

**Updated 10/18/07**

# **STATE 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™ web-based 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 required items in the Schedule of Items. (“Zero is not considered a Bid price.”)
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. Other means, such as U.S. Postal Service’s Express Mail has proven not to be reliable.

### IN ADDITION, FOR FEDERAL AID PROJECTS:

6. Complete the DBE Proposed Utilization form in the proper amounts, and deliver to the Civil Rights Office, or fax to (207)624-3431 by 4:30 PM on bid opening day.

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 David Venner 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).

**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.



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> .

# 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 NOTICE TO CONTRACTORS

Sealed Bids addressed to the Maine Department of Transportation, Augusta, Maine 04333 and endorsed on the wrapper "Bids for **Highway Reconstruction and Strut Replacement in the Town of Brooks**" 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 September 23, 2009 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, 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](http://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 State, PINS: 12717.00 and 14309.00

Location: In Waldo County, Highway Reconstruction is located on Route 139, beginning at Route 7 extending westerly 0.35 miles to 0.13 miles west of School Street. Strut Replacement is (within limits of Highway project) located approx. 0.09 mile westerly of the intersection of Route 7.

Outline of Work: Highway Reconstruction and Strut Replacement.

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 **Paul MacDonald** 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. 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 \$29.00 (\$33.50 by mail). Half size plans \$14.50 (\$17.50 by mail), Bid Book \$10 (\$13 by mail), Single Sheets \$2, payment in advance, all non-refundable.

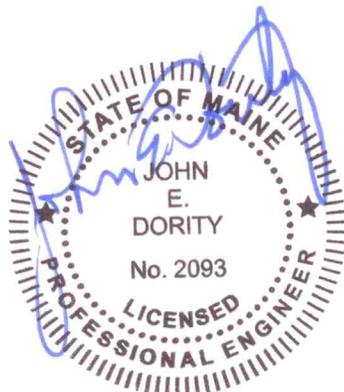
Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of \$20,000 payable to Treasurer, State 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. 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 MaineDOT to reject any or all bids.

Augusta, Maine  
September 2, 2009

JOHN E. DORITY  
CHIEF ENGINEER



**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 |
|------------------|------|
|                  |      |
|                  |      |
|                  |      |
|                  |      |
|                  |      |
|                  |      |
|                  |      |
|                  |      |
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|                  |      |
|                  |      |

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

REVISED:

CONTRACT ID: 012717.00

PROJECT(S): 12717.00  
14309.00

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

| LINE NO                | ITEM DESCRIPTION                                                                 | APPROX. QUANTITY AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|------------------------|----------------------------------------------------------------------------------|----------------------------|------------|-----|------------|-----|
|                        |                                                                                  |                            | DOLLARS    | CTS | DOLLARS    | CTS |
| SECTION 0001 PROJECT I |                                                                                  |                            |            |     |            |     |
| 0010                   | 201.23 REMOVING SINGLE TREE TOP ONLY                                             | 4.000<br>EA                |            |     |            |     |
| 0020                   | 201.24 REMOVING STUMP                                                            | 4.000<br>EA                |            |     |            |     |
| 0030                   | 202.20 REMOVING BITUMINOUS CONCRETE PAVEMENT                                     | 4430.000<br>SY             |            |     |            |     |
| 0040                   | 203.20 COMMON EXCAVATION                                                         | 210.000<br>CY              |            |     |            |     |
| 0050                   | 203.21 ROCK EXCAVATION                                                           | 20.000<br>CY               |            |     |            |     |
| 0060                   | 203.2312 HEALTH AND SAFETY PLAN                                                  | LUMP                       | LUMP       |     |            |     |
| 0070                   | 203.2333 DISPOSAL OF SPECIAL EXCAVATION                                          | 800.000<br>T               |            |     |            |     |
| 0080                   | 204.41 REHABILITATION OF EXISTING SHOULDERS, PLAN QUANTITY                       | 1529.000<br>SY             |            |     |            |     |
| 0090                   | 206.061 STRUCTURAL EARTH EXCAVATION - DRAINAGE AND MINOR STRUCTURES, BELOW GRADE | 20.000<br>CY               |            |     |            |     |

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14309.00

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

| LINE NO | ITEM DESCRIPTION                                                    | APPROX. QUANTITY AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|---------|---------------------------------------------------------------------|----------------------------|------------|-----|------------|-----|
|         |                                                                     |                            | DOLLARS    | CTS | DOLLARS    | CTS |
| 0100    | 206.07 STRUCTURAL ROCK EXCAVATION - DRAINAGE AND MINOR STRUCTURES   | 30.000<br>CY               |            |     |            |     |
| 0110    | 211.21 INSLOPE REHABILITATION                                       | 1150.000<br>LF             |            |     |            |     |
| 0120    | 211.30 DITCH EXCAVATION                                             | 700.000<br>LF              |            |     |            |     |
| 0130    | 304.10 AGGREGATE SUBBASE COURSE - GRAVEL                            | 2300.000<br>CY             |            |     |            |     |
| 0140    | 403.208 HOT MIX ASPHALT 12.5 MM HMA SURFACE                         | 510.000<br>T               |            |     |            |     |
| 0150    | 403.209 HOT MIX ASPHALT 9.5 MM HMA (SIDEWALKS, DRIVES, INCIDENTALS) | 200.000<br>T               |            |     |            |     |
| 0160    | 403.213 HOT MIX ASPHALT 12.5 MM BASE                                | 860.000<br>T               |            |     |            |     |
| 0170    | 409.15 BITUMINOUS TACK COAT - APPLIED                               | 160.000<br>G               |            |     |            |     |
| 0180    | 507.0841 STEEL PIPE HAND RAILING                                    | LUMP                       | LUMP       |     |            |     |
| 0190    | 534.71 PRECAST CONCRETE BOX CULVERT                                 | LUMP                       | LUMP       |     |            |     |
| 0200    | 603.04 4" PVC DRAIN SERVICE                                         | 10.000<br>LF               |            |     |            |     |

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| LINE NO | ITEM DESCRIPTION                                       | APPROX. QUANTITY AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|---------|--------------------------------------------------------|----------------------------|------------|-----|------------|-----|
|         |                                                        |                            | DOLLARS    | CTS | DOLLARS    | CTS |
| 0210    | 603.16 15 INCH CULVERT<br>PIPE OPTION I                | 237.000<br>LF              |            |     |            |     |
| 0220    | 603.17 18 INCH CULVERT<br>PIPE OPTION I                | 15.000<br>LF               |            |     |            |     |
| 0230    | 603.179 18 INCH CULVERT<br>PIPE OPTION III             | 40.000<br>LF               |            |     |            |     |
| 0240    | 603.199 24 INCH CULVERT<br>PIPE OPTION III             | 270.000<br>LF              |            |     |            |     |
| 0250    | 603.21 36 INCH CULVERT<br>PIPE OPTION I                | 40.000<br>LF               |            |     |            |     |
| 0260    | 603.42 30 INCH<br>REINFORCED CONCRETE PIPE<br>CLASS IV | 32.000<br>LF               |            |     |            |     |
| 0270    | 604.092 CATCH BASIN TYPE<br>B1-C                       | 5.000<br>EA                |            |     |            |     |
| 0280    | 604.097 72 INCH CATCH<br>BASIN TYPE B1-C               | 2.000<br>EA                |            |     |            |     |
| 0290    | 605.09 6 INCH UNDERDRAIN<br>TYPE B                     | 514.000<br>LF              |            |     |            |     |
| 0300    | 605.10 6 INCH UNDERDRAIN<br>OUTLET                     | 20.000<br>LF               |            |     |            |     |
| 0310    | 605.13 18 INCH<br>UNDERDRAIN TYPE C                    | 470.000<br>LF              |            |     |            |     |

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| LINE NO | ITEM DESCRIPTION                                    | APPROX. QUANTITY AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|---------|-----------------------------------------------------|----------------------------|------------|-----|------------|-----|
|         |                                                     |                            | DOLLARS    | CTS | DOLLARS    | CTS |
| 0320    | 606.356 UNDERDRAIN<br>DELINEATOR POST               | 2.000<br>EA                |            |     |            |     |
| 0330    | 606.47 SINGLE WOOD POST                             | 2.000<br>EA                |            |     |            |     |
| 0340    | 609.31 CURB TYPE 3                                  | 760.000<br>LF              |            |     |            |     |
| 0350    | 610.08 PLAIN RIPRAP                                 | 10.000<br>CY               |            |     |            |     |
| 0360    | 613.319 EROSION CONTROL<br>BLANKET                  | 240.000<br>SY              |            |     |            |     |
| 0370    | 615.07 LOAM                                         | 30.000<br>CY               |            |     |            |     |
| 0380    | 618.1401 SEEDING METHOD<br>NUMBER 2 - PLAN QUANTITY | 30.000<br>UN               |            |     |            |     |
| 0390    | 619.1201 MULCH - PLAN<br>QUANTITY                   | 30.000<br>UN               |            |     |            |     |
| 0400    | 620.56 DRAINAGE<br>GEOTEXTILE                       | 30.000<br>SY               |            |     |            |     |
| 0410    | 627.76 TEMPORARY PVMT.<br>MARK LINE, W OR YELLOW    | LUMP                       | LUMP       |     |            |     |
| 0420    | 629.05 HAND LABOR,<br>STRAIGHT TIME                 | 10.000<br>HR               |            |     |            |     |

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REVISED:

CONTRACT ID: 012717.00

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14309.00

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| LINE NO | ITEM DESCRIPTION                                  | APPROX. QUANTITY AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|---------|---------------------------------------------------|----------------------------|------------|-----|------------|-----|
|         |                                                   |                            | DOLLARS    | CTS | DOLLARS    | CTS |
| 0430    | 631.111 TRACTOR MOUNTED HYDRAULIC HAMMER          | 4.000<br>HR                |            |     |            |     |
| 0440    | 631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR) | 10.000<br>HR               |            |     |            |     |
| 0450    | 631.13 BULLDOZER (INCLUDING OPERATOR)             | 5.000<br>HR                |            |     |            |     |
| 0460    | 631.14 GRADER (INCLUDING OPERATOR)                | 5.000<br>HR                |            |     |            |     |
| 0470    | 631.172 TRUCK - LARGE (INCLUDING OPERATOR)        | 20.000<br>HR               |            |     |            |     |
| 0480    | 631.18 CHAIN SAW RENTAL (INCLUDING OPERATOR)      | 10.000<br>HR               |            |     |            |     |
| 0490    | 631.20 STUMP CHIPPER (INCLUDING OPERATOR)         | 5.000<br>HR                |            |     |            |     |
| 0500    | 631.32 CULVERT CLEANER (INCLUDING OPERATOR)       | 4.000<br>HR                |            |     |            |     |
| 0510    | 639.19 FIELD OFFICE TYPE B                        | 1.000<br>EA                |            |     |            |     |
| 0520    | 652.33 DRUM                                       | 20.000<br>EA               |            |     |            |     |
| 0530    | 652.34 CONE                                       | 50.000<br>EA               |            |     |            |     |

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REVISED:

CONTRACT ID: 012717.00

PROJECT(S): 12717.00  
14309.00

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| LINE NO | ITEM DESCRIPTION                                          | APPROX. QUANTITY AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|---------|-----------------------------------------------------------|----------------------------|------------|-----|------------|-----|
|         |                                                           |                            | DOLLARS    | CTS | DOLLARS    | CTS |
| 0540    | 652.35 CONSTRUCTION SIGNS                                 | 30.000<br>SF               |            |     |            |     |
| 0550    | 652.36 MAINTENANCE OF TRAFFIC CONTROL DEVICES             | 68.000<br>CD               |            |     |            |     |
| 0560    | 652.38 FLAGGER                                            | 2000.000<br>HR             |            |     |            |     |
| 0570    | 656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL | LUMP                       | LUMP       |     |            |     |
| 0580    | 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. **12717.00 and 14309.00, for the Highway Reconstruction and Strut Replacement in the Town of Brooks, County of Waldo, 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 3, 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. **12717.00 and 14309.00, for the Highway Reconstruction and Strut Replacement in the Town of Brooks**, State of Maine, on which bids will be received until the time specified in the "Notice to Contractors" do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached "Schedule of Items".

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

As Offeror also agrees:

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

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

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

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

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

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

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

CONTRACTOR

\_\_\_\_\_

Date

\_\_\_\_\_  
(Signature of Legally Authorized Representative  
of the Contractor)

\_\_\_\_\_

Witness

\_\_\_\_\_  
(Name and Title Printed)

**G. Award.**

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

MAINE DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_

Date

\_\_\_\_\_  
By: David A. Cole, Commissioner

\_\_\_\_\_

Witness

## **CONTRACT AGREEMENT, OFFER & AWARD**

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

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

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

### **A. The Work.**

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, PIN Nos. **12717.00 and 14309.00, for the Highway Reconstruction and Strut Replacement in the Town of Brooks, County of Waldo, 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 3, 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. **12717.00 and 14309.00, for the Highway Reconstruction and Strut Replacement in the Town of Brooks**, State of Maine, on which bids will be received until the time specified in the "Notice to Contractors" do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached "Schedule of Items".

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

As Offeror also agrees:

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

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

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

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

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

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

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

CONTRACTOR

\_\_\_\_\_

Date

\_\_\_\_\_  
(Signature of Legally Authorized Representative  
of the Contractor)

\_\_\_\_\_

Witness

\_\_\_\_\_  
(Name and Title Printed)

**G. Award.**

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

MAINE DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_

Date

\_\_\_\_\_  
By: David A. Cole, Commissioner

\_\_\_\_\_

Witness

## CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and (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 South Nowhere, County of Washington, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

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

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

### **B. Time.**

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

**C. Price.**

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

**D. Contract.**

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

**E. Certifications.**

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

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

**F. Offer.**

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

**PIN 1234.00 South Nowhere, Hot Mix Asphalt Overlay**

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

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

As Offeror also agrees:

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

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

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

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

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

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

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

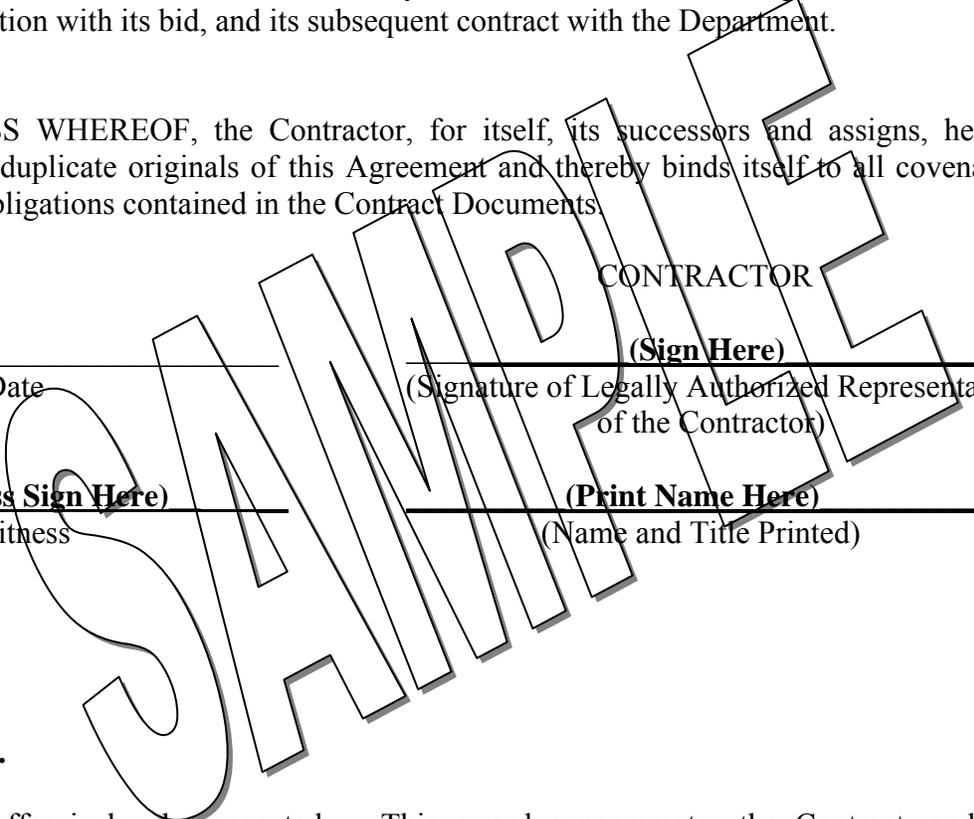
\_\_\_\_\_  
Date

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

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

\_\_\_\_\_  
**(Print Name Here)**  
(Name and Title Printed)

CONTRACTOR



**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)

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 .....

.....

State of Maine  
 Department of Labor  
 Bureau of Labor Standards  
 Technical Services Division  
 Augusta, Maine 04333-0045  
 Telephone (207) 623-7906

Wage Determination - In accordance with 26 MRSA §1301 et. seq., this is a determination by the Bureau of Labor Standards, of the fair minimum wage rate to be paid laborers and workers employed on the below titled project.

