-295
STA. 0+00 @ CL Bucknam Road	STA. 9+64.75 = STA. 215+00.11 I-295 NB
On Ramp	
STA. 0+00 @ CL Bucknam Road	STA. 9+82.14 = STA. 222+52.67 I-295 NB

Exit 11 Falmouth Spur Connector  
On Ramp

STA. @ X*	STA. @ I-295
STA. 1+13.13 @ Gore @ Route 1	STA. 18+35.41 = STA. 231+11.88 I-295 NB

Exit 15 Route One  
Off Ramp

STA. @ X*	STA. @ I-295
STA. 13+95.22 @ CL Route One	STA. 0+00 = STA. 460+50 I-295 NB

Exit 17 Yarmouth  
Off Ramp

STA. @ X*	STA. @ I-295
STA. 67+44.86 @ CL Route One	STA. 45+50 = STA. 545.50 I-295 NB
On Ramp	
STA. 5+88.92 @ CL Route One	STA. 26+81.84 = STA. 513+89.45 I-295 NB

Exit 20 Freeport Desert Road  
Off Ramp

STA. @ X*	STA. @ I-295
STA. 53+78.75 @ CL Desert Road	STA. 30+00 = STA. 646+00 I-295 NB

**Construction Notes**

**Item 202.202 Removing Pavement Surface**

<b>Station</b>	<b>to</b>	<b>Station</b>	<b>Mainline L.F.</b>	<b>Depth</b>	<b>Remarks</b>
98+38	-	149+30	5092	2'' +/-	24'+/- wide Travel Lanes
	Bridge				
149+30	-	152+10	280	3'' +/-	31.3'+/- wide Curb to Curb
	Equation				
152+10	-	175+03	2,293	2'' +/-	24'+/- wide Travel Lanes
175+06	-	264+87	8,981	2'' +/-	24'+/- wide Travel Lanes
264+87	-	453+84	18,897	4 1/4'' +/-	24'+/- wide Travel Lanes
	Equation				
453+99	-	475+67	2,168	4 1/4'' +/-	24'+/- wide Travel Lanes
475+74	-	509+73	3,399	4 1/4'' +/-	24'+/- wide Travel Lanes
	Bridge				
509+73	-	511+07	134	3'' +/-	40.3'+/- wide Curb to Curb
511+07	-	514+85	378	4 1/4'' +/-	24'+/- wide Travel Lanes
	Bridge				
514+85	-	516+85	200	3'' +/-	31.3'+/- wide Curb to Curb
516+85	-	562+11	4,526	2'' +/-	24'+/- wide Travel Lanes
	Bridge				
562+11	-	564+75	264	3'' +/-	31.3'+/- wide Curb to Curb
	Equation				
564+75	-	577+71	1,296	2'' +/-	24'+/- wide Travel Lanes
503+95	-	525+02	2,107	2'' +/-	24'+/- wide Travel Lanes
525+01	-	528+00	299	2'' +/-	24'+/- wide Travel Lanes
	Bridge				
528+00	-	529+00	100	3'' +/-	39.0'+/- wide Curb to Curb

### Construction Notes

#### Item 202.202 Removing Pavement Surface (Continued)

<b>Mainline</b>					
Station	to	Station	L.F.	Depth	Remarks
Equation					
529+00	-	555+40	2,640	2”+/-	24’ +/- wide Travel Lanes
555+26	-	629+21	7,395	2”+/-	24’ +/- wide Travel Lanes
629+23	-	660+00	3,077	2”+/-	24’ +/- wide Travel Lanes
<b>Ramps</b>					
Station	to	Station	SY	Depth	Remarks
<b>Exit 15 Off ramp</b>					
0+00	-	14+00+/-	2,489+/-	1 ½”	mill / fill 14-16’ T/L only
<b>Exit 17 Off ramp</b>					
45+50	-	67+50+/-	2,200+/-	2”	mill / fill 14-16’ ML & SHDR
<b>Exit 17 On ramp</b>					
5+70	-	26+82+/-	3112+/-	2”	mill / fill 14-16’ ML & SHDR
<b>Exit 20 Off ramp</b>					
30+00	-	54+00+/-	2,400+/-	2”	mill / fill 26-30’ ML & SHDR
<b>High Shoulder</b>					
438+22	-	450+00+/-	1,178+/-	3”+/-	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.  
 Bridge Decks shall be milled as per Bridge Plans**

#### 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.

## Construction Notes

### **Item 403.208 Hot Mix Asphalt 12.5mm**

Ramps 1 ½” mill & fill, 1 ½” Overlay.

### **Item 403.2081 Polymer Modified Hot Mix Asphalt, 12.5 mm Surface**

Mainline mill & fill. Item shall be placed according to typical sections or as directed.

### **Item 403.2131 Polymer Modified Hot Mix Asphalt, 12.5 mm Base**

Mainline mill & fill. Item shall be placed according to typical sections or as directed.

### **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 by 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 8 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 81 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.

## **Construction Notes**

### **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**

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

### **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 16774.00 FALMOUTH – FREEPORT I-295 NB**

STATION	SIZE (inches)	REMOVE (l.f.)	RELAY (l.f.)	INSTALL NEW (l.f.)	RIPRAP *(c.y.)	*PIPE TIES (GP)	REMARKS
126+50	24"	20' CMP		16' RCP	2.49	2	Remove 20' CMP Replace 16' RCP RT
131+15	15"	28' CMP		24' RCP	2.19	3	Remove 28' CMP Replace 24' RCP RT
133+00	24"	56' CMP		54' RCP	2.49	2	Remove 56' CMP Replace 54' RCP RT
135+46	24"	54' CMP		54' RCP	2.49	2	Remove 54' CMP Replace 54' RCP RT
139+30	24"	20' CMP		16' RCP	2.49	2	Remove 20' CMP Replace 16' RCP RT
143+00	15"	14' CMP		16' RCP	2.19	2	Remove 14' CMP Replace 16' RCP RT
145+75	15"	14' CMP		16' RCP	2.19	2	Remove 14' CMP Replace 16' RCP RT
152+50	15"	14' CMP		16' RCP	2.19	2	Remove 14' CMP Replace 16' RCP RT
169+45	24"						Could Not Locate
170+00	15"	28' CMP		24' RCP	2.19	3	Remove 28' CMP Replace 24' RCP RT
174+50	24"	28' CMP		24' RCP	2.49	3	Remove 28' CMP Replace 24' RCP RT
179+00	24"	24' RCP	24' RCP		2.49	3	Remove/Reset 24' RCP RT
180+95	24"	24' CMP		24' RCP	2.49	2	Remove 24' CMP Replace 24' RCP RT
182+00	15"	20' CMP		16' RCP	2.19	2	Remove 20' CMP Replace 16' RCP RT
185+50	24"	20' CMP		24' RCP	2.49+	2	Remove 20' CMP Replace 24' RCP RT
195+50	15"	38' CMP		40' RCP	2.19	2	Remove 38' CMP Replace 40' RCP RT
198+00	24"						Could Not Locate
200+00	15"						Could Not Locate
204+50	15"	39' CMP		40' RCP	2.19	2	Remove 39' CMP Replace 40' RCP RT
268+00	24"	8' RCP	8' RCP		2.49	1	Remove/Reset 8' RCP RT
272+00	24"	16' RCP	16' RCP		2.49	2	Remove/Reset 16' RCP RT
275+33.5	24"	16' RCP	16' RCP		2.49	2	Remove/Reset 16' RCP RT
278+50	24"	16' RCP	16' RCP		2.49	2	Remove/Reset 16' RCP RT
282+00	24"	8' RCP	8' RCP		2.49	1	Remove/Reset 8' RCP RT
286+67	24"	16' RCP	16' RCP		2.49	2	Remove/Reset 16' RCP RT
288+50	24"	4' RCP/HW		16' RCP	2.49	2	Remove Concrete Headwall & 4' RCP Replace 16' RCP RT
293+00	24"				2.49		Concrete Headwall OK, Mortar First Joint RT
312+00	24"	8' RCP	8' RCP		2.49	1	Remove/Reset 8' RCP RT
320+00	24"	8' RCP	8' RCP		2.49	1	Remove/Reset 8' RCP RT

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

**DRAINAGE**  
**PIN 16774.00 FALMOUTH – FREEPORT I-295 NB**

STATION	SIZE (inches)	REMOVE (l.f.)	RELAY (l.f.)	INSTALL NEW (l.f.)	RIPRAP *(c.y.)	*PIPE TIES	REMARKS
328+00	24"	8' RCP	8' RCP		2.49	1	Remove/Reset 8' RCP RT
339+00	24"	8' RCP	8' RCP		2.49	2	Remove/Reset 8' RCP RT
342+50	24"	8' RCP	8' RCP		2.49	1	Remove/Reset 8' RCP RT
347+00	24"	8' RCP	8' RCP		2.49	1	Remove/Reset 8' RCP RT
352+50	60"	16' CMP		16' CMP	7.25		Remove 16' CMP RT Install 16' CMP RT
397+50	15"	34' CMP		32' RCP		2	Remove 34' CMP RT Install 32' RCP RT
401+19	36"	28' CMP		24' RCP	3.11	3	Remove 28' CMP RT Install 24' RCP RT
406+36	24"	28' CMP		24' RCP	2.49	3	Remove 28' CMP RT Install 24' RCP RT
409+50	15"	24' CMP		24' RCP		2	Remove 24' CMP RT Install 24' RCP RT Ditch Outlet
418+00	24"	16' RCP	16' RCP		2.49	2	Remove/Reset 16' RCP RT
440+50	15"	14' CMP		16' RCP	2.19	2	Remove 14' CMP RT Install 16' RCP RT
485+75	15"	16' CMP		24' RCP		2	Remove 16' CMP RT Install 24' RCP RT
490+50	15"	16' CMP		24' RCP		2	Remove 16' CMP RT Install 24' RCP RT
497+35	36"	20' CMP		24' CMP	3.11+	2	Remove 20' CMP RT Install 24' RCP RT
499+50	15"				2.19+		Inspect/Replace if Necessary
504+00	15"	14' CMP		16' RCP	2.19+	2	Remove 14' CMP RT Install 16' RCP RT
505+20	48"	28' CMP		24' RCP	5.00	3	Remove 28' CMP Replace 24' RCP RT
508+50	24"	28' CMP		24' RCP	2.498	3	Remove 28' CMP Replace 24' RCP RT
526+70	24"	28' CMP		24' RCP	2.49	3	Remove 28' CMP Replace 24' RCP RT
530+00	24"	28' CMP		24' RCP	2.49	3	Remove 28' CMP Replace 24' RCP RT
534+00	15"	28' CMP		24' RCP	2.19	3	Remove 28' CMP Replace 24' RCP RT
536+00	24"	28' CMP		24' RCP	2.49	3	Remove 28' CMP Replace 24' RCP RT
538+00	15"	18' CMP		24' RCP	2.19	2	Remove 18' CMP Replace 24' RCP RT
538+77	30"	20' CMP		24' RCP	3.11	2	Remove 20' CMP Replace 24' RCP RT
541+50	24"	34' CMP		32' RCP	2.49	4	Remove 34' CMP Replace 32' RCP RT
547+50	30"	8' RCP	8' RCP		2.49	1	Remove/Reset 8' RCP RT
554+50	15"	8' RCP	8' RCP		2.19	1	Remove/Reset 8' RCP RT
556+88	24"	8' RCP	8' RCP		2.19	1	Remove/Reset 8' RCP RT
558+00	15"	8' RCP	8' RCP		2.19	1	Remove/Reset 8' RCP RT
559+07	30"	8' RCP	8' RCP		2.49	1	Remove/Reset 8' RCP RT

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

**DRAINAGE  
PIN 16774.00 FALMOUTH – FREEPORT I-295 NB**

STATION	SIZE (inches)	REMOVE (l.f.)	RELAY (l.f.)	INSTALL NEW (l.f.)	RIPRAP *(c.y.)	*PIPE TIES (GP)	REMARKS
515+79	30"	24' RCP	24' RCP		2.49	2	Remove/Reset 24' RCP RT
523+50	24"	8' RCP	8' RCP		2.49	1	Remove/Reset 8' RCP RT Ditch Out RT
552+98	18"	16' RCP	16' RCP		2.19	2	Remove/Reset 16' RCP RT Ditch Out RT
562+00	36"	8' RCP	8' RCP		3.11	1	Remove/Reset 16' RCP RT
564+55	18"						Ditch Out RT
574+50	48"	8' RCP		8' RCP	5.00	1	Remove/Replace 8' RCP RT
581+56	36"	8' RCP	8' RCP			1	Remove/Reset 8' RCP RT
597+19	24"	16' RCP	16' RCP			2	Remove/Reset 16' RCP RT
597+19	CB						Rebuild Catch Basin LT
614+44	48"	8' RCP	8' RCP		5.00	1	Remove/Reset 8' RCP RT
619+00	12"						Ditch Out RT
630+96	18"	8' RCP	8' RCP			1	Remove/Reset 8' RCP RT
634+46	24"	16' RCP	16' RCP		2.49	2	Remove/Reset 16' RCP RT
637+56.5	18"	8' RCP	8' RCP		2.19	1	Remove/Reset 8' RCP RT
EXIT 17 OFF							
63+67	24"	16' RCP	16' RCP		2.49	2	Remove/Reset 16' RCP LT
EXIT 17 ON							
7+50							Ditch Out RT
8+00	CB						Locate Catch Basin
EXIT 20 OFF							
35+00	15"						Ditch Out RT
45+95	24"	8' RCP	8' RCP		2.49	1	Remove/Reset 8' RCP RT Ditch Out RT
603+57							Ditch Out RT
604+87							Ditch Out RT

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

## GUARDRAIL PIN 16774.00 FALMOUTH – FREEPORT I-295 NB

350 FLARED TERMINAL Station	BRIDGE TRANSITION/ NEW GUARDRAIL/ MODIFY TYPE 3D			SHOULDER WIDENING *s.y.	REMARKS
	Station	to Station	l.f.		
124+62-124+99.5 RT				37.2*	Replace Existing BCT/Widen Existing
	135+75	138+60	350.0	95.0*	Remove Existing BCT/Connect two runs
144+31.5-144+81.5 LT**	149+06.5	149+25	18.5		Type 1 Transition Attach to Presumpscot Bridge RT
					Replace Existing BCT/Widen Existing
	149+06.5	149+25	18.5		Type 1 Transition Attach to Presumpscot Bridge LT
	152+22	152+40.5	18.5		Type 1 Transition Attach to Presumpscot Bridge RT
	152+22	152+40.5	18.5		Type 1 Transition Attach to Presumpscot Bridge LT
188+56.5-189+06.5 LT**	189+06.5	194+06.5	500.0		Replace Existing BCT/Adjust run LT
191+90-192+27.5 RT				37.2*	Replace Existing BCT/Widen Existing
210+68-211+05.5 RT				37.2*	Replace Existing BCT/Widen Existing
229+56-229+93.5 RT				37.2*	Replace Existing BCT/Widen Existing
	237+95.5	244+70.5	675.0		Replace Existing BCT/Adjust run LT
245+15-245+52.5 RT				37.2*	Replace Existing BCT/Widen Existing
272+18.5-272+68.5 LT**					Replace Existing BCT
274+50-274+87.5 RT				37.2*	Replace Existing BCT/Widen Existing
287+08-287+45.5 RT				37.2*	Replace Existing BCT/Widen Existing
305+53-305+90.5 RT				37.2*	Replace Existing BCT/Widen Existing
317+08.5-317+58.5 LT**					Replace Existing BCT

Post spacing is 6'-3"

\* Estimate only, widen as directed

\*\* 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

## GUARDRAIL PIN 16774.00 FALMOUTH – FREEPORT I-295 NB

350 FLARED TERMINAL Station	BRIDGE TRANSITION/ NEW GUARDRAIL/ MODIFY TYPE 3D		SHOULDER WIDENING *s.y.	REMARKS
	Station to	Station l.f.		
385+62.5-386+12.5 LT**				Replace Existing BCT
387+37.5-387+75 RT			37.2*	Replace Existing BCT/Widen Existing
409+66.5-410+04 RT			37.2*	Replace Existing BCT/Widen Existing
437+20-437+57.5 RT	437+57.5	441+20.0	87.0*	New widening, Extend Leading end, Replace Existing
452+99.5-453+37 RT	453+37.0	454+12.0	100.9*	New widening, Extend Leading end.
452+90.5-453+40.5 LT**				Replace Existing BCT
491+80.5-492+18 RT			37.2*	Replace Existing BCT/Widen Existing
505+67-506+17 LT**				Replace Existing BCT
	509+70.5	509+89		Type 1 Transition Attach to Lafayette Road Bridge LT
	509+70.5	509+89		Type 1 Transition Attach to Lafayette Road Bridge RT
	510+62	510+80.5		Type 1 Transition Attach to Lafayette Road Bridge LT
	510+62	510+80.5		Type 1 Transition Attach to Lafayette Road Bridge RT
	514+56.5	514+75		Type 1 Transition Attach to Royal River Bridge LT
	514+56.5	514+75		Type 1 Transition Attach to Royal River Bridge RT
	515+55	515+73.5		Type 1 Transition Attach to Royal River Bridge LT
	515+55	515+73.5		Type 1 Transition Attach to Royal River Bridge RT
553+93-554+30.5 RT			37.2*	Replace Existing BCT/Widen Existing
	561+73.5	561+92		Type 1 Transition Attach to Route One Bridge LT
	561+73.5	561+92		Type 1 Transition Attach to Route One Bridge RT
	563+20	563+38.5		Type 1 Transition Attach to Route One Bridge LT
	563+20	563+38.5		Type 1 Transition Attach to Route One Bridge RT

Post spacing is 6'-3"

\* Estimate only, widen as directed

\*\* 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

## GUARDRAIL PIN 16774.00 FALMOUTH – FREEPORT I-295 NB

350 FLARED TERMINAL Station	BRIDGE TRANSITION/ NEW GUARDRAIL/ MODIFY TYPE 3D			SHOULDER WIDENING *s.y.	REMARKS
	Station	to Station	l.f.		
524+50-524+87.5 RT				37.2*	Replace Existing BCT/Widen Existing
524+65-525+15 LT**					Replace Existing BCT
	527+81.5	528+00	18.5		Type 1 Transition Attach to Cousins River Bridge LT
	527+81.5	528+00	18.5		Type 1 Transition Attach to Cousins River Bridge RT
	529+00	529+18.5	18.5		Type 1 Transition Attach to Cousins River Bridge LT
	529+00	529+18.5	18.5		Type 1 Transition Attach to Cousins River Bridge RT
	538+00.0	538+37.5	37.5		Replace damaged section of guardrail RT
Exit 10 Off Bucknam Road					
0+71 – 1+08.5 LT	0+71	1+77.5		59.2*	Replace Existing BCT/Widen Existing
	0+58.5	0+71	12.5		Lengthen Existing Run
55+37.5 – 55+75 RT	54+68.5	55+75		37.2*	Replace Existing BCT/Widen Existing
	55+75	59+37.5	362.5		Remove Existing Prior To Milling/Replace With New
Exit 20 Off Freeport					
51+25.5 – 51+63 LT	50+65.5	51+63		59.2*	Replace Existing BCT/Widen Existing

Post spacing is 6'-3"

\* Estimate only, widen as directed

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

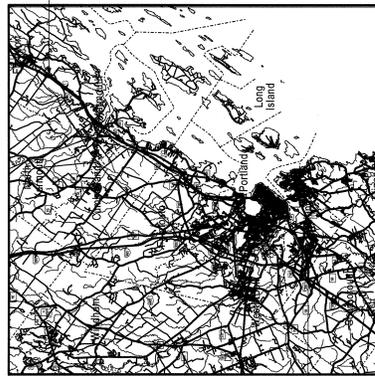
Note: Existing BCT's to be replaced with FT 350's or CAT's

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

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**STP-1705(500)E**

BEGIN PROJECT RLM 0.64  
END PROJECT RLM 20.50



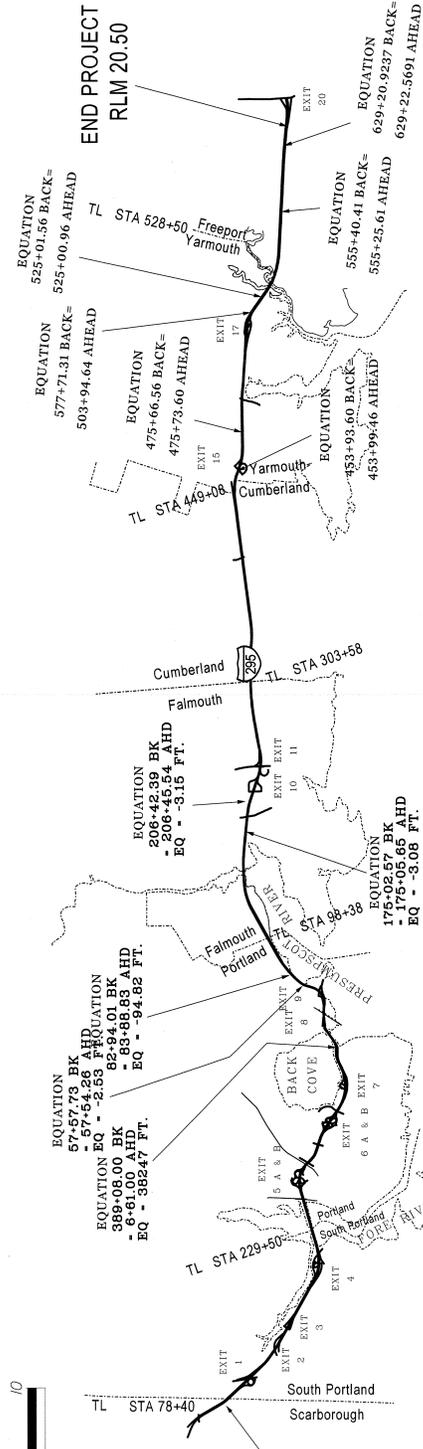
LOCATION MAP



**SCARBOROUGH, SOUTH PORTLAND,  
PORTLAND, FALMOUTH, CUMBERLAND,  
YARMOUTH, & FREEPORT  
CUMBERLAND**

INTERSTATE 295 NORTHBOUND  
**STP-1705(500)E**

PROJECT LENGTH : 19.860 MILES  
OPERATIONAL AND SAFETY IMPROVEMENTS



SECTION	START	END	DESCRIPTION	ADT	DESIGN SPEED (mph)	FUNCTIONAL CLASS
SEC 1	0.64	1.100	EXIT 1 TO EXIT 2 (SCARBOROUGH CONC.) (SAINT HALLS ROAD) TO MAINE TURNPIKE	11100	17440	24600
SEC 2	1.100	17440	EXIT 2 TO EXIT 3 (SCARBOROUGH CONC.) (SCARBOROUGH CONC.)			
SEC 3	17440	24600	EXIT 3 TO EXIT 4 (PORTLAND FREEWAY) (PORTLAND FREEWAY)			
SEC 4	24600	35580	EXIT 4 TO EXIT 5 (OR 24 CONCRETE) (OR 24 CONCRETE) (WINTERBROOK STREET)	35580	32030	35580
SEC 5	35580	31050	EXIT 5 TO EXIT 6 (OR 24 CONCRETE) (OR 24 CONCRETE) (OR 24 CONCRETE)	31050	32030	35580
SEC 6	31050	32250	EXIT 6 TO EXIT 7 (OR 24 CONCRETE) (OR 24 CONCRETE) (OR 24 CONCRETE)	32250	32250	32250
SEC 7	32250	32310	EXIT 7 TO EXIT 8 (OR 24 CONCRETE) (OR 24 CONCRETE) (OR 24 CONCRETE)	32310	32310	32310
SEC 8	32310	23150	EXIT 8 TO EXIT 9 (OR 24 CONCRETE) (OR 24 CONCRETE) (OR 24 CONCRETE)	23150	23150	23150
SEC 9	23150	21930	EXIT 9 TO EXIT 10 (OR 24 CONCRETE) (OR 24 CONCRETE) (OR 24 CONCRETE)	21930	21930	21930
SEC 10	21930	25350	EXIT 10 TO EXIT 11 (OR 24 CONCRETE) (OR 24 CONCRETE) (OR 24 CONCRETE)	25350	25350	25350
SEC 11	25350	21510	EXIT 11 TO EXIT 12 (OR 24 CONCRETE) (OR 24 CONCRETE) (OR 24 CONCRETE)	21510	21510	21510
SEC 12	21510	23330	EXIT 12 TO EXIT 13 (OR 24 CONCRETE) (OR 24 CONCRETE) (OR 24 CONCRETE)	23330	23330	23330
SEC 13	23330	65	EXIT 13 TO EXIT 14 (OR 24 CONCRETE) (OR 24 CONCRETE) (OR 24 CONCRETE)	65	65	65

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

PRINCIPAL ARTERIAL INTERSTATE

TRAFFIC DATA  
Current (2009) AADT  
Design Speed (mph)  
Functional Class:

SHEET NUMBER  
**1**  
OF 1

PROJECT INFORMATION	PROGRAM SCARBOROUGH, SOUTH PORTLAND, PORTLAND, FALMOUTH, CUMBERLAND, YARMOUTH, & FREEPORT INTERSTATE 295 NORTHBOUND
PROJECT MANAGER	ROBERT HOUGH
DESIGNER	936
DATE	2/24/10
P.E. NUMBER	936
SIGNATURE	[Signature]
DATE	2/24/10
APPROVED	[Signature]
COMMISSIONER	[Signature]
CHIEF ENGINEER	[Signature]

PROJECT INFORMATION	PROJECT SCARBOROUGH, SOUTH PORTLAND, PORTLAND, FALMOUTH, CUMBERLAND, YARMOUTH, & FREEPORT INTERSTATE 295 NORTHBOUND
PROJECT MANAGER	ROBERT HOUGH
DESIGNER	936
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APPROVED	[Signature]
COMMISSIONER	[Signature]
CHIEF ENGINEER	[Signature]

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
SCARBOROUGH, SOUTH PORTLAND,  
PORTLAND, FALMOUTH, CUMBERLAND,  
YARMOUTH, & FREEPORT  
CUMBERLAND  
INTERSTATE 295 NORTHBOUND  
STP-1705(500)E  
PROJECT LENGTH : 19.860 MILES  
OPERATIONAL AND SAFETY IMPROVEMENTS  
PIN 17055.00

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	STP-1705(500)E	PIN 17055.00	HIGHWAY PLANS
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PROJ. NUMBER	R. HOUGH	BY	DATE
DESIGNER			
CHECKED			
APPROVED			
DATE			
SIGNATURE			
P.E. NUMBER			
DATE			

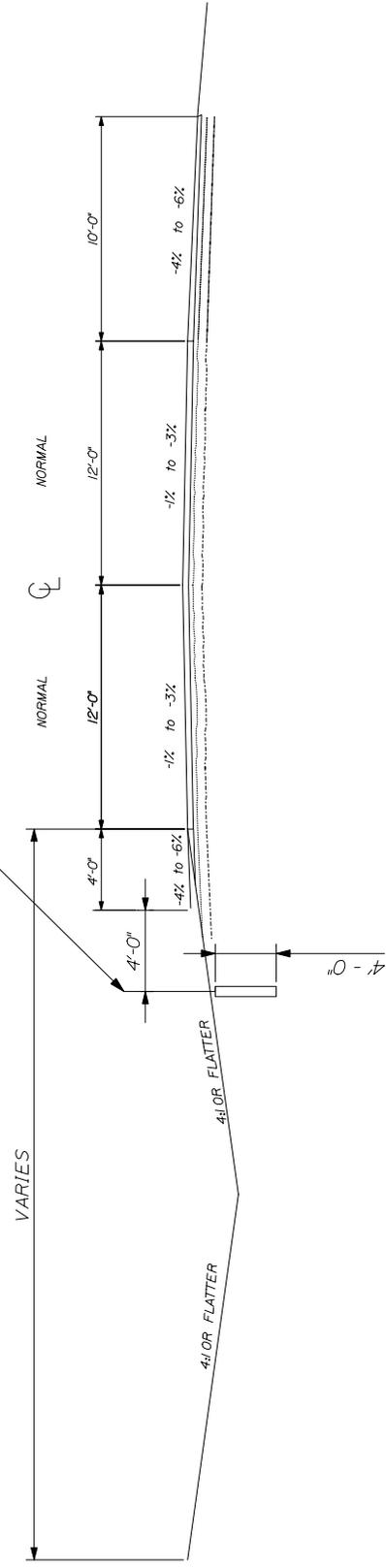
SCARBOROUGH, SOUTH PORTLAND,  
YARMOUTH, & FREEPORT  
INTERSTATE 295 NORTHBOUND  
TYPICAL SECTIONS

SHEET NUMBER  
1  
OF 1

STP-1705(500)E PIN 17055.00

HIGH TENSION CABLE BARRIER LOCATION

HIGH TENSION CABLE BARRIER



NOT TO SCALE

## **STATIONING**

Begin Project	57+44
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)
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 Permanent Concrete Median	373+96
Washington Avenue Overpass	374+51
Tukey's Bridge Joint	384+03
Tukey's Bridge Joint	389+08
Equation	6+61 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

## STATIONING

Veranda Street Bridge Joint	39+40
Veranda Street Bridge Joint	41+40
Begin Permanent Concrete Median	51+55
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
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

**STATIONING**

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
Equation	577+71.31 BK = 503+94.64 AHD
Equation	525+01.56 BK = 525+00.96 AHD
Bridge Joint	528+00 Cousins River Bridge
Yarmouth/Freeport Town Line	528+50
Bridge Joint	529+00 Cousins River Bridge
Equation	555+40.41 BK= 555+25.61 AHD
Old County Road Overpass	604+06.19
Equation	629+20.9237 BK = 629+22.5691 AHD
End Project	660+00

## GUARDRAIL PIN 17055.00 SCARBOROUGH – FREEPORT I-295 NB

CABLE BARRIER TERMINAL Median Side of Highway Station	CABLE BARRIER HIGH TENSION			BARREL NORTH OR SOUTH	REMARKS
	Station to	Station	l.f.		
76+13 – 76+64**	76+64	95+48	1884*	Northbound	Location is South of Bridge # 1513
95+48 – 95+68**				Northbound	
59+20 – 59+71**	59+71	78+25	1854*	Southbound	Location is North of Tukeys Bridge
78+25 – 78+45**				Southbound	
126+23 – 126+74**	126+74	145+60	1886*	Southbound	
145+60 – 145+80**				Southbound	
156+15 – 156+66**	156+66	189+52	3286*	Southbound	
189+52 – 189+72**				Southbound	
246+67 – 247+18**	247+18	273+53	2635*	Southbound	
273+53 – 273+73**				Southbound	
301+73 – 302+24**	302+24	364+03	6179*	Southbound	
364+03 – 364+23**				Southbound	
368+12 – 368+63**	368+63	386+12	1749*	Northbound	
386+12 – 386+32**				Northbound	
409+10 – 409+61**	409+61	453+71	4410*	Southbound	
453+71 – 453+91**				Southbound	
472+20 – 472+71**	472+71	505+98	3327*	Southbound	
505+98 – 506+18**				Southbound	
517+60 – 518+11**	518+11	537+15	1904*	Northbound	
537+15 – 537+55**				Northbound	
568+55 – 569+06**	569+06	527+35	3347*	Southbound	Equation area
527+35 – 527+55**				Southbound	Terminal end at Cousins River Bridge
529+35 – 529+86	529+86	547+40	1754*	Southbound	Terminal end at Cousins River Bridge
547+40 – 547+60				Southbound	

\* Estimate only.

\*\* Consult Boring Logs

Note: Barrel is in reference to side closest in direction of travel. Example: Northbound Barrel is 295 North.

Driller: MaineDOT	Elevation (ft.):	Auger ID/OD: 5" Dia.
Operator: Giguere/Giles	Datum: NAVD88	Sampler: Visual
Logged By: B. Wilder	Rig Type: CME 45C	Hammer Wt./Fall: N/A
Date Start/Finish: 2/21/10-2/21/10	Drilling Method: Solid Stem Auger	Core Barrel: N/A
Boring Location: 76+13, Mile Point 0.7	Casing ID/OD: N/A	Water Level*: None Observed

**Hammer Efficiency Factor:**      **Hammer Type:**    Automatic     Hydraulic     Rope & Cathead

Definitions:      R = Rock Core Sample      S<sub>u</sub> = In situ Field Vane Shear Strength (psf)      S<sub>u(lab)</sub> = Lab Vane Shear Strength (psf)  
D = Split Spoon Sample      SSA = Solid Stem Auger      T<sub>v</sub> = Pocket Torvane Shear Strength (psf)      WC = water content, percent  
MD = Unsuccessful Split Spoon Sample attempt      HSA = Hollow Stem Auger      q<sub>p</sub> = Unconfined Compressive Strength (ksf)  
U = Thin Wall Tube Sample      RC = Roller Cone      N-uncorrected = Raw field SPT N-value  
MU = Unsuccessful Thin Wall Tube Sample attempt      WOH = weight of 140lb. hammer      Hammer Efficiency Factor = Annual Calibration Value  
V = In situ Vane Shear Test,    PP = Pocket Penetrometer      N<sub>60</sub> = SPT N-uncorrected corrected for hammer efficiency  
MV = Unsuccessful Insitu Vane Shear Test attempt      WO1P = Weight of one person      N<sub>60</sub> = (Hammer Efficiency Factor/60%)\*N-uncorrected  
LL = Liquid Limit      PL = Plasticity Index  
G = Grain Size Analysis      C = Consolidation Test

Depth (ft.)	Sample Information								Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	N <sub>60</sub>	Casing Blows					
0								SSA	-0.20			
5												
10									-10.00			
15												
20												
25												

**Remarks:**  
Scarborough



<b>Driller:</b> MaineDOT	<b>Elevation (ft.):</b>	<b>Auger ID/OD:</b> 5" Dia.
<b>Operator:</b> Giguere/Giles	<b>Datum:</b> NAVD88	<b>Sampler:</b> Visual
<b>Logged By:</b> B. Wilder	<b>Rig Type:</b> CME 45C	<b>Hammer Wt./Fall:</b> N/A
<b>Date Start/Finish:</b> 2/21/10-2/21/10	<b>Drilling Method:</b> Solid Stem Auger	<b>Core Barrel:</b> N/A
<b>Boring Location:</b> 59+20, Mile Point 7.7	<b>Casing ID/OD:</b> N/A	<b>Water Level*:</b> None Observed

**Hammer Efficiency Factor:** \_\_\_\_\_ **Hammer Type:** Automatic  Hydraulic  Rope & Cathead

Definitions: R = Rock Core Sample      S<sub>u</sub> = Insitu Field Vane Shear Strength (psf)      S<sub>u(lab)</sub> = Lab Vane Shear Strength (psf)  
 D = Split Spoon Sample      SSA = Solid Stem Auger      T<sub>v</sub> = Pocket Torvane Shear Strength (psf)      WC = water content, percent  
 MD = Unsuccessful Split Spoon Sample attempt      HSA = Hollow Stem Auger      q<sub>p</sub> = Unconfined Compressive Strength (ksf)      LL = Liquid Limit  
 U = Thin Wall Tube Sample      RC = Roller Cone      N-uncorrected = Raw field SPT N-value      PL = Plastic Limit  
 MU = Unsuccessful Thin Wall Tube Sample attempt      WOH = weight of 140lb. hammer      Hammer Efficiency Factor = Annual Calibration Value      PI = Plasticity Index  
 V = Insitu Vane Shear Test, PP = Pocket Penetrometer      WOR/C = weight of rods or casing      N<sub>60</sub> = SPT N-uncorrected corrected for hammer efficiency      G = Grain Size Analysis  
 MV = Unsuccessful Insitu Vane Shear Test attempt      WO1P = Weight of one person      N<sub>60</sub> = (Hammer Efficiency Factor/60%)\*N-uncorrected      C = Consolidation Test

Depth (ft.)	Sample Information								Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	N <sub>60</sub>	Casing Blows					
0								SSA		Brown, moist, fine to coarse SAND, some gravel.		
5									-5.50	Grey-brown, moist, clayey-SILT, trace fine sand.		
10									-10.00	<b>Bottom of Exploration at 10.00 feet below ground surface. NO REFUSAL</b>		
15												
20												
25												

**Remarks:**  
Portland









<b>Driller:</b> MaineDOT	<b>Elevation (ft.):</b>	<b>Auger ID/OD:</b> 5" Dia.
<b>Operator:</b> Giguere/Giles	<b>Datum:</b> NAVD88	<b>Sampler:</b> Visual
<b>Logged By:</b> B. Wilder	<b>Rig Type:</b> CME 45C	<b>Hammer Wt./Fall:</b> N/A
<b>Date Start/Finish:</b> 2/21/10-2/21/10	<b>Drilling Method:</b> Solid Stem Auger	<b>Core Barrel:</b> N/A
<b>Boring Location:</b> 189+72, Mile Point 10.2	<b>Casing ID/OD:</b> N/A	<b>Water Level*:</b> None Observed

**Hammer Efficiency Factor:** \_\_\_\_\_ **Hammer Type:** Automatic  Hydraulic  Rope & Cathead

Definitions: R = Rock Core Sample      S<sub>u</sub> = Insitu Field Vane Shear Strength (psf)      S<sub>u(lab)</sub> = Lab Vane Shear Strength (psf)  
 D = Split Spoon Sample      SSA = Solid Stem Auger      T<sub>v</sub> = Pocket Torvane Shear Strength (psf)      WC = water content, percent  
 MD = Unsuccessful Split Spoon Sample attempt      HSA = Hollow Stem Auger      q<sub>p</sub> = Unconfined Compressive Strength (ksf)      LL = Liquid Limit  
 U = Thin Wall Tube Sample      RC = Roller Cone      N-uncorrected = Raw field SPT N-value      PL = Plastic Limit  
 MU = Unsuccessful Thin Wall Tube Sample attempt      WOH = weight of 140lb. hammer      Hammer Efficiency Factor = Annual Calibration Value      PI = Plasticity Index  
 V = Insitu Vane Shear Test, PP = Pocket Penetrometer      WOR/C = weight of rods or casing      N<sub>60</sub> = SPT N-uncorrected corrected for hammer efficiency      G = Grain Size Analysis  
 MV = Unsuccessful Insitu Vane Shear Test attempt      WO1P = Weight of one person      N<sub>60</sub> = (Hammer Efficiency Factor/60%)\*N-uncorrected      C = Consolidation Test

Depth (ft.)	Sample Information								Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	N <sub>60</sub>	Casing Blows					
0									-0.20	TOPSOIL.		
										Light brown, damp, fine to coarse SAND, some gravel.		
5									-5.50	Brown, moist, fine to coarse SAND, some gravel, little silt.		
									-8.00	<b>Bottom of Exploration at 8.00 feet below ground surface.</b> REFUSAL		
10												
15												
20												
25												

**Remarks:**  
Falmouth

Driller: MaineDOT	Elevation (ft.):	Auger ID/OD: 5" Dia.
Operator: Giguere/Giles	Datum: NAVD88	Sampler: Visual
Logged By: B. Wilder	Rig Type: CME 45C	Hammer Wt./Fall: N/A
Date Start/Finish: 2/21/10-2/21/10	Drilling Method: Solid Stem Auger	Core Barrel: N/A
Boring Location: 246+67, Mile Point 11.3	Casing ID/OD: N/A	Water Level*: None Observed

**Hammer Efficiency Factor:** \_\_\_\_\_ **Hammer Type:** Automatic  Hydraulic  Rope & Cathead

Definitions: R = Rock Core Sample      S<sub>u</sub> = In situ Field Vane Shear Strength (psf)      S<sub>u(lab)</sub> = Lab Vane Shear Strength (psf)  
D = Split Spoon Sample      SSA = Solid Stem Auger      T<sub>v</sub> = Pocket Torvane Shear Strength (psf)      WC = water content, percent  
MD = Unsuccessful Split Spoon Sample attempt      HSA = Hollow Stem Auger      q<sub>p</sub> = Unconfined Compressive Strength (ksf)  
U = Thin Wall Tube Sample      RC = Roller Cone      N-uncorrected = Raw field SPT N-value  
MU = Unsuccessful Thin Wall Tube Sample attempt      WOH = weight of 140lb. hammer      Hammer Efficiency Factor = Annual Calibration Value  
V = In situ Vane Shear Test, PP = Pocket Penetrometer      WOR/C = weight of rods or casing      N<sub>60</sub> = SPT N-uncorrected corrected for hammer efficiency  
MV = Unsuccessful Insitu Vane Shear Test attempt      WO1P = Weight of one person      N<sub>60</sub> = (Hammer Efficiency Factor/60%)\*N-uncorrected  
LL = Liquid Limit      PL = Plasticity Limit  
PI = Plasticity Index      G = Grain Size Analysis      C = Consolidation Test

Depth (ft.)	Sample Information								Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	N <sub>60</sub>	Casing Blows					
0									-0.20	SSA	TOPSOIL. Light brown, damp, fine to coarse SAND, some gravel.	
5												
10									-10.00		Bottom of Exploration at 10.00 feet below ground surface. NO REFUSAL	
15												
20												
25												

**Remarks:**  
Falmouth



Driller: MaineDOT	Elevation (ft.):	Auger ID/OD: 5" Dia.
Operator: Giguere/Giles	Datum: NAVD88	Sampler: Visual
Logged By: B. Wilder	Rig Type: CME 45C	Hammer Wt./Fall: N/A
Date Start/Finish: 2/21/10-2/21/10	Drilling Method: Solid Stem Auger	Core Barrel: N/A
Boring Location: 301+73, Mile Point 12.3	Casing ID/OD: N/A	Water Level*: None Observed

**Hammer Efficiency Factor:**      **Hammer Type:**    Automatic     Hydraulic     Rope & Cathead

Definitions:      R = Rock Core Sample      S<sub>u</sub> = In situ Field Vane Shear Strength (psf)      S<sub>u(lab)</sub> = Lab Vane Shear Strength (psf)  
D = Split Spoon Sample      SSA = Solid Stem Auger      T<sub>v</sub> = Pocket Torvane Shear Strength (psf)      WC = water content, percent  
MD = Unsuccessful Split Spoon Sample attempt      HSA = Hollow Stem Auger      q<sub>p</sub> = Unconfined Compressive Strength (ksf)  
U = Thin Wall Tube Sample      RC = Roller Cone      N-uncorrected = Raw field SPT N-value  
MU = Unsuccessful Thin Wall Tube Sample attempt      WOH = weight of 140lb. hammer      Hammer Efficiency Factor = Annual Calibration Value  
V = In situ Vane Shear Test,    PP = Pocket Penetrometer      N<sub>60</sub> = SPT N-uncorrected corrected for hammer efficiency  
MV = Unsuccessful In situ Vane Shear Test attempt      WO1P = Weight of one person      N<sub>60</sub> = (Hammer Efficiency Factor/60%)\*N-uncorrected  
LL = Liquid Limit      PL = Plasticity Index  
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Depth (ft.)	Sample Information								Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	N <sub>60</sub>	Casing Blows					
0									-0.20	SSA	TOPSOIL.	
											Light brown, moist, fine to coarse SAND, some gravel.	
5									-6.00		Brown, moist, fine to coarse SAND, little silt.	
10									-10.00		<b>Bottom of Exploration at 10.00 feet below ground surface.</b> NO REFUSAL	
15												
20												
25												

**Remarks:**  
Falmouth











<b>Driller:</b> MaineDOT	<b>Elevation (ft.):</b>	<b>Auger ID/OD:</b> 5" Dia.
<b>Operator:</b> Giguere/Giles	<b>Datum:</b> NAVD88	<b>Sampler:</b> Visual
<b>Logged By:</b> B. Wilder	<b>Rig Type:</b> CME 45C	<b>Hammer Wt./Fall:</b> N/A
<b>Date Start/Finish:</b> 2/21/10-2/21/10	<b>Drilling Method:</b> Solid Stem Auger	<b>Core Barrel:</b> N/A
<b>Boring Location:</b> 517+60, Mile Point 16.8	<b>Casing ID/OD:</b> N/A	<b>Water Level*:</b> None Observed

**Hammer Efficiency Factor:** \_\_\_\_\_ **Hammer Type:** Automatic  Hydraulic  Rope & Cathead

Definitions: R = Rock Core Sample      S<sub>u</sub> = Insitu Field Vane Shear Strength (psf)      S<sub>u(lab)</sub> = Lab Vane Shear Strength (psf)  
 D = Split Spoon Sample      SSA = Solid Stem Auger      T<sub>v</sub> = Pocket Torvane Shear Strength (psf)      WC = water content, percent  
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 MV = Unsuccessful Insitu Vane Shear Test attempt      WO1P = Weight of one person      N<sub>60</sub> = (Hammer Efficiency Factor/60%)\*N-uncorrected      C = Consolidation Test

Depth (ft.)	Sample Information								Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/AASHTO and Unified Class.
	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	N <sub>60</sub>	Casing Blows					
0									-0.20	SSA	TOPSOIL.	
											Light brown, moist, fine to coarse SAND, some gravel.	
5									-5.50		Grey, wet, soft, clayey-SILT.	
10									-10.00		<b>Bottom of Exploration at 10.00 feet below ground surface.</b> NO REFUSAL	
15												
20												
25												

**Remarks:**  
Yarmouth



Driller: MaineDOT	Elevation (ft.):	Auger ID/OD: 5" Dia.
Operator: Giguere/Giles	Datum: NAVD88	Sampler: Visual
Logged By: B. Wilder	Rig Type: CME 45C	Hammer Wt./Fall: N/A
Date Start/Finish: 2/21/10-2/21/10	Drilling Method: Solid Stem Auger	Core Barrel: N/A
Boring Location: 527+55, Mile Point 17.9	Casing ID/OD: N/A	Water Level*: None Observed

**Hammer Efficiency Factor:** \_\_\_\_\_ **Hammer Type:** Automatic  Hydraulic  Rope & Cathead

Definitions: R = Rock Core Sample      S<sub>u</sub> = In situ Field Vane Shear Strength (psf)      S<sub>u(lab)</sub> = Lab Vane Shear Strength (psf)  
D = Split Spoon Sample      SSA = Solid Stem Auger      T<sub>v</sub> = Pocket Torvane Shear Strength (psf)      WC = water content, percent  
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5												
10									-10.00		Bottom of Exploration at 10.00 feet below ground surface. NO REFUSAL	
15												
20												
25												