**Title of Project** ----- Highway Reconstruction, PIN 12717.00, Strut Replacement, PIN 14309.00

**Location of Project** -- Brooks, Maine in Waldo County

**2009 Fair Minimum Wage Rates  
 Highway & Earthwork Waldo County**

| <u>Occupation Title</u>     | <u>Minimum Wage</u> | <u>Minimum Benefit</u> | <u>Total</u> | <u>Occupation Title</u>    | <u>Minimum Wage</u> | <u>Minimum Benefit</u> | <u>Total</u> |
|-----------------------------|---------------------|------------------------|--------------|----------------------------|---------------------|------------------------|--------------|
| Asphalt Raker               | \$14.03             | \$0.52                 | \$14.55      | Hot Top Plant Operator     | \$18.22             | \$8.50                 | \$26.72      |
| Backhoe Loader Operator     | \$14.50             | \$2.33                 | \$16.83      | Ironworker - Structural    | \$16.50             | \$4.34                 | \$20.84      |
| Blaster                     | \$16.00             | \$4.22                 | \$20.22      | Laborers/Helper/Tender     | \$11.32             | \$2.36                 | \$13.68      |
| Bulldozer Operator          | \$17.10             | \$3.70                 | \$20.80      | Laborer - Skilled          | \$12.85             | \$1.96                 | \$14.81      |
| Cable Splicer               | \$21.27             | \$7.44                 | \$28.71      | Line Erector - Power       | \$19.00             | \$2.93                 | \$21.93      |
| Carpenter                   | \$18.00             | \$2.15                 | \$20.15      | Loader Op, Front-End       | \$15.88             | \$3.47                 | \$19.35      |
| Carpenter - Rough           | \$16.00             | \$2.36                 | \$18.36      | Mechanic - Maintenance     | \$16.10             | \$2.53                 | \$18.63      |
| Cement Mason/Finisher       | \$13.60             | \$0.93                 | \$14.53      | Painter                    | \$14.00             | \$0.54                 | \$14.54      |
| Concrete Mixing Plant Op    | \$16.50             | \$5.18                 | \$21.68      | Paver, Bituminous          | \$16.84             | \$1.93                 | \$18.77      |
| Concrete Pump Operator      | \$19.63             | \$3.25                 | \$22.88      | Pipelayer                  | \$18.00             | \$3.08                 | \$21.08      |
| Crane Op =>15 Tons          | \$20.38             | \$4.94                 | \$25.32      | Pump Installer             | \$19.50             | \$4.02                 | \$23.52      |
| Crusher Plant Operator      | \$15.00             | \$2.48                 | \$17.48      | Roller Operator, Earth     | \$14.83             | \$5.44                 | \$20.27      |
| Driller, Rock               | \$15.50             | \$4.67                 | \$20.17      | Roller Op, Pavement        | \$17.85             | \$5.20                 | \$23.05      |
| Electrician, Licensed       | \$21.00             | \$4.16                 | \$25.16      | Screed Operator            | \$17.58             | \$4.47                 | \$22.05      |
| Electrician Hlpr (Licensed) | \$15.00             | \$2.64                 | \$17.64      | Sheet Metal Worker         | \$16.75             | \$7.21                 | \$23.96      |
| Excavator Operator          | \$16.00             | \$2.44                 | \$18.44      | Stone Mason                | \$18.95             | \$1.34                 | \$20.29      |
| Fence Setter                | \$12.00             | \$1.01                 | \$13.01      | Truck Driver, Light        | \$15.75             | \$2.13                 | \$17.88      |
| Flagger                     | \$14.00             | \$2.42                 | \$16.42      | Truck Driver, Medium       | \$13.00             | \$5.28                 | \$18.28      |
| Glazier                     | \$15.00             | \$3.82                 | \$18.82      | Truck Driver, Heavy        | \$12.85             | \$2.01                 | \$14.86      |
| Grader/Scraper Operator     | \$16.75             | \$3.32                 | \$20.07      | Truck Driver, Tractor Trlr | \$13.16             | \$2.03                 | \$15.19      |
| Hgway Wrkr/Guardrail Inst   | \$12.25             | \$1.41                 | \$13.66      | Truck Driver, Mixer, Cemnt | \$12.45             | \$0.25                 | \$12.70      |

The Laborer classifications include a wide range of work duties. Therefore, if any specific occupation to be employed on this project is not listed in this determination, call the Bureau of Labor Standards at the above number for further clarification.

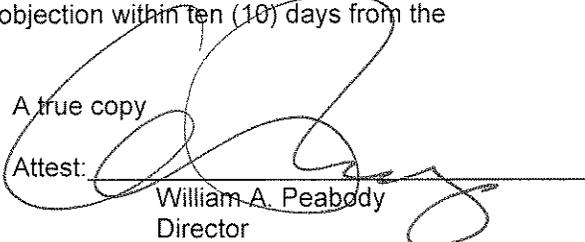
Welders are classified in the trade to which the welding is incidental.

Apprentices - The minimum wage rate for registered apprentices are those set forth in the standards and policies of the Maine State Apprenticeship and Training Council for approved apprenticeship programs.

Posting of Schedule - Posting of this schedule is required in accordance with 26 MRSA §1301 et. seq., by any contractor holding a State contract for construction valued at \$50,000 or more and any subcontractors to such a contractor.

Appeal - Any person affected by the determination of these rates may appeal to the Commissioner of Labor by filing a written notice with the Commissioner stating the specific grounds of the objection within ten (10) days from the filing of these rates with the Secretary of State.

Determination No: HI-048-2009  
 Filing Date: May 22, 2009  
 Expiration Date: 12-31-2009

A true copy  
 Attest:   
 William A. Peabody  
 Director  
 Bureau of Labor Standards

BLS 424HI (R2009) (Highway & Earthwork Waldo)

NOTICE TO CONTRACTORS - PREFERRED EMPLOYEES

Sec. 1303. Public Works; minimum wage

In the employment of laborers in the construction of public works, including state highways, by the State or by persons contracting for the construction, preference must first be given to citizens of the State who are qualified to perform the work to which the employment relates and, if they can not be obtained in sufficient numbers, then to citizens of the United States. Every contract for public works construction must contain a provision for employing citizens of this State or the United States. The hourly wage and benefit rate paid to laborers employed in the construction of public works, including state highways, may not be less than the fair minimum rate as determined in accordance with section 1308. Any contractor who knowingly and willfully violates this section is subject to a fine of not less than \$250 per employee violation. Each day that any contractor employs a laborer at less than the wage and benefit minimum stipulated in this section constitutes a separate violation of this section. [1997, c. 757, §1 (amd).]

**SPECIAL PROVISIONS**  
**SECTION 104**  
**Utilities**

**MEETING**

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

**GENERAL INFORMATION**

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

**Overview:**

| <b>Utility</b>      | <b>Aerial</b> | <b>Underground</b> |
|---------------------|---------------|--------------------|
| Central Maine Power | <b>X</b>      |                    |
| Northland Telephone | <b>X</b>      |                    |

Temporary utility adjustments are not anticipated.

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

All adjustments are to be made by the respective utility unless otherwise specified herein.

All clearing and tree removal in areas where utilities are involved must be completed before the utilities are able to relocate their facilities.

Fire hydrants shall not be disturbed until all necessary work has been accomplished to provide proper fire protection.

**AERIAL**

Town: **Brooks**  
 Project: **PINs 12717.00, 14309.00**  
 Date: **May 8, 2009**

**Summary:**

| Utility                    | Pole Set | New Wires/<br>Cables | Trans.<br>Wires/<br>Cables | Remove<br>Poles | Estimated<br>Working<br>Days |
|----------------------------|----------|----------------------|----------------------------|-----------------|------------------------------|
| <b>Central Maine Power</b> | 3        |                      | 5                          | 2               | 10                           |
| <b>Northland Telephone</b> |          |                      | 15                         |                 | 15                           |
| <b>Total:</b>              |          |                      |                            |                 | 25                           |

**Utility Specific Issues:**

**Central Maine Power**

**Gary Crabtree (207) 831-0295**

CMP has poles and lines running throughout the entire project. CMP plans to replace **8 poles** and transfer existing wires within the project limits. The contractor shall give **CMP 10 days notice** before any work is done on the project

**Northland Telephone Company**

**Morris Leathers (207) 342-4280**

**Northland** has lines running throughout the entire project. **Northland** plans to transfer existing wire to the proposed pole locations. The contractor shall give **Northland 10 days notice** before any work is done on the project.

**\*\*See Attached Pole List\*\***

**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. **1-888-344-7233**

**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.**

Rt. 139 Brooks, ME  
PIN # 12717.00

| CMP Pole # | Tel. Pole # | Existing Station | Right or Left | Existing Offset from C.L. (ft.) | New Station | Right or Left | New Offset from C.L. (ft.) | Set Back from Existing Pole (ft.) | Avail. Right of Way (ft.) | Span (ft) | Inslope / Ditch / Curb / G.R. | Cut/Fill (-/+) | Trim | Required Trim offset Three Phase (ft) | Pull   | Pole | Easement Required * | Miscellaneous/Remarks                                                                                  |
|------------|-------------|------------------|---------------|---------------------------------|-------------|---------------|----------------------------|-----------------------------------|---------------------------|-----------|-------------------------------|----------------|------|---------------------------------------|--------|------|---------------------|--------------------------------------------------------------------------------------------------------|
| 1          |             | 18 + 29          | lt            | 23.6                            |             |               |                            |                                   |                           |           |                               |                |      |                                       |        |      |                     |                                                                                                        |
| 1          |             | 18 + 38          | lt            | 23.5                            |             |               |                            |                                   | 4                         |           | Inslope                       |                |      | 36.0                                  | 50/2   |      | Remove              | Existing location OK, replace in place if condition warrants.                                          |
| 2          |             | 19 + 42          | lt            | 24.8                            |             |               |                            |                                   | 1                         | 105       | Inslope                       |                |      | 37.3                                  | 24'    | 45/3 |                     | Existing location OK, replace in place if condition warrants.                                          |
| 2          |             | 19 + 46          | lt            | 22.2                            |             |               |                            |                                   |                           |           |                               |                |      |                                       |        |      |                     | Remove                                                                                                 |
| 3          |             | 20 + 37          | rt            | 19.9                            |             |               |                            |                                   | 20                        | 105       | Curb                          |                |      | 32.4                                  | 22'    |      |                     | Remove                                                                                                 |
| 3          |             | 20 + 42          | rt            | 19.7                            |             |               |                            |                                   |                           |           |                               |                |      |                                       |        |      |                     | Remove                                                                                                 |
| 4          |             | 21 + 74          | rt            | 23.1                            |             |               |                            |                                   | 14                        | 137       | Curb                          | +1.0'          |      | 35.6                                  | 1' rev |      |                     | Existing location OK, replace in place if condition warrants. (Recloser)                               |
| 5          |             | 23 + 36          | rt            | 19.9                            |             |               |                            |                                   | 14                        | 162       | Curb                          |                |      | 32.4                                  |        |      |                     | Leave at existing station & offset. (U.G. service for Fire Station)                                    |
| 6          |             | 24 + 65          | rt            | 15.5                            |             | rt            | 22.0                       | 6.5                               | 12                        | 127       | Curb                          |                |      | 34.5                                  | 13'    |      |                     | Set at new offset at existing station.                                                                 |
| 7.1        |             | 25 + 64          | rt            | 40.0                            |             |               |                            |                                   | 1                         | 189       |                               |                |      | 52.5                                  |        |      |                     | Existing location OK, replace in place if condition warrants.                                          |
| 7          |             | 25 + 86          | lt            | 18.8                            |             | lt            | 21.0                       | 2.2                               | 11                        | 128       | Inslope                       |                |      | 33.5                                  | 18'    |      |                     | Set at new offset at existing station.                                                                 |
| 8          |             | 27 + 42          | lt            | 21.1                            |             |               |                            |                                   | 14                        | 156       | Inslope                       |                |      | 33.6                                  | 1' rev |      |                     | Existing location OK, replace in place if condition warrants.                                          |
| 9          |             | 28 + 69          | lt            | 23.3                            |             |               |                            |                                   | 11                        | 128       | Inslope                       |                |      | 35.8                                  |        |      |                     | Existing location OK, replace in place if condition warrants.                                          |
| 10         |             | 30 + 19          | lt            | 24.2                            |             |               |                            |                                   | 8                         | 149       | Inslope                       |                |      | 36.7                                  |        |      |                     | Existing location OK, replace in place if condition warrants.                                          |
| 11S        |             | 31 + 26          | rt            | 17.4                            |             | rt            | 21.0                       |                                   | 14                        | 45        | Ditch                         |                |      |                                       |        |      |                     | Set at new station & offset. (Stub to hold 1 phase take off.)                                          |
| 11         |             | 31 + 27          | lt            | 22.7                            |             | lt            | 24.0                       |                                   | 7                         | 102       | Inslope                       |                |      | 36.5                                  |        |      |                     | Set at new station & offset. (Tree/clearance issues ahead to 12)                                       |
| 12         |             | 32 + 18          | lt            | 20.7                            |             | lt            | 23.5                       |                                   | 6                         | 109       | Ditch                         |                |      | 36.0                                  | 1' rev |      |                     | Set at new station & offset. (Tree/clearance issues ahead to 14)                                       |
| 12S        |             | 32 + 19          | rt            | 17.8                            |             | rt            | 23.0                       |                                   | 12                        | 47        | Inslope                       |                |      |                                       |        |      |                     | Set at new station & offset.                                                                           |
| 13         |             | 33 + 80          | lt            | 20.7                            |             | lt            | 24.0                       | 3.3                               | 6                         | 148       | Ditch                         |                |      | 36.5                                  |        |      |                     | Set at new offset at existing station.                                                                 |
| 14         |             | 35 + 42          | lt            | 20.6                            |             | lt            | 22.0                       | 1.4                               | 6                         | 162       | Ditch                         |                |      |                                       |        |      |                     | Set at new offset at existing station. (Old maple will have to go & tree/clearance issues ahead to 15) |
| 15.1       |             | 36 + 50          | rt            | 26.6                            |             |               |                            |                                   |                           |           |                               |                |      | 39.1                                  |        |      |                     | Existing location OK, replace in place if condition warrants.                                          |
| 15         |             | 37 + 19          | lt            | 16.5                            |             |               |                            |                                   |                           |           |                               |                |      | 29.0                                  |        |      |                     | Beyond project.                                                                                        |
| 15S        |             | 37 + 21          | rt            | 19.8                            |             |               |                            |                                   |                           |           |                               |                |      | 32.3                                  |        |      |                     | Beyond project.                                                                                        |

**SPECIAL PROVISION  
SECTION 105  
CONTROL OF WORK  
(Limitation of Operation)**

1. All cross culvert replacements and underdrain installation shall be completed prior to the placement of any hot mix asphalt pavement.
2. All ditching and inslope rehabilitation shall be completed before the placement of surface pavement.
3. The Contractor will be limited to one paving operation at a time, including hand work, unless otherwise approved by the Engineer.
4. No work shall begin before sunrise. All daily work shall be completed and all equipment, personnel and signs shall be removed from the roadway by sunset. The source for the exact times of sunrise and sunset shall be defined from the Maine Department of Marine Resources Sunrise/Sunset table at [http://www.maine.gov/dmr/sunrise\\_table.htm](http://www.maine.gov/dmr/sunrise_table.htm).
5. Unless otherwise agreed upon at the pre-construction meeting, all drainage and excavation work East of the strut must be completed before the drainage and excavation work West of the strut.

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 10/1 and 7/14.  
**(In-Water work is allowed from 7/15 to 9/30.)**

II. In-Water work window applies to the following water bodies at the following station #'s:  
1. 26+18

III. Special Conditions:

1. See Attached conditions on the Army Corps of Engineers Permit

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.