**Remarks:**  
Yarmouth

UNIFIED SOIL CLASSIFICATION SYSTEM				TERMS DESCRIBING DENSITY/CONSISTENCY																							
MAJOR DIVISIONS		GROUP SYMBOLS		TYPICAL NAMES																							
COARSE-GRAINED SOILS  (more than half of material is larger than No. 200 sieve size)	GRAVELS  (more than half of coarse fraction is larger than No. 4 sieve size)	CLEAN GRAVELS	GW	Well-graded gravels, gravel-sand mixtures, little or no fines	<p><b>Coarse-grained soils</b> (more than half of material is larger than No. 200 sieve): Includes (1) clean gravels; (2) silty or clayey gravels; and (3) silty, clayey or gravelly sands. Consistency is rated according to standard penetration resistance.</p> <p style="text-align: center;">Modified Burmister System</p> <table border="0"> <tr> <td style="text-align: center;"><u>Descriptive Term</u></td> <td style="text-align: center;"><u>Portion of Total</u></td> </tr> <tr> <td>trace</td> <td>0% - 10%</td> </tr> <tr> <td>little</td> <td>11% - 20%</td> </tr> <tr> <td>some</td> <td>21% - 35%</td> </tr> <tr> <td>adjective (e.g. sandy, clayey)</td> <td>36% - 50%</td> </tr> </table> <table border="0"> <tr> <td style="text-align: center;"><u>Density of Cohesionless Soils</u></td> <td style="text-align: center;"><u>Standard Penetration Resistance N-Value (blows per foot)</u></td> </tr> <tr> <td>Very loose</td> <td>0 - 4</td> </tr> <tr> <td>Loose</td> <td>5 - 10</td> </tr> <tr> <td>Medium Dense</td> <td>11 - 30</td> </tr> <tr> <td>Dense</td> <td>31 - 50</td> </tr> <tr> <td>Very Dense</td> <td>&gt; 50</td> </tr> </table>	<u>Descriptive Term</u>	<u>Portion of Total</u>	trace	0% - 10%	little	11% - 20%	some	21% - 35%	adjective (e.g. sandy, clayey)	36% - 50%	<u>Density of Cohesionless Soils</u>	<u>Standard Penetration Resistance N-Value (blows per foot)</u>	Very loose	0 - 4	Loose	5 - 10	Medium Dense	11 - 30	Dense	31 - 50	Very Dense	> 50
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(little or no fines)	GP	Poorly-graded gravels, gravel sand mixtures, little or no fines																									
GRAVEL WITH FINES (Appreciable amount of fines)	GM	Silty gravels, gravel-sand-silt mixtures.																									
	GC	Clayey gravels, gravel-sand-clay mixtures.																									
SANDS  (more than half of coarse fraction is smaller than No. 4 sieve size)	CLEAN SANDS  (little or no fines)	SW	Well-graded sands, gravelly sands, little or no fines																								
		SP	Poorly-graded sands, gravelly sand, little or no fines.																								
	SANDS WITH FINES (Appreciable amount of fines)	SM	Silty sands, sand-silt mixtures																								
		SC	Clayey sands, sand-clay mixtures.																								
FINE-GRAINED SOILS  (more than half of material is smaller than No. 200 sieve size)	SILTS AND CLAYS  (liquid limit less than 50)	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts with slight plasticity.																								
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.																								
		OL	Organic silts and organic silty clays of low plasticity.																								
	SILTS AND CLAYS  (liquid limit greater than 50)	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.																								
		CH	Inorganic clays of high plasticity, fat clays.																								
		OH	Organic clays of medium to high plasticity, organic silts																								
HIGHLY ORGANIC SOILS	Pt	Peat and other highly organic soils.																									
<p><b>Desired Soil Observations: (in this order)</b></p> <p>Color (Munsell color chart)  Moisture (dry, damp, moist, wet, saturated)  Density/Consistency (from above right hand side)  Name (sand, silty sand, clay, etc., including portions - trace, little, etc.)  Gradation (well-graded, poorly-graded, uniform, etc.)  Plasticity (non-plastic, slightly plastic, moderately plastic, highly plastic)  Structure (layering, fractures, cracks, etc.)  Bonding (well, moderately, loosely, etc., if applicable)  Cementation (weak, moderate, or strong, if applicable, ASTM D 2488)  Geologic Origin (till, marine clay, alluvium, etc.)  Unified Soil Classification Designation  Groundwater level</p>				<p><b>Rock Quality Designation (RQD):</b></p> <p>RQD = <math>\frac{\text{sum of the lengths of intact pieces of core}^* &gt; 100 \text{ mm}}{\text{length of core advance}}</math></p> <p style="text-align: center;">*Minimum NQ rock core (1.88 in. OD of core)</p> <p style="text-align: center;">Correlation of RQD to Rock Mass Quality</p> <table border="0"> <tr> <td style="text-align: center;"><u>Rock Mass Quality</u></td> <td style="text-align: center;"><u>RQD</u></td> </tr> <tr> <td>Very Poor</td> <td>&lt;25%</td> </tr> <tr> <td>Poor</td> <td>26% - 50%</td> </tr> <tr> <td>Fair</td> <td>51% - 75%</td> </tr> <tr> <td>Good</td> <td>76% - 90%</td> </tr> <tr> <td>Excellent</td> <td>91% - 100%</td> </tr> </table> <p><b>Desired Rock Observations: (in this order)</b></p> <p>Color (Munsell color chart)  Texture (aphanitic, fine-grained, etc.)  Lithology (igneous, sedimentary, metamorphic, etc.)  Hardness (very hard, hard, mod. hard, etc.)  Weathering (fresh, very slight, slight, moderate, mod. severe, severe, etc.)  Geologic discontinuities/jointing:  -dip (horiz - 0-5, low angle - 5-35, mod. dipping - 35-55, steep - 55-85, vertical - 85-90)  -spacing (very close - &lt;5 cm, close - 5-30 cm, mod. close 30-100 cm, wide - 1-3 m, very wide &gt;3 m)  -tightness (tight, open or healed)  -infilling (grain size, color, etc.)  Formation (Waterville, Ellsworth, Cape Elizabeth, etc.)  RQD and correlation to rock mass quality (very poor, poor, etc.)  ref: AASHTO Standard Specification for Highway Bridges  17th Ed. Table 4.4.8.1.2A  Recovery</p>		<u>Rock Mass Quality</u>	<u>RQD</u>	Very Poor	<25%	Poor	26% - 50%	Fair	51% - 75%	Good	76% - 90%	Excellent	91% - 100%										
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<p><b>Maine Department of Transportation</b>  <b>Geotechnical Section</b>  <b>Key to Soil and Rock Descriptions and Terms</b>  Field Identification Information</p>				<p><b>Sample Container Labeling Requirements:</b></p> <table border="0"> <tr> <td>PIN</td> <td>Blow Counts</td> </tr> <tr> <td>Bridge Name / Town</td> <td>Sample Recovery</td> </tr> <tr> <td>Boring Number</td> <td>Date</td> </tr> <tr> <td>Sample Number</td> <td>Personnel Initials</td> </tr> <tr> <td>Sample Depth</td> <td></td> </tr> </table>		PIN	Blow Counts	Bridge Name / Town	Sample Recovery	Boring Number	Date	Sample Number	Personnel Initials	Sample Depth													
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## **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 Energy Absorbing Systems (CAT's) 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.
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 at any time.
17. Milling widths 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 pavement 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 nightly 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 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.
23. Removal and Disposal for the Concrete Headwall for culvert replacement at station 288+50 shall be considered incidental to that Item 603.195.

## **GENERAL NOTES**

24. All ditches that are regraded/excavated must receive erosion control immediately, as directed by the Resident. Ditching shall be done under rental items as directed.
25. 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.
26. All pavement grindings/millings will become property of the Contractor.
27. 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.
28. All pipe and rental work shall be completed in the area prior to the contractor commencing milling and paving operations in that area unless otherwise authorized by the Resident.

General Decision Number: ME080003 07/24/2009 ME3

Superseded General Decision Number: ME20070003

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	02/08/2008
1	07/25/2008
2	07/24/2009

\* 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)).  
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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.

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WAGE DETERMINATION APPEALS PROCESS

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

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

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

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

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

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

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

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

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

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

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

=====

END OF GENERAL DECISION

**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.

<b>Utility/Railroad</b>	<b>Aerial</b>	<b>Underground</b>
Time Warner Cable	X	
Central Maine Power Company	X	
Verizon	X	
MaineCom Services	X	
Comcast	X	
MDOT		X
Falmouth Sewer District		X
Portland Water District		X
Yarmouth Water District		X
Maine Turnpike Authority	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 near Tuttle Road. **Where bridge deck work is required it should be noted that there are aerial wires that cross over the Rte 88, Rte 1 and Cousin River bridges. These wires do not appear to be issue given the bridge scope. No relocation or involvement of any kind is anticipated by the aerial utilities as part of the bridge deck 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 a major high volt power line that crosses the project at mile marker 16.0. 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. 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 Exits 10, 11, 15, 17 and 20. If guard rail is to be installed in the area of these ramps the contractor shall contact Ron Cote at 624-3602 for location and marking of the facilities. Hand digging may be required for some post installs if in the area of markings. There is also remote traffic warning speed signs on the shoulder of 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.

### **North 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. If the scope of work changes in these areas the Contractor must contact the Water District before executing the change. The contact for the **North Yarmouth Water District** is Bob MacKinnon at 846-5821.

### **Portland Water District**

**The Portland Water District** has water lines that cross I-295 in various locations. Based on the proposed scope of work these water lines will not conflict with construction. 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.

### **Maine Turnpike Authority**

The Maine Turnpike Authority has facilities near exit 10 and 11 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.

### **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:

<b>Central Maine Power Company</b>	Gary Crabtree	791-8025
<b>Fairpoint</b>	Marty Pease	797-1911
<b>State of Maine</b>	Ron Cote	624-3602
	Debbie Morgan (Traffic)	624-3606
<b>Time Warner Cable</b>	Don Johnson	253-2291
<b>Maine Com Services</b>	Mark Curtis	441-9532
<b>North Yarmouth Water District</b>	Bob MacKinnon	846-5821
<b>Maine Turnpike Authority</b>	William Franklin	871-7771
<b>Falmouth Sewer District</b>	Pete Clark	781-2052
<b>Comcast</b>	Ken Blodgett	729-2623
<b>Portland Water District</b>	Frank Meader	774-5961

**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.

<b>Utility/Railroad</b>	<b>Aerial</b>	<b>Underground</b>
Time Warner Cable	X	
Central Maine Power Company	X	
Verizon	X	
MaineCom Services	X	
Comcast	X	
MDOT		X
Falmouth Sewer District		X
Portland Water District		X
Yarmouth Water District		X
Maine Turnpike Authority	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 near Tuttle Road. **Where bridge deck work is required it should be noted that there are aerial wires that cross over the Rte 88, Rte 1 and Cousin River bridges. These wires do not appear to be issue given the bridge scope. No relocation or involvement of any kind is anticipated by the aerial utilities as part of the bridge deck 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 a major high volt power line that crosses the project at mile marker 16.0. The contractor is once again advised to use caution when working in that area with over height machines.

### **Underground**

There are utilities that cross the Interstate at different locations. (below) No impacts to these lines are anticipated. Contractor is required to notify all utilities, for accurate layout of their facility, prior to Guard Rail layout. 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.

### **Maine Department of Transportation**

The Maine Department of Transportation has underground facilities in the form of highway lighting in and around Exits 10, 11, 15, 17 and 20. If guard rail is to be installed in the area of these ramps the contractor shall contact Ron Cote at 624-3602 for location and marking of the facilities. Hand digging may be required for some post installs if in the area of markings. There is also remote traffic warning speed signs on the shoulder of 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.

### **North 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. If the scope of work changes in these areas the Contractor must contact the Water District before executing the change. The contact for the **North Yarmouth Water District** is Bob MacKinnon at 846-5821.

### **Portland Water District**

The **Portland Water District** has water lines that cross I-295 in various locations. Based on the proposed scope of work these water lines will not conflict with construction. 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.

### **Maine Turnpike Authority**

The Maine Turnpike Authority has facilities near exit 10 and 11 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.

### **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, CONTACT UTILITIES AND CONDUCT HIS WORK ACCORDINGLY.**

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

<b>Central Maine Power Company</b>	Gary Crabtree	791-8025
<b>Fairpoint</b>	Marty Pease	797-1911
<b>State of Maine</b>	Ron Cote	624-3602
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<b>Maine Com Services</b>	Mark Curtis	441-9532
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<b>Maine Turnpike Authority</b>	William Franklin	871-7771
<b>Falmouth Sewer District</b>	Pete Clark	781-2052
<b>Comcast</b>	Ken Blodgett	729-2623
<b>Portland Water District</b>	Frank Meader	774-5961

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 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).

Project No. IM-1677(400)E

**SPECIAL PROVISION 105**  
**CONSTRUCTION AREA**

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

- (a) In Cumberland County, Project No. IM-1677(400)E is located on I-295 northbound, beginning at the Portland/Falmouth town line and extending northerly 12.037 mi. to the (Exit 20) Desert Road off ramp.

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, Yarmouth and Freeport** 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.



**SPECIAL PROVISION 105**  
**CONSTRUCTION AREA**

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

- (a) The section of highway under construction is on I-295 northbound and begins 0.20 mi. south of the Scarborough/South Portland town line (RLM 0.64) and extends 19.86 miles north to the Desert Road Off Ramp (RLM 20.50) in Freeport.

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 Scarborough, Falmouth, Cumberland, Yarmouth and Freeport and 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”.

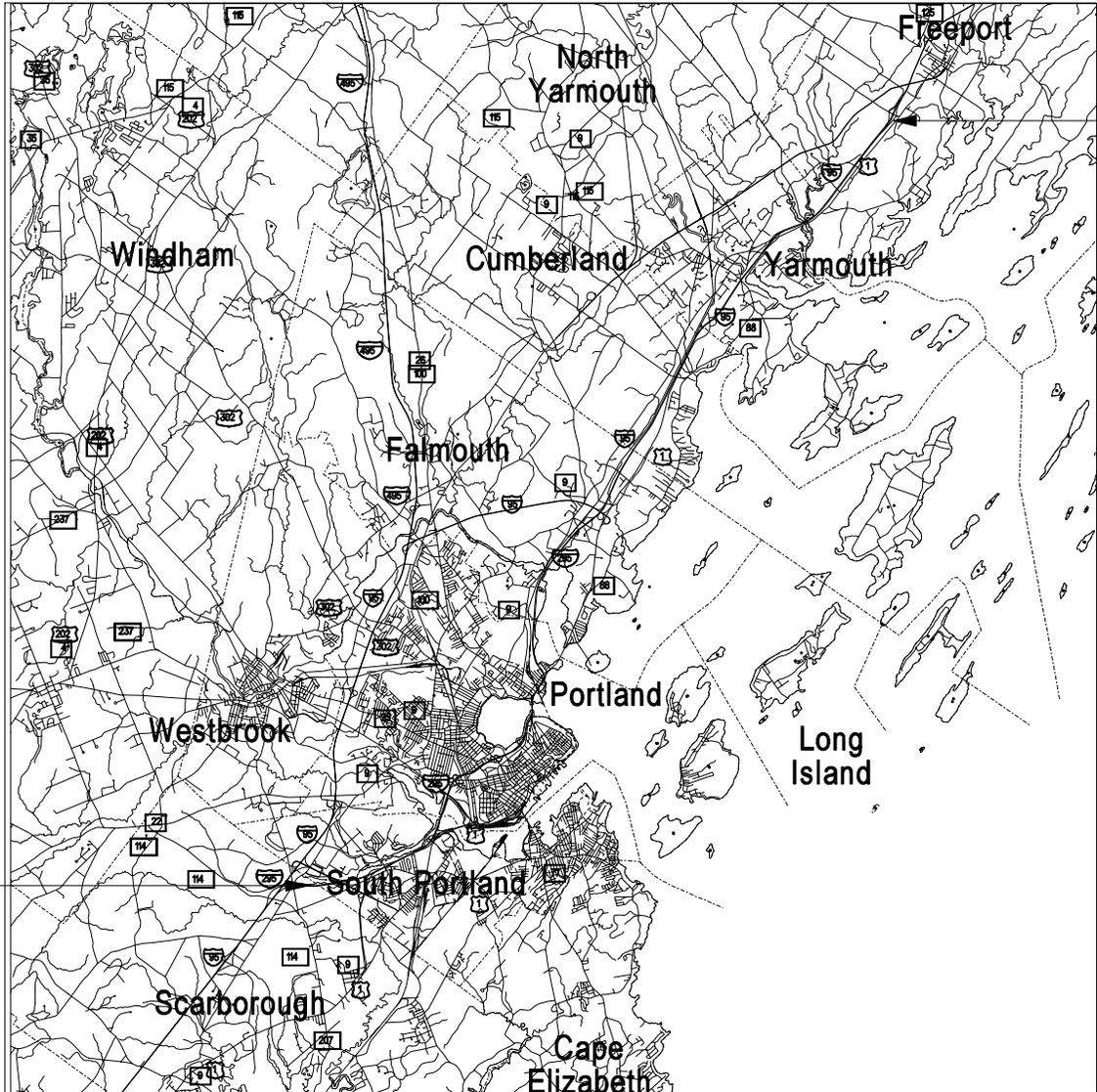
As noted above, a bond may be required by the municipality, the exact amount of said bond to be determined prior to use of any municipal way. The MDOT will assist in determining the bond amount if requested by the municipality.

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.

# STP-1705(500)E

BEGIN PROJECT RLM 0.64

END PROJECT RLM 20.50



*LOCATION MAP*



*Scale in Miles*

**IM-1677(400)E, PIN 16774.00**  
**STP-1705(500)E, PIN 17055.00**  
**Falmouth – Freeport**  
**Scarborough - Freeport**  
**I-295 Northbound**  
**February 24, 2010**

**SPECIAL PROVISION**  
**SECTION 105**  
**CONTROL OF WORK**  
**(Cooperation Between Contractors)**

It is hereby brought to the Contractor's attention that the Department has awarded and plans to award contracts adjacent and within the limits of this contract, which may be in progress simultaneously.

The Contractor shall cooperate with other Contractors at all times and provide project access as necessary and as directed by the Resident.

The Contractor will coordinate all activities including traffic control with others to ensure safe travel for motorists. This shall be specifically addressed within the Contractors Traffic Control Plan.

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, stream, 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. 352+50
2. 401+19
3. 505+20
4. 547+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)**

1. Ramps may be closed down between the hours of 7:00 pm to 6:00 am with 72 hours notice.
2. Interstate Crossovers will 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.
4. From station 98+38 to 264+87 the contractor will be allowed to work 7 days a week, including holidays, until June 12, 2010 at 11:59 p.m. The Contractor shall abide by all hours indicating lane closure times within this Special Provision. If this area is not completed by this date, the contractor will not be allowed to work again between these stations until September 15, 2010. The Contractor will accrue liquidated damages until completion of 100% of the work between these stations. During any shutdown in this area, the Contractor will be fully responsible to maintain the roadway in a safe acceptable condition according to the Resident. The Contractor shall give the Resident one weeks notice prior to commencing this schedule.
5. From station 264+87 to 660+00 the contractor will be allowed to work 6 days a week, beginning Saturday following June 15, 2010. The working days shall be starting Saturday through Friday at 6 a.m., as outlined in this Special Provision Note 9, except no work will be allowed on July 2 beginning at midnight to July 5 at 7 p.m., July 16 beginning at midnight to July 18 at 8 p.m., and September 3 beginning at midnight to September 7 at 8 p.m. For clarification purposes midnight shall be considered the start of the day, not the end.
6. 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 until 1:00 p.m. provided there is no infringement upon mainline traffic.
7. Work on the Royal River Bridge may not begin until on or after June 18, 2010 at 9 p.m. This work shall be conducted during weekends, from Friday at 9 p.m. until Monday at noon. Once bridge joint work has begun, work shall be continuous, regardless of weather events, until completion. A lane closure of up to 3 miles in length will be allowed south of the Royal River, provided bridge work is simultaneously being performed. The Contractor shall give the Resident one weeks notice prior to commencing this schedule.

- 8. Bridge joint modifications shall be completed prior to any milling or paving operations within ½ mile any bridge without prior approval of the Resident.**
- 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. Sunday beginning 8pm ending Monday 6am.**
  - b. Monday beginning 8pm ending Tuesday 6am.**
  - c. Tuesday beginning 8pm ending Wednesday 6am.**
  - d. Wednesday beginning 8pm ending Thursday 6am.**
  - e. Thursday beginning 8pm ending Friday 6am.**
  - f. Friday beginning 9pm ending Saturday 11am. ( Station 98+38 to 264+87 Only)**
  - g. Saturday beginning 8 pm ending Sunday at noon.**
  - ❖ Royal River Bridge work as outlined in Note 7 shall be exempt from these work hours.**
- 10. Work on this project with the exception of the Royal River Bridge shall be performed in temporary lane closures. No other lane closures shall be allowed in the above time frames while work is being performed on the Royal River Bridge, unless otherwise approved by the Resident.**
- 11. Any circumstance outside of these time frames, the Contractor shall be charged Supplemental Liquidated Damages as outlined in Special Provision 105 (Supplemental Liquidated Damages).**
- 12. 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.**
- 13. Traffic will not be allowed to travel on milled surfaces on the mainline. Traffic may be allowed to travel on milled surfaces on Ramps for periods of up to 48 hours. Failure to pave in areas milled will result in a violation of Special Provision 652. The Contractor shall conduct their work accordingly.**

**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 of ¼ mile outside the time periods specified under Special Provision 105 Note 9. One lane must remain open at **ALL** times. The charge will be assessed for each lane restriction of a portion of each ¼ mile as follows:

One Lane Closed	\$2,500/first 15 Minute Period
	\$5,000/ 15 -30 Minutes
	\$10,000/ 30-45 Minutes
	\$25,000/ 45-60 Minutes

\* **Work on the Royal River Bridge is exempt from Special Provision 105 (Limitations of Operations) Note 9. This assessment shall be made for any time outside of Special Provision 105 (Limitations of Operations) Note 7.**

**IM-1677(400)E, PIN 16774.00**  
**STP-1705(500)E, PIN 17055.00**  
**Falmouth – Freeport**  
**Scarborough - Freeport**  
**I-295 Northbound**  
**February 24, 2010**

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**  
**PROSECUTION AND PROGRESS**  
**(CONTRACT TIME)**

1. The contractor will be allowed to commence work anytime after the award of the contract provided that all applicable plans required under this contract have been submitted and approved and a preconstruction meeting has been held.
2. The completion date for this contract is September 26, 2010.
3. For every calendar day 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).
4. The contractor shall coordinate their work with other projects and Contractors located within the limits of Interstate 295, North and Southbound lanes, the Maine Turnpike Authority, and surrounding towns and cities as to prevent traffic issues.
5. All work from station 98+38 to 264+87 must be completed by June 13, 2010. For every calendar day past this date, the contractor will be charged liquidated damages as outlined in Special Provision 108 Payment (Incentive/Disincentive).

**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 PROVISION**  
**SECTION 108**  
**PAYMENT**  
(Incentive/Disincentive)

The Contractor must complete all work as described in Special Provision 107 – Contract Time - #5, by 11:59 P.M., June 12, 2010.

The Contractor will be paid an incentive for early completion or charged a disincentive for late completion of ALL work between stations 98+38 to 264+87. The maximum incentive will be 15 days. There will be no maximum disincentive.

The amount of the incentive paid will be based on the following formula:

$$\$2,500 \times [\text{Calendar Days}]^{1.2}$$

Calendar Days = June 13, 2010 – Actual Completion Date

Example:

<u>Calendar Days from June 13<sup>th</sup></u>	<u>Incentive</u>
5	\$17,000
10	\$40,000
15	\$64,000

The amount of the disincentive charged will be based on the following formula:

$$\$2,500 \times [\text{Calendar Days}]^2$$

Calendar Days = Actual Completion Date – June 13, 2010

All incentives/disincentives will be rounded to the nearest \$1,000 increment. Calendar Days will be calculated to the whole day; rounded down for early completion and rounded up for late completion.

Example:

<u>Calendar Days from June 13<sup>th</sup></u>	<u>Disincentive</u>
5	\$ 62,500
10	\$250,000
15	\$562,500

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 its 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.

SPECIAL PROVISION  
SECTION 203  
EXCAVATION AND EMBANKMENT  
(Dredge Materials)

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

Work associated with the Falmouth to Freeport I-295 North Bound Project will require the excavation of select Dredge Material. In accordance with Maine Department of Environmental Protection Regulations (CMR 418), 100-cubic yards or less of Dredge Material can be Beneficially Used in the area adjacent to and draining into the dredged water body without the need for a Beneficial Use Permit. It is currently anticipated that less than 100-cubic yards of Dredge Material will be removed in association with this project. There is onsite Beneficial Use for all of the excavated Dredge Material.

It is acknowledged that the excavation of Dredge for this work 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 along the Falmouth to Freeport I-295 North Bound Project in an area adjacent to and draining into the dredged water body. No more than 100-cubic yards of Dredge Material may be excavated.

CONSTRUCTION REQUIREMENTS

**Management:** The contractor shall Beneficially Use all Dredge Material excavated at the Falmouth to Freeport I-295 North Bound Project in areas adjacent to and draining into the dredged water body. No more than 100-cubic yards of Dredge Material may be excavated at any of the individual culvert sites.

**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:

<u>Pay Item</u>	<u>Pay Unit</u>
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.

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 15% reclaimed asphalt pavement (RAP) in any base, binder, surface, or shim course. The Contractor may be allowed to use more than 15% RAP, up to a maximum of 25% RAP, in a base, binder, or shim course provided that PG 58-34 asphalt binder is used in the mixture.

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
- Test reports for PG binder content and gradation of RAP when used in the JMF

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 135 Mg [150 ton] for stone stockpiles, 70 Mg [75 ton] for sand stockpiles, and 45 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 <sub>mm</sub> )			Voids in the Mineral Aggregate (VMA)(Minimum Percent)					Voids Filled with Binder (VFB) (Minimum %)	Fines/Eff. Binder Ratio
				Nominal Maximum Aggregate Size (mm)						
	N <sub>initial</sub>	N <sub>design</sub>	N <sub>max</sub>	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.

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 15% but no more than 25% RAP the PGAB shall be PG 58-34. 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 15<sup>th</sup> and November 15<sup>th</sup>, 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 15<sup>th</sup> and the Saturday following October 15<sup>th</sup>, 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 15<sup>th</sup> and the Saturday following September 15<sup>th</sup>.

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 1<sup>st</sup> and the Saturday following September 1<sup>st</sup> if the work is to be performed, either by contract requirement, or Contractor option, during conditions defined as “night work”.

## 401.07 Hot Mix Asphalt Plant

401.071 General Requirements HMA plants shall conform to AASHTO M156.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- a. On variable-depth courses, the first lift of pavement over gravel, reclaimed pavement, an irregular surface, or on bridges, at least one roller shall be 14.5 Mg [16 ton] pneumatic-tired. Unless otherwise allowed by the Resident, pneumatic-tired rollers shall be equipped with skirting to minimize the pickup of HMA materials from the paved surface. When required by the Resident, the roller shall be ballasted to 18.1 Mg [20 ton].
- b. Compaction with a vibratory or steel wheel roller shall precede pneumatic-tired rolling, unless otherwise authorized by the Department.
- c. Vibratory rollers shall not be operated in the vibratory mode when checking or cracking of the mat occurs, or on bridge decks.
- d. Any method, which results in cracking or checking of the mat, will be discontinued and corrective action taken.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- a. JMF(s)
- b. Hot mix asphalt plant details
- c. Stockpile Management (to include provisions for a minimum 2 day stockpile)
- d. Make and type of paver(s)
- e. Make and type of rollers including weight, weight per inch of steel wheels, and average contact pressure for pneumatic tired rollers
- f. Name of QCP Administrator, and certification number
- g. Name of Process Control Technician(s) and certification number(s)
- h. Name of Quality Control Technicians(s) and certification number(s)
- i. Mixing & transportation including process for ensuring that truck bodies are clean and free of debris or contamination that could adversely affect the finished pavement
- j. Testing Plan
- k. Laydown operations including longitudinal joint construction, procedures for avoiding paving in inclement weather, type of release agent to be used on trucks tools and rollers, compaction of shoulders, tacking of all joints, methods to ensure that segregation is minimized, procedures to determine the maximum rolling and paving speeds based on best engineering practices as well as past experience in achieving the best possible smoothness of the pavement. Solvent based agents developed to strip asphalts from aggregates will not be allowed as release agents.
- l. Examples of Quality Control forms including a daily plant report and a daily paving report
- m. Silo management and details (can show storage for use on project of up to 36 hours)
- n. Provisions for varying mix temperature due to extraordinary conditions
- o. Name and responsibilities of the Responsible onsite Paving Supervisor
- p. Method for calibration/verification of Density Gauge
- q. A note that all testing will be done in accordance with AASHTO and the Maine DOT Policies and Procedures for HMA Sampling and Testing.
- r. A 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 Gyrotory 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 900 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 or percent passing 0.075 mm sieve 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 @  $N_d$ , or Percent PGAB; or under Method C, each of the first 2 control tests for the lot fall outside the upper or lower limits for the nominal maximum, 2.36 mm, 0.300 mm or 0.075 mm sieves, or percent PGAB.
- 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.
- i. 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 immediately notify the Resident in writing as to the reason for shutdown, as well as the proposed corrective action. Failure to do so will be treated as a second incident under 106.4.6 QCP Non-compliance. The Department will consider corrective action acceptable if the pay factor for the failing property increases, based on samples already in transit, or a verification sample is tested and the property falls within the specification limits.

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

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

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

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

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

TABLE 4: ACCEPTANCE CRITERIA

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

On the first day of production of a JMF the Department will take three random samples, which will be used to calculate the quality level of the in-place material in the event the lot is terminated prematurely. Only one of the three will be tested, the other two will be held onsite until at least three random samples have been taken, at which time the other two will be discarded.

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.

If the Department terminates a Lot prematurely, the samples from the first day's production will be used to calculate a volumetric pay factor, and a minimum of three cores will be used for a density pay factor, if applicable, for quantities placed to date.

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 subplot.

If there is less than one-half of a subplot remaining at the end, then it shall be combined with the previous subplot. If there is more than one-half subplot remaining at the end, then it shall constitute the last subplot 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 subplot. 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 Contractor's 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. 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%

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

TABLE 6: METHOD B ACCEPTANCE LIMITS

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

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

TABLE 7: METHOD C ACCEPTANCE LIMITS

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

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

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

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

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

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

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

The following variables will be used for pay adjustment:

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

Pay Adjustment Method A

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

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

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

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

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

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

#### Pay Adjustment Method B

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

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

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

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

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

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

#### Pay Adjustment Method C

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

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

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

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

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

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 Table 10: Dispute Resolution Variance Limits, for the specific test result(s) or property(ies) were exceeded.

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

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

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

TABLE 10: DISPUTE RESOLUTION VARIANCE LIMITS

PGAB Content	+/-0.4%
G <sub>mb</sub>	+/-0.030
G <sub>mm</sub>	+/-0.020
Voids @ N <sub>d</sub>	+/-0.8%
VMA	+/-0.8%
Passing 4.75 mm and larger sieves	+/- 4.0%
Passing 2.36 mm to 0.60 mm sieves	+/- 3.0%
Passing 0.30 mm to 0.15	+/- 2.0 %
0.075 mm sieve	+/- 1.0%

## SECTION 402 - PAVEMENT SMOOTHNESS

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

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

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

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

- Bridge decks and joints (no smoothness measurements will be taken within 30 m [100 ft] of bridge joints)
  - Acceleration and deceleration lanes
  - Shoulders and ramps
  - Side streets and roads
  - Within 30 m [100 ft] of transverse joints at the beginning and end of the project
  - Within 30 m [100 ft] of railroad crossings
  - Urban areas with speed limits of 50 kph [30 mph] or lower
- Each lot shall have 2 measurements made in each wheel path. The average of the 4 measurements will determine the smoothness for that lot.

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

ACCEPTANCE LIMITS

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

Computation of Smoothness Pay Adjustment:

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

where:

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

PF = smoothness pay factor for the Lot

P = Contract unit price for surface pavement

PA = pay adjustment

402.04 Unacceptable Work In the event that any Lot is found to have a pay factor less than 0.80, the Contractor shall take whatever remedial action is required to correct the pavement surface in that Lot at no additional expense to the Department. Such remedial action may include but is not limited to removal and replacement of the unacceptable pavement. In the event remedial action is necessary, the Contractor shall

submit a written plan to the Resident outlining the scope of the remedial work. The Resident must approve this plan before the remedial work can begin. Following remedial work, the Lot shall be retested, and will be subject to the specification limits listed above. The resulting pay factor, if within the acceptable range, will be used in the final pay adjustment. The Contractor shall pay the cost of retesting the pavement following corrective action.

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

Payment will be made under:

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

SECTION 403 - HOT BITUMINOUS PAVEMENT

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

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

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

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

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

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

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

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

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

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
403.102 Hot Mix Asphalt Pavement for Special Areas	MG [Ton]
403.206 Hot Mix Asphalt, 25 mm Nominal Maximum Size	MG [Ton]
403.207 Hot Mix Asphalt, 19.0 mm Nominal Maximum Size	MG [Ton]
403.208 Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	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]
403.211 Hot Mix Asphalt (shimming)	MG [Ton]
403.212 Hot Mix Asphalt, 4.75 mm Nominal Maximum Size	MG [Ton]
403.213 Hot Mix Asphalt, 12.5 mm Nominal Maximum Size, Base	MG [Ton]

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

The hot bituminous mix shall be transferred to the paver for mainline on the **ALL lifts/courses** of pavement by a material transfer vehicle (MTV) on main line paving.

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

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

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

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

SPECIAL PROVISION  
SECTION 403  
HOT BITUMINOUS PAVEMENT

The following additions are made to Section 403 Subsection 403.05 of the December 2002 revision of the Standard Specifications.

403.05 Basis of Payment:

<u>Pay Item</u>	<u>Pay Unit</u>
403.2081 12.5mm Polymer Modified Hot Mix Asphalt	Ton [Megagram]
403.2102 9.5mm Asphalt Rich Base Mixture	Ton [Megagram]
403.2131 12.5mm Polymer Modified HMA Base	Ton [Megagram]
403.2132 12.5mm Asphalt Rich Base Mixture	Ton [Megagram]

**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
<b><u>Sta. 98+38 to 264+87 and Sta. 514+75 to 660+00</u></b>						
<b><u>Travel and Passing Lanes</u></b>						
<b><u>2" Mill with 2" HMA Resurfacing</u></b>						
Wearing	12.5mm	403.2081	N/A	2"	1	1,5,7,12,22
<b><u>Sta. 264+87 to 514+75</u></b>						
<b><u>Travel and Passing Lanes</u></b>						
<b><u>4 1/4" Mill with 4 1/4" HMA Resurfacing</u></b>						
Wearing	12.5mm	403.2081	N/A	2"	1	1,5,7,12,22
Base	12.5mm	403.2131	N/A	2"	1	1,5,7,12
Shim	9.5 mm	403.211	N/A	variable	1	2,4,7,11,23
<b><u>Exit 17 Off and On Ramps, Exit 20 Off Ramp</u></b>						
<b><u>2" Mill with 1 1/2" HMA Overlay</u></b>						
<b><u>Travelway and Shoulders</u></b>						
Wearing	12.5mm	403.208	N/A	1 1/2"	1	5,7,12
Shim	9.5mm	403.211	N/A	variable	1	2,4,7,11
<b><u>Exit 15 Off Ramps Travelway</u></b>						
<b><u>1 1/2" Mill with 1 1/2" HMA Overlay</u></b>						
Wearing	12.5mm	403.208	N/A	1 1/2"	1	5,7,12
<b><u>3" HMA</u></b>						
<b><u>Guardrail Widening, Shoulder Widening</u></b>						
Wearing	9.5mm	403.210	N/A	3"	2	1,5,7,12
<b><u>Miscellaneous Areas, Delaminated areas</u></b>						
Shim	9.5 mm	403.211	N/A	variable	1	2,4,7,11

**COMPLEMENTARY NOTES**

- 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.
- The density requirements are waived.
- 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.**
- 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.**
- Section 106.6 Acceptance, (1) Method A.
- 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.

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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.
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 **SS-1 emulsified asphalt** shall be applied at a rate of approximately 0.075 to 0.10 G/SY to the existing concrete slab surfaces prior to placement of the shim or base layer.

Tack Coat

A tack coat of emulsified asphalt, RS-1, Item #409.15 shall be applied to any existing pavement at a rate of approximately 0.025 G/SY, and on milled pavement approximately 0.05 G/SY, prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim / intermediate course and the surface course, at a rate 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 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 [140°F]	< 3.0mm [1/8 in]
Bond, non-immersed	Three 12.7mm [1/2 in] specimens pass 3 cycles @ 200% extension @ -29°C [-20°F]
Resilience, %	60 min
Asphalt Compatibility, ASTM D5329	pass*

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

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

**CONSTRUCTION REQUIREMENTS**

Weather Low Modulus Crack Sealer shall not be applied on a wet surface or when the atmospheric temperature is below 10°C [50°F] in a shaded area at the job site, or when weather conditions are otherwise unfavorable to proper construction procedures.

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

(a) Air Compressor: Air compressors shall be portable and capable of furnishing not less than 3 m<sup>3</sup> [4 yd<sup>3</sup>] 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.

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

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

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

CONSTRUCTION REQUIREMENTS

Weather Low modulus joint sealer shall not be applied on a wet surface, or when the atmospheric temperature is below 10°C [50°F] in a shaded area at the job site, or when weather conditions are otherwise unfavorable to proper construction procedures. An atmospheric temperature of 2°C [36°F] and rising will be permitted on intermediate and base courses, with the time and weather constraints remaining.

Preparation and Placement This work shall be constructed using a low modulus joint sealer. The sealer shall be heated and applied at a temperature between 170°C - 200°C [340°F - 390°F] or as specified by the manufacturer and approved by the Resident. Sealer shall be delivered to

the joint through a pressure hose line and applicator shoe. The shoe width and the sealer overbanding area shall vary from 35 mm - 40 mm [1 3/8 in - 1 1/2 in] depending on the joint height variability. The sealer shall be applied at a rate that produces a coating thickness of 3 mm [3/16 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:

<u>Pay Item</u>	<u>Pay Unit</u>
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 <sup>2</sup> [g/m <sup>2</sup> ]	ASTM D-5261-92	16 [550]
Tensile Strength by single strand method <sup>1</sup> - lbs/in [kN/m]	ASTM D-6637-01	560 [100]
Ultimate Elongation - %	ASTM D-6637-01	< 5
Strength @ 2% Strain <sup>1</sup> - lbs/in [kN/m]	ASTM D-6637-01	280 [50]
Grid Junction Strength <sup>1</sup> - lbs [N]	GSI/GG-2	18 [80]
Peel Strength <sup>1</sup> - lbs/in [kN/m]	ASTM D-413	10 [146]
Aperture Size <sup>2</sup> - 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 <sup>1</sup> - lbs [N]	ASTM D-4632	101 [450]
Elongation <sup>1</sup> - %	ASTM D-4632	50
Asphalt Retention - gal/yd <sup>2</sup> [l/m <sup>2</sup> ]	ASTM D-6140	0.20 [0.90]
Weight - oz/yd <sup>2</sup> [g/m <sup>2</sup> ]	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<sup>2</sup>). Payment will be full compensation for furnishing and placing the paving composite and for all labor and other incidentals necessary to complete the work.

Payment shall be made under:

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

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

CLASS OF CONCRETE	ITEM NUMBER	DESCRIPTION	P	METHOD
LP	502.29	Structural Concrete Wearing Surface	\$450	A
A	502.31	Structural Concrete Approach Slabs	-	C
A	518.50	Repair of Upward facing Surfaces to reinforcing steel	-	C
A	518.51	Repair of Upward facing Surfaces to below reinforcing steel	-	C
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	526.34	Permanent Concrete Transition Barrier	\$450	A

P values listed above reflect the price per cubic (yd<sup>3</sup>) for all pay adjustment purposes.

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SPECIAL PROVISION  
SECTION 502  
STRUCTURAL CONCRETE  
(Quality Level Analysis)

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

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

TABLE 1- Methods A and B

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

502.503 Delete and replace with the following;

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

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

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

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

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

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

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

TABLE 3

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

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

Evaluation of materials will be made using the specification limits in Table 1.

Compressive strength tests will be completed by the Department in accordance with AASHTO-T22 at  $\geq 28$  days, except that no slump will be taken. The average of two concrete cylinders per subplot will constitute a test result and this average will be used to determine the compressive strength for pay adjustment computations.

Testing for Entrained Air in concrete, at the rate of one test per subplot, shall be in accordance with AASHTO T152.

Rapid Chloride Permeability test specimens will be completed by the Resident in accordance with AASHTO T-277 at an age  $\geq 56$  days. Two 100 mm x 200 mm [4 in x 8 in] cylinders will be taken per subplot placed.

Surface Tolerance, Alignment and Trueness, Plumb and Batter, and Finish will be measured as described in Section 502.0502.

Rejection by Resident For an individual subplot with a calculated pay factor of less than 0.80, the Department will, at its sole discretion:

A. Require the Contractor to remove and replace the entire affected placement with concrete meeting the Contract requirements at no additional expense to the Department, or

B. Accept the material, at a reduced payment as determined by the Department. (See also Section 502.191)

For a lot in progress, the Contractor shall discontinue operations whenever one or more of the following occurs:

A. The pay factor for any property drops below 1.00 and the Contractor is taking no corrective action

B. The pay factor for any property is less than 0.90

C. The Contractor fails to follow the QC Plan”

502.18 Method of Measurement Under Section E. make the following change from “...Method A, and under Section 502.19...” to “...Method A, Section 502.0503- Quality Assurance Method B, and under Section 502.19...”

502.19 Basis of Payment Modify the first sentence of the seventh paragraph from “...accepted under Method A.” to “...accepted under Method A and Method B.”

502.191 Pay Adjustment for Compressive Strength Add the following as the second sentence to the first paragraph; “Pay factors (PF) for pay adjustments for compressive strength will be determined using the Quality Level Analysis as specified in Section 106.”

502.192 Pay Adjustment for Chloride Permeability Delete and replace with the following;

“Pay factors (PF) for pay adjustments for Chloride Permeability will be determined using the Quality Level Analysis as specified in Section 106.

Values greater than 4000 coulombs shall be subject to rejection and replacement at no additional cost to the Department.”

502.193 Pay Adjustment for Air Content Delete and replace with the following;

“Pay factors (PF) for pay adjustments for air content will be determined using the Quality Level Analysis as specified in Section 106.”

Add the following Section;

“502.195 Pay Adjustments for Compressive Strength, Chloride Permeability and Air Content The Composite Pay Factor (CPF) for each lot of concrete shall be computed as follows:

$$\text{CPF} = [(\text{Compressive Strength PF}-1)(0.20)] + [(\text{Air Content PF}-1)(0.40)] \\ + [(\text{Chloride Permeability PF}-1)(0.40)]$$

The pay adjustment for each lot of concrete shall be computed as follows:

$$\text{Lot Pay Adjustment} = P \times \text{CPF} \times \text{Lot Size}$$

There will be no positive pay adjustments for Method B Concrete.”

SPECIAL PROVISION  
SECTION 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.

<u>Pay Item</u>	<u>Pay Unit</u>
504.07 Concrete Pipe Ties	Group

**SPECIAL PROVISION**  
**SECTION 518**  
**STRUCTURAL CONCRETE REPAIR**  
**(Concrete Slab Repair)**

The Standard Specifications – Revision of December 2002; Section 518 – Structural Concrete Repair, has been amended as follows:

518.03 Repair Materials, paragraph 1: All structural concrete removed shall be replaced with Class LP concrete, per Section 502 – Structural Concrete. Acceptable bonding agents shall be one of the products listed on the Departments’ pre-approved products list, and shall be used to bond fresh concrete or patching materials to existing hardened concrete surfaces.

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 manufacturers recommendations.

The Contractor shall perform trial batches on all accelerated set or rapid setting concrete mix designs proposed for use prior to approval. Trial batches shall document entrained air contents, workability restrictions, and early age compressive strengths. Designs shall be submitted to the Department for approval before use.

All materials used for repair of concrete or reinforcing steel shall meet the applicable requirements of Division 700 as specified in Standard Specification Sections 502 and 503, respectively.

518.11 Basis of Payment: The Basis of Payment shall be revised as follows:

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
518.50 Repair of Upward Facing Surfaces- - to Reinforcing Steel, < 200 mm [7.9 in] Concrete Slab Repair	ft <sup>2</sup>
518.51 Repair of Upward Facing Surfaces - below Reinforcing Steel, < 200 mm [7.9 in] Concrete Slab Repair	ft <sup>2</sup>

SPECIAL PROVISION  
SECTION 520  
EXPANSION DEVICES  
(Bridge Joint Modifications)

**Description** This work shall consist of removal, adjustment, repair, modification, and replacement of bridge joints, as indicated on the plans, and in accordance with the specifications.

**Materials** All structural concrete removed shall be replaced with Class LP concrete, per Section 502. A bonding agent from the 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 manufacturers recommendations.

When called for in the plans or specifications, Elastomeric Concrete shall be one of the products listed on the Maine Department of Transportations Pre-qualified List for Bridge Expansion Joints Systems.

The Joint and Seals, as required, shall be as indicated on the plans and shall meet the material, fabrication, and construction requirements of Section 520 - Expansion Devices - Non-Modular.

**Construction Requirements** The removal, adjustments, modifications and replacement of bridge joints shall be done in a manner to accommodate maintenance of traffic requirements and coordinated with the highway paving.

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.

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.

**Method of Measurement** Bridge joint modifications Types 1, 2, 3, and 5 will be measured by each unit, complete in place and accepted for the type(s) identified on the plans.

Longitudinal Bridge Joint Modifications will be measured by lineal feet, complete in place and accepted for the type(s) identified on the plans.

**Basis of Payment** The accepted quantity of bridge joint modifications Type 1, 2, 3, and 5 will be paid for at the contract unit price each.

The accepted quantity of Longitudinal Bridge Joint Modifications will be paid for at the contract lineal foot price.

Payment will be full compensation for all materials, labor, equipment, and incidentals necessary to complete the work, including removing and replacing structural concrete & steel, adjusting and cleaning existing joint materials and reinforcing steel, and fabricating and installing new joint material and new seals, as required.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
520.24 Bridge Joint Modifications	Each
520.241 Bridge Joint Modifications- Type 1	Each
520.242 Bridge Joint Modifications- Type 2	Each
520.243 Bridge Joint Modifications- Type 3	Each
520.245 Bridge Joint Modifications- Type 5	Each
520.26 Longitudinal Bridge Joint Modifications	LF

**SPECIAL PROVISION**  
**SECTION 526**  
**CONCRETE BARRIER**  
(Temporary Concrete Barrier)

Materials

Temporary concrete barriers must be connected using a 1-1/8 inch diameter rod, with a washer and cotter pin on the bottom as shown on the Standard Detail 526(02).

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:

<u>Pay Item</u>	<u>Pay Unit</u>
527.301 Energy Absorbing System (C-A-T)	Each

**SPECIAL PROVISION**  
**SECTION 606**

HIGH-TENSION FOUR CABLE BARRIER (NCHRP 350, TL-3)  
PLACED ON 4:1 SLOPES OR FLATTER

Description This work shall consist of constructing high-tension four cable barrier and end terminals as shown in the plans. Complete this work according to manufacturer's details and specifications, and this special provision.

**MATERIALS**

Cable Barrier System and End Terminal System All cable barriers and end terminals shall be of the same type from the same manufacturer. The end terminals shall be compatible with the cable barrier system installed. Intermixing and/or overlapping of different cable barrier types or cable barrier systems made by different manufacturers shall be prohibited. All line posts will be of the same type. Intermixing different types of line posts is prohibited.

The cable barrier shall meet or exceed NCHRP 350 Test Level 3 (NCHRP 350, TL-3) when installed on a slope with an inclination of 4:1 (4 Horizontal on 1 Vertical) or flatter. The end terminals shall meet or exceed NCHRP 350 Test Level 3 (NCHRP 350, TL-3). The cable barrier and end terminals shall have Federal Highway Administration (FHWA) acceptance. The Contractor shall furnish FHWA acceptance letters to the Resident indicating that the cable barrier meets or exceeds NCHRP 350, TL-3 when installed on a 4:1 slope or flatter and the end terminals meet or exceed NCHRP 350, TL-3.

The cable barrier system and all associated steel components shall be manufactured in the United States of America.

Cable The cable barrier shall have a minimum of four ropes. Each cable shall be 3/4-inch (minimum) diameter, 3 x 7 construction, zinc-coated (galvanized) cable manufactured in accordance with AASHTO M 30, Type I, Class A coating. Each cable shall have a minimum tensile strength of 39,000 pounds. Each cable shall be factory pre-stretched after manufacture with a tensile load of 50 percent (minimum) of the cable's tensile strength to prevent future strain relaxation of the cable. Any cable damaged during the pre-stretching process shall not be used. Each cable shall have a minimum modulus of elasticity of 11,805,090 pounds per square inch after pre-stretching.

With each cable spool, the cable manufacturer shall furnish a certification letter to the Resident certifying the breaking strength of the cable, the amount of force used to pre-stretch the cable, the modulus of elasticity of the cable after pre-stretching, and the pre-stretching/testing date(s).

Fittings All fittings, including but not limited to turnbuckles and connections, shall have a minimum diameter of 3/4 inch. All fittings shall develop a minimum tensile load (without

yielding) of 36,800 pounds. The manufacturer shall conduct one tensile load test on each fitting type used in the cable system. The manufacturer shall provide a certification letter to the Resident certifying that all fitting types have been tested and meet the minimum load requirements specified in this special provision. The certification letter shall also list the tensile yield strength and test date(s) for each fitting type.

(a) Threaded Terminals Threaded terminals shall be right hand or left hand threaded M24 x 3 pitch in accordance with ANSI B1.13M. Only one wedge lock type terminal will be allowed per cable per run (between end anchor foundations). All other terminals shall be of the swaged type. Swaged type terminals may be shop or field swaged.

The body of the threaded terminal shall provide a minimum of 5.9 inches cable engagement depth. Fully fitted ropes shall develop a minimum breaking load of 36,800 pounds. Threaded terminals shall be galvanized, after threading, in accordance with AASHTO M 232 (ASTM A 153).

(b) Turnbuckles One end of each turnbuckle shall be threaded right hand and the other end left hand according to ANSI B1.13M, M24 x 3 to accept threaded rope terminals. Turnbuckles shall be of the solid or closed body type with two inspection holes to determine threaded rope terminal penetration.

Turnbuckles shall allow for a minimum of 6 inches of penetration from each end. All materials used for high-tension cable barriers and end terminals shall conform to manufacturer's specifications. In addition, all posts shall be made of steel meeting AASHTO M 111 (ASTM A 36, ASTM A 50). All posts shall be zinc coated (galvanized) after fabrication to ASTM A 123.

All fittings, including but not limited to turnbuckles and connections, shall either be zinc coated (galvanized) according to AASHTO M 232 (ASTM A 153) after threading, or be made of stainless steel. All other components made of ferrous metal, excluding stainless steel components, shall be zinc coated (galvanized) according to AASHTO M 111 (ASTM A 123) after fabrication.

Reflective Sheeting Type III retro reflective sheeting shall meet the requirements of Section 719.01 for AASHTO M 268 (ASTM D 4956) Type III retro reflective sheeting material. Type III reflective sheeting shall be attached to all reflectors as specified in section 606.02. Reflectors shall match color of edge line adjacent to approaching traffic. Each reflector shall have a minimum of 13 square inches of reflective sheeting facing approaching traffic.