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

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

A Construction Area located in the **Town of Brooks** 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 Route 139 beginning at Route 7 extending westerly 0.35 miles to 0.13 miles west of School Street

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

- A. Must be procured from the municipal officers for a construction area within that municipality;*
- B. May require the contractor to be responsible for damage to ways used in the construction areas and may provide for:
  - (1) Withholding by the agency contracting the work of final payment under contract; or*
  - (2) The furnishing of a bond by the contractor to guarantee suitable repair or payment of damages.*

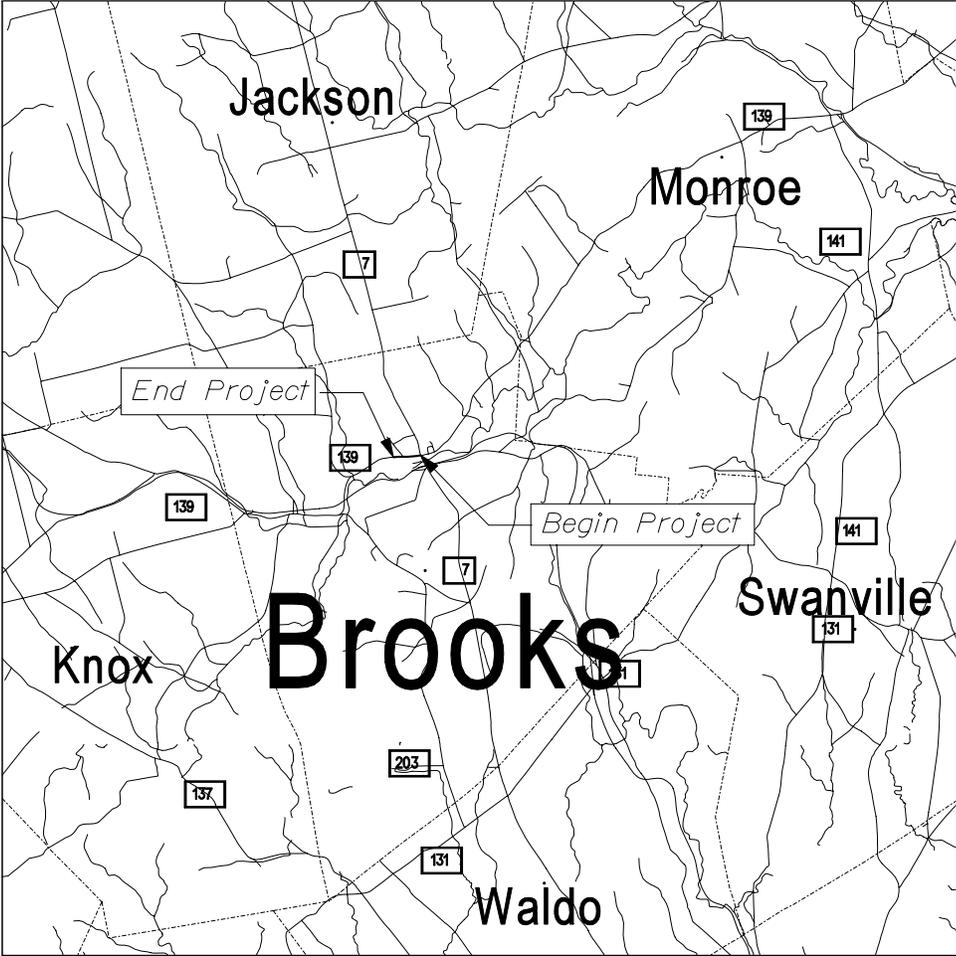
*The suitability of repairs or the amount of damage is to be determined by the Department of Transportation on state-maintained ways and bridges, otherwise by the municipal officers;**
- C. May be granted by the Department of Transportation or by the state engineer in charge of the construction contract; and*
- D. For construction areas, carries no fee and does not come within the scope of this section.”*

The Municipal Officers for the **Town of Brooks** 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.

# PIN 12717.00



LOCATION MAP



Scale in Miles

**SPECIAL PROVISION 105**  
**OVERLIMIT PERMITS**

**Title 29-A § 2382 MRSA Overlimit Movement Permits.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Section History:

PL 1993, Ch. 683, §A2 (NEW).

PL 1993, Ch. 683, §B5 (AFF).

PL 1997, Ch. 144, §1,2 (AMD).

PL 1999, Ch. 117, §2 (AMD).

PL 1999, Ch. 125, §1 (AMD).

PL 1999, Ch. 580, §13 (AMD).

PL 2001, Ch. 671, §30 (AMD).

PL 2003, Ch. 166, §13 (AMD).

PL 2003, Ch. 452, §Q73,74 (AMD).

PL 2003, Ch. 452, §X2 (AFF).

SPECIAL PROVISION

SECTION 107

TIME

(Scheduling of Work – Projected Payment Schedule)

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

**SPECIAL PROVISION  
SECTION 107  
TIME  
(Contract Time)**

1. The Contractor will be allowed to commence work at any time after June 1, 2010 with all applicable plans, including but not limited to, the SEWPCP and the Traffic Control Plan, submitted and approved.
2. For every weekday not worked once operations commence, the Contractor will be charged liquidated damages per calendar day (excluding inclement weather days) at the rate stated in 107.7.2.
3. No work will be allowed on the project on July 2<sup>nd</sup>, 3<sup>rd</sup>, or 4<sup>th</sup>. Two-way traffic will be maintained on these days and the job site shall be clear of all construction equipment.
4. The completion date for this project is September 3, 2010.

**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 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 Route 139 Strut Replacement will require the excavation of select Dredge Material. It is anticipated that less than 100-cubic yards of Dredge Material will be excavated. There is onsite Beneficial Use for all of the Dredge Materials.

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 from the Route 139 Strut Replacement initiative 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 Route 139 Strut Replacement 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 the Route 139 Strut Replacement project.

**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 203  
EXCAVATION AND EMBANKMENT  
(CONTAMINATED SOIL AND GROUNDWATER MANAGEMENT)**

General. The work under this specification, shall be performed in conformance with all the procedures and requirements described herein for the following activities: contaminated soil handling, reuse, temporary stockpiling, transportation, storage and disposal and, contaminated water handling, storage, treatment and disposal. This specification also addresses contaminated soil location, identification, and classification. The intent of this specification is to ensure that any contaminated soil and/or water encountered during construction will be managed in a manner that protects worker health and safety, public welfare and the environment. This specification is for this particular project and this project only as it involves a cooperative field effort between the Maine Department of Transportation (MaineDOT) and the Maine Department of Environmental Protection (MDEP). This specification does not reflect on previous, present or future specifications.

Environmental Site Conditions. The Maine Department of Transportation's Environmental Office (MaineDOT's-ENV.) has conducted a series of assessments related to the Brooks Route 139 Highway Improvement Project. An initial Phase I Environmental Assessment for the project area was completed to obtain a general understanding of the environmental conditions along the project corridor. Data garnered from this assessment was used to design a Modified, Phase II Contamination Assessment for the project. The primary focus of the assessments was to evaluate the type and extent of subsurface contamination along the project corridor. The Phase I Assessment included a review of relevant Maine Department of Environmental Protection's (MaineDEP's) and Environmental Protection Agency's (EPA's) databases and field reconnaissance of the project area. During Phase II, borings were advanced along the project's length for investigative purposes. During the advancement of these borings, four areas with impacted soil were identified. A photo-ionization detector (PID) was used to test soil grab samples from select explorations for volatile organic compound (VOC) concentrations indicative of petroleum products. (See *Identified Areas Of Contamination* below). Select samples for laboratory testing were also taken to further aid in evaluating subsurface conditions. The results of these investigations are available for review from the Hydrogeologist at MaineDOT's Environmental Office in Augusta (207-624-3100).

Identified Area's of Contamination. MaineDOT's-ENV investigation identified four areas of soil contamination associated with the Route 139 Highway Improvement Project. For reference, these areas are designated as "Area A", "Area B", "Area C" and "Area D" respectively. The location of **Area A** is defined roughly between MaineDOT survey stations 19+50 and 21+50, right and left of centerline. Within **Area A**, poly-bag field samples screened with a photo-ionization detector (PID) of 25 ppm gasoline equivalents. Laboratory results of samples taken along the shoulder of Route 139 at depths of approximately 4 feet below ground surface BR-1 taken from a depth of approximately 4.0 feet below ground surface (bgs) indicates Gasoline Range Organics (GRO) at 12 ppm, Diesel Range Organics (DRO) at 600 ppm and for volatile organic compounds (VOCs): naphthalene at 17000 parts per billion (ppb). DRO, GRO, along with volatile organic concentrations (VOCs) associated with gasoline constituents at these concentrations define the soils as potential special waste per State remedial guidelines. Soil contamination in **Area A** appears to be related to the past use and storage of gasoline.

The location of **Area B** is defined as roughly between MaineDOT survey stations 22+00 to 23+50, right and left side of centerline. Within **Area B**, poly-bag field samples screened with a photo-ionization detector (PID) of 72.5 ppm gasoline equivalents. Laboratory results of samples taken along the shoulder of Route 139 at depths of approximately 2 to 4 feet below ground surface indicates the total concentrations of indicate GRO 42 ppm, DRO at 2400 ppm and for VOCs: Ethylbenzene at 170 ppb, Isopropylbenzene at 190 ppb, m,p-Xylenes at 250 ppb, O-Xylene at 140 ppb, p-Isopropyltoluene at 200 ppb, Naphthalene at 3100 ppb, 1,2,4-Trimethylbenzene at 510 ppb, and 1,3,5-Trimethylbenzene at 140 ppb. DRO, GRO and VOC concentrations at these concentrations define the soils as potential special waste per State remedial guidelines. Soil contamination in **Area B** appears to be related to the past use and storage of gasoline.

The location of **Area C** is defined as roughly between Maine DOT survey stations 26+00 to 29+50 left and right of centerline. Within **Area C**, poly-bag field samples screened with a photo-ionization detector (PID) ranged from 13 ppm gasoline equivalents to 317 ppm gasoline equivalents. Laboratory results of samples taken along the shoulder of Route 139 at depths of approximately 3 feet below ground surface indicates GRO 530 ppm, DRO at 560 ppm and for VOCs: Ethylbenzene at 660 ppb, Isopropylbenzene at 860 ppb, m,p-Xylenes at 8600 ppb, O-Xylene at 4200 ppb, p-Isopropyltoluene at 570 ppb, Naphthalene at 12000 ppb, 1,2,4-Trimethylbenzene at 5600 ppb, and 1,3,5-Trimethylbenzene at 2900 ppb, n-Propylbenzene at 1200 ppb, and sec-Butylbenzene at 380 ppb. Total lead was detected at 41 ppm. DRO, GRO along with VOCs associated with gasoline constituents at these concentrations define the soils as potential special waste per State remedial guidelines. Soil contamination in **Area C** appears to be related to the past use and storage of gasoline.

The location of **Area D** is defined as roughly between MaineDOT survey stations 30+00 to 31+00 left and right of centerline. Within **Area D**, poly-bag field samples screened with a photo-ionization detector (PID) ranged from 50 ppm gasoline equivalents to 65 ppm gasoline equivalents. Laboratory results of samples taken along the shoulder of Route 139 at depths of

approximately 3 feet below ground surface indicates the total concentrations GRO at 41ppm , DRO at 1200ppm and for VOCs: naphthalene at 470,000 parts per billion. DRO, GRO with VOCs associated with gasoline constituents at these concentrations define the soils as potential special waste per State remedial guidelines. Soil contamination in **Area D** appears to be related to the past use and storage of gasoline.

Identifying and Screening Contaminated Soil and Groundwater. Within the contaminated sections designated **Area A, Area B, Area C and AREA D**, excavated soils will be classified by the Resident (or a MaineDOT-ENV representative) based on photo-ionization detector (PID) field screening measurements. Field screening with a PID shall be performed according to the MaineDEP “Jar/Poly Bag Headspace Technique” contained in Appendix Q of *Regulations for Registration, Installation, Operation and Closure of Underground Oil Storage Facilities, Chapter 691* (MaineDEP 12/24/96) using MaineDEP’s November 2008 calibration set-points.

The excavated soils shall be classified as Group 1, Group 2, or Group 3 soils.

Group 1 soils shall have PID field screening measurements indicating relative concentrations of volatile organic compounds (VOCs) less than or equal to 20 parts per million (ppm) as measured in the soil headspace.

Group 2 soils shall have PID field screening measurements indicating VOC concentrations greater than 20 ppm.

Handling and Disposition of Soil Materials. Within **Areas A, B, C and D**, soil material excavated during construction shall be handled as follows:

Group 1 soils are not considered contaminated. Thus, special handling and disposal are not required for Group 1 soils.

Group 2 soils shall be placed back into their excavation section of origin. The Contractor shall make every attempt to side cast any Group 2 soils next to their excavation site. Upon completion of the given constructional feature, the Group 2 soils shall be placed back into the excavation. Group 2 materials not handled in this manner shall be considered Surplus Group 2 soils. Surplus Group 2 soils must be disposed of or treated at a facility licensed by the MDEP to accept petroleum contaminated special waste. The Contractor is solely responsible for obtaining the associated permits and approvals for the disposal or treatment of the Surplus Group 2 soils from all relevant Municipal, State, and Federal agencies at no additional cost to the State. Notification shall be given to the Resident once approval is granted for the acceptance of this material at the off site facility. No removal of Surplus Group 2 soils from the project shall occur without prior approval by the Resident. If any Surplus Group 2 soils cannot be transported to the pre-approved, properly licensed facility within 8 hours of their excavation,

they must be placed in a Temporary Secure Stockpile Area somewhere within the project limits (See Temporary Secured Stockpile Area below). The MDEP will have a representative on site to assist in the determination of how any type 2 soil will be handled.

The Resident is responsible for signing any manifests or bills of lading required to transport and dispose of contaminated soil. The Resident will send all manifests and bills of lading to MaineDOT, Environmental Office, Station 16, Augusta, Maine 04333.

Trench and Underdrain/Stormdrain Design in Contaminated Sections. In **Area A, B, C and D** perforated underdrain pipe can be used unless otherwise directed by a MDEP on-site representative. The Contractor shall backfill around the pipe and backfill the trench with either side cast contaminated soil or uncontaminated fill. Backfilling of all the trenches shall be in accordance with Section 206.03. All stones larger than 75 mm (3 inches), frozen lumps, dry chunks of clay or any other objectionable matter shall be removed before backfilling.

In the event the MDEP determines that perforated pipe cannot be used, solid Option III, non-perforated pipe shall be used instead of perforated underdrain pipe to help prevent the infiltration and transportation of potentially contaminated groundwater within the underdrain/stormdrain system. The Contractor shall backfill around the pipe and trenches in this section with uncontaminated material. Backfilling of the trench shall be in accordance with Section 206.03. All stones larger than 75 mm (3 inches), frozen lumps, dry chunks of clay or any other objectionable matter shall be removed before backfilling.

Seepage control dikes (SCD) shall be installed roughly every 60 feet along the stormwater pipe trench.

The SCDs shall consist of a mineral clay material with a liquid limit of equal to or greater than 24 and a natural moisture content of at least 20 percent. The clay should be placed in dry excavations in 6 inch maximum, thick lifts and compacted to 90% of the maximum dry unit weight as determined by AASHTO T99 (Standard Proctor). The SCDs shall be 5 feet long, be in intimate contact with the trench floor, trench walls and circumference of the pipe and extend up to the bottom of the road base. The excavated existing road base or similar material may be placed on top of the SCDs. The Contractor shall take care to ensure that no voids or uncompacted soil is left beside or beneath the Option III culvert pipe.

Secured Stockpile Area. Direct transport of Surplus Group 2 soils to a pre-approved management facility is recommended. However, should the Contractor temporarily store any Surplus Group 2 soils at the site for more than 8 hours following excavation, they must be placed into a properly constructed Temporary Secured Stockpile Area. The Temporary Secured Stockpile Area must be constructed as defined herein and must be approved by the Resident and the MDEP site representative prior to its use.

Prior to any stockpiling activities, the MDEP will perform a preliminary assessment of the proposed stockpile site.

Should the Contractor utilize a Temporary Secured Stockpile Area, they shall install a continuous 0.3 meter high compacted soil berm around the Secured Stockpile. The Secured Stockpile shall be placed on a liner of 20-mil polyethylene and securely covered with 20-mil polyethylene. The polyethylene liner and cover shall be placed over the soil berm and be installed to ensure that precipitation water drains directly to the outside of the berm perimeter while leachate from the contaminated soil is retained within the stockpile. The Secured Stockpile and soil berm shall be enclosed within a perimeter of concrete Jersey barriers or wooden barricades. The area within the Jersey barriers (or wooden barricades) shall be identified as a "restricted area" to prevent unauthorized access to the contaminated soils.

Secured Stockpile Area - Materials.

A. Polyethylene. Polyethylene used for liner in the Secured Stockpile Area shall have a minimum of 20-mil thickness and shall meet the requirements of ASTM D3020.

B. Common Borrow. Fill used in the construction of the Temporary Secured Stockpile Area soil berm shall consist of Common Borrow and meet the requirements of Section 703.18

C. Concrete Barriers or Wooden Barricades. Concrete barriers or Wooden Barricades to form the sides of the Temporary Secured Stockpile Area shall meet the requirements of Section 526 or 652.05.

Health and Safety/Right-to-Know. Contractors and subcontractors are required to notify their workers of the history of the site and contamination that may be present and to be alert for evidence of contaminated soil and groundwater. The Contractor shall notify the Resident at least three business days prior to commencing any excavation in **Areas A, B, C and D.**

The Contractor shall prepare a site specific Health and Safety Plan (HASP) for its workers and subcontractors who may work in the contaminated areas of the site. A Qualified Health and Safety Professional shall complete the HASP. The Qualified Health and Safety Professional will be an expert in field implementation of the following federal regulations:

- |                                      |                                                      |
|--------------------------------------|------------------------------------------------------|
| 29 CFR 1910.120 or<br>29 CFR 1926.65 | Hazardous Waste Operations and<br>Emergency Response |
| 29 CFR 1910.134                      | Respiratory Protection                               |

|                 |                                     |
|-----------------|-------------------------------------|
| 29 CFR 1926.650 | Subpart D - Excavations             |
| 29 CFR 1926.651 | General Requirements                |
| 29 CFR 1926.652 | Requirements for Protective Systems |

MaineDOT is voluntarily ameliorating the contamination in **Areas A, B, C and D**. The remedial efforts defined herein have been reviewed and approved by MaineDEP. Given that this is a voluntary clean up effort approved by a regulatory agency, the OSHA requirements as defined in 29 CFR 1910.120 apply. These requirements mandate that workers and any subcontractors working in the contaminated areas shall comply with all OSHA regulations for Hazardous Waste Operations and Emergency Response including a 40 hour initial hazardous waste operations certification [OSHA 1910.120(e)], annual 8 hour refresher course within the last 12 months and medical surveillance [OSHA 1910.120(f)] within the last 12 months.