Concrete Class LP (5,075 psi) concrete meeting the requirements specified in section 502 of the Standard Specifications shall be used for all anchorage foundations and line post foundations (sockets). Testing of concrete shall be Method C.

Sockets Sockets for line post foundations shall meet manufacturer's specifications. In addition, sockets shall be fabricated from 11 gauge (minimum), hot rolled mild steel galvanized to AASHTO M 111 (ASTM A 123), after fabrication. Line post foundations shall be a minimum of 48" in depth.

Reinforcing Steel Steel reinforcement for all concrete foundations shall meet the requirements of section 709.01 of the Standard Specifications.

Excluder Caps Excluder caps (a cap placed around each post to prevent debris from entering the socket) shall meet manufacturer's specifications and be made of low-density polyethylene or polypropylene.

Materials Certification Requirements The Contractor shall provide written certification to the Resident indicating that the materials used to construct the high-tension cable system and end terminals meet manufacturer's specifications and the requirements contained in this special provision.

The manufacturer shall provide written certification to the Resident certifying that all components supplied by the manufacturer meet manufacturer's specifications and the requirements contained in this special provision.

## **PERFORMANCE REQUIREMENTS**

High-Tension Cable Barrier The high-tension cable barrier system shall be designed to meet the following performance requirements:

1. Line post spacing will be designed to limit deflection from impact to 8'-0" maximum.
2. Cable spacing will be designed so that a minimum of 2 cables will engage the vehicle when placed on a 4:1 slope 4 feet from the edge of travelway under TL-3 testing requirements.

## **PRE-CONSTRUCTION REQUIREMENTS**

At least 14 days prior to cable barrier installation, the Contractor shall submit three plan sets of the high-tension cable system selected for the project. Each plan set shall contain a hard (paper) version and an electronic version. Plan sets must be prepared by the manufacturer of the high-tension cable system selected for the project. One set shall be sent to the MaineDOT Project Resident, one set shall be sent to the MaineDOT Safety Office, one set shall be sent to MaineDOT Transportation Research Division.

The Department will require up to 30 days for reviewing plan sets. The Contractor and manufacturer shall address any questions, comments, and/or concerns raised by MaineDOT personnel. The Contractor shall not commence cable barrier construction/installation until the plan set has been reviewed and approved by the Department. Each plan set shall contain detailed shop drawings of the cable system, design calculations and notes, and any construction

specifications. All design drawings and calculations shall be in English units. The cable system shall be designed according to manufacturer's recommendations and all of the requirements specified in this special provision. In addition, the following must be included in each plan set:

1. One drawing for each cable run, containing the following items:

- The height of each cable in the system.
- The post length and height of each post with respect to ground level.
- The post spacing along the entire length of each cable run.
- Detailed drawings of all posts and hardware.
- Turnbuckle locations.
- The overall length of the cable run, including the end terminals.
- The cable barrier length, excluding the end terminals.
- The end terminal design, including end terminal length.
- End terminal locations (stations).
- The foundation dimensions and detailed steel reinforcement layout for all concrete foundations in the cable run.

The shop drawings detailing the line post foundations and end anchor foundations shall be signed and sealed by a Licensed Professional Engineer registered in the State of Maine. End anchor foundations shall be designed such that movement due to the forces imparted by the attached cables is less than one inch.

The manufacturer shall be available to provide formal training and/or consultation, free of charge, as requested by MaineDOT personnel and/or any of MaineDOT's invitees. The manufacturer must provide training with respect to the installation, operation, and maintenance of the cable barrier system. Training and/or consultation shall be held at a location immediate to the project location. The manufacturer/supplier shall issue a dated certificate to each individual that has undergone formal training.

## **CONSTRUCTION REQUIREMENTS**

Description This work shall consist of furnishing all labor, materials, equipment, and performing all operations in connection with the installation of a complete and operational High-Tension Cable Barrier.

General The alignment and location of the High-Tension Cable Barrier shall be according to the typical section or as directed by the Resident. The area shall be relatively smooth, without edge drop-offs, holes, other depressions or abrupt slope changes between edge of traveled way and High-Tension Cable Barrier. Before starting installation of the High-Tension Cable Barrier, any necessary filling and compaction shall be done and the area graded smooth. Asphalt millings, compacted earth or other material may be used as directed by the Resident. The type of soils in the

area shall be noted prior to beginning foundation installation. If wet, loose, or otherwise unsuitable soils are encountered, this shall be reported to the Resident for advice on any necessary foundation modifications. Refer to the Boring Logs contained in the contract documents for information regarding soils at the approximate High-Tension Cable Barrier end terminal locations. If ledge is encountered during line posts or end terminal installation, the Department will pay Force Account as per Standard Specification 109.7.5. Installation into ledge shall be per manufacturers' recommendations and chosen from MaineDOT's Qualified Products List.

Posts shall be of the type specified, spaced as shown in the manufacturer's design plans, set plumb and in line to provide an aesthetically pleasing line of sight. Extreme care shall be taken to ensure proper cable height. Cable shall be placed per manufacturer's recommendations and tensioned immediately after initial installation. Tension shall be rechecked approximately two (2) to three (3) weeks after initial tensioning and adjusted, if necessary. A tension log form shall be completed showing the time, date, location, ambient temperature, rope temperature and final tension reading, signed by the person performing the tension reading. This log shall be furnished to the Resident upon completion of work. This form shall also include the High-Tension Cable Barrier manufacturer's recommended tension table.

An employee trained by the manufacturer in the proper installation of the High-Tension Cable Barrier and end terminals, as well as a manufacturer's representative, must be available to consult with and train personnel from MaineDOT and/or any of MaineDOT's invitees with regard to the installation, operation, and maintenance of the cable barrier system.

Basis of Acceptance Acceptance of the High-Tension Cable Barrier furnished shall be based upon the following:

1. FHWA approval as set forth under this specification.
2. Visual inspection of all items furnished for condition and conformance with dimensional and other requirements.
3. Receipt of manufacturer's certification and material test reports for cable, posts, and anchor frames.
4. Determination (at project site prior to installation) of the weight of galvanized coating by means of a magnetic gauge.

Method of Measurement Unless otherwise specified, High-Tension Cable Barrier will be measured complete, in place. Measurement will be as follows:

- (a) The length shall be measured to the nearest linear foot, not including End Terminals on each segment

- (b) High-Tension Cable Barrier End Terminal units, will be measured separately by the unit as shown in the manufacturer's detail sheets. One End Terminal unit is required for each end of the High-Tension Cable Barrier. The contract documents shall specify the number of end terminals.

Basis of Payment Unless otherwise specified in the contract documents, work completed, measured and accepted as provided above will be paid for at the contract unit price bid per linear foot for High-Tension Cable Barrier and per each High-Tension Cable Barrier End Terminal Unit. The price bid shall be full compensation for furnishing all material; installing all posts, excluders, caps, cable and reflectors (spaced at intervals not to exceed 60 ft); for all grading and compaction; foundation excavation, reinforcement, concrete, backfill as needed and for all labor, equipment, tools, and incidentals necessary to complete the work. This shall also include all necessary soil grading to slopes in order to blend in with surrounding terrain. The bid price shall also include all necessary spare parts and incidentals that would be needed, to completely repair 3,500 linear foot of the High-Tension Cable Barrier system including the end terminals. Any special tools needed to make such repairs shall be included in the spare parts package. Spare parts shall be delivered to the MaineDOT Maintenance facility located at 51 Pleasant Hill Road in Scarborough, Maine:

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
606.901      Four Cable Barrier, High Tension, TL-3	Linear Foot
606.91        Four Cable Barrier Terminal, High Tension, TL-3	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 [ $\frac{1}{2}$  in]. Nuts shall be drawn tight.

Additional bolt holes required in existing beams shall be drilled or punched, but the size of the holes shall not exceed the dimensions given in the Standard Details. Metal around the holes shall be thoroughly cleaned and painted with two coats of approved aluminum rust resistant paint. Holes shall not be burned.

606.045 Offset Blocks The same offset block material is to be provided for the entire project unless otherwise specified.

606.05 Shoulder Widening At designated locations the existing shoulder of the roadway shall be widened as shown on the plans. All grading, paving, seeding, and other necessary work shall be in accordance with the Specifications for the type work being done.

606.06 Mail Box Post Single wood post shall be installed at the designated location for the support of the mailbox. The multiple mailbox assemblies shall be installed at the designated location in accordance with the Standard Details and as recommended by the Manufacturer. Attachment of the mailbox to the post will be the responsibility of the home or business owner.

606.07 Abraded Surfaces All galvanized surfaces of new guardrail and posts, which have been abraded so that the base metal is exposed, and the threaded portions of all fittings and fasteners and cut ends of bolts shall be cleaned and painted with two coats of approved rust resistant paint.

606.08 Method of Measurement Guardrail will be measured by the meter [linear foot] from center to center of end posts along the gradient of the rail except where end connections are made to masonry or steel structures, in which case measurement will be as shown on the plans.

Terminal section, low volume end, NCHRP 350 end treatments, reflectorized flexible guardrail marker, terminal end, bridge transition, bridge connection, multiple mailbox post, and single post will be measured by each unit of the kind specified and installed.

Widened shoulder will be measured as a unit of grading within the limits shown on the plans.

Excavation in solid rock for placement of posts will be measured by the cubic meter [cubic yard] determined from the actual depth of the hole and a hypothetical circle diameter of 600 mm [2 ft].

606.09 Basis of Payment The accepted quantities of guardrail will be paid for at the contract unit price per meter [linear foot] for the type specified, complete in place. Reflectorized beam guardrail ("butterfly"-type) delineators will not be paid for directly, but will be considered incidental to guardrail items. Terminal section, buffer end, NCHRP 350 end treatment, bridge connection, single post and reflectorized flexible guardrail markers will be paid for at the contract unit price each for the kind specified complete in place.

NCHRP 350 end treatments and low volume guardrail ends will be paid for at the contract price each, complete in place which price shall be full payment for furnishing and installing all components including the terminal section, posts, offset blocks, "w" beam, cable foundation posts, plates and for all incidentals necessary to complete the installation within the limits as shown on the Standard Details or the Manufacturer's installation instructions. Each end treatment will be clearly marked with the manufacturers name and model number to facilitate any future needed repair. Such payment shall also be full compensation for furnishing all material, excavating, backfilling holes, assembling, and all incidentals necessary to complete the work, except that for excavation for posts or anchorages in solid ledge rock, payment will be made under Pay Item 206.07. Type III Retroreflective Adhesive Sheeting

shall be applied to the approach buffer end sections and sized to substantially cover the end section. On all roadways, the ends shall be marked with alternating black and retroreflective yellow stripes. The stripes shall be 75 mm [3 in] wide and sloped down at an angle of 45 degrees toward the side on which traffic is to pass the end section. Guardrail 350 flared terminal shall also include a set of installation drawings supplied to the Resident.

Anchorage to bridge end posts will be part of the bridge work. Connections thereto will be considered included in the unit bid price for guardrail.

Guardrail to be placed on a radius of curvature of 45 m [150 ft] or less will be paid for under the designated radius pay item for the type guardrail being placed.

Widened shoulder will be paid for at the contract unit price each complete in place and will be full compensation for furnishing and placing, grading and compaction of aggregate subbase and any required fill material.

Adjust guardrail will be paid for at the contract unit price per meter and will be full compensation for adjusting to grade. Payment shall also include adjusting terminal end treatments where required.

Modify guardrail will be paid for at the contract unit price per meter and will be full compensation for furnishing and installing offset blocks, additional posts, and other specified modifications; removing, modifying, installing, and adjusting to grade existing posts and beams; removing plate washers and backup plates, and all incidentals necessary to complete the work. Payment shall also include removing and resetting terminal ends where required.

Remove and Reset guardrail will be paid for at the contract unit price per meter and will be full compensation for removing, transporting, storing, reassembling all parts, necessary cutting, furnishing new parts when necessary, reinstalling at the new location, and all other incidentals necessary to complete the work. Payment shall also include removing and resetting terminal ends when required. No payment will be made for guardrail removed, but not reset and all costs for such removal shall be considered incidental to the various contract pay items.

Remove, Modify, and Reset guardrail will be paid for at the contract unit price per meter and will be full compensation for the requirements listed in Modify guardrail and Remove and Reset guardrail.

Bridge Connections will be paid for at the contract unit price each. Payment shall include, attaching the connection to the endpost including furnishing and placing concrete and reinforcing steel necessary to construct new endposts if required, furnishing and installing the terminal connector, and all miscellaneous hardware, labor, equipment, and incidentals necessary to complete the work.

Bridge Transitions will be paid for at the contract unit price each. Payment shall include furnishing and installing the thrie beam or "w"-beam terminal connector, doubled beam section, and transition section, where called for, posts, hardware, precast concrete transition curb, and any other necessary materials and labor, including the bridge connection as stated in the previous paragraph.

Payment will be made under:

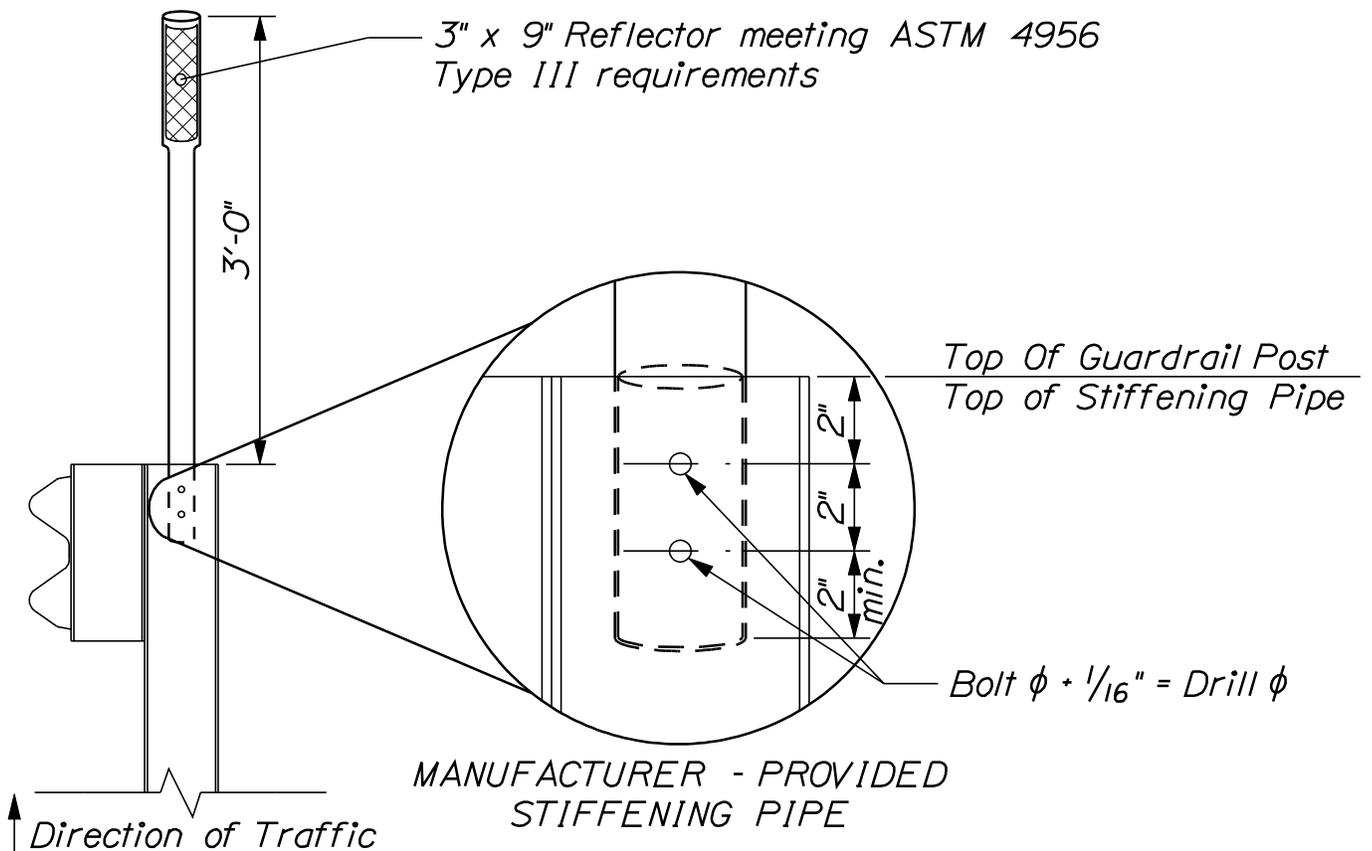
<u>Pay Item</u>	<u>Pay Unit</u>	
606.15	Guardrail Type 3a-Single Rail	meter [Linear Foot]
606.151	Guardrail Type 3aa-Single Rail	meter [Linear Foot]
606.17	Guardrail Type 3b-Single Rail	meter [Linear Foot]
606.1721	Bridge Transition - Type I	Each
606.1722	Bridge Transition - Type II	Each
606.1731	Bridge Connection - Type I	Each
606.1732	Bridge Connection - Type II	Each
606.178	Guardrail Beam	meter [Linear foot]
606.18	Guardrail Type 3b - Double Rail	meter [Linear foot]
606.19	Guardrail Type 3a - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.191	Guardrail Type 3aa - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.20	Guardrail Type 3a - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.201	Guardrail Type 3aa - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.21	Guardrail Type 3b - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.22	Guardrail Type 3b - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.23	Guardrail Type 3c - Single Rail	meter [Linear Foot]
606.2301	Guardrail Type 3c - Double Rail	meter [Linear Foot]
606.231	Guardrail Type 3c - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.232	Guardrail Type 3c - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.24	Guardrail Type 3d - Single Rail	meter [Linear Foot]
606.2401	Guardrail Type 3d - Double Rail	meter [Linear Foot]
606.241	Guardrail Type 3d - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.242	Guardrail Type 3d - over 4.5 m [15 feet] radius	meter [Linear Foot]
606.25	Terminal Connector	Each
606.257	Terminal Connector - Thrie Beam	Each
606.265	Terminal End-Single Rail - Galvanized Steel	Each
606.266	Terminal End-Single Rail - Corrosion Resistant Steel	Each
606.275	Terminal End-Double Rail - Galvanized Steel	Each
606.276	Terminal End-Double Rail - Corrosion Resistant Steel	Each
606.353	Reflectorized Flexible Guardrail Marker	Each
606.354	Remove and Reset Reflectorized Flexible Guardrail Marker	Each
606.356	Underdrain Delineator Post	Each
606.358	Guardrail, Modify, Type 3b to 3c	meter [Linear Foot]
606.3581	Guardrail, Modify Existing to Type 3d	meter [Linear Foot]
606.362	Guardrail, Adjust	meter [Linear Foot]
606.365	Guardrail, Remove, Modify, and Reset, Type 3b to 3c	meter [Linear Foot]
606.3651	Guardrail, Remove, Modify, and Reset Existing to Type 3d	meter [Linear Foot]
606.366	Guardrail, Removed and Reset, Type 3c	meter [Linear Foot]
606.367	Replace Unusable Existing Guardrail Posts	Each
606.47	Single Wood Post	Each
606.48	Single Galvanized Steel Post	Each
606.50	Single Steel Pipe Post	Each

606.51	Multiple Mailbox Support	Each
606.55	Guardrail Type 3 - Single Rail	meter [Linear Foot]
606.551	Guardrail Type 3 - Single Rail with Rub Rail	meter [Linear Foot]
606.56	Guardrail Type 3 - Double Rail	meter [Linear Foot]
606.561	Guardrail Type 3 - Double Rail with Rub Rail	meter [Linear Foot]
606.568	Guardrail, Modify Type 3c -Double Rail	meter [Linear Foot]
606.59	Guardrail Type 3 - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.60	Guardrail Type 3 - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.63	Thrie Beam Rail Beam	meter [Linear Foot]
606.64	Guardrail Thrie Beam - Double Rail	meter [Linear Foot]
606.65	Guardrail Thrie Beam - Single Rail	meter [Linear Foot]
606.66	Terminal End Thrie Beam	Each
606.70	Transition Section - Thrie Beam	Each
606.71	Guardrail Thrie Beam - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.72	Guardrail Thrie Beam - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.73	Guardrail Thrie Beam - Single Rail Bridge Mounted	meter [Linear Foot]
606.74	Guardrail Type 3 - Single Rail Bridge Mounted	meter [Linear Foot]
606.753	Widen Shoulder for Low Volume Guardrail End - Type 3	Each
606.754	Widen Shoulder for Guardrail 350 Flared Terminal	Each
606.78	Low Volume Guardrail End - Type 3	Each
606.79	Guardrail 350 Flared Terminal	Each

1. ReflectORIZED Flexible Guardrail Markers shall be from Maine DOT's Approved Product List of Guardrail Material.

2. Installation:

- a. Each bolt-hole diameter shall be the bolt diameter +  $1/16$ ".
- 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 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:

<u>Pay Item</u>	<u>Pay Unit</u>
627.733 4" White or Yellow Painted Pavement Marking Line	LF
627.744 6" White or Yellow Painted Pavement Marking Line	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

<u>Equipment</u>	<u>Description</u>	<u>Minimum Size</u>
Mini-All Purpose Excavator	Track mounted	89 hp [66.1 kW]
<u>Operating Weight</u>	<u>Bucket Range</u>	
27,100 lbs. [12,300 kg]	.5 -.98 Cu. Yd. [.38 - .75 Cu. M]	

631.08 Basis of Payment

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
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

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

631.08 Basis of Payment

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
631.133	Skid Steer (including Operator)	Hour

**SPECIAL PROVISION**  
**SECTION 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\*<sup>1</sup> (Existing speed limit signs will be covered when in use)  
Fines Doubled\*<sup>1</sup>  
Work Zone<sup>1</sup>  
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

<sup>1</sup> 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.

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 shall be 3 miles in length.

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 closure tapers** 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.

12:1 paved tapers shall be placed at all Ramps immediately following milling and paving.

**Interstate crossovers shall not be used by the contractor at any time.**

**Southbound 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 southbound lane closure. Temporary sign packages and message boards shall be used for all southbound 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.

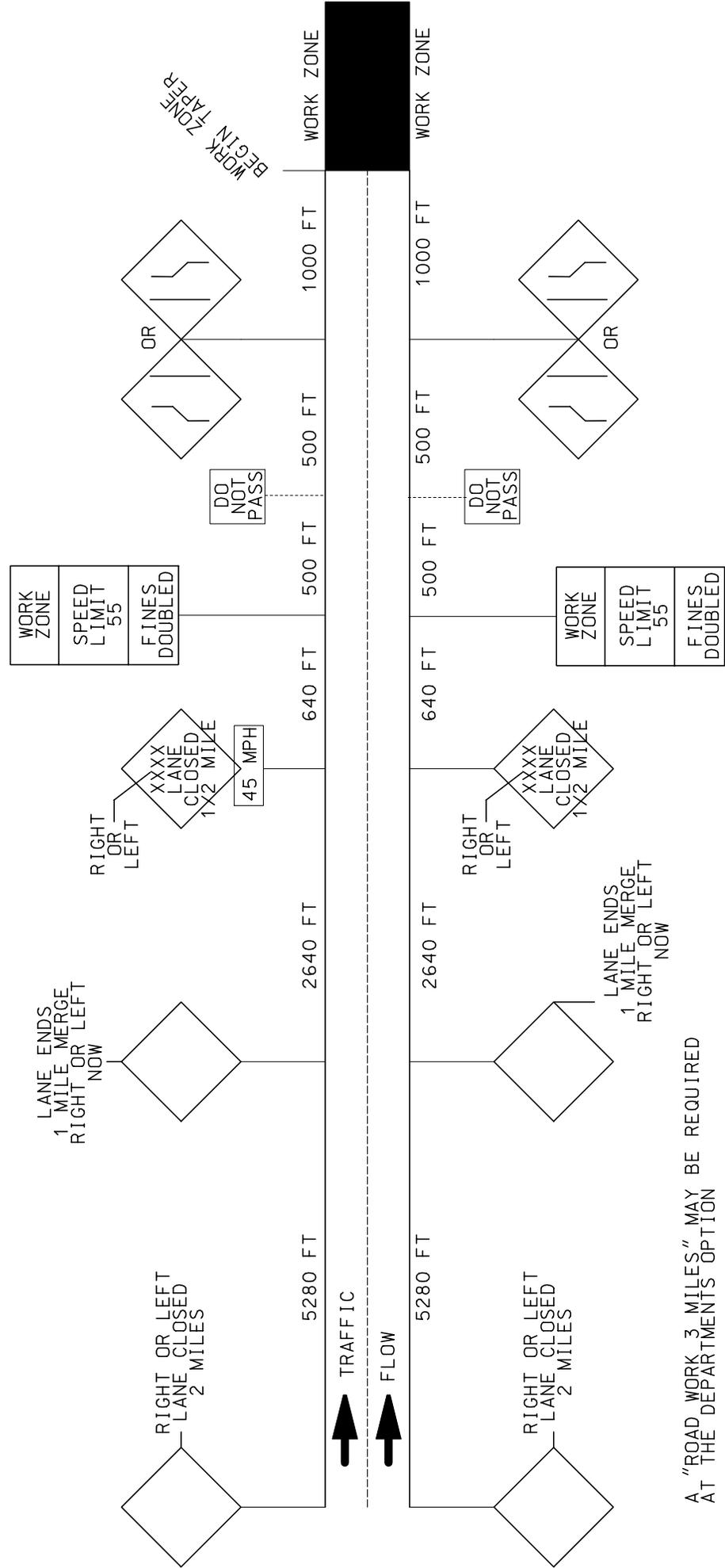
**IM-1677(400)E, PIN 16774.00**  
**STP-1705(500)E, PIN 17055.00**  
**Falmouth – Freeport**  
**Scarborough to Freeport**  
**I-295 Northbound**

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.**

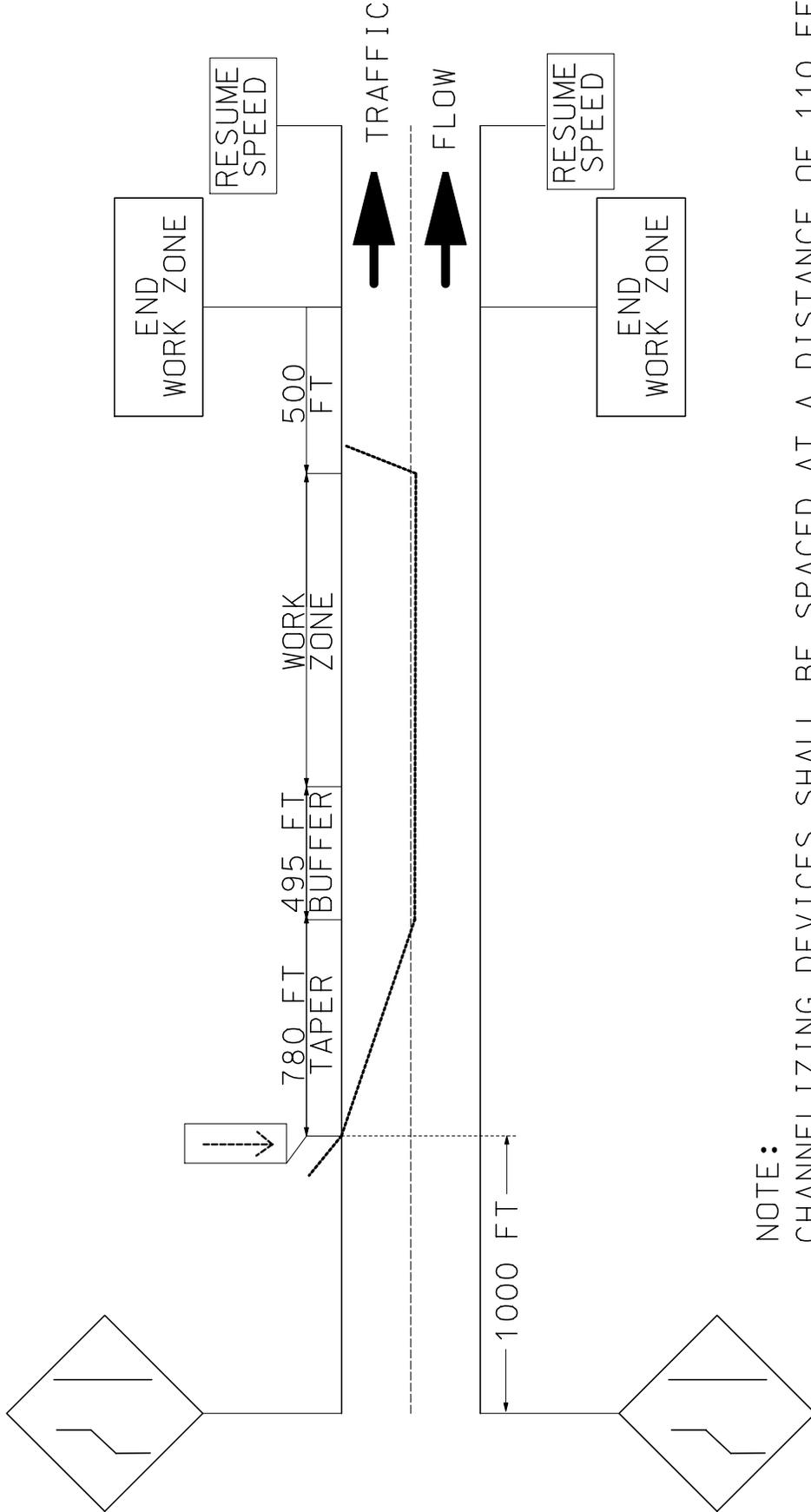
Speed Limits in Work Zones. The Contractor shall sign all approved reduced speed limits on construction project according to APM #431 - A Policy on the Establishment of Speed Limits in Work Zones.

# WORK ZONE SIGNING



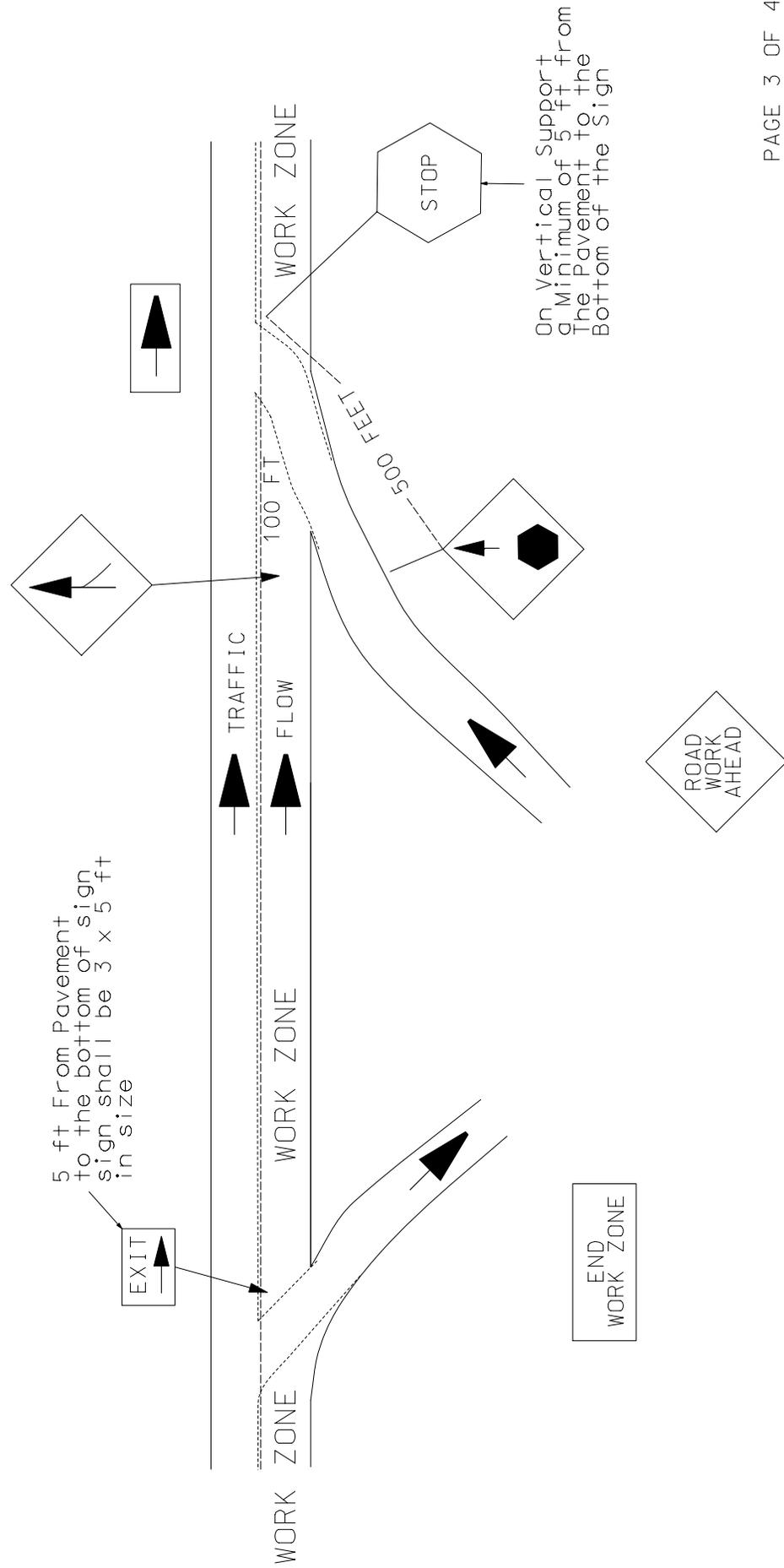
A "ROAD WORK 3 MILES" MAY BE REQUIRED AT THE DEPARTMENTS OPTION

# WORK ZONE

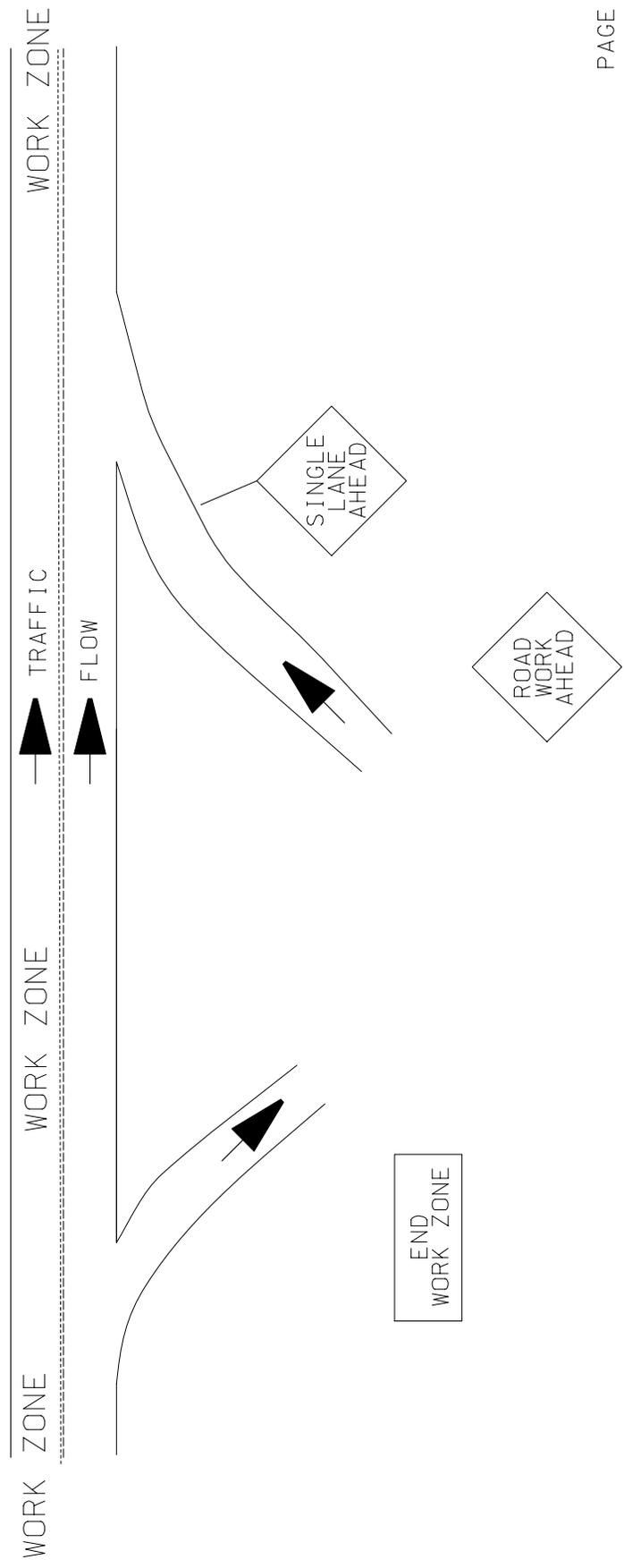


NOTE:  
 CHANNELIZING DEVICES SHALL BE SPACED AT A DISTANCE OF 110 FEET  
 APART WITH 3 DEVICES ACROSS THE CLOSED LANE EVERY 1500 FEET.  
 DEVICES IN THE TAPER SHALL BE SPACED AT 55 FEET APART.

# RAMPS - RIGHT LANE CLOSED



# RAMPS - LEFT LANE CLOSED



**SPECIAL PROVISION**  
**SECTION 652**  
**MAINTENANCE OF TRAFFIC**  
**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
<b><u>More Than</u></b>	<b><u>Including</u></b>	<b><u>Damages per Violation</u></b>
\$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 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.
- 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.
- 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 1<sup>st</sup> and April 1<sup>st</sup> 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. <u>352+50</u>	sta. <u>505+20</u>
sta. <u>401+19</u>	sta. <u>547+50</u>
  
- 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.
  
- The Contractor's SEWPCP shall address specific erosion and sediment controls, slope stabilization measures and means of equipment access to the culvert work between Stations 491+80+/- and 509+89+/-

**IM-1677(400)E, PIN 16774.00**  
**STP-1705(500)E, PIN 17055.00**  
**Scarborough, South Portland, Portland,**  
**Falmouth, Cumberland, Yarmouth, & Freeport**  
**Interstate 295 Northbound**  
**February 9, 2010**

**SPECIAL PROVISION**  
**SECTION 656**

Temporary Soil Erosion and Water Pollution Control

Project 16774.00 is located within the **Concord Gully Brook** watershed, which is listed as an **Urban Impaired Stream** and is considered **SENSITIVE** as defined by Section II.D of the 2008 BMP Manual. However, due to the topography and drainage characteristics of the project area, the resource should not be affected by the work. The MDOT Environmental Office considers Standard BMP practices to be sufficient on this project.

## 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](http://www.maine.gov/mdot/contractor-consultant-information/ss_standard_details_updates.php)

<b><u>Detail #</u></b>	<b><u>Description</u></b>	<b><u>Revision Date</u></b>
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:

<u>From More Than</u>	<u>Up to and Including</u>	<u>Amount of Liquidated Damages per Calendar Day</u>
\$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 date the Contractor receives payment will result in the paid amount being withheld from the subsequent progress payment, or payments, until such time the receipted bills are received by the Department.

Materials paid for by the Department are the property of the Department, but the risk of loss shall remain with the Contractor. Payment for Materials does not constitute Acceptance of the Material. If Materials for which the Department has paid are later found to be unacceptable, then the Department may withhold amounts reflecting such unacceptable Materials from payments otherwise due the Contractor.

In the event of Default, the Department may use or cause to be used all paid-for Materials in any manner that is in the best interest of the Department.”

## SECTION 109 CHANGES

109.1.1 Changes Permitted Add the following to the end of the paragraph: “There will be no adjustment to Contract Time due to an increase or decrease in quantities, compared to those estimated, except as addressed through Contract Modification(s).”

109.1.2 Substantial Changes to Major Items Add the following to the end of the paragraph: “Contract Time adjustments may be made for substantial changes to Major Items when the change affects the Critical Path, as determined by the Department”

109.4.4 Investigation / Adjustment Third sentence, delete the words “subsections (A) - (E)”

### 109.5.1 Definitions - Types of Delays

B. Compensable Delay Replace (1) with the following; “a weather related Uncontrollable Event of such an unusually severe nature that a Federal Emergency Disaster is declared. The Contractor will only be entitled to an Equitable Adjustment if the Project falls within the geographic boundaries prescribed under the disaster declaration.”

109.7.2 Basis of Payment Replace with the following: “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 subplot with test results failing to meet the criteria in Table #1, or if the calculated pay factor for Air Content is less than 0.80.....”

502.0503 Quality Assurance Method B - Rejection by Resident Change the first sentence to read: “For material represented by a verification test with test results failing to meet the criteria in Table #1, the Department will.....”

502.0505 Resolution of Disputed Acceptance Test Results Combine the second and third sentence to read: “Circumstances may arise, however, where the Department may .....

### 502.10 Forms and False work

D. Removal of Forms and False work 1., First paragraph; first, second, and third sentence; replace “forms” with “forms and false work”

### 502.11 Placing Concrete

G. Concrete Wearing Surface and Structural Slabs on Precast Superstructures Last paragraph; third sentence; replace “The temperature of the concrete shall not exceed 24° C [75° F] at the time of placement.” with “The temperature of the concrete shall not exceed 24° C [75° F] at the time the concrete is placed in its final position.”

502.15 Curing Concrete First paragraph; replace the first sentence with the following; “All concrete surfaces shall be kept wet with clean, fresh water for a curing period of at least 7 days after concrete placing, with the exception of vertical surfaces as provided for in Section 502.10 (D) - Removal of Forms and False work.”

Second paragraph; delete the first two sentences.

Third paragraph; delete the entire paragraph which starts “When the ambient temperature....”

Fourth paragraph; delete “approved” to now read “...continuously wet for the entire curing period...”

Fifth paragraph; second sentence; change “...as soon as it is possible to do so without damaging the concrete surface.” to “...as soon as possible.”

Seventh paragraph; first sentence; change "...until the end of the curing period." to "...until the end of the curing period, except as provided for in Section 502.10(D) - Removal of Forms and False work."

502.19 Basis of Payment First paragraph, second sentence; add "pier nose armor" to the list of items included in the contract price for concrete.

### SECTION 503 REINFORCING STEEL

503.06 Placing and Fastening Change the second paragraph, first sentence from: "All tack welding shall be done in accordance with Section 504, Structural Steel." to "All tack welding shall be done in accordance with AWS D1.4 Structural Welding Code - Reinforcing Steel."

### SECTION 504 STRUCTURAL STEEL

504.09 Facilities for Inspection Add the follow as the last paragraph: "Failure to comply with the above requirements will be consider to be a denial to allow access to work by the Contractor. The Department will reject any work done when access for inspection is denied."

504.18 Plates for Fabricated Members Change the second paragraph, first sentence from: "...ASTM A 898/A 898 M..." to "...ASTM A 898/A 898 M or ASTM A 435/A 435 M as applicable and..."

504.31 Shop Assembly Add the following as the last sentence: "The minimum assembly length shall include bearing centerlines of at least two substructure units."

504.64 Non Destructive Testing-Ancillary Bridge Products and Support Structures Change the third paragraph, first sentence from "One hundred percent..." to "Twenty five percent..."

### SECTION 535 PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE

535.02 Materials Change "Steel Strand for Concrete Reinforcement" to "Steel Strand." Add the following to the beginning of the third paragraph; "Concrete shall be Class P conforming to the requirements in this section. 28 day compressive strength shall be as stated on the plans. Coarse aggregate...."

535.05 Inspection Facilities Add the follow as the last paragraph: "If the above requirements are not met, the Contractor shall be considered to be in violation of Standard Specification 104.2.5 – Right to Inspect Work. All work occurring during a violation of this specification will be rejected."

535.26 Lateral Post-Tensioning Replace the first paragraph; "A final tension..." with "Overstressing strands for setting losses cannot be accomplished for chuck to chuck lengths of 7.6 m [25 ft] and less. In such instances, refer to the Plans for all materials and methods.

Otherwise, post-tensioning shall be in accordance with PCI standards and shall provide the anchorage force noted in the Plans. The applied jacking force shall be no less than 100% of the design jacking force.”

SECTION 603  
PIPE CULVERTS AND STORM DRAINS

603.0311 Corrugated Polyethylene Pipe for Option III Replace the Minimum Mandrel Diameter Table with the following:

Nominal Size US Customary (in)	Minimum Mandrel Diameter (in)	Nominal Size Metric (mm)	Minimum Mandrel Diameter (mm)
12	11.23	300	280.73
15	14.04	375	350.91
18	16.84	450	421.09
24	22.46	600	561.45
30	28.07	750	701.81
36	33.69	900	842.18
42	39.30	1050	982.54
48	44.92	1200	1122.90

SECTION 604  
MANHOLES, INLETS, AND CATCH BASINS

604.02 Materials Add the following:

“Tops and Traps	712.07
Corrugated Metal Units	712.08
Catch Basin and Manhole Steps	712.09”

SECTION 605  
UNDERDRAINS

605.05 Underdrain Outlets Make the following change:

In the first paragraph, second sentence, delete the words “metal pipe”.

SECTION 606  
GUARDRAIL

606.02 Materials Delete the entire paragraph which reads “The sole patented supplier of multiple mailbox...” and replace with “Acceptable multiple mailbox assemblies shall be listed on the Department’s Approved Products List and shall be NCHRP 350 tested and approved.” Delete the entire paragraph which reads “Retroreflective beam guardrail delineators...” and replace with “Reflectorized sheeting for Guardrail Delineators shall meet the requirements of Section 719.01 - Reflective Sheeting. Delineators shall be fabricated from high-impact, ultraviolet and weather resistant thermoplastic.

606.09 Basis of Payment First paragraph; delete the second and third sentence in their entirety and replace with “Butterfly-type guardrail reflectorized delineators shall be mounted on all W-beam guardrail at an interval of every 10 posts [62.5 ft] on tangents sections and every 5 posts [31.25 ft] on curved sections as directed by the Resident. On divided highways, the delineators shall be yellow on the left hand side and silver/white on the right hand side. On two-way roadways, the delineators shall be silver/white on the right hand side. All delineators shall have retroreflective sheeting applied to only the traffic facing side. Reflectorized guardrail delineators will not be paid for directly, but will be considered incidental to the guardrail items.”

SECTION 609  
**CURB**

609.04 Bituminous Curb f., Delete the requirement “Color Natural (White)”

SECTION 610  
**STONE FILL, RIPRAP, STONE BLANKET,  
AND STONE DITCH PROTECTION**

Add the following paragraph to Section 610.02:

“Materials shall meet the requirements of the following Sections of Special Provision 703:

Stone Fill	703.25
Plain and Hand Laid Riprap	703.26
Stone Blanket	703.27
Heavy Riprap	703.28
Definitions	703.32”

Add the following paragraph to Section 610.032.a.

“Stone fill and stone blanket shall be placed on the slope in a well-knit, compact and uniform layer. The surface stones shall be chinked with smaller stone from the same source.”

Add the following paragraph to Section 610.032.b:

“Riprap shall be placed on the slope in a well-knit, compact and uniform layer. The surface stones shall be chinked with smaller stone from the same source.”

Add the following to Section 610.032: “Section 610.032.d. The grading of riprap, stone fill, stone blanket and stone ditch protection shall be determined by the Resident by visual inspection of the load before it is dumped into place, or, if ordered by the Resident, by dumping individual loads on a flat surface and sorting and measuring the individual rocks contained in the load. A separate, reference pile of stone with the required gradation will be placed by the Contractor at a convenient location where the Resident can see and judge by eye the suitability of the rock being placed during the duration of the project. The Resident reserves the right to reject stone at the job site or stockpile, and in place. Stone rejected at the job site or in place shall be removed from the site at no additional cost to the Department.”

## SECTION 615

### LOAM

615.02 Materials Make the following change:

Organic Content

Humus

Percent by Volume

“5% - 10%”, as determined by Ignition Test

## SECTION 618

### SEEDING

618.01 Description Change the first sentence to read as follows: “This work shall consist of furnishing and applying seed .....” Also remove “,and cellulose fiber mulch” from 618.01(a).

618.03 Rates of Application In 618.03(a), remove the last sentence and replace with the following: “These rates shall apply to Seeding Method 2, 3, and Crown Vetch.”

In 618.03(c) “1.8 kg [4 lb]/unit.” to “1.95 kg [4 lb]/unit.”

618.09 Construction Method In 618.09(a) 1, sentence two, replace “100 mm [4 in]” with “25 mm [1 in] (Method 1 areas) and 50 mm [2 in] (Method 2 areas)”

618.15 Temporary Seeding Change the Pay Unit from Unit to Kg [lb].

## SECTION 620

### GEOTEXTILES

620.03 Placement Section (c)

Title: Replace “Non-woven” in title with “Erosion Control”.

First Paragraph: Replace first word “Non-woven” with “Woven monofilament”.

Second Paragraph: Replace second word “Non-woven” with “Erosion Control”.