The contractor shall designate a person to provide direct on-site supervision of the work in the contaminated areas. This person shall have the training under OSHA 1910.120 (e) as above and in addition be qualified as a construction Competent Person. It is the responsibility of the competent person to make those inspections necessary to identify situations that could result in hazardous conditions (e.g., possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions), and then to insure that corrective measures are taken.

Submittals. The Contractor shall submit a site specific Health and Safety Plan (HASP) to the Resident at least two weeks in advance of any excavation work on the project. The Contractor shall not proceed with work until MaineDOT and MDEP has reviewed the plan and notified the Contractor that it is acceptable.

Health and Safety Monitoring. Within the contaminated areas of the project, the Contractor’s designated on-site person shall monitor the worker breathing zone for those constituents specified in the Contractor’s HASP. The Contractor shall provide all required health and safety monitoring equipment.

Dewatering. Groundwater may be encountered and its removal necessary to complete work within **Areas A, B, C and D**. It will be treated as “contaminated” water. The Contractor shall inform the Resident before any dewatering commences. The “contaminated” water shall be pumped into a temporary holding tank(s). The Contractor will be responsible for the procurement of any holding tank(s). Any testing, treatment and/or disposal of the stored, petroleum-contaminated water shall be undertaken by the Contractor in accordance with applicable Federal, State and local regulatory requirements. MDEP will give guidance and assist in the permitting process.

On-Site Water Storage Tanks - Materials. If dewatering within the identified contaminated area becomes necessary the holding tanks used for temporary storage of contaminated water pumped from excavations shall be contamination free and have a minimum capacity of 7,500 liters (2,000 gallons).

Dust Control. The Contractor shall employ dust control measures to minimize the creation of airborne dust during the construction process in potentially contaminated areas. As a minimum, standard dust control techniques shall be employed where heavy equipment and the public will be traveling. These may include techniques such as watering-down the site or spreading hygroscopic salts.

Unanticipated Contamination. If the Contractor encounters previously undiscovered contamination or potentially hazardous conditions related to contamination, the Contractor shall immediately suspend work and secure the area. The Contractor will then notify the Resident immediately. These potentially hazardous conditions include, but are not limited to, buried containers, drums, tanks, “oil saturated soils”, strong odors, or the presence of petroleum sufficient to cause a sheen on the groundwater. The area of potential hazard shall be secured to minimize health risks to workers and the public and to prevent a release of contaminants into the environment. The source of any suspected contamination shall be evaluated by the Resident (or MaineDOT’s -ENV representative). As appropriate, the Resident will notify the Maine Department of Environmental Protection’s Response Services Unit in Augusta and MaineDOT’s Environmental Office. The Brooks Fire Department must also be notified prior to removal of buried storage tanks and associated piping. The Contractor will evaluate the impact of the hazard on construction, amend the HASP if necessary, and with the Resident’s approval, recommence work in accordance with the procedures of this Special Provision.

Method of Measurement. There will be no measurement for identification and environmental screening of contaminated soil material (this will be done by the Resident or MaineDOT-ENV representative).

Measurement for the development of a Health and Safety Plan (HASP) and providing health and safety equipment and personnel shall be by lump sum.

Measurement of the off site treatment or disposal of Surplus Group 2 and all Group 3 soils will be by the ton of Special Excavation.

There will be no measurement for construction of a Temporary Secured Stockpile Area. Construction of a Temporary Secured Stockpile Area, if necessary, is considered incidental to project construction. There will be no measurement for hauling Surplus Group 2 material or Group 3 soils to the Temporary Secure Stockpile area or placement and removal of Surplus Group 2 or Group 3 soils in or out of the Temporary Secure

Stockpile area. All hauling and any subsequent management/placement of contaminated soils are considered incidental to project construction.

There will be no measurement for additional laboratory testing of contaminated soil that is required by the landfill or treatment facility. Testing is incidental to the disposal of Special Excavation.

Measurement for the following items shall be according to Subsection 109:04 (“Change Order”/Force Account): any necessary contaminated water holding tank(s); and treatment or disposal of any contaminated groundwater.

Basis of Payment. There will be no payment for the identification and environmental screening of contaminated soil material (this will be done by the Resident or MaineDOT-ENV representative).

Payment for the development of a Health and Safety Plan (HASP) and providing health and safety equipment and personnel shall be by the lump sum

Payment for off site disposal or treatment of contaminated Surplus Group 2 and all Group 3 soils at a MaineDEP licensed facility shall be by the ton of Special Excavation.

There will be no payment for the construction of the Temporary Secured Stockpile Area or hauling/management/placement of contaminated soils to the Temporary Secured Stockpile Area. The Temporary Secured Stockpile Area shall be considered incidental to project construction.

Payment for the following items shall be according to Subsection 109:04 (“Change Order”/Force Account): any necessary contaminated water holding tank(s); and treatment or disposal of any contaminated groundwater.

| Pay Item |                                          | Pay Unit |
|----------|------------------------------------------|----------|
| 203.2312 | Health and Safety Plan (HASP)            | L.S.     |
| 203.2333 | Disposal/Treatment of Special Excavation | Ton      |

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<br>ESAL's<br>(Millions<br>) | Required Density<br>(Percent of G <sub>mm</sub> ) |                     |                  | Voids in the Mineral Aggregate<br>(VMA)(Minimum Percent) |      |      |      |      | Voids Filled<br>with Binder<br>(VFB)<br>(Minimum<br>%) | Fines/Eff.<br>Binder<br>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]<br>(As noted in QC Plan) | ASTM D2950             |
| %TMD (Base)                                | 1 per 250 Mg [250 ton]<br>(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<br>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 Contractors results of the Acceptance sample split. Upon conclusion of each lot, where there is a minimum of four sublots, results shall be examined for statistical outliers, as stated in Section 106.7.2 - Statistical Outliers.

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

Pavement Density The Department will measure pavement density using core samples tested according to AASHTO T-166. The Department will randomly determine core locations. The Contractor shall cut 6 inch diameter cores at no additional cost to the Department by the end of the working day following the day the pavement is placed, and immediately give them to the Department. 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:

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

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<br>(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<br>Nominal Maximum Size, Base                                     | MG [Ton]        |

**SPECIAL PROVISION**  
**SECTION 403**  
**HOT MIX ASPHALT**

| <b>Desc. of Course</b>                         | <b>Grad. Design</b> | <b>Item Number</b> | <b>Bit Cont. % of Mix</b> | <b>Total Thick</b> | <b>No. of Layers</b> | <b>Comp. Notes</b> |
|------------------------------------------------|---------------------|--------------------|---------------------------|--------------------|----------------------|--------------------|
| <b><u>Route 139 and School Street</u></b>      |                     |                    |                           |                    |                      |                    |
| <b><u>Mainline Travel Way and Shoulder</u></b> |                     |                    |                           |                    |                      |                    |
| Wearing                                        | 12.5 mm             | 403.208            | N/A                       | 2 ½"               | 1                    | 4,9,13,17          |
| Base                                           | 12.5 mm             | 403.213            | N/A                       | 1 ½"               | 1                    | 4,9,17             |
| <b><u>Sidewalks, Drives, Misc.</u></b>         |                     |                    |                           |                    |                      |                    |
| Wearing                                        | 9.5 mm              | 403.209            | N/A                       | 2"                 | 1/more               | 2,3,10,11,14       |

**COMPLEMENTARY NOTES**

2. The density requirements are waived.
3. The design traffic level for mix placed shall be <0.3 million ESALS.
4. The design traffic level for mix placed shall be 0.3 to <3 million ESALS. The design verification, Quality Control, and Acceptance tests for this mix will be performed at **50 gyrations.**
9. Section 106.6 Acceptance, (2) Method C.
10. Section 106.6 Acceptance, (2) Method D.
11. A "FINE" 9.5 mm mix with a gradation above or through the restricted zone shall be used for this item.
13. A mixture meeting the gradation of 9.5 mm hot mix asphalt may be used at the option of the contractor.
14. A mixture meeting the requirements of section 703.09 Grading 'D', with a minimum PGAB content of 6%, and the limits of Special Provision 401, Table 9 (Drives and Sidewalks) for PGAB content and gradation may be substituted for this item. A job mix formula shall be submitted to the department for approval.
17. The density requirements are as per Specification 401, subsection 401.203, Method C.

**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 gal/yd<sup>2</sup> prior to placing a new course. A fog coat of emulsified asphalt shall be applied between the intermediate course and the surface course, at a rate not to exceed 0.025 gal/yd<sup>2</sup>. All joints between existing and new pavement will be tacked.

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 534  
PRECAST STRUCTURAL CONCRETE  
(Precast Structural Concrete Arches, Box Culverts)

534.10 Description The Contractor shall design, manufacture, furnish, and install elements, precast structural concrete structures, arches, or box culverts and associated wings, headwalls, and appurtenances, in accordance with the contract documents. Cofferdams and excavation and removal of the existing Box Culvert will be incidental to the new Box Culvert.

534.20 Materials Structural precast elements for the arch or box culvert and associated precast elements shall meet the requirements of the following Subsection:

Structural Precast Concrete Units 712.061

Grout, concrete patching material, and geotextiles shall be one of the products listed on the Department's list of prequalified materials, unless otherwise approved by the Department.

534.30 Design Requirements The Contractor shall design the precast structural concrete structure in accordance with the AASHTO Standard Specifications for Highway Bridges, current edition, by either the Load Factor Design (LFD) or Load and Resistance Factor Design (LRFD) method. The design live load shall be as follows: MS-22.5 (HS-25) for LFD method, \*modified HL-93 Strength I for LRFD method. \*(modify HL-93 by increasing all wheel loads by a factor of 1.25)

The Contractor shall submit design calculations and shop drawings for the precast structure to the Department for approval. A Registered Professional Engineer, licensed in accordance with State of Maine laws, shall sign and seal all design calculations and drawings. The Contractor shall submit a bridge rating on the Department's Standard Bridge Rating Summary Sheet with the design calculations. Drawings shall conform with Section 105.7 - Working Drawings.

The Contractor shall submit the following items for review by the Resident at least ten working days prior to production:

- A) The name and location of the manufacturer.
- B) Method of manufacture and material certificates.
- C) Description of method of handling, storing, transporting, and erecting the members.
- D) Shop Drawings with the following minimum details:
  - 1) Fully dimensioned views showing the geometry of the members, including all projections, recesses, notches, openings, block outs, and keyways.
  - 2) Details and bending schedules of reinforcing steel including the size, spacing, and location. Reinforcing provided under lifting devices shall be shown in detail.
  - 3) Details and locations of all items to be embedded.

4) Total mass (weight) of each member.

534.40 Construction Requirements The applicable provisions of Subsection 535.10 - Forms and Casting Beds and Subsection 535.20 – Finishing Concrete and Repairing Defects shall be met.

Manufacture of Precast Units The internal dimensions shall not vary by more than 1 percent from the design dimensions or 38 mm [1 ½ in], whichever is less. The haunch dimensions shall not vary by more than 19 mm [¾ in] from the design dimension. The dimension of the legs shall not vary by more than 6 mm [¼ in] from the dimension shown on the approved shop drawings.

The slab and wall thickness shall not be less than the design thickness by more than 6 mm [¼ in]. A thickness greater than the design thickness shall not be cause for rejection.

Variations in laying lengths of two opposite surfaces shall not be more than 15 mm [⅝ in] in any section, except where beveled ends for laying of curves are specified.

The under-run in length of any section shall not be more than 12 mm [½ in].

The cover of concrete over the outside circumferential reinforcement shall be 50 mm [2 in] minimum. The concrete cover over the inside reinforcement shall be 38 mm [1 ½ in] minimum. The clear distance of the end of circumferential wires shall not be less than 25 mm [1 in] or more than 50 mm [2 in] from the end of the sections. Reinforcement shall be single or multiple layers of welded wire fabric or a single layer of deformed billet steel bars.

Welded wire fabric shall meet the space requirements and contain sufficient longitudinal wires extending through the section to maintain the shape and position of the reinforcement. Longitudinal distribution reinforcement may be welded wire fabric or deformed billet steel bars which meet the spacing requirements. The ends of the longitudinal distribution reinforcement shall be not more than 75 mm [3 in] from the ends of the sections.

The inside circumferential reinforcing steel for the haunch radii or fillet shall be bent to match the radii or fillets of the forms.

Tension splices in the reinforcement will not be permitted. For splices other than tension splices, the overlap shall be a minimum of 300 mm [12 in] for welded wire fabric or billet steel bars. The spacing center to center of the circumferential wires in a wire fabric sheet shall be not less than 50 mm [2 in] or more than 100 mm [4 in]. For the wire fabric, the spacing center to center of the longitudinal wires shall not be more than 200 mm [8 in]. The spacing center to center of the longitudinal distribution steel for either line of reinforcing in the top slab shall be not more than 375 mm [15 in].

The members shall be free of fractures. The ends of the members shall be normal to the walls and centerline of the section, within the limits of variation provided, except where beveled ends are specified. The surfaces of the members shall be a smooth steel form or troweled

surface finish, unless a form liner is specified. The ends and interior of the assembled structure shall make a continuous line of members with a smooth interior surface.

Defects which may cause rejection of precast units include the following:

- 1) Any discontinuity (crack or rock pocket etc.) of the concrete which could allow moisture to reach the reinforcing steel.
- 2) Rock pockets or honeycomb over 4000 mm<sup>2</sup> [6 in<sup>2</sup>] in area or over 25 mm [1 in] deep.
- 3) Edge or corner breakage exceeding 300 mm [12 in] in length or 25 mm [1 in] in depth.
- 4) Extensive fine hair cracks or checks.
- 5) Any other defect that clearly and substantially impacts the quality, durability, or maintainability of the structure as measured by accepted industry standards.

The Contractor shall store and transport members in a manner to prevent cracking or damage. The Contractor shall not place precast members in an upright position until a compressive strength of at least 30 MPa [4350 psi] is attained.

Installation of Precast Units The Contractor shall not ship precast members until sufficient strength has been attained to withstand shipping, handling and erection stresses without cracking, deformation, or spalling (but in no case less than 30 MPa [4350 psi]).

Excavation for the structure and for the bedding material shall be in conformance with Section 206 - Structural Excavation.

The Contractor shall set precast members on 12 mm [½ in] neoprene pads during shipment to prevent damage to the section legs. The Contractor shall repair any damage to precast members resulting from shipping or handling by saw cutting a minimum of 12 mm [½ in] deep around the perimeter of the damaged area and placing a polymer-modified cementitious patching material.

When footings are required, the Contractor shall install the precast members on concrete footings that have reached a compressive strength of at least 20 MPa [2900 psi]. The Contractor shall construct the completed footing surface to the lines and grades shown on the plans. When checked with a 3 m [10 ft] straightedge, the surface shall not vary more than 6 mm [¼ in] in 3 meters [10 ft]. The footing keyway shall be filled with a non-shrink flowable cementitious grout with a design compressive strength of at least 35 MPa [5075 psi].

The Contractor shall fill holes that were cast in the units for handling, with either Portland cement mortar, or with precast plugs secured with Portland cement mortar or other approved adhesive. The Contractor shall completely fill the exterior face of joints between precast members with an approved material and cover with a minimum 300 mm [12 in] wide joint wrap. The surface shall be free of dirt and deleterious materials before applying the filler material and joint wrap. The Contractor shall install the external wrap in one continuous piece over each member joint, taking care to keep the joint wrap in place during backfilling. The Contractor shall seal the joints between the end unit and attached elements with a non-woven geotextile. The Contractor shall install and tighten the bolts fastening the connection

plate(s) between the elements that are designed to be fastened together as designated by the manufacturer.

Final assembly shall be approved by the manufacturer's representative prior to backfilling. The Contractor shall backfill the structure in accordance with the manufacturer's instructions and the Contract documents. The Contractor shall uniformly distribute backfill material in layers of not more than 200 mm [8 in] depth, loose measure, and thoroughly compact each layer using approved compactors before successive layers are placed. The Contractor shall compact gravel borrow backfill in accordance with Section 203.12 - Construction of Earth Embankment with Moisture and Density Control, except that the minimum required compaction shall be 95 percent of maximum density as determined by AASHTO T99, Method C or D. The Contractor shall place and compact backfill without disturbance or displacement of the wall units, keeping the fill at approximately the same elevation on both sides of the structure. Whenever a compaction test fails, the Contractor shall not place additional backfill over the area until the lift is re-compacted and a passing test achieved.

The Contractor shall use hand-operated compactors within 1.5 m [5 ft] of the precast structure as well as over the top until it is covered with at least 300 mm [12 in] of backfill. Equipment in excess of 11 Mg [12 ton] shall not use the structure until a minimum of 600 mm [24 in] of backfill cover is in place and compacted.

534.50 Method of Measurement The Department will measure Precast Structural Concrete Arch or Box Culvert for payment per Lump Sum each, complete in place and accepted.

534.60 Basis of Payment The Department will pay for the accepted quantity of Precast Structural Concrete Arch or Box Culvert at the Contract Lump Sum price, such payment being full compensation for all labor, equipment, materials, professional services, and incidentals for furnishing and installing the precast concrete elements and accessories. Falsework, reinforcing steel, jointing tape, grout, cast-in-place concrete fill or grout fill for anchorage of precast wings and/or other appurtenances is incidental to the Lump Sum pay item. Cofferdams and excavation and removal of the existing Box Culvert will be incidental to the new Box Culvert. Pay adjustments for quality level will not be made for precast concrete.

Payment will be made under:

| <u>Pay Item</u>                     | <u>Pay Unit</u> |
|-------------------------------------|-----------------|
| 534.71 Precast Concrete Box Culvert | Lump Sum        |

## SPECIAL PROVISION 610.210

610.01 Description This work shall consist of placing cobbles and gravel within the pipe to reproduce the function of a natural stream bottom.

### 610.02 Materials

Materials shall conform to the following requirements:

*Bottom Course of In-Pipe Fill* shall be backfill material in accordance with Section 206.03.

*Stream Channel Stone, Top Course of In-Pipe Fill* shall consist of sound durable rock which will not disintegrate by exposure to water or weather. Stone must be washed before placement. Stone must be sub-angular in shape, similar in size, shape, and gradation to the existing bed material. Angular (blasted ledge) is not acceptable. The gradation shall conform to the following table:

| Sieve Designation |        | Percent by Weight Passing<br>Square Mesh Sieves |
|-------------------|--------|-------------------------------------------------|
| US Customary      | Metric |                                                 |
| 8 in              | 200 mm | 100                                             |
| 6 in              | 150 mm | 70 - 90                                         |
| 3 in              | 75 mm  | 50 - 80                                         |
| 2 in              | 50 mm  | 10-20                                           |
| 1 in              | 25 mm  | 0-5                                             |

### 610.31 Construction

1) Once footings are placed to final grade, Bottom Course of In-Pipe Fill shall be placed in accordance with Section 203.06 to an elevation four inches below final in-pipe grade as shown on plans.

2) The Steam Channel Stone, Top Course of In-Pipe Fill shall then be placed as directed by the Resident or his/her designee to approximately the final design grade at the inlet and outlet, forming a natural stream bottom replicating the pre-existing channel bottom.

610.41 Method of Measurement

Bottom Course of In-Pipe Fill shall be measured in place. Stream Channel Stone, Top Course of In-Pipe Fill shall be measured in the truck before placement by the cubic yard.

610.51 Basis of Payment

The accepted quantities of Bottom Course of In-Pipe Fill, and Stream Channel Stone, Top Course of In-Pipe Fill will not be paid separately, but will be incidental to Item 534.71 Precast Concrete Box Culvert. Costs of all required placement shall also be incidental to Item 534.71.

**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 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

Approaches Approach signing shall include the following signs as a minimum. Field conditions may warrant the use of additional signs as determined by the Resident.

Road Work Next x Miles  
Road Work 500 Feet  
End Road Work

Work Area At each work site, signs and channelizing devices shall be used as directed by the Resident. Signs include:

Road Work xxxx<sup>1</sup>  
One Lane Road Ahead  
Flagger Sign

Other typical signs include:

Be Prepared to Stop  
Low Shoulder  
Bump  
Pavement Ends

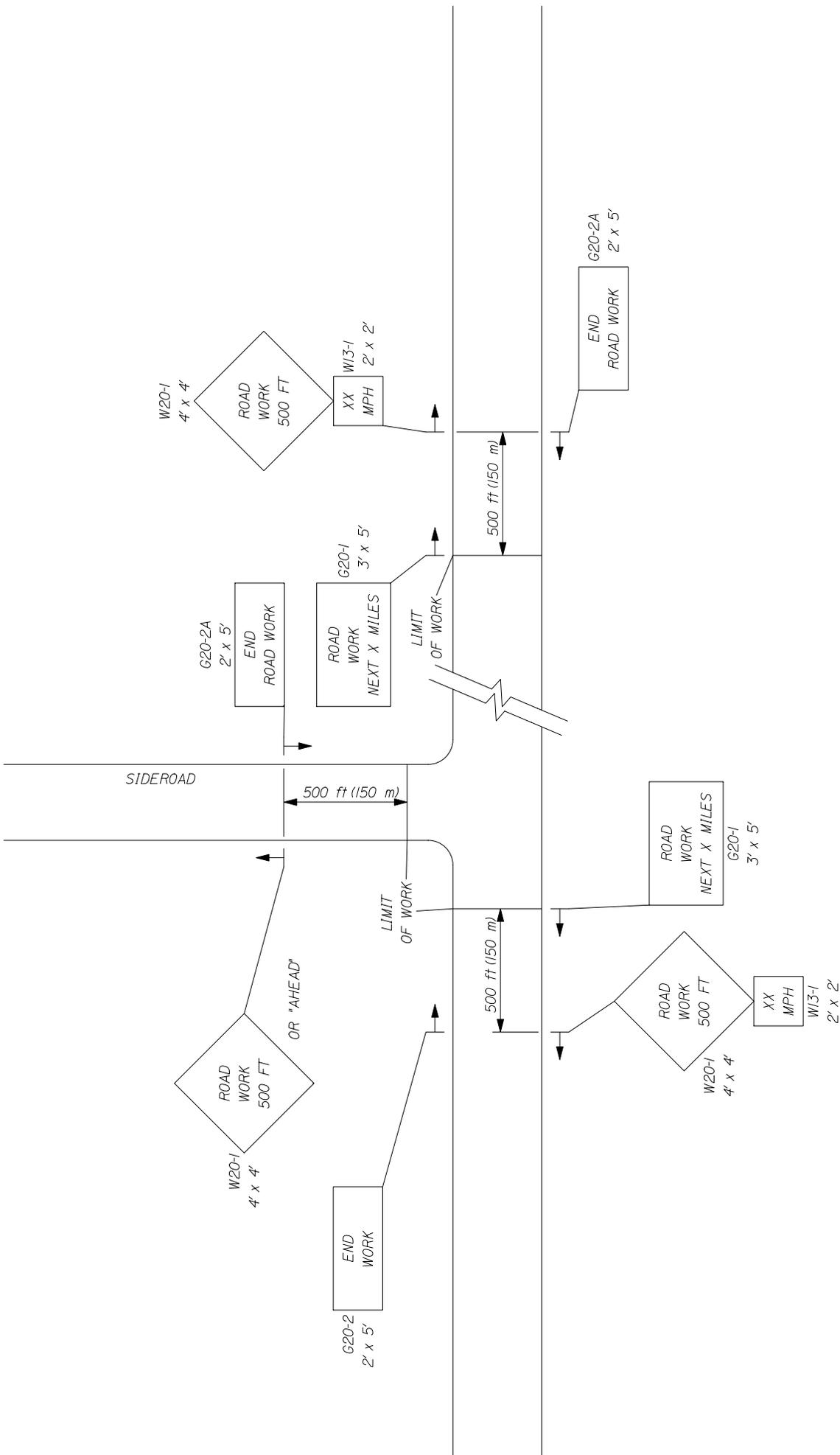
The above lists of Approach signs and Work Area signs are representative of the contract requirements. Other sign legends may be required.

The Contractor shall conduct their operations in such a manner that the roadway will not be restricted to one lane for more than 800 m [2,500 ft] at each work area. Where more than one work area restricts traffic to one lane operation, these work areas shall be separated by at least 1.6 km [1 mile] of two way operation.

Temporary Centerline A temporary centerline shall be placed each day on all new pavement to be used by traffic. The temporary centerline, when specified of reflectorized traffic paint, shall conform to the standard marking patterns used for permanent markings.

Failure to apply a temporary centerline daily will result in suspension of paving until temporary markers are applied to all previously placed pavement.

<sup>1</sup> “Road Work Ahead” to be used in mobile operations and “Road Work xx ft” to be used in stationary operations as directed by the Resident.



-- PROJECT APPROACH SIGNING --  
TWO WAY TRAFFIC



\* Formulas for L are as follows:

For speed limits of 40 mph (60 km/h) or less:

$$L = \frac{WS^2}{60} \quad (L = \frac{WS^2}{155})$$

For speed limits of 45 mph (70 km/h) or greater:

$$L = WS \quad (L = \frac{WS}{1.6})$$

\* Formulas for L are as follows:

A minimum of 5 channelization devices shall be used in the taper.

| TYPE OF TAPER                   | TAPER LENGTH (L)*      |
|---------------------------------|------------------------|
| Merging Taper                   | at least L             |
| Shifting Taper                  | at least 0.5L          |
| Shoulder Taper                  | at least 0.33L         |
| One-Lane, Two-Way Traffic Taper | 100 ft (30 m) maximum  |
| Downstream Taper                | 100 ft (30 m) per lane |

#### CHANNELIZATION DEVICE SPACING

The spacing of channelization devices shall not exceed a distance equal to 1.0 times the speed limit in mph when used for taper channelization, and a distance in feet of 2.0 times the speed limit in mph when used for tangent channelization.

#### GENERAL NOTES;

1. Final placement of signs and devices may be changed to fit field conditions as approved by the Resident.

| Road Type                          | SIGN SPACING TABLE       |             |            |
|------------------------------------|--------------------------|-------------|------------|
|                                    | Distance Between Signs** |             |            |
|                                    | A                        | B           | C          |
| Urban 30 mph (50 km/h) or less     | 100 (30)                 | 100 (30)    | 100 (30)   |
| Urban 35 mph (55 km/h) and greater | 350 (100)                | 350 (100)   | 350 (100)  |
| Rural                              | 500 (150)                | 500 (150)   | 500 (150)  |
| Expressway / Urban Parkway         | 2,640 (800)              | 1,500 (450) | 1000 (300) |

\*\*Distances are shown in feet (meters).

#### SUGGESTED BUFFER ZONE LENGTHS

| Speed (mph) | Length (feet) | Speed (mph) | Length (feet) |
|-------------|---------------|-------------|---------------|
| 20          | 115           | 40          | 325           |
| 25          | 155           | 45          | 360           |
| 30          | 200           | 50          | 425           |
| 35          | 250           | 55          | 495           |

**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.)

This project is in the **Penobscot River** watershed, which is located within the **Atlantic Salmon DPS Area** and is considered **SENSITIVE** in accordance with Section II.D. of the 2008 BMP Manual. The Contractor's SEWPCP shall include the following:

- 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.
- Permanent slope stabilization measures shall be applied within one week of the last soil disturbance.
- Permanent seeding shall be done in accordance with *Special Provision, Section 618, Seeding* unless the Contract states otherwise.
- Stream flow shall be maintained at all times except where specifically authorized.
- Demolition debris (including debris from wearing surface removal, saw cut slurry, dust, 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.
- Culvert inlet and outlet protection shall be installed within 48 hours of culvert installation, or prior to a storm event, whichever is sooner.
- The SEWPCP shall describe the installation of cofferdams and dewatering procedures.

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

Temporary Soil Erosion and Water Pollution Control

- 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.

## 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 |

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<br/>More Than</u> | <u>Up to and<br/>Including</u> | <u>Amount of Liquidated<br/>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

108.4 Payment for Materials Obtained and Stored First paragraph, second sentence, delete the words "...Delivered on or near the Work site at acceptable storage places."

## 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<br>US Customary (in) | Minimum Mandrel<br>Diameter (in) | Nominal Size<br>Metric (mm) | Minimum Mandrel<br>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..."

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."

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 107-1999 Class 2 risk exposure and clearly identify the wearer as a person, shall be visible at a minimum distance of 300 m [1000 ft], and shall wear a hardhat with retroreflectivity. For nighttime conditions, Class 3 apparel should be considered, retroreflective or flashing SLOW/STOP paddles shall be used, and except in emergency situations the flagger station shall be illuminated to assure visibility."

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.”

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<br>SIZE | Nominal Maximum Aggregate Size---Control Points (Percent Passing) |               |                 |                |                 |
|---------------|-------------------------------------------------------------------|---------------|-----------------|----------------|-----------------|
|               | TYPE 25<br>mm                                                     | TYPE 19<br>mm | TYPE 12.5<br>mm | TYPE 9.5<br>mm | TYPE 4.75<br>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<br>(% passing) |               |               |                 |                |
|-----------------------------------------------------------------------------|---------------|---------------|-----------------|----------------|
| Nominal Maximum Aggregate Size                                              | TYPE 25<br>mm | TYPE 19<br>mm | TYPE 12.5<br>mm | TYPE 9.5<br>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 [½ inch] AASHTO M203M/M203 (ASTM A416/A416M)...” to “...shall be 15.24 mm [0.600 inch] diameter AASHTO M203 (ASTM A416)...”

## SECTION 710

## FENCE AND GUARDRAIL

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

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

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

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

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

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

## SECTION 712 MISCELLANEOUS HIGHWAY MATERIALS

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

Add the following:

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

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

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

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

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

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

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

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

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

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

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

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

- (b) Battery operated flashing lights shall be self-illuminated by an electric lamp behind the lens. These lights shall also be externally illuminated by reflex-reflective elements built into the lens to enable it to be seen by reflex-reflection of the light from the headlights of oncoming traffic. The batteries must be entirely enclosed in a case. A locking device must secure the case. The light shall have a flash rate of not less than 50

nor more than 60 flashes per minute from minus 30 °C [minus 20 °F] to plus 65 °C [plus 150 °F]. The light shall have an on time of not less than 10 percent of the flash cycle. The light beam projected upon a surface perpendicular to the axis of the light beam shall produce a lighted rectangular projection whose minimum horizontal dimension shall be 5 degrees each side of the horizontal axis. The effective intensity shall not have an initial value greater than 15.0 candelas or drop below 4.0 candelas during the first 336 hours of continuous flashing. The illuminated lens shall appear to be uniformly bright over its entire illuminated surface when viewed from any point within an angle of 9 degrees each side of the vertical axis and 5 degrees each side of the horizontal axis. The lens shall not be less than 175 mm [7 in] in diameter including a reflex-reflector ring of 13 mm [ $\frac{1}{2}$  in] minimum width around the periphery. The lens shall be yellow in color and have a minimum relative luminous transmittance of 0.440 with a luminance of 2854° Kelvin. The lens shall be one-piece construction. The lens material shall be plastic and meet the luminous transmission requirements of this specification. The case containing the batteries and circuitry shall be constructed of a material capable of withstanding abuse equal to or greater than 1.21 mm thick steel [No. 18 U.S. Standard Gage Steel]. The housing and the lens frame, if of metal shall be properly cleaned, degreased and pretreated to promote adhesion. It shall be given one or more coats of enamel which, when dry shall completely obscure the metal. The enamel coating shall be of such quality that when the coated case is struck a light blow with a sharp tool, the paint will not chip or crack and if scratched with a knife will not powder. The case shall be so constructed and closed as to exclude moisture that would affect the proper operation of light. The case shall have a weep hole to allow the escape of moisture from condensation. Photoelectric controls, if provided, shall keep the light operating whenever the ambient light falls below 215 lx [20 foot candles]. Each light shall be plainly marked as to the manufacturer's name and model number.

If required by the Resident, certification as to conformance to these specifications shall be furnished based on results of tests made by an independent testing laboratory. All lights are subject to random inspection and testing. All necessary random samples shall be provided to the Resident upon request without cost to the Department. All such samples shall be returned to the Contractor upon completion of the tests.

712.32 Copper Tubing Copper tubing and fittings shall conform to the requirements of ASTM B88M Type A [ASTM B88, Type K] or better.

712.33 Non-metallic Pipe, Flexible Non-metallic pipe and pipe fittings shall be acceptable flexible pipe manufactured from virgin polyethylene polymer suitable for transmitting liquids intended for human or animal consumption.

712.34 Non-metallic Pipe, Rigid Non-metallic pipe shall be Schedule 40 polyvinylchloride (PVC) that meets the requirement of ASTM D1785. Fittings shall be of the same material.

712.341 Metallic Pipe Metallic pipe shall be ANSI, Standard B36.10, Schedule 40 steel pipe conforming to the requirements of ASTM A53 Types E or S, Grade B. End plates shall be steel conforming to ASTM A36/A36M.

Both the sleeve and end plates shall be hot dip galvanized. Pipe sleeve splices shall be welded splices with full penetration weld before galvanizing.

712.35 Epoxy Resin Epoxy resin for grouting or sealing shall consist of a mineral filled thixotropic, flexible epoxy resin having a pot life of approximately one hour at 10°C [50°F]. The grout shall be an approved product suitable for cementing steel dowels into the preformed holes of curb inlets and adjacent curbing. The sealant shall be an approved product, light gray in color and suitable for coating the surface.