620.07 Shipment, Storage, Protection and Repair of Fabric Section (a)

Replace the second sentence with the following: “Damaged geotextiles, as identified by the Resident, shall be repaired immediately.”

620.09 Basis of Payment

Pay Item 620.58: Replace “Non-woven” with “Erosion Control”

Pay Item 620.59: Replace “Non-woven” with “Erosion Control”

## SECTION 621

### LANDSCAPING

621.0036 Establishment Period In paragraph 4 and 5, change “time of Final Acceptance” to “end of the period of establishment”. In Paragraph 7, change “Final Acceptance date” to “end of the period of establishment” and change “date of Final Acceptance” to “end of the period of establishment”.

## SECTION 626 HIGHWAY SIGNING

626.034 Concrete Foundations Add to the following to the end of the second paragraph: “Pre-cast and cast-in-place foundations shall be warranted against leaning and corrosion for two years after the project is completed. If the lean is greater than 2 degrees from normal or the foundation is spalling within the first two years, the Contractor shall replace the foundation at no extra cost.”

## SECTION 627 PAVEMENT MARKINGS

627.10 Basis of Payment Add to the following to the end of the third paragraph: “If allowed by Special Provision, the Contractor may utilize Temporary Bi-Directional Yellow and White(As required) Delineators as temporary pavement marking lines and paid for at the contract lump sum price. Such payment will include as many applications as required and removal.”

## SECTION 637 DUST CONTROL

637.06 Basis of Payment Add the following after the second sentence of the third paragraph: “Failure by the Contractor to follow Standard Specification or Special Provision - Section 637 and/or the Contractor’s own Soil Erosion and Pollution Control Plan concerning Dust Control and/or the Contractor’s own Traffic Control Plan concerning Dust Control and/or visible evidence of excessive dust problems, as determined by the Resident, will result in a reduction in payment, computed by reducing the Lump Sum Total by 5% per occurrence per day. The Department’s Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item. Additional penalties may also be assessed in accordance with Special Provision 652 - Work Zone Traffic Control and Standard Specification 656 - Temporary Soil Erosion and Water Pollution Control.”

## SECTION 639 ENGINEERING FACILITIES

639.04 Field Offices Change the forth to last paragraph from: “The Contractor shall provide a fully functional desktop copier...” to “....desktop copier/scanner...”

Description Change “Floor Area” to “Floor Area (Outside Dimension)”. Change Type B floor area from “15 (160)” to “20 (217)”.

639.09 Telephone Paragraph 1 is amended as follows:  
The contractor shall provide **two** telephone lines and two telephones,....

Add- In addition the contractor will supply one computer broadband connection, modem lease and router. The router shall have wireless access and be 802.11n or 802.11g capable and

wireless The type of connection supplied will be contingent upon the availability of services (i.e. DSL or Cable Broadband). It shall be the contractor's option to provide dynamic or static IP addresses through the service. **The selected service will have a minimum downstream connection of 1.5 Mbps and 384 Kbps upstream.** The contractor shall be responsible for the installation charges and all reinstallation charges following suspended periods. Monthly service and maintenance charges shall be billed by the Internet Service Provider (ISP) directly to the contractor.

## SECTION 652

### MAINTENANCE OF TRAFFIC

652.2.3 Flashing Arrow Board Delete the existing 5 paragraphs and replace with the following: Flashing Arrow Panels (FAP) must be of a type that has been submitted to AASHTO's National Transportation Product Evaluation Program (NTPEP) for evaluation and placed on the Maine Department of Transportations' Approved Products List of Portable Changeable Message Signs & Flashing Arrow Panels.

FAP units shall meet requirements of the current Manual on Uniform Traffic Control Devices (MUTCD) for Type "C" panels as described in Section 6F.56 - Temporary Traffic Control Devices. An FAP shall have matrix of a minimum of 15 low-glare, sealed beam, Par 46 elements capable of either flashing or sequential displays as well as the various operating modes as described in the MUTCD, Chapter 6-F. If an FAP consisting of a bulb matrix is used, each element should be recess-mounted or equipped with an upper hood of not less than 180 degrees. The color presented by the elements shall be yellow.

FAP elements shall be capable of at least a 50 percent dimming from full brilliance. Full brilliance should be used for daytime operation and the dimmed mode shall be used for nighttime operation. FAP shall be at least 2.4 M x 1.2 M [96" x 48"] and finished in non-reflective black. The FAP shall be interpretable for a distance not less than 1.6 km [1 mile].

Operating modes shall include, flashing arrow, sequential arrow, sequential chevron, flashing double arrow, and flashing caution. In the three arrow signals, the second light from the arrow point shall not operate.

The minimum element on-time shall be 50 percent for the flashing mode, with equal intervals of 25 percent for each sequential phase. The flashing rate shall be not less than 25 nor more than 40 flashes per minute. All on-board circuitry shall be solid state.

Primary power source shall be 12 volt solar with a battery back-up to provide continuous operation when failure of the primary power source occurs, up to 30 days with fully charged batteries. Batteries must be capable of being charged from an onboard 110 volt AC power source and the unit shall be equipped with a cable for this purpose.

Controller and battery compartments shall be enclosed in lockable, weather-tight boxes. The FAP shall be mounted on a pneumatic-tired trailer or other suitable support for hauling to various locations, as directed. The minimum mounting height of an arrow panel should be 2.1 M [7 feet] from the roadway to the bottom of the panel.

The face of the trailer shall be delineated on a permanent basis by affixing retro-reflective material, known as conspicuity material, in a continuous line as seen by oncoming drivers.

A portable changeable message sign may be used to simulate an arrow panel display.”

652.2.4 Other Devices Delete the last paragraph and add the following:

“652.2.5 Portable Changeable Message Sign Trailer mounted Portable Changeable Message Signs (PCMS) must be of a type that has been submitted to AASHTO’s National Transportation Product Evaluation Program (NTPEP) for evaluation and placed on the Maine Department of Transportations’ Approved Products List of Portable Changeable Message Signs & Flashing Arrow Panels. The PCMS unit shall meet or exceed the current specifications of the Manual on Uniform Traffic Control Devices (MUTCD), 6F.55.

The front face of the sign should be covered with a low-glare protective material. The color of the LED elements shall be amber on a black background. The PCMS should be visible from a distance of 0.8 km [0.5 mile] day and night and have a minimum 15° viewing angle. Characters must be legible from a distance of at least 200 M [650 feet].

The message panel should have adjustable display rates (minimum of 3 seconds per phase), so that the entire message can be read at least twice at the posted speed, the off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed. Each message shall consist of either one or two phases. A phase shall consist of up to eight characters per line. The unit must be capable of displaying at least three lines of text with eight characters per line. Each character shall be 457 mm [18”] high. Each character module shall use at least a five wide and seven high pixel matrix. The text of the messages shall not scroll or travel horizontally or vertically across the face of the sign.

Units shall automatically adjust their brightness under varying light conditions to maintain legibility.

The control system shall include a display screen upon which messages can be reviewed before being displayed on the message sign. The control system shall be capable of maintaining memory when power is unavailable. Message must be changeable with either a notebook computer or an on-board keypad. The controller shall have the capability to store a minimum of 200 user-defined and 200 pre-programmed messages. Controller and battery compartments shall be enclosed in lockable, weather-tight boxes.

PCMS units shall have the capability of being made programmable by means of wireless communications. PCMS units shall also be fully capable of having an on-board radar system installed if required for a particular application.

PCMS’ primary power source shall be solar with a battery back-up to provide continuous operation when failure of the primary power source occurs. Batteries must be capable of being charged from a 110 volt AC power source. The unit must also be capable of being operated solely from a 110 volt AC power source and be equipped with a cable for this purpose.

The PCMS shall be mounted on a trailer in such a way that the bottom of the message sign panel shall be a minimum of 2.1 M [7 ft] above the roadway in urban areas and 1.5 M [5 ft]

above the roadway in rural areas when it is in the operating mode. PCMS trailers should be of a heavy duty type with a 51 mm [2"] ball hitch and a minimum of four leveling jacks (at each corner). The sign shall be capable of being rotated 360° relative to the trailer. The face of the trailer shall be delineated on a permanent basis by affixing retro-reflective material, known as conspicuity material, in a continuous line as seen by oncoming drivers."

652.3.3 Submittal of Traffic Control Plan In item e. change "A list of all certified flaggers..." to "A list of all the Contractor's certified flaggers..."

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 360°. The vehicle flashing system shall be in continuous operation while the vehicle is on any part of the project.

The Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item.

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<sup>2</sup> [80 lb/ft<sup>2</sup>] ground contact pressure...” to “...crawler type bulldozer of not more than 4875 kg/m<sup>2</sup> [2000 lb/ft<sup>2</sup>] ground contact pressure...”

653.06 Compaction In the last sentence; change “...not more than 390 kg/m<sup>2</sup> [80 lb/ft<sup>2</sup>] ground contact...” to “...not more than 4875 kg/m<sup>2</sup> [2000 lb/ft<sup>2</sup>] 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
¾ inch	93-100
No. 4	60-80
No. 8	46-65
No. 16	25-55
No. 30	16-40
No. 50	10-30
No. 100	6-22
No. 200	3.0-8.0

703.18 Common Borrow Replace the first paragraph with the following: “Common borrow shall consist of earth, suitable for embankment construction. It shall be free from frozen material, perishable rubbish, peat, and other unsuitable material including material currently or previously contaminated by chemical, radiological, or biological agents unless the material is from a DOT project and authorized by DEP for use.”

703.22 Underdrain Backfill Material Change the first paragraph from “...for Underdrain Type B...” to “...for Underdrain Type B and C...”

Replace subsections 703.25 through 703.28 with the following:

703.25 Stone Fill Stones for stone fill shall consist of hard, sound, durable rock that will not disintegrate by exposure to water or weather. Stone for stone fill shall be angular and rough. Rounded, subrounded, or long thin stones will not be allowed. Stone for stone fill may be obtained from quarries or by screening oversized rock from earth borrow pits. The maximum allowable length to thickness ratio will be 3:1. The minimum stone size (10 lbs) shall have an average dimension of 5 inches. The maximum stone size (500 lbs) shall have a maximum dimension of approximately 36 inches. Larger stones may be used if approved by the Resident. Fifty percent of the stones by volume shall have an average dimension of 12 inches (200 lbs).

703.26 Plain and Hand Laid Riprap Stone for riprap shall consist of hard, sound durable rock that will not disintegrate by exposure to water or weather. Stone for riprap shall be angular and rough. Rounded, subrounded or long thin stones will not be allowed. The maximum allowable length to width ratio will be 3:1. Stone for riprap may be obtained from quarries or by screening oversized rock from earth borrow pits. The minimum stone size (10 lbs) shall have an average dimension of 5 inches. The maximum stone size (200 lbs) shall have an average dimension of approximately 12 inches. Larger stones may be used if approved by the Resident. Fifty percent of the stones by volume shall have an average dimension greater than 9 inches (50 lbs).

703.27 Stone Blanket Stones for stone blanket shall consist of sound durable rock that will not disintegrate by exposure to water or weather. Stone for stone blanket shall be angular and rough. Rounded or subrounded stones will not be allowed. Stones may be obtained from quarries or by screening oversized rock from earth borrow pits. The minimum stone size (300 lbs) shall have minimum dimension of 14 inches, and the maximum stone size (3000 lbs) shall

have a maximum dimension of approximately 66 inches. Fifty percent of the stones by volume shall have average dimension greater than 24 inches (1000 lbs).

703.28 Heavy Riprap Stone for heavy riprap shall consist of hard, sound, durable rock that will not disintegrate by exposure to water or weather. Stone for heavy riprap shall be angular and rough. Rounded, subrounded, or thin, flat stones will not be allowed. The maximum allowable length to width ratio will be 3:1. Stone for heavy riprap may be obtained from quarries or by screening oversized rock from earth borrow pits. The minimum stone size (500 lbs) shall have minimum dimension of 15 inches, and at least fifty percent of the stones by volume shall have an average dimension greater than 24 inches (1000 lbs).”

Add the following paragraph:

“703.32 Definitions (ASTM D 2488, Table 1).

Angular: Particles have sharp edges and relatively plane sides with unpolished surfaces

Subrounded: Particles have nearly plane sides but have well-rounded corners and edges

Rounded: Particles have smoothly curved sides and no edges”

## SECTION 706 NON-METALLIC PIPE

706.06 Corrugated Polyethylene Pipe for Underdrain, Option I and Option III Culvert Pipe Change the first sentence from “...300 mm diameters to 900 mm” to “...300 mm diameters to 1200 mm” Delete, in 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 [ $\frac{1}{2}$  inch] AASHTO M203M/M203 (ASTM A416/A416M)...” to “...shall be 15.24 mm [0.600 inch] diameter AASHTO M203 (ASTM A416)...”

## SECTION 710 FENCE AND GUARDRAIL

710.03 Chain Link Fabric Add the following sentence: “Chain Link fabric for PVC coated shall conform to the requirements of AASHTO M181, Type IV-Class B.”

710.04 Metal Beam Rail Replace with the following: “Galvanized steel rail elements shall conform to the requirements of AASHTO M 180, Class A, Type II.

When corrosion resistant steel is specified, rail shall conform to AASHTO M 180, Class A, Type IV. Beams of corrosion resistant steel shall not be painted or galvanized. They shall be so handled and stored that the traffic face of these beams, used in a continuous run of guardrail, shall not show a distinctive color differential.

When metal beam rail is to be installed on a curve having a radius of curvature of 150 ft. or less, the beam sections shall be fabricated on an arc to the required radius and permanently stamped or embossed with the designated radius.

The engineer may take one piece of guardrail, a backup plate, and end or buffer section from each 200 pieces in a lot, or from each lot if less than 200 pieces are included therein for determination of compliance with specification requirements. If one piece fails to conform to the requirements of this specification, two other pieces shall be tested. If either of these pieces fails to conform to the requirements of this specification, the lot of material represented by these samples shall be rejected. A lot shall be considered that quantity of material offered for inspection at one time that bears the same heat and coating identification.”

710.07 Guardrail Posts Section b. change “...AASHTO M183/M183M...” to “...AASHTO M 270M/M 270 Grade 250 (36)...”

## SECTION 712 MISCELLANEOUS HIGHWAY MATERIALS

712.04 Stone Curbing and Edging Delete the existing and replace with the following: “Stone for curbing and edging shall be approved granite from acceptable sources. The stone shall be hard and durable, predominantly gray in color, free from seams that would be likely to impair its structural integrity, and of a smooth splitting character. Natural grain size and color variations characteristic of the source deposit will be permitted. Such natural variations may include bands or clusters of mineral crystallization provided they do not impair the structural integrity of the curb stone. The Contractor shall submit for approval the name of the quarry that is the proposed source of the granite for curb materials along with full scale color photos of the granite. Such submission shall be made sufficiently in advance of ordering so that the Resident may have an opportunity to judge the stone, both as to quality and appearance. Samples of curbing shall be submitted for approval only when requested by the Resident. The dimensions, shape, and other details shall be as shown on the plans.”

712.06 Precast Concrete Units In the first paragraph, change “...ASTM C478M...” to “...AASHTO M199...” Delete the second paragraph and replace with the following; “Approved structural fibers may be used as a replacement of 6 x 6 #10 gauge welded wire fabric when used at an approved dosage rate for the construction of manhole and catch basin units. The material used shall be one of the products listed on the Maine Department of Transportation’s Approved Product List of Structural Fiber Reinforcement.” Delete the fifth paragraph and replace with the following; “The concrete mix design shall be approved by the Department. Concrete shall contain 6% air content, plus or minus 1½% tolerance when tested according to AASHTO T152. All concrete shall develop a minimum compressive strength of 28 MPa [4000 psi] in 28 days when tested according to AASHTO T22. The absorption of a specimen, when tested according to AASHTO T280, Test Method “A”, shall not exceed nine percent of the dry mass.”

Add the following:

“712.07 Tops, and Traps These metal units shall conform to the plan dimensions and to the following specification requirements for the designated materials.

Gray iron or ductile iron castings shall conform to the requirements of AASHTO M306 unless otherwise designated.”

712.08 Corrugated Metal Units The units shall conform to plan dimensions and the metal to AASHTO M36/M36M. Bituminous coating, when specified, shall conform to AASHTO M190 Type A.

712.09 Catch Basin and Manhole Steps Steps for catch basins and for manholes shall conform to ASTM C478M [ASTM C478], Section 13 for either of the following material:

- (a) Aluminum steps-ASTM B221M, [ASTM B211] Alloy 6061-T6 or 6005-T5.
- (b) Reinforced plastic steps Steel reinforcing bar with injection molded plastic coating copolymer polypropylene. Polypropylene shall conform to ASTM D 4101.

712.23 Flashing Lights Flashing Lights shall be power operated or battery operated as specified.

- (a) Power operated flashing lights shall consist of housing, adapters, lamps, sockets, reflectors, lens, hoods and other necessary equipment designed to give clearly visible signal indications within an angle of at least 45 degrees and from 3 to 90 m [10 to 300 ft] under all light and atmospheric conditions.

Two circuit flasher controllers with a two-circuit filter capable of providing alternate flashing operations at the rate of not less than 50 nor more than 60 flashes per minute shall be provided.

The lamps shall be 650 lumens, 120 volt traffic signal lamps with sockets constructed to properly focus and hold the lamp firmly in position.

The housing shall have a rotatable sun visor not less than 175 mm [7 in] in length designed to shield the lens.

Reflectors shall be of such design that light from a properly focused lamp will reflect the light rays parallel. Reflectors shall have a maximum diameter at the point of contact with the lens of approximately 200 mm [8 in].

The lens shall consist of a round one-piece convex amber material which, when mounted, shall have a visible diameter of approximately 200 mm [8 in]. They shall distribute light and not diffuse it. The distribution of the light shall be asymmetrical in a downward direction. The light distribution of the lens shall not be uniform, but shall consist of a small high intensity portion with narrow distribution for long distance throw and a larger low intensity portion with wide distribution for short distance throw. Lenses shall be marked to indicate the top and bottom of the lens.

- (b) Battery operated flashing lights shall be self-illuminated by an electric lamp behind the lens. These lights shall also be externally illuminated by reflex-reflective elements built into the lens to enable it to be seen by reflex-reflection of the light from the headlights of oncoming traffic. The batteries must be entirely enclosed in a case. A

locking device must secure the case. The light shall have a flash rate of not less than 50 nor more than 60 flashes per minute from minus 30 °C [minus 20 °F] to plus 65 °C [plus 150 °F]. The light shall have an on time of not less than 10 percent of the flash cycle. The light beam projected upon a surface perpendicular to the axis of the light beam shall produce a lighted rectangular projection whose minimum horizontal dimension shall be 5 degrees each side of the horizontal axis. The effective intensity shall not have an initial value greater than 15.0 candelas or drop below 4.0 candelas during the first 336 hours of continuous flashing. The illuminated lens shall appear to be uniformly bright over its entire illuminated surface when viewed from any point within an angle of 9 degrees each side of the vertical axis and 5 degrees each side of the horizontal axis. The lens shall not be less than 175 mm [7 in] in diameter including a reflex-reflector ring of 13 mm [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 [¾ in] shall show in the joint for the full exposed height.

Liftpin holes in all sides will be allowed except on the exposed face.

SECTION 717  
ROADSIDE IMPROVEMENT MATERIAL

717.03 C. Method #3 - Roadside Mixture #3 Change the seed proportions to the following:

Crown Vetch	25%
Perennial Lupine	25%
Red Clover	12.5%
Annual Rye	37.5%

717.05 Mulch Binder Change the third sentence to read as follows:

“Paper fiber mulch may be used as a binder at the rate of 2.3 kg/unit [5 lb/unit].”

SECTION 720  
STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND  
TRAFFIC SIGNALS

720.08 U-Channel Posts Change the first sentence from “..., U-Channel posts...” to “..., Rib Back U-Channel posts...”

SECTION 722  
GEOTEXTILES

722.01 Stabilization/Reinforcement Geotextile Add the following to note #3; “The strengths specified in the columns labeled”<50%” and “≥ 50%” refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the “<50%” column. Submittals must include the percent elongation at which the material was tested.”

722.02 Drainage Geotextile Add the following to note #3; “The strengths specified in the columns labeled”<50%” and “≥ 50%” refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the “<50%” column. Submittals must include the percent elongation at which the material was tested.”

722.01 Erosion Control Geotextile Add the following note to Elongation in the Mechanical Property Table; “The strengths specified in the columns labeled”<50%” and “≥ 50%” refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the “<50%” column. Submittals must include the percent elongation at which the material was tested.”

APPENDIX A TO DIVISION 100

SECTION 1 - BIDDING PROVISIONS

A. Federally Required Certifications By signing and delivering a Bid, the Bidder certifies as provided in all certifications set forth in this Appendix A - Federal Contract Provisions Supplement including:

- Certification Regarding No Kickbacks to Procure Contract as provided on this page 1 below.
- Certification Regarding Non-collusion as provided on page 1 below.
- Certification Regarding Non-segregated Facilities as provided by FHWA Form 1273, section III set forth on page 21 below.
- "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion" as provided by FHWA Form 1273, section XI set forth on page 32 below.
- "Certification Regarding Use of Contract Funds for Lobbying" as provided by FHWA Form 1273, section XII set forth on page 35 below.

Unless otherwise provided below, the term "Bidder", for the purposes of these certifications, includes the Bidder, its principals, and the person(s) signing the Bid. Upon execution of the Contract, the Bidder (then called the Contractor) will again make all the certifications indicated in this paragraph above. Upon execution of the Contract, the Bidder (then called the Contractor) will again make all the certifications indicated in this paragraph above.

CERTIFICATION REGARDING NO KICKBACKS TO PROCURE CONTRACT Except expressly stated by the Bidder on sheets submitted with the Bid (if any), the Bidder hereby certifies, to the best of its knowledge and belief, that it has not:

(A) employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me) to solicit or secure this contract;

(B) agreed, as an express or implied condition for obtaining this contract, to employ or retain the services of any firm or person in connection with carrying out the contract, or;

(C) paid, or agreed to pay, to any firm, organization, or person (other than a bona fide employee working solely for me) any fee, contribution, donation, or consideration of any kind for, or in connection with, procuring or carrying out the contract;

By signing and submitting a Bid, the Bidder acknowledges that this certification is to be furnished to the Maine Department of Transportation and the Federal Highway Administration, U.S. Department of Transportation in connection with this contract in anticipation of federal aid highway funds and is subject to applicable state and federal laws, both criminal and civil.

CERTIFICATION REGARDING NONCOLLUSION Under penalty of perjury as provided by federal law (28 U.S.C. §1746), the Bidder hereby certifies, to the best of its knowledge and belief, that:

the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with the Contract.

For a related provisions, see Section 102.7.2 (C) of the Standard Specifications - "Effects of Signing and Delivery of Bids" - "Certifications", Section 3 of this Appendix A entitled "Other Federal Requirements" including section XI - "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion" and section XII. - "Certification Regarding Use of Contract Funds for Lobbying."

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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 than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above describing the openings, screenings, procedures, and test to be used in the selection process.
10. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth, both on the site and in other areas of a Contractor's workforce.
11. Validate all tests and other selection requirements.
12. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
13. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
14. Ensure that all facilities and company activities are non segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
15. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction Contractor's and suppliers, including circulation of solicitations to minority and female Contractor associations and other business associations.
16. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

C. Goals for Employment of Women and Minorities Per Executive Order 11246, craft tradesperson goals are 6.9% women and .5% minorities employed. However, goals may be adjusted upward at the mutual agreement of the Contractor and the Department. Calculation of these percentages shall not include On-the-Job Training Program trainees, and shall not include clerical or field clerk position employees.

For a more complete presentation of requirements for such Goals, see the federally required document "Goals for Employment of Females and Minorities" set forth in the next 6 pages below.

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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 male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, specific minority group of women is underutilized.)
  10. The Contractor shall not use the goals and timetables or affirmative action even 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 at which the work was performed. Records be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
- 15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

End of GOALS FOR EMPLOYMENT OF FEMALES AND MINORITIES  
Federally Required Contract Document

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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 be performed by the DBE.

It is not intended that the ability to negotiate a more advantageous contract with another certified DBE be considered a valid basis for such a change in DBE utilization once the DBE Bid Submission review has been passed. Any requests to alter the DBE commitment must be in writing and included with the change order.

Failure to carry out terms of this Standard Specification shall be treated as a violation of this contract and will result in contract sanctions which may include withholding of partial payments totaling the creditable dollars amount which would have been paid for said DBE participation, termination of this contract or other measures which may affect the ability of the Contractor to obtain Department contracts.