712.36 Bituminous Curb The asphalt cement for bituminous curb shall be of the grade required for the wearing course, or shall be Viscosity Grade AC-20 meeting the current requirements of Subsection 702.01 Asphalt Cement. The aggregate shall conform to the requirements of Subsection 703.07. The coarse aggregate portion retained on the 2.36 mm [No. 8] sieve may be either crushed rock or crushed gravel.

The mineral constituents of the bituminous mixture shall be sized and graded and combined in a composite blend that will produce a stable durable curbing with an acceptable texture.

Bituminous material for curb shall meet the requirements of Section 403 - Hot Bituminous Pavement.

712.37 Precast Concrete Slab Portland cement concrete for precast slabs shall meet the requirements of Section 502 - Structural Concrete, Class A.

The slabs shall be precast to the dimension shown on the plans and cross section and in accordance with the Standard Detail plans for Concrete Sidewalk Slab. The surface shall be finished with a float finish in accordance with Subsection 502.14(c). Lift devices of sufficient strength to hold the slab while suspended from cables shall be cast into the top or back of the slab.

712.38 Stone Slab Stone slabs shall be of granite from an acceptable source, hard, durable, predominantly gray in color, free from seams which impair the structural integrity and be of smooth splitting character. Natural color variations characteristic of the deposit will be permitted. Exposed surfaces shall be free from drill holes or indications of drill holes. The granite slabs in any one section of backslope must be all the same finish.

The granite slabs shall be scabble dressed or sawed to an approximately true plane having no projections or depressions over 13 mm [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.”







**US Army Corps  
of Engineers**®  
New England District

**PGP**  
**WORK-START NOTIFICATION FORM**  
(Minimum Notice: Two weeks before work begins)

\*\*\*\*\*  
\* MAIL TO: U.S. Army Corps of Engineers, New England District \*  
\* Policy Analysis/Technical Support Branch \*  
\* Regulatory Division \*  
\* 696 Virginia Road \*  
\* Concord, Massachusetts 01742-2751 \*  
\*\*\*\*\*

Corps of Engineers Permit No. [NAE-2009-00949] was issued to [MaineDOT]. This work is located in Marsh Stream in Brooks Maine. The permit authorized the permittee to replace existing culvert under Route 139.

The people (e.g., contractor) listed below will do the work, and they understand the permit's conditions and limitations.

**PLEASE PRINT OR TYPE**

**Name of Person/Firm:** \_\_\_\_\_

**Business Address:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Telephone Numbers:** ( ) \_\_\_\_\_ ( ) \_\_\_\_\_

**Proposed Work Dates:**     **Start:** \_\_\_\_\_     **Finish:** \_\_\_\_\_

**Permittee's Signature:** \_\_\_\_\_     **Date:** \_\_\_\_\_

**Printed Name:** \_\_\_\_\_     **Title:** \_\_\_\_\_

\*\*\*\*\*

**FOR USE BY THE CORPS OF ENGINEERS**

**PM:** \_\_\_\_\_     **Submittals Required:** \_\_\_\_\_

**Inspection Recommendation:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**US Army Corps  
of Engineers**®  
New England District

(Minimum Notice: Permittee must sign and return notification  
within one month of the completion of work.)

## COMPLIANCE CERTIFICATION FORM

**USACE Project Number:**   NAE-2009-00949  

**Name of Permittee:**   MaineDOT  

**Permit Issuance Date:**   5/12/09  

Please sign this certification and return it to the following address upon completion of the activity and any mitigation required by the permit. You must submit this after the mitigation is complete, but not the mitigation monitoring, which requires separate submittals.

```

*****
* MAIL TO: U.S. Army Corps of Engineers, New England District      *
*           Policy Analysis/Technical Support Branch, ATTN: Marie Farese  *
*           Regulatory Division                                         *
*           696 Virginia Road                                           *
*           Concord, Massachusetts 01742-2751                         *
*****

```

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

**I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.**

\_\_\_\_\_  
Signature of Permittee

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date of Work Completion

Telephone Number (     ) \_\_\_\_\_



**DEPARTMENT OF THE ARMY**  
 NEW ENGLAND DISTRICT, CORPS OF ENGINEERS  
 696 VIRGINIA ROAD  
 CONCORD, MASSACHUSETTS 01742-2751

REPLY TO  
ATTENTION OF

**MAINE PROGRAMMATIC GENERAL PERMIT (PGP)  
 AUTHORIZATION LETTER AND SCREENING SUMMARY**

OFFICE OF ENVIRONMENTAL SERVICES  
 MAINE DEPT. OF TRANSPORTATION  
 16 STATE HOUSE STATION  
 AUGUSTA, MAINE 04333

CORPS PERMIT # NAE-2009-00949  
 CORPS PGP ID# 09-145  
 STATE ID# PBR

**DESCRIPTION OF WORK:**

Place fill below the ordinary high water line of a tributary to Marsh Stream at Brooks, Maine in order to replace an existing deteriorated concrete box culvert beneath Route 139. Up to 600 s.f. (0.014 acres) of stream bed will be impacted by the project. This work is shown on the attached plans entitled "BROOKS ROUTE 139, BOX CULVERT - STA 26+25" in two sheets undated.

DOT PIN: 14309.00

LAT/LONG COORDINATES : 44.5525123° N 69.1253139° W USGS QUAD: BROOKS EAST, ME

**I. CORPS DETERMINATION:**

Based on our review of the information you provided, we have determined that your project will have only minimal individual and cumulative impacts on waters and wetlands of the United States. **Your work is therefore authorized by the U.S. Army Corps of Engineers under the enclosed Federal Permit, the Maine Programmatic General Permit (PGP).**

You must perform the activity authorized herein in compliance with all the terms and conditions of the PGP [including any attached Additional Conditions and any conditions placed on the State 401 Water Quality Certification including any required mitigation]. Please review the enclosed PGP carefully, including the PGP conditions beginning on page 7, to familiarize yourself with its contents. You are responsible for complying with all of the PGP requirements; therefore you should be certain that whoever does the work fully understands all of the conditions. You may wish to discuss the conditions of this authorization with your contractor to ensure the contractor can accomplish the work in a manner that conforms to all requirements.

If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

Condition 38 of the PGP (page 15) provides one year for completion of work that has commenced or is under contract to commence prior to the expiration of the PGP on October 11, 2010. You will need to apply for reauthorization for any work within Corps jurisdiction that is not completed by October 11, 2011.

This authorization presumes the work shown on your plans noted above is in waters of the U.S. Should you desire to appeal our jurisdiction, please submit a request for an approved jurisdictional determination in writing to the undersigned.

No work may be started unless and until all other required local, State and Federal licenses and permits have been obtained. **This includes but is not limited to a Flood Hazard Development Permit issued by the town if necessary.** Also, this permit requires you to notify us before beginning work and allow us to inspect the project. Hence, you must complete and return the attached Work Start Notification Form(s) to this office no later than 2 weeks before the anticipated starting date. (For projects requiring mitigation, be sure to include the MITIGATION WORK START FORM).

**II. STATE ACTIONS: PENDING [ X ], ISSUED [ ], DENIED [ ] DATE \_\_\_\_\_**

APPLICATION TYPE: PBR: X, TIER 1: \_\_\_\_\_, TIER 2: \_\_\_\_\_, TIER 3: \_\_\_\_\_, LURC: \_\_\_\_\_, DMR LEASE: \_\_\_\_\_, NA: \_\_\_\_\_

**III. FEDERAL ACTIONS:**

JOINT PROCESSING MEETING: 4/30/09 LEVEL OF REVIEW: CATEGORY 1: \_\_\_\_\_ CATEGORY 2: X

AUTHORITY (Based on a review of plans and/or State/Federal applications): SEC 10 \_\_\_\_\_, 404 X, 10/404 \_\_\_\_\_, 103 \_\_\_\_\_

EXCLUSIONS: The exclusionary criteria identified in the general permit do not apply to this project.

FEDERAL RESOURCE AGENCY OBJECTIONS: EPA NO, USF&WS NO, NMFS NO

If you have any questions on this matter, please contact my staff at 207-623-8367 at our Manchester, Maine Project Office.

JAY L. CLEMENT  
 SENIOR PROJECT MANAGER  
 MAINE PROJECT OFFICE

PHILIP T. FEIR  
 COLONEL, CORPS OF ENGINEERS  
 DISTRICT ENGINEER

DATE 5/12/09

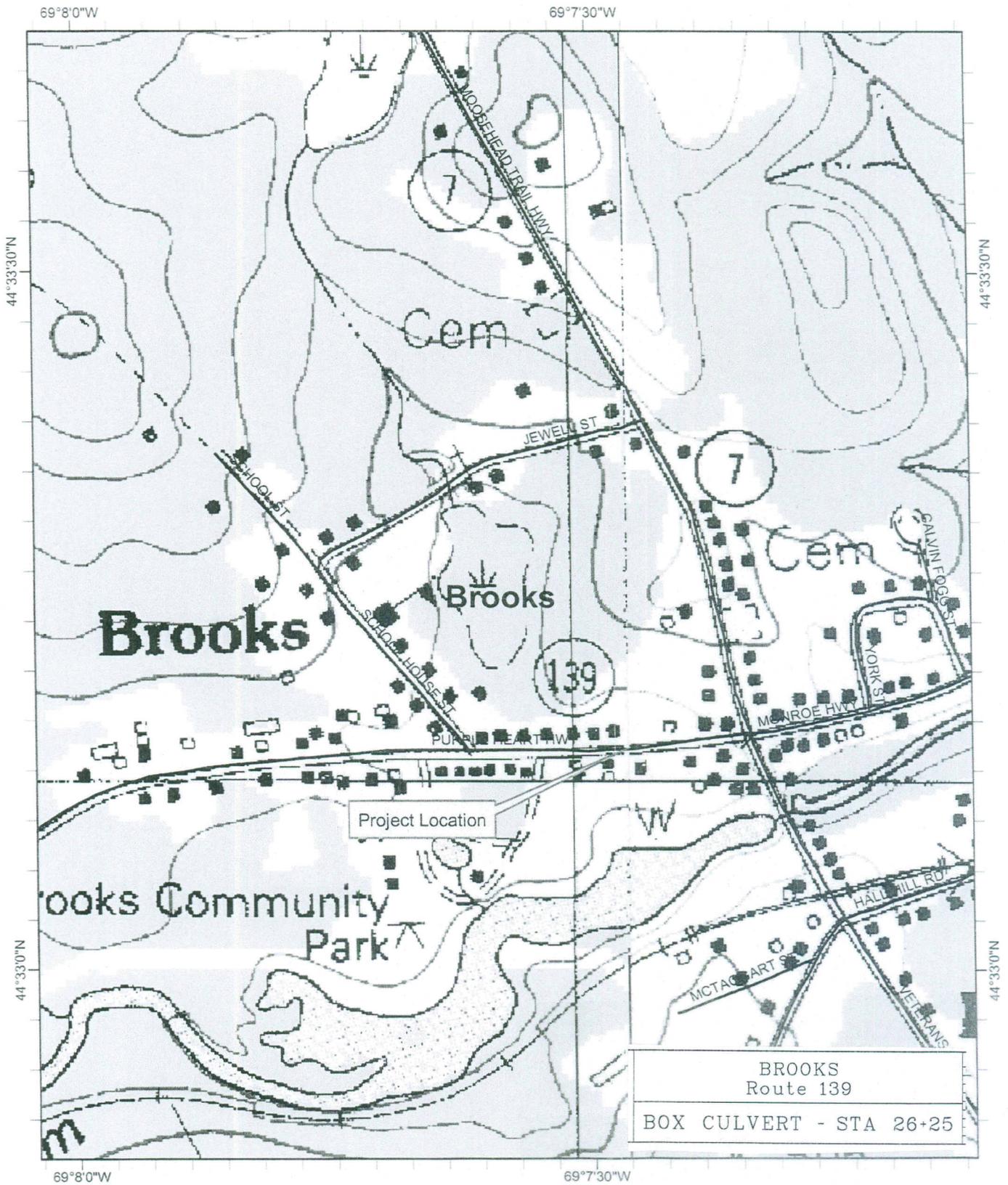


**US Army Corps  
of Engineers**  
New England District

**SPECIAL CONDITIONS FOR  
DEPARTMENT OF THE ARMY  
PROGRAMMATIC GENERAL PERMIT  
NO. NAE-2009-00949**

The US Fish & Wildlife Service and National Marine Fisheries Service ("Services") have proposed designating critical habitat and expanding the current Gulf of Maine Distinct Population Segment for Atlantic salmon under the Federal Endangered Species Act. This project area falls within the proposed listing area. In the event that critical habitat is designated and/or the DPS is expanded and construction on this project has not begun or is not completed, no further work shall be performed until consultation has been completed pursuant to Section 7 of the Endangered Species Act. In anticipation of the Services' actions, the Corps requires the permittee to comply with the following special conditions:

1. The permittee shall implement Maine DOT Best Management Practices ("BMPs") for Erosion and Sedimentation Control for all work authorized by this permit.
2. All work authorized by this permit shall be designed in accordance with Maine DOT's 2008 Waterway and Wildlife Crossing Policy and Design Guide.
3. Instream work shall be performed between July 15 and September 30 in accordance with the attached Biological Assessment ("BA").
4. Any cofferdam constructed as part of the authorized project shall adhere to the specifications contained in Section 3.1 (Coffer Dam Descriptions) of the attached BA.
5. Any culvert installations authorized by this permit must adhere to the specifications contained in Section 3.1.2 (Replacement Projects) of the attached BA.
6. If any listed shortnose sturgeon or Atlantic salmon are encountered in the project areas of this permit, including during dewatering of cofferdams, all work must cease and NMFS shall be contacted immediately.
7. Within 90 days of permit issuance, the permittee must develop fish passage monitoring plans in consultation with NMFS, USFWS, and the Corps for any stream crossings requiring the installation of invert or slip-lined culverts. Instream work shall not begin on these projects until the monitoring plans have been approved by the Services and the Corps.
8. This authorization requires you to 1) notify us before beginning work so we may inspect the project, and 2) submit a Compliance Certification Form. You must complete and return the enclosed Work Start Notification Form(s) to this office at least two weeks before the anticipated starting date. You must complete and return the enclosed 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).
9. The permittee shall assure that a copy of this permit is at the work site whenever work is being performed and that all personnel performing work at the site of the work authorized by this permit are fully aware of the terms and conditions of the permit. This permit, including its drawings and any appendices and other attachments, shall be made a part of any and all contracts and sub-contracts for work which affects areas of Corps of Engineers' jurisdiction at the site of the work authorized by this permit. This shall be done by including the entire permit in the specifications for the work. If the permit is issued after construction specifications but before receipt of bids or quotes, the entire permit shall be included as an addendum to the specifications. The term "entire permit" includes permit amendments. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions of the entire permit, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps of Engineers jurisdiction.
10. All areas of temporary waterway or wetland fill will be restored to their original contour and character upon completion of the project.
11. Adequate sedimentation and erosion control devices, such as geotextile silt fences or other devices capable of filtering the fines involved, shall be installed and properly maintained to minimize impacts during construction. These devices must be removed upon completion of work and stabilization of disturbed areas. The sediment collected by these devices must also be removed and placed upland, in a manner that will prevent its later erosion and transport to a waterway or wetland.
12. All exposed soils resulting from the construction will be promptly seeded and mulched in order to achieve vegetative stabilization.



|                                                                                                                          |                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <p>Date: 1/25/08<br/>         Road Names: Route 139<br/>         Town(s): Brooks<br/>         1 inch equals 545 feet</p> | <p>Location: 043 36'13"N 070 35'0"W<br/>         Project ID: 14309.00<br/>         Project Manager: N/A<br/>         Page 1 of 1</p> |
|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|

*Brooks East*      *44.5525123*  
*69.1253139*



**Biological Assessment of Various Maine Department of Transportation Projects**

**Prepared by the MDOT for the ACOE**

## TABLE OF CONTENTS

|       |                                                                  |    |
|-------|------------------------------------------------------------------|----|
| 1.0   | Introduction .....                                               | 1  |
| 1.1   | Schedule of Interagency Discussion and Coordination .....        | 1  |
| 1.2   | Proposed Actions .....                                           | 2  |
| 1.3   | MaineDOT's Best Management Practices .....                       | 3  |
| 1.4   | MaineDOT Fish Policy & Design Guide .....                        | 4  |
| 1.5   | Proposed Instream Work Windows .....                             | 4  |
| 2.0   | Project Matrix .....                                             | 4  |
| 2.1   | Matrix of Projects Batched by Work Scope .....                   | 5  |
| 2.2   | Matrix of PCE Impacts .....                                      | 5  |
| 3.0   | Project Descriptions .....                                       | 8  |
| 3.1   | Coffer Dam Descriptions .....                                    | 8  |
| 3.1.1 | Rehabilitation Projects .....                                    | 10 |
| 3.1.2 | Replacement Projects—Culverts, Boxes, Struts (Minor Spans) ..... | 11 |
| 3.1.3 | Bridge Abutment and Bridge Pier Projects .....                   | 12 |
| 3.1.4 | Linear Projects with Multiple Crossings .....                    | 13 |
| 3.2   | MaineDOT Rehabilitation Projects .....                           | 14 |
|       | <i>Mayfield Twp</i> .....                                        | 14 |
|       | <i>Garland</i> .....                                             | 16 |
|       | <i>Waldoboro</i> .....                                           | 18 |
|       | <i>Amherst</i> .....                                             | 20 |
| 3.3   | MaineDOT Replacement Projects .....                              | 22 |
|       | <i>Canaan</i> .....                                              | 22 |
|       | <i>Lincoln</i> .....                                             | 24 |
|       | <i>Monroe</i> .....                                              | 26 |
|       | <i>Brooks</i> .....                                              | 28 |
|       | <i>Ellsworth Rail Trail</i> .....                                | 30 |
|       | <i>Auburn Rt. 136</i> .....                                      | 32 |
| 3.4   | Bridge Abutment Work (stream bank impacts only) .....            | 34 |
|       | <i>Old Town</i> .....                                            | 34 |
|       | <i>South Thomaston</i> .....                                     | 36 |
|       | <i>Lisbon (King Road)</i> .....                                  | 38 |
|       | <i>Orland</i> .....                                              | 40 |
|       | <i>Searsmont</i> .....                                           | 42 |
| 3.5   | Bridge Pier Work (with or without abutment work) .....           | 44 |
|       | <i>Topsham</i> .....                                             | 44 |
|       | <i>Carmel</i> .....                                              | 46 |
|       | <i>Sedgwick-Deer Isle</i> .....                                  | 48 |
| 3.6   | Linear Projects with Multiple Crossings .....                    | 50 |
|       | <i>Brunswick-Gardiner I-295 NB</i> .....                         | 50 |
|       | <i>Lisbon-Sabattus Route 9</i> .....                             | 53 |
|       | <i>Ellsworth Route 1A</i> .....                                  | 57 |
| 4.0   | Project Impacts .....                                            | 61 |
| 4.1   | Gulf of Maine DPS of Atlantic salmon .....                       | 61 |
|       | Designated Critical Habitat .....                                | 61 |
|       | Critical Habitat Primary Constituent Elements .....              | 61 |
| 4.4   | Summary of MaineDOT Data Collection .....                        | 63 |
| 5.0   | Summary and Conclusion .....                                     | 63 |

**List of Tables and Matrices**

Table 1. Dates of Discussions with Resource Agencies Regarding the MaineDOT Batch Consultation..... 2  
Matrix 1. Matrix of Projects Batched by Work Scope ..... 6  
Matrix 2. Matrix of Project-Specific Potential Impacts to PCEs ..... 7

**Appendices**

- Appendix 1: Location Maps and Project Photographs
- Appendix 2: Conceptual Approach for Fish Passage in Culvert Invert Liners
- Appendix 3: Conceptual Approach for Fish Passage in Culvert Slip Liners
- Appendix 4: Analysis of Downstream Habitat Impact of Culvert Liner Rehabilitations

## 1.0 Introduction

The Maine Department of Transportation (MaineDOT) is in the process of applying for a permit under the Clean Water Act (Section 404) and Rivers and Harbors Act with the ACOE to construct various transportation Projects in Maine. The proposed Projects are a direct result of proposed Federal Economic Stimulus Packages, State of Maine Bond Monies, and other funding sources, proposes to rehabilitate and/or reconstruct multiple culverts, struts, and bridges statewide in the immediate future. All of the Projects are a) within the current geographic range of the Gulf of Maine Distinct Population Segment (GOM DPS) of endangered Atlantic salmon (*Salmo salar*); b) within the geographic range of the recently proposed expanded GOM DPS; c) occur within newly proposed Atlantic salmon Critical Habitat; or d) a combination of a) – c).

The existing GOM DPS of Atlantic salmon encompasses all naturally reproducing remnant populations of Atlantic salmon from the Kennebec River downstream of the former Edwards Dam site, northward to the mouth of the St. Croix River. The proposed expanded GOM DPS geographic range is comprised of all anadromous Atlantic salmon whose freshwater range occurs in the watersheds from the Androscoggin River northward along the Maine coast to the Dennys River, including all associated conservation hatchery populations used to supplement natural populations<sup>1</sup>. In addition, on August 31, 2008, the National Marine Fisheries Service (NMFS) Northeast Region proposed designation of Critical Habitat for the GOM DPS pursuant to Section 4(b)(2) of the Endangered Species Act (ESA)<sup>2</sup>. Under the ESA, a species' critical habitat (CH) refers to the physical, chemical and biological features, or primary constituent elements (PCEs), that are essential for its survival and reproduction. Therefore, the rationale for designating CH is that particular habitats, when lost, are disproportionately limiting to populations and therefore must be prioritized for protection.<sup>3</sup> Primary Constituent Elements are further discussed in Section 4.3.

Because the MaineDOT Projects, some of which construction activities are presently underway, will not be completed prior to the date when both proposed rules (expanded GOM DPS and Critical Habitat) will be finalized, the ACOE has initiated this process under Section 7 of the ESA in order that the schedules of the Projects not be delayed and critical funding be lost.

Due to the magnitude of Projects being reviewed in this Batch Consultation, Projects of similar scopes have been combined for ease of review. Project Descriptions are located in Sections 3.2-3.6. Project Location Maps and Photographs are located in Appendix 1.

### 1.1 Schedule of Interagency Discussion and Coordination

MaineDOT staff have met with federal and state resource and regulatory agencies over the past several months in preparation of this Batch Consultation. Project scopes, schedules, and agency concerns over potential impacts to species and habitat have been discussed on several occasions prior to this submittal. Table 1.0 below lists the dates and agency attendance.

---

<sup>1</sup> National Oceanic and Atmospheric Administration website.

<http://www.nefsc.noaa.gov/salmon/pics/Factsheets/Final%20Critical%20Habitat%20pics%20and%20docs/critical%20habitat/Critical%20habitat%20for%20Atlantic%20salmon.pdf>

<sup>2</sup> National Marine Fisheries Service. Northeast Region Designation of Critical Habitat for Atlantic Salmon (*Salmo salar*) in the Gulf of Maine Distinct Population Segment Draft ESA Section 4(b)(2) Report August 2008.

<sup>3</sup> National Oceanic and Atmospheric Administration website: <http://www.nefsc.noaa.gov/salmon/finalcriticalhabitat.html>

Table 1. Dates of Discussions with Resource Agencies Regarding the MaineDOT Batch Consultation

| Date              | USFWS | NMFS | MDMR | MDIFW | MDEP | USACE | FWHA |
|-------------------|-------|------|------|-------|------|-------|------|
| July 8, 2008      | X     | X    | X    | X     | X    |       | X    |
| August 12, 2008   | X     | X    | X    |       | X    |       | X    |
| September 9, 2008 | X     |      | X    | X     | X    | X     |      |
| October 14, 2008  | X     | X    | X    | X     | X    | X     | X    |
| November 17, 2008 | X     | X    | X    | X     | X    | X     | X    |
| December 3, 2008  | X     | X    | X    |       |      | X     |      |
| December 9, 2008  | X     | X    |      | X     |      | X     | X    |
| January 13, 2009  | X     | X    | X    | X     |      |       | X    |
| January 23, 2009  | X     | X    | X    |       |      |       |      |
| January 30, 2009  | X     | X    |      |       |      |       |      |
| February 10, 2009 | X     | X    | X    | X     | X    | X     | X    |
| February 24, 2009 | X     | X    |      |       |      |       |      |
| February 27, 2009 | X     | X    | X    |       |      | X     |      |

## 1.2 Proposed Actions

The proposed actions in this Batch Consultation include Projects in the current MaineDOT permit application to the ACOE as well as Projects previously permitted by the ACOE prior to publication of the proposed rules to expand the GOM DPS and designated CH for Atlantic salmon. For Projects already permitted by ACOE and for which construction is already underway, ACOE requests conferencing for either the Proposed DPS or Proposed Critical Habitat designation. In order to facilitate the review of the 21 Projects in this Batch Consultation, the Projects have been grouped into separate categories based on general scope of work. The five categories of Project scopes are Rehabilitation Projects, Replacement Projects, Bridge Abutments Projects, Bridge Pier Projects, and Linear Projects with Multiple Crossings. Projects and associated descriptions that fall into these scopes have been color-coded to further aid in the review of this Batch Consultation. Descriptions of each category are as follows:

### *Rehabilitation Projects*

The structures in this group have been proposed to be rehabilitated to extend their useful lives. For purposes of this Consultation the structures in this group are considered to be either culverts (including corrugated metal pipes (CMPs), reinforced concrete pipes (RCPs), large multiplate (large sections, or plates, of a culvert which get bolted together) structures of varying diameters, or concrete boxes (with closed bottoms). Rehabilitation of these structures includes invertlining (with or without the addition of weirs for fish passage); sliplining (with or without the addition of weirs for fish passage); and culvert end resetting, extensions, or replacements (inlet, outlet, or both). General design and construction considerations for rehabilitation Projects are described below in Section 3.2.

### *Replacement Projects*

The structures in this group have been proposed to be replaced. For purposes of this Informal Consultation, the structures in this group are considered to be either culverts (including corrugated metal pipes (CMPs), reinforced concrete pipes (RCPs), or large multiplate structures of varying diameters), concrete boxes (with closed bottoms), or three-sided concrete boxes with open or natural bottoms. General design and construction considerations for replacement Projects are described below in Section 3.3.

### *Bridge Abutment Projects*

The structures in this group consist of bridges, single or multiple spans, but whose scope of instream work consists only of work on or immediately around the existing abutments and adjacent shoreline. A typical scope of work for a Project in this group consists of instream work limited to the placement of a coffer dam around the abutment, or each abutment; however, no mid-channel work away from the shoreline immediately will occur for Projects in this group (i.e. no pier work). In addition, the scope of work may also include the installation of rip rap around the abutments for scour protection. General design and construction considerations for Bridge Abutment Projects are described below in Section 3.4.

### *Bridge Pier Projects*

The structures in this group consist of multiple span bridges that involve mid-channel work on pier(s). Projects in this group may also involve instream work on or immediately around the existing abutments and adjacent shorelines. General design and construction considerations for Bridge Pier Projects are described below in Section 3.5.

### *Linear Projects with Multiple Crossings*

Linear Projects involve highway construction activities that include multiple stream crossings. The number, types, and work scope of structures within each Linear Project varies; however, the structures under the Project Description for each Linear Project are the same as described in the scopes listed above in this section. Only potential impacts to Atlantic salmon or Critical Habitat are discussed in this Batch Consultation (i.e. impacts to other natural resource, such as wetlands, for example, are not discussed unless these impacts also impact the species or its habitat). General design and construction considerations for Linear Projects with Multiple Crossings are described below in Section 3.6.

The Projects, grouped by scope, are listed in Matrix 1 in Section 2.0 below, and are described individually in Sections 3.2 through 3.6.

### **1.3 *MaineDOT's Best Management Practices***

All MaineDOT construction Project contracts, including those for this Batch Consultation, are required to be in accordance to the most recent version of the DOT Standard Specifications and Section 656 – *Temporary Soil Erosion and Water Pollution Control* requires contractors to prepare and submit a Soil Erosion and Water Pollution Control Plan (SEWPCP) that is approved by the Department and fully enforced as a contractual agreement. This SEWPCP is prepared and performed in accordance with the most recent version of the MaineDOT Best Management Practices for Erosion and Sedimentation Control (BMP Manual). Section IID *Guidance for Sensitive Water Bodies* of the BMP Manual specifies under what conditions a Project will be designated as a Sensitive Project. Criteria include; state or federal designation of the water bodies, Project scope of work, proximity of the Project to the water body, etc. All Projects on Atlantic salmon rivers are Sensitive Projects. A representative of the MaineDOT Surface Water Quality Unit is assigned to all construction Projects and will evaluate each Project and provide a contract Special Provision to specify what additional requirements need to be addressed in the SEWPCP and compliance with the Contract is contingent on the Contractor implementing the SEWPCP in full.

## 1.4 *MaineDOT Fish Policy & Design Guide*

All of the Projects in this Batch Consultation have been designed to pass appropriate life stages of Atlantic salmon according to MaineDOT's 2008 Waterway and Wildlife Crossing Policy and Design Guide, 3rd edition. This document has been developed by MaineDOT in cooperation with several State and Federal resource and regulatory agencies. Through implementation of this policy and design guide, MaineDOT continues to support its goal of developing effective ways to build, repair and maintain the transportation infrastructure, while protecting important aquatic and surface water resources. The complete document can be found online at:

[http://www.maine.gov/mdot/environmental-office-homepage/other\\_environmental.php](http://www.maine.gov/mdot/environmental-office-homepage/other_environmental.php)

## 1.5 *Proposed Instream Work Windows*

Due to the number and nature of the Projects in this Batch Consultation, and the limited number of contractors in Maine qualified to work on these Projects, MaineDOT is proposing three distinct work windows, depending on the location of the Project, in order to complete these Projects and not jeopardize critical funding. While all of the Projects in this Batch Consultation occur within the existing GOM DPS, the proposed GOM DPS, or within the proposed Critical Habitat (or some combination of the three), Atlantic salmon do not occur, or may only be seasonally present, within the action area of these Projects; therefore, the potential for impact is to the Critical Habitat and not the species itself. Those Projects in which Atlantic salmon do occur within the action area of the Project are being addressed in a separate Batch Consultation with USFWS under separate ACOE permitting actions.

The three work windows being proposed are detailed below:

### *Standard Instream Work Window*

MaineDOT is proposing a Standard instream work window for some Projects due to the possible seasonal presence of Atlantic salmon within or near the action areas. Depending on the location of the Project the proposed Standard work window will *either* be the standard Atlantic salmon summertime work window of July 15 to September 30 (freshwater) *or* the standard wintertime marine or estuarine work window of November 8 to April 9, which is generally a suitable work window for shortnose sturgeon.

### *Modified Instream Work Window*

MaineDOT is proposing a Modified instream work window for some Projects due to the possible seasonal presence of Atlantic salmon within or near the action areas. The windows are variants of the existing summer and/or winter work windows that were determined in consultation with USFWS and NOAA-Fisheries for Atlantic salmon as well as shortnose sturgeon.

### *Open Instream Work Window*

MaineDOT is proposing an open, year-round instream work window for most of the Projects in this Batch Consultation. Atlantic salmon do not presently occur within the action area of these Projects.

## 2.0 **Project Matrix**

Due to the number of individual Projects, color-coded matrixes have been developed to facilitate review of this Batch Consultation. As described in Section 1.2, Projects have been grouped into five categories based on similar scopes. Descriptions of each category are located in Section 1.2.

## **2.1 *Matrix of Projects Batched by Work Scope***

The Projects in this Batch Consultation are categorized by scope in Matrix 1. Individual Project descriptions are located in Sections 3.2 through 3.6 below.

## **2.2 *Matrix of PCE Impacts***

Individual Project Intersections with Critical Habitat Primary Constituent Elements are listed in Matrix 2. Potential impacts to Critical Habitat PCEs are described for individual Projects and are located in Sections 3.2 through 3.6 below. Atlantic salmon Critical Habitat Primary Constituent Elements are summarized below in Section 4.3.

Matrix I. Matrix of Projects Batched by Work Scope

| No.                                                              | Project                     | Bridge # | PIN/PSN | Atlantic Salmon |          |         | Atlantic salmon   |                                          | Watershed                               | Work Window      |
|------------------------------------------------------------------|-----------------------------|----------|---------|-----------------|----------|---------|-------------------|------------------------------------------|-----------------------------------------|------------------|
|                                                                  |                             |          |         | Ex. DPS         | Prop DPS | Prop CH | Present?          | Stream/River                             |                                         |                  |
| <u>Rehabilitation (with/without external weirs)</u>              |                             |          |         |                 |          |         |                   |                                          |                                         |                  |
| 1                                                                | Mayfield T                  | 2525     | 16715   | X               | X        | X       | No                | Bigelow Brook                            | Piscataquis River                       | Open             |
| 2                                                                | Garland                     | 836      | 41734   | X               | X        | X       | No                | Meadow Brook                             | Kenduskeag Stream                       | Open             |
| 3                                                                | Waldoboro                   | N/A      | 12824   | X               | X        | X       | No                | Farnsworth Brook<br>W. Br. Halfmile Pond | Medomak River                           | Open             |
| 4                                                                | Amherst                     | 6247     | 15642   | X               | X        | X       | No                | Brook                                    | Union River                             | Open             |
| <u>Replacement (culvert, multiplate, box, strut)</u>             |                             |          |         |                 |          |         |                   |                                          |                                         |                  |
| 5                                                                | Canaan                      | 3496     | 16692   | X               | X        | X       | No                | Haskell Brook                            | Carrabassett Stream                     | Open             |
| 6                                                                | Lincoln                     | 2170     | 16712   | X               | X        | X       | No                | Comblassie Stream                        | Penobscot River                         | Open             |
| 7                                                                | Monroe                      | 2775     | 16717   | X               | X        | X       | No                | Works Brook                              | Marsh River                             | Open             |
| 8                                                                | Brooks                      | N/A      | 14309   | X               | X        | X       | possible/seasonal | unnamed stream                           | Marsh Stream                            | Standard         |
| 9                                                                | Ellsworth, Rail trail       | N/A      | 9636    | X               | X        | X       | No                | Davis Brook                              | Union River                             | Open             |
| 10                                                               | Auburn Rt. 136              | N/A      | 16637   | X               | X        | X       | seasonal          | unnamed stream                           | Androscoggin River                      | Standard         |
| <u>Bridge abutment work on stream banks--no in-channel piers</u> |                             |          |         |                 |          |         |                   |                                          |                                         |                  |
| 11                                                               | Old Town                    | 2405     | 11043   | X               | X        | X       | possible/seasonal | Pushaw Stream                            | Penobscot River                         | Standard         |
| 12                                                               | S. Thomaston                | 5578     | 16745   | X               | X        | X       | possible/seasonal | N/A                                      | Atlantic Ocean                          | Standard         |
| 13                                                               | Lisbon                      | 3976     | 15100   | X               | X        | X       | No                | Sabattus Stream                          | Androscoggin River                      | Open             |
| 14                                                               | Orland                      | 2632     | 15103   | X               | X        | X       | possible/seasonal | Orland River                             | Penobscot River                         | Standard         |
| 15                                                               | Searsmont*                  | 2555     | 12637   | X               | X        | X       | No                | St. George River                         | St. George River                        | Open             |
| <u>Bridge Pier(s) work with/without associated abutment work</u> |                             |          |         |                 |          |         |                   |                                          |                                         |                  |
| 16                                                               | Topsham                     | 3825     | 16756   | X               | X        | X       | possible/seasonal | Muddy River                              | Merrymeeting Bay<br>Souadabscook Stream | Standard<br>Open |
| 17                                                               | Carmel                      | 5102     | 15092   | X               | X        | X       | No                | Black Stream                             | Atlantic Ocean                          | Standard         |
| 18                                                               | Sedgwick-Deer Isle          | 3257     | 16696   | X               | X        | X       | possible/seasonal | Eggemoggin Reach                         | Atlantic Ocean                          | Standard         |
| <u>Linear Project with multiple crossings</u>                    |                             |          |         |                 |          |         |                   |                                          |                                         |                  |
| 19                                                               | Gardiner-Brunswick I-295NB* |          | 15114   | X               | X        | X       | No                | several                                  | multiple                                | Modified         |
| 20                                                               | Lisbon-Sabattus             |          | 10017   | X               | X        | X       | No                | several                                  | Sabattus River                          | Open             |
| 21                                                               | Ellsworth, Rt. 1A           |          | 10007   | X               | X        | X       | No                | several                                  | Union River                             | Open             |

\* Due to length and scope, this Project spans both the Existing DPS and Proposed DPS



### 3.0 Project Descriptions

The five categories of Project scopes are Rehabilitation Projects, Replacement Projects, Bridge Abutments Projects, Bridge Pier Projects, and Linear Projects with Multiple Crossings. Project specific details are provided in Sections 3.2-3.6.

In addition to the specific details, some scopes may involve the relocation of existing dry hydrants within the Project Area. This process involves the removal of the approximately 4" diameter intake pipe and resetting them within the Project Area. Based on water depth, this pipe may be laying on top of the substrate; however, if the water is too shallow the intake pipe may be embedded. In all cases, the impacts to any PCEs, both migratory and spawning/rearing, will be done within the confines of cofferdams and will be temporary.

Finally most, if not all, of these Projects will utilize cofferdams to allow the proposed work to occur in the "dry" to minimize adverse effects to the aquatic environment. However, the instream work associated with the installation, dewatering, and removal of cofferdams, regardless of the Project scope, are described below.

#### 3.1 Cofferd Dam Descriptions

While the Projects in this Batch Consultation vary by scope, the same conceptual construction guidelines for the installation of cofferdams are employed. Individual details, including timing, materials, duration, etc, will be Project specific depending on the scopes descriptions which are detailed in Sections 3.1.1 – 3.1.6 below.

##### *Overview*

The initial step in instream work is to dewater the work area so that all instream work is conducted in the dry. This will be done by 1) setting up cofferdams both upstream and downstream to prevent water from leaking into the work area. 2) Dewatering the work area and, 3) Diverting the existing stream flow out of the bank using suction hoses. All intake hoses will be screened with woven wire mesh not to exceed 2.38 mm (3/32")<sup>5</sup> in the narrow direction to prevent entrainment of juvenile Atlantic salmon.

##### *Cofferdam Placement*

Cofferdams (sandbags, industrial sandbags, inflatable cofferdams, sheet pile, etc) will be placed to keep water out of the work area by blocking flow both upstream and downstream. This has the added benefit of keeping all sediment released by construction in the dry work area where it can be removed before stream flow is restored.

- a. The upstream cofferdam will be installed first. Heavy duty plastic sheeting is laid along the width of the stream when practicable. The sand bags are then placed on the plastic up to a height somewhat higher than the current level of the stream, working from the stream bank to the center.
- b. The excess plastic will then be folded over the dam in the upstream direction and another layer of sand bags will be laid on the plastic to help seal the dam from infiltration. The plastic will be extended along the stream bottom as far upstream as practicable.
- c. The downstream cofferdam will then be installed. This second dam is a safeguard against a failure of the upstream dam. Most cofferdams leak somewhat, so a pump is placed within the

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<sup>5</sup> National Marine Fisheries Service, 1995. Screen criteria-juvenile fish. Environmental & Technical Services Division Portland, Oregon

work area to catch accumulating water, which is then pumped into the “Dirty water” Treatment System

### *Pump Diversion*

- a. The stream will now need to be diverted around the work area. Prior to in-stream work, a diversion culvert will be placed under the road away from the stream to run a diversion hose. This protects the hose during the construction activities. Another common way of doing this is running the hose over the road and blocking up around it with wood to protect it from traffic.
- b. The intake hose will be placed at the upstream end of the culvert, just upstream of the cofferdam. In order to minimize impact on the streambed the hose end will be placed in a bucket and/or the stream bottom will be lined with geotextile.
- c. The gasoline diversion pumps will then be setup as far away from the stream as possible. The number and size of pumps used varies depending on the water level present when the work is being conducted. If there are high flow volumes in the stream channel at the time of construction 3-inch diversion pumps will be able to maintain consistent diversion of flow from upstream to downstream of the Project area. However, if low flow conditions are present, as expected, water may need to be allowed to backup at the upstream end to allow for sufficient volumes to run the pumps. When enough water has pooled upstream of the cofferdam, the pumps will be activated for a few minutes to drain the pool, and then switched off. This cycle will cause minimal fluctuating stream flow downstream of the Project area. To minimize this effect, a smaller 1.5-inch pump will be used, which will be able to pump more consistently than the 3-inch pump at lower flow volumes. There will still be cycles when pumping with the smaller pump, but the intervals between will be shorter.
- d. Non-woven geotextile fabric will be laid along the streambed to protect the stream from scour caused by the high water velocity coming from the hose(s) at the downstream end.

### *Install “Dirty Water” Treatment System*

After the cofferdams and water diversion pumps have diverted the stream around the work area, it will be necessary to dewater the work area itself. This water will be pumped into a sediment basin for filtration.

- a. The system will be installed according to MaineDOT’s BMP Manual
- b. The basin will either be comprised of hay bales or “dirt bags”. Sometimes erosion control fabric is placed under the hay bale filter to catch sediment. These sediments will be disposed of away from the stream in a manner that they cannot erode back into the stream.
- c. The basin will be placed on the most suitable side of the culvert that contains a suitable vegetative buffer strip for filtration, if available.
- d. Pumping
  - i. Hoses will be setup between the treatment basin and the downstream outlet scour pool within the work area.
  - ii. The “dirty water” pump(s) will then be started in the downstream scour pool
  - iii. As the pool is dewatering any stranded aquatic organisms will be caught and transferred to the downstream channel by a MaineDOT fisheries biologist.
- e. The work area will then be pumped dry.
- f. If there is leakage around the cofferdam, or upwelling in the work area, pockets will be excavated in the work area to collect the water. This water will be pumped into the “dirty water” system for treatment, prior to its release back into the stream.

### 3.1.1 Rehabilitation Projects

Culvert rehabilitation Projects occur within cofferdams that have been dewatered (Section 3.1 above).

The following information is a summary of reports prepared by Dr. Charles S. Hebson, Chief Hydrologist of MaineDOT. For the complete analyses of fish passage in culvert slipline and invertline Projects refer to Appendices 2 and 3.

#### *Slipline*

Rehabilitation of CMP culverts by slip lining entails inserting (or “slipping”) a new, slightly smaller diameter pipe through the existing pipe that is to be rehabilitated. The liner pipe is usually made of plastic. The annular space between the old and new pipe is grouted. Typical wall thickness of the new pipe is about 2-in; the grout annulus is between 3-in and 5-in. This directly raises the culvert invert by 5-in to 8-in and may therefore reduce the flow depth to the point where fish cannot pass. If the culvert outlet is already perched, lining has the effect of further raising the perch by 5-in to 8-in.

Generally, when water in the original pipe is at least 12-in to 15-in deep on the outlet invert and through the pipe (16-in to 19-in for passage of adult salmon), no extra measures are required. When this minimum depth condition is not met, some type of grade control is typically required, often a combination external and internal weirs. The need for internal weirs is driven primarily by the pipe slope and raised invert; the need for external weirs is driven by the perch/depth at the new outlet.

#### *Invertline*

Rehabilitation of culverts by invertlining entails pouring a 5”-thick concrete liner along the (approximate) bottom third to half of the culvert. This directly raises the culvert invert by 5” and may therefore reduce the flow depth to the point where fish cannot pass. If the culvert outlet is already perched, lining has the effect of further raising the perch by 5”.

Generally, when water is at least 12” deep on the outlet invert and through the pipe (16” for passage of adult salmon), no extra measures are required. When this minimum depth condition is not met, some type of grade control is typically required, often a combination external and internal weirs. The need for internal weirs is driven primarily by the pipe slope; the need for external weirs is driven by the perch/depth at the new inlet.

From a hydraulics perspective, fish passage challenges posed by concrete invert liners and plastic slip liners are nearly identical. They both result in a smooth bore (nominal Manning’s  $n = 0.012$ ) and can pose grade problems. These factors may translate into problems of shallow depth and excessive flow velocity.

#### *Weir Construction*

External weirs may be required if the existing or new outlet drop is excessive and outlet flow depth is inadequate. True external weirs can be built beyond the pipe outlet in order to back water into the culvert. They can be constructed of natural materials or engineered materials such as Jersey barriers. Alternatively, in the case of small drops, the outlet push bar can be raised to achieve the same effect.

Right-of-way restrictions or natural configuration may prevent the use of external weirs. In that case, weirs can be built in the pipe outlet (typically, in the open portion of a mitered outlet) by cutting out the pipe bottom. The fish can then be “stepped up” into the pipe through a sequence of closely spaced weirs.

Current MaineDOT practice is to build the weirs in two phases. As part of liner construction, the concrete weir is built 16" high (at centerline) with an oversized, 24" – 36" wide, full depth notch; the weir is 12" thick in the direction of flow. A notched plastic weir plate is bolted on the upstream face of the concrete weir. The notch is sized in the field at appropriate flow conditions.

### ***Potential Downstream Impacts from Culvert Rehabilitation***

As part of the batch permitting of bridge and culvert Projects, the question of impact of culvert liners on habitat has been raised. Slip liners reduce the effective pipe diameter by about 12 inches; invert liners reduce the pipe radius by about 6 inches over the lower half of the pipe. Both new surfaces are smoother than corrugated metal pipe (Manning's roughness  $n = 0.012$  vs.  $0.024$ ). The possibility has been raised that liners may significantly increase flow velocity, due to the smoother pipe surface and reduced flow area. The principal impact of a velocity increase might be increased scour immediately downstream of the pipe and subsequent deposition somewhat farther downstream once the energy has been dissipated. Culvert hydraulic calculations suggest that any effect is likely to be minor. Furthermore, any adjustments will be a one-time event as the watershed, culvert, and channel establish a new equilibrium. For complete analysis of effects from lining Projects refer to Appendices 3 and 4.

### ***Culvert Extensions and Resetting Culvert Ends***

Once cofferdams are installed, pumps are running and the work area is dewatered, the culvert extension or culvert end resetting process can commence. At this point, the crews are working in the dry and there is no sediment release into the stream. All pumps, hoses, dams, and the sediment basins are monitored closely and maintained throughout construction.

The fill over the culvert end(s) is excavated so that the end(s) can be temporarily removed to allow final grade work around the pipe to allow the end to be reset back in its original location. This typically includes adding a small rip rap apron that the downstream end of the culvert can sit on. Once final grading is complete the pipe end will be placed back onto the culvert. The site is then backfilled and slopes rip-rapped, and finally the cofferdams are removed.

### **3.1.2 Replacement Projects—Culverts, Boxes, Struts (Minor Spans)**

The following is a general description of the activities associated with the replacement of culverts and similar structures. For purposes of this Batch Consultation, Projects in this scope may include culverts (metal, concrete, or plastic), concrete or stone boxes, or struts (minor spans).

#### ***Culvert Installation***

- a. Once cofferdams are installed, pumps are running and the work area is dewatered the culvert replacement can commence. At this point, the crews are working in the dry and there is no sediment release into the stream. All pumps, hoses, dams, and the sediment basin are monitored closely and maintained throughout construction.
- b. The old structure will be removed and the new one replaced in the dry.
- c. Rip rap will be placed on the slope around the culvert. The rip rap will start near the end of the pipe and will be installed vertically up to the level of the shoulder.

- d. When the culvert and rip rap installation is complete, all headwalls, disturbed areas, and permanent drainage ditches are stabilized with final treatments, utilizing temporary erosion control BMPs as necessary.

#### *Closeout Procedures*

- a. The upstream “dirty water” pump will then be removed.
- b. The diversion pump system will be stopped and the upstream coffer dam will slowly be breached. The first flush of dirty water will be captured by the downstream “dirty water” pump, which will then pump the water into the sediment treatment system
- c. When the water behind the remaining intact cofferdam is clean, that dam will be breached as well.
- d. The remainder of the upstream cofferdam and the diversion pump system will then be removed
- e. All disturbed areas will be stabilized, and all temporary erosion control BMPs will be installed

### **3.1.3 Bridge Abutment and Bridge Pier Projects**

The following section describes the general process that will be undertaken to construct the new bridges. The following equipment, typical of most construction activities, may be utilized during the construction of the temporary and new bridges: large excavator (backhoe); crane; barge (as a working platform); dump trucks; hoe rams, sheet pile drivers, jack hammers and rock drills; air compressors; welders and cutting torches.

#### *Removal of the Existing Bridges*

The existing superstructure of the bridges will be removed using cranes and cutting tools for concrete and steel. Depending on the location of the Project, a barge may be used for erecting superstructure bridge components. Some de-leading with shrouded power tools may be necessary to contain any lead waste. A hoe ram (attached to an excavator) may be necessary to pulverize concrete, and a large excavator or possibly a clamshell on a crane will likely be used for the removal of the existing abutments. Excavators will remove the material behind the abutments to the extent necessary to remove the abutments.

The contractor shall install cofferdams as necessary or work with the tides in the dry condition while removing abutments and piers. Refer to Section 3.1 for description of cofferdam activities.

#### *Construction of the New Bridge Structures and Road Approaches*

Prior to construction of any new abutments or bridge piers, the contractor will install cofferdams as necessary. Ledge or other substrate is typically cleaned and prepared by an excavator or crane with a clamshell, and using hand tools and high pressure water contained and filtered through a sediment detention basin before going back into the waterbody. The concrete will then start to be placed inside cofferdams and forms. Abutments and piers will be constructed up to grade. Reinforcing steel will be placed and forms will be built. Where the concrete trucks cannot get close enough to place the concrete directly, concrete will be placed using a concrete bucket attached to a crane.

While the abutments and pier are being built, any wing walls and retaining walls will also be constructed. These will be built using the cofferdams or by doing work in the dry at low water when possible. In some areas the construction of the retaining wall will start on ledge, while in other areas they will start on fill.

If precast walls are utilized, they will be set by crane and backfilled with gravel or stone, using a bulldozer, which will then be compacted by a walk-behind vibratory compactor and brought up to grade. Typically some riprap will be placed in front of the retaining structures as scour protection.

The existing roadways will then be removed and rebuilt essentially the same grade as necessary. This will be accomplished by removing the pavement to subgrade or below as necessary. A geotextile or stone choker layer will be installed, followed by placing the gravel base material which compacted to necessary density using dump trucks, backhoes, bulldozers and graders. Pavement will be installed after the construction of the bridge decking. No instream work will be necessary during this process.

#### **3.1.4 Linear Projects with Multiple Crossings**

Linear Projects are highway reconstruction Projects which involve several stream crossings of various scopes. The potential impacts to Atlantic salmon or Proposed Critical Habitat would result from the actual in-water culvert work. All of the scopes are addressed in Sections 3.1.1 – 3.1.3 above.

**Brooks**

PIN: 14309

Bridge #: N/A

Town(s): Brooks

Road: Route 139

Stream/River: unnamed tributary to Marsh