Copies of the Maine Department of Transportation's DBE Program may be obtained from:

Maine Department of Transportation  
Civil Rights Office  
#16 State House Station  
Augusta, Maine 04333-0016  
tel. (207) 624-3519

Quarterly Reporting Requirement. The Contractor must submit Semi-annual reports of actual dollars paid to Disadvantaged Business Enterprises (DBE's) on this Project to the MDOT Civil Rights Office by the end of the third week of April and October for the period covering the preceding six months considered Federal Fiscal Year periods. The reports will be submitted directly to the Civil Rights Office on the form provided in the latest version of the DBE Program Manual. Failure to submit the report by the deadline may result in a withholding of approval of partial payment estimates by the Department.

### SECTION 3 - OTHER FEDERAL REQUIREMENTS

Unless expressly otherwise provided in the Bid Documents, the provisions contained in this Section 3 of this "Federal Contract Provisions Supplement" are hereby incorporated into the Bid Documents and Contract.

#### A. Buy America

If the cost of products purchased for permanent use in this project which are manufactured of steel, iron or the application of any coating to products of these materials exceeds 0.1 percent of the contract amount, or \$2,500.00, whichever is greater, the products shall have been manufactured and the coating applied in the United States. The coating materials are not subject to this clause, only the application of the coating. In computing that amount, only the cost of the product and coating application cost will be included.

Ore, for the manufacture of steel or iron, may be from outside the United States; however, all other manufacturing processes of steel or iron must be in the United States to qualify as having been manufactured in the United States.

United States includes the 50 United States and any place subject to the jurisdiction thereof.

Products of steel include, but are not limited to, such products as structural steel, piles, guardrail, steel culverts, reinforcing steel, structural plate and steel supports for signs, luminaries and signals.

Products of iron include, but are not limited to, such products as cast iron grates.

Application of coatings include, but are not limited to, such applications as epoxy, galvanized and paint.

To assure compliance with this section, the Contractor shall submit a certification letter on its letterhead to the Department stating the following:

“This is to certify that products made of steel, iron or the application of any coating to products of these materials whose costs are in excess of \$2,500.00 or 0.1 percent of the original contract amount, whichever is greater, were manufactured and the coating, if one was required, was applied in the United States.”

#### B. Materials

a. Convict Produced Materials References: 23 U.S.C. 114(b)(2), 23 CFR 635.417

Applicability: FHWA's prohibition against the use of convict material only applies to Federal-aid highways. Materials produced after July 1, 1991, by convict labor may only be incorporated in a Federal-aid highway construction project if: 1) such materials have been produced by convicts who are on parole, supervised release, or probation from a prison; or 2) such material has been produced in a qualified prison facility, e.g., prison industry, with the amount produced during any 12-month period, for use in Federal-aid projects, not exceeding the amount produced, for such use, during the 12-month period ending July 1, 1987.

Materials obtained from prison facilities (e.g., prison industries) are subject to the same requirements for Federal-aid participation that are imposed upon materials acquired from other sources. Materials manufactured or produced by convict labor will be given no preferential treatment.

The preferred method of obtaining materials for a project is through normal contracting procedures which require the contractor to furnish all materials to be incorporated in the work. The contractor selects the source, public or private, from which the materials are to be obtained (23 CFR 635.407). Prison industries are prohibited from bidding on projects directly (23 CFR 635.112e), but may act as material supplier to construction contractors.

Prison materials may also be approved as State-furnished material. However, since public agencies may not bid in competition with private firms, direct acquisition of materials from a prison industry for use as State-furnished material is subject to a public interest finding with the Division Administrator's concurrence (23 CFR 635.407d). Selection of materials produced by convict labor as State-furnished materials for mandatory use should be cleared prior to the submittal of the Plans Specifications & Estimates (PS&E).

b. Patented/Proprietary Products References: 23 U.S.C. 112, 23 CFR 635.411

FHWA will not participate, directly or indirectly, in payment for any premium or royalty on any patented or proprietary material, specification, or process specifically set forth in the plans and specifications for a project, unless:

- the item is purchased or obtained through competitive bidding with equally suitable unpatented items,
- the STA certifies either that the proprietary or patented item is essential for synchronization with the existing highway facilities or that no equally suitable alternative exists, or
- the item is used for research or for a special type of construction on relatively short sections of road for experimental purposes. States should follow FHWA's procedures for "Construction Projects Incorporating Experimental Features" ([expermnt.htm](#)) 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. NONSEGREGATED FACILITIES (Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

- a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.
- b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).
- c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE (Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

- a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the

provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

- b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.
- c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

- a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.
- b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:
  - (1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;
  - (2) the additional classification is utilized in the area by the construction industry;
  - (3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and
  - (4) with respect to helpers, when such a classification prevails in the area in which the work is performed.
- c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

- d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary
- e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

- a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.
- b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

a. Apprentices:

- (1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.
- (2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor

as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

- (3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.
- (4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

- (1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.
- (2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.



and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation. Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.
9. Withholding for Unpaid Wages and Liquidated Damages. The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS (Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3). The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.
2. Payrolls and Payroll Records:
  - a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.
  - b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in

Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

- c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.
- d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
  - (1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;
  - (2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;
  - (3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.
- f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

- g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

## VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:
  - a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.
  - b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.
  - c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.
2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

## VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).
  - a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor,

with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

- b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.
2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.
  3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.
  4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

#### VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.
2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).
3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health

standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

*"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or*

*Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or*

*Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;*

*Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both."*

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations

in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.
3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.
4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:  
(Applicable to all Federal-aid contracts - 49 CFR 29)
  - a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
  - b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
  - c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.
  - d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
  - e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out

in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

- f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
- g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.
- i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

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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.

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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.

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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.

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**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

December 14, 2005  
Supersedes September 1, 2005

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  
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 or 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](http://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 introduction or spread 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](http://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)

#### Wild and Scenic Rivers

National Park Service  
North Atlantic Region  
15 State Street  
Boston, Massachusetts 02109  
(617) 223-5203

#### Federal Endangered Species & Essential Fish Habitat

National Marine Fisheries Service  
One Blackburn Drive  
Gloucester, Massachusetts 01939  
(978) 281-9102  
(978) 281-9301 (fax)

#### 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

**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)

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

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	<a href="http://www.nae.usace.army.mil">www.nae.usace.army.mil</a> (click "Regulatory/Permitting")
Corps of Engineers Headquarters	<a href="http://www.usace.army.mil">www.usace.army.mil</a> (click "Services for the Public")
Environmental Protection Agency	<a href="http://www.epa.gov/owow/wetlands/">www.epa.gov/owow/wetlands/</a>
National Marine Fisheries Service	<a href="http://www.nmfs.noaa.gov">www.nmfs.noaa.gov</a>
U.S. Fish and Wildlife Service	<a href="http://www.fws.gov">www.fws.gov</a>
National Park Service	<a href="http://www.nps.gov/rivers/index.html">www.nps.gov/rivers/index.html</a>
State of Maine	<a href="http://www.maine.gov">www.maine.gov</a>
State of Maine -Aquaculture Guidelines	<a href="http://www.maine.gov/dmr/aquaculture/index.htm">www.maine.gov/dmr/aquaculture/index.htm</a>

*for* Christine J. Gray 10-11-05  
District Engineer Date

**APPENDIX A: DEFINITION OF CATEGORIES**

<p><b>A. INLAND WATERS AND WETLANDS</b></p>	<p><b>Inland Waters and Wetlands:</b> 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<sup>1</sup> to tidal waters are reviewed in the Navigable Waters section. (See II. Navigable Waters on the next page.)</p>		
	<p><b>CATEGORY 1</b></p>	<p><b>CATEGORY 2</b></p>	<p><b>INDIVIDUAL PERMIT</b></p>
<p>(a) NEW FILL/ EXCAVATION DISCHARGES</p>	<p>&lt;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.]</p> <p><u>Provided:</u></p> <ul style="list-style-type: none"> <li>• In-stream (e.g., rivers, streams, brooks, etc.) work limited to Jul 15 - Oct 1</li> <li>• 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.</li> <li>• Waterway crossings shall comply with GC 22.</li> <li>• Projects covered by a DEP Tier One permit with no cumulative impacts &gt; 15,000 SF in inland wetlands from previous permits, unauthorized work, and/or other state permits.</li> <li>• Subdivision fill complies with GC 5, Single and Complete Projects (see Page 7).</li> </ul> <p><u>This category excludes:</u></p> <ul style="list-style-type: none"> <li>• Dams, dikes or activities involving water diversions.<sup>2</sup></li> <li>• Non-State approved sediment releases/slucices from dams.</li> <li>• Open trench excavation in flowing waters (see GC 22, Page 12).</li> </ul>	<p>4,300 SF to &lt;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.)</p> <p><u>Includes:</u> 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.</p> <p>Projects with proactive restoration as a primary purpose with impacts of any area ≥4,300 SF. The Corps, in consultation with State &amp; Federal agencies, must determine that net adverse effects are not more than minimal.</p> <p>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.</p>	<p>≥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).<sup>5</sup></p> <p>EIS required by the Corps.</p> <p>In-stream work exceeding Category 2 limits.</p>

CATEGORY 1	CATEGORY 2	INDIVIDUAL PERMIT
<p>• 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.</p> <p>• Work in Special Inland Waters or Wetlands<sup>3</sup> (vernal pools).</p> <p>• Work in special aquatic sites (SAS)<sup>4</sup> other than wetlands.</p> <p>• Work within ¼ mile of a Wild and Scenic River (see GC 12, Page 9).</p> <p>• Work on National Lands (see GC 9, Pg. 9).</p> <p>• Work affecting threatened or endangered species (see GC 10, Page 9) or EFH salmon migration (see GC 11, Page 9).</p>		
<p><b>(b) BANK STABILIZATION PROJECTS</b></p> <p>Inland bank stabilization &lt;100 FT long and &lt;1 CY of fill per linear foot below OHW.</p> <p><u>Provided:</u></p> <ul style="list-style-type: none"> <li>• In-stream work limited to Jul 15 - Oct 1.</li> <li>• No work in special inland waters &amp; wetlands<sup>3</sup> and SAS<sup>4</sup>.</li> <li>• No open trench excavation in flowing waters (see GC 22, Page 12).</li> <li>• No structures angled steeper than 3H:1V allowed. Only rough-faced stone or fiber roll revetments allowed.</li> <li>• No work affects threatened or endangered species (see GC 10, Page 9) or EFH (see GC 11, Page 9).</li> </ul>	<p>Inland bank stabilization ≥100 FT long and/or ≥1 CY of fill per linear foot, or any amount with fill in wetlands.</p>	
<p><b>(c) REPAIR AND MAINTENANCE OF AUTHORIZED FILLS</b></p>	<p>Replacement of non-serviceable fills, or repair/maintenance of serviceable fill, with expansion &lt;3 acres, or with a change in use.</p>	<p>Replacement of non-serviceable fill, or repair/maintenance of serviceable fill, with expansion ≥1 acre.</p>

<b>II. NAVIGABLE WATERS</b>		<b>Navigable Waters of the United States:</b> 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 <sup>1</sup> to tidal waters are also reviewed in this Navigable Waters section.	
	<b>CATEGORY 1</b>	<b>CATEGORY 2</b>	<b>INDIVIDUAL PERMIT</b>
(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 <sup>4</sup> .  Permanent fill or excavation <1,000 SF in SAS <sup>4</sup> .  Permanent fill and/or excavation ≥1,000 SF in SAS <sup>3</sup> 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 <sup>4</sup> .  Permanent fill or excavation ≥1,000 SF in SAS <sup>4</sup> 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 <sup>6</sup>	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.

	<b>CATEGORY 1</b>	<b>CATEGORY 2</b>	<b>INDIVIDUAL PERMIT</b>
(c) DREDGING AND ASSOCIATED DISPOSAL	<p>Maintenance dredging for navigational purposes &lt;1,000 cy with upland disposal. Includes return water from upland contained disposal area.</p> <p><u>Provided:</u></p> <ul style="list-style-type: none"> <li>• Proper siltation controls are used.</li> <li>• Dredging &amp; disposal operation limited to November 1 - January 15.</li> <li>• No impact to special aquatic sites<sup>4</sup>.</li> <li>• No dredging in intertidal areas.</li> <li>• No work affects threatened or endangered species (see GC 10, Page 9) or EFH salmon migration (see GC 11, Page 9).</li> </ul>	<p>Maintenance dredging <math>\geq 1,000</math> CY, new dredging &lt;25,000 CY, or projects not meeting Category 1. Includes return water from upland contained disposal areas.</p> <p><u>Provided:</u></p> <ul style="list-style-type: none"> <li>• 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</li> <li>3) open water &amp; confined aquatic disposal, if Corps, in consultation with Federal and State agencies, finds the material suitable.</li> </ul>	<p>Maintenance dredging and/or disposal (any amount) in or affecting a SAS<sup>4</sup>. See II(a) above for dredge disposal in wetlands or waters.</p> <p>New dredging <math>\geq 25,000</math> CY, or any amount in or affecting SAS<sup>4</sup>.</p> <p>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.</p>
(d) MOORINGS	<p>Private, non-commercial, non-rental, single-boat moorings authorized by the local harbormaster.</p> <p><u>Provided:</u></p> <ul style="list-style-type: none"> <li>• Not associated with any boating facility<sup>7</sup></li> <li>• Not located in a Federal Navigation Project other than a Federal Anchorage. Moorings in Federal Anchorage not associated with a boating facility<sup>7</sup>.</li> <li>• No interference with navigation</li> <li>• Not located in vegetated shallows<sup>8</sup></li> <li>• Within 1/4 mile of the owner's residence or a public access point.<sup>9</sup></li> </ul> <p>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.</p>	<p>Moorings associated with a boating facility<sup>7</sup>.</p> <p>Moorings that don't meet the terms in Category 1 and don't require an Individual Permit.</p> <p>Moorings located such that they, and/or vessels docked or moored at them, are within the buffer zone of the horizontal limits<sup>10</sup> of a Corps Federal Channel. (See Appendix B.) The buffer zone is equal to three times the authorized depth of that channel.</p>	<p>Moorings within the horizontal limits<sup>10</sup>, 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.</p> <p>Note: Federal Navigation Projects include both Federal Channels and Federal Anchorages.</p>

	<b>CATEGORY I</b>	<b>CATEGORY 2</b>	<b>INDIVIDUAL PERMIT</b>
(e) STRUCTURES AND FLOATS	<p>Reconfiguration of existing authorized structures or floats.</p> <p><u>Provided:</u></p> <ul style="list-style-type: none"> <li>Structures not positioned over vegetated shallows<sup>8</sup> or salt marsh.</li> <li>Floats supported off substrate at low tide.</li> <li>No dredging, additional slips or expansion.</li> <li>No work affects threatened or endangered species (see GC 10, Page 9) or EFH salmon migration (see GC 11, Page 9)..</li> </ul>	<p>Private structures or floats, including floatways/skidways, built to access waterway (seasonal and permanent)</p> <p>Expansions to existing boating facilities<sup>7</sup>.</p> <p>Compliance with the following is recommended, but not required:</p> <ul style="list-style-type: none"> <li>Pile-supported structures &lt;400 SF, with attached floats totaling ≤200 SF.</li> <li>Bottom anchored floats ≤200 SF.</li> <li>Structures are ≤4' wide and have at least a 1:1 height:width ratio<sup>11</sup>.</li> <li>Floats supported above the substrate during all tides.</li> <li>Structures &amp; floats not located within 25' of any vegetated shallows<sup>8</sup>.</li> <li>Moored vessels not positioned over SAS<sup>4</sup>.</li> <li>No structure located within 25' of the riparian property boundary.</li> <li>No structure extends across &gt;25% of the waterway width at mean low water.</li> <li>Not located within the buffer zone of the horizontal limits<sup>10</sup> of a Corps Federal Navigation Project (FNP) (See App. B). The buffer zone is equal to three times the authorized depth of that FNP.</li> </ul>	<p>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).</p> <p>Structures and floats associated with a new or previously unauthorized boating facility<sup>7</sup>.</p> <p>Note: Federal Navigation Projects include both Federal Channels and Federal Anchorages.</p>
(f) MISCELLANEOUS	<p>Temporary buoys, markers, floats, etc. for recreational use during specific events, provided they are removed within 30 days after use is discontinued.</p> <p>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)."</p>	<p>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.</p>	<p>EIS required by the Corps.</p> <p>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.</p>

	<p>Oil spill clean-up temporary structures or fill. Fish/wildlife harvesting structures/fill (as defined by 33 CFR 330, App. A-4)</p> <p>Scientific measurement devices and survey activities such as exploratory drilling, surveying and sampling activities. Does not include oil and gas exploration and fill for roads or construction pads.</p> <p>Shellfish seeding (brushing the flats<sup>12</sup>) projects.</p> <p>Provided:</p> <ul style="list-style-type: none"> <li>• No work in National Wildlife Refuges.</li> <li>• No work affects threatened or endangered species (see GC 10, Page 9) or EFH salmon migration (see GC 11, Page 9).</li> </ul>	<p>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: <a href="http://www.maine.gov/dmr/aquaculture/index.htm">www.maine.gov/dmr/aquaculture/index.htm</a>.</p>	<p>Aquaculture guidelines are provided at: <a href="http://www.maine.gov/dmr/aquaculture/index.htm">www.maine.gov/dmr/aquaculture/index.htm</a>.</p>
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<sup>1</sup> **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 natural or manmade discontinuity exists. Contiguous wetlands include bordering wetlands as well as wetlands that are situated immediately above the ordinary highwater mark and above the 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."

<sup>2</sup> **Water Diversions:** Water diversions are activities such as bypass pumping or water withdrawals. Temporary flume pipes, culverts or cofferdams where normal flows are maintained within the stream boundary's confines aren't water diversions. "Normal flows" are defined as no change in flow from pre-project conditions.

<sup>3</sup> **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.

<sup>4</sup> **Special Aquatic Sites:** Includes wetlands and saltmarsh, mudflats, riffles and pools, and vegetated shallows.

<sup>5</sup> **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 basis.

<sup>6</sup> **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, rehabilitation or replacement are minimal. No seaward expansion for bulkheads or any other fill activity is considered Category I maintenance. Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

<sup>7</sup> **Boating Facilities:** Facilities that provide, rent, or sell mooring space, such as marinas, yacht clubs, boat yards, town facilities, dockominiums, etc.

<sup>8</sup> **Vegetated Shallows:** Subtidal areas that support rooted aquatic vegetation such as eelgrass

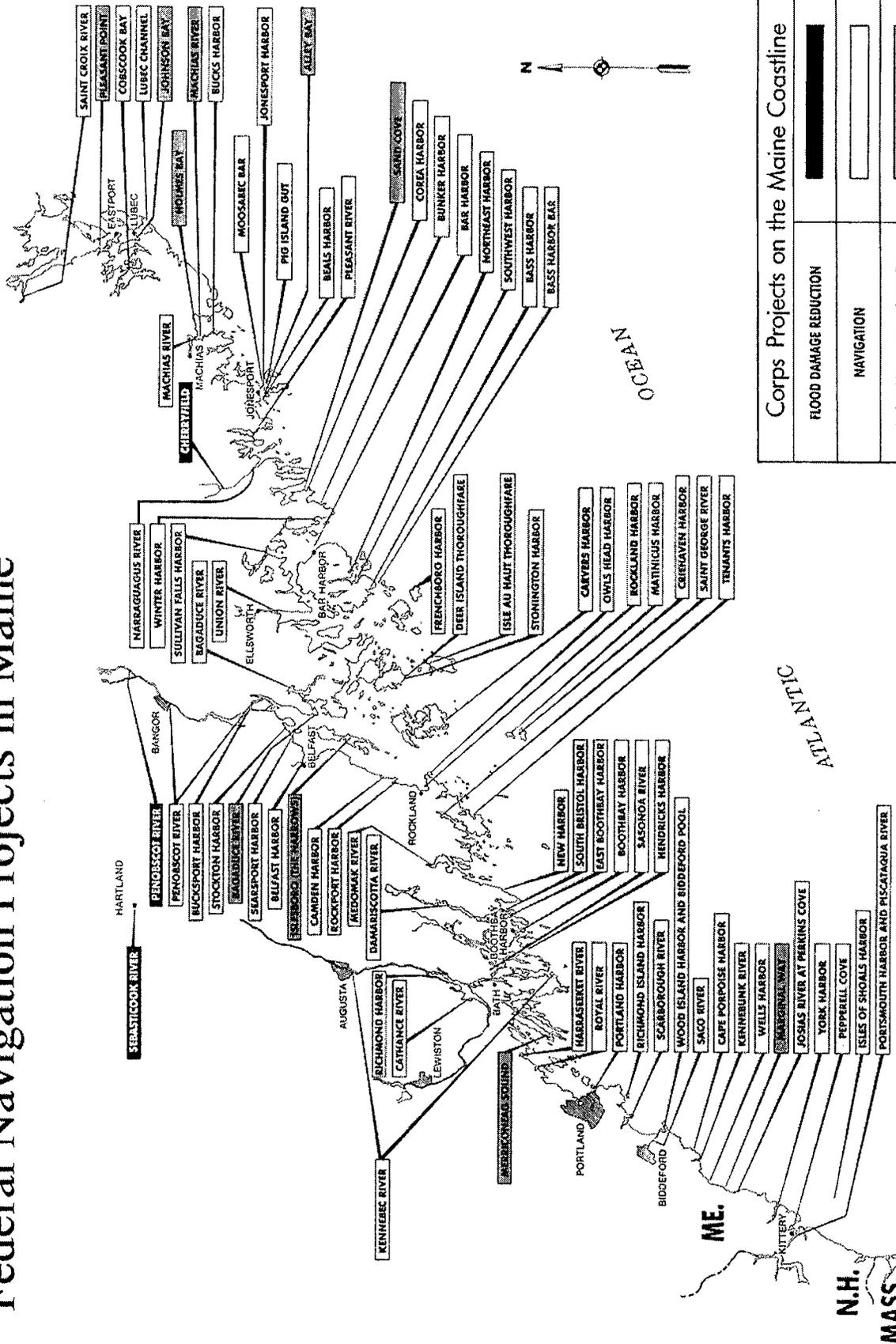
<sup>9</sup> **Mooring Location:** Cannot be at a remote location to create a convenient transient anchorage.

<sup>10</sup> **Horizontal Limits:** The outer edge of a Federal Navigation Project (FNP). Contact the Corps of Engineers for information on FNP's.

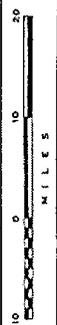
<sup>11</sup> **Structures:** The height of structures shall at all points be equal to or exceed the width of the deck. For the purpose of this definition, height shall be measured from the marsh substrate to the bottom of the longitudinal support beam.

<sup>12</sup> **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



Corps Projects on the Maine Coastline	
FLOOD DAMAGE REDUCTION	
NAVIGATION	
SHORE AND BANK PROTECTION	



# ***Environmental Summary Sheet***

**PIN #: 16774.00 & 17055.00**

**Town: Scarborough-Freeport**

**Environmental Office Contact: Laurie Rowe (laurie.rowe@maine.gov) 215-5072**

**Coordination & Permits Manager: Matt Steele**

**Date Submitted: 2/19/10**

**Database/Projex**

**Section 106 and Tribal Consultation - PA**

**4(f) and 6(f) – No ROW takes**

**FEMA**      GIS Floodplains Checked       N/A       Applicable       Approved

**Maine Department of Inland Fisheries and Wildlife (MDIFW) Essential Habitat**

GIS Essential Habitats Checked

Eagle Nest      N/A       Applicable       Approved

Piping Plover      N/A       Applicable       Approved

Roseate Tern      N/A       Applicable       Approved

**Maine Department of Conservation/ Public Lands, Submerged Land Lease**      N/A       Applicable

**Land Use Regulation Commission (LURC)**      Not Applicable       No permit Required

Notice            Approved

Permit            Approved

**Maine Department of Environmental Protection (MDEP) Site Location of Development**

N/A       Applicable       Approved

**Maine Department of Environmental Protection (MDEP), Natural Resource Protection Act**

No permit required

Exempt       (Must use erosion and sediment control and not block fish passage.)

PBR       Approved

Tier 1       Approved

Tier 2       Approved

Individual       Approved

**Army Corps of Engineers (ACOE), Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act.**

No permit required

Category 1-NR       Approved

Category 2       Approved

Category 3       Approved

**NOTE: If project requires a Category 2 or 3 Permit from the ACOE, then the 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.**

**IN-STREAM TIMING RESTRICTIONS: 105 Special Provision**       n/a

Dates instream work is allowed: 7/15 to 10/1

**NEPA Complete**

**Special Provision 656, Erosion Control Plan**       **Special Provision 203, Dredge Spec and/or Hazardous Waste Spec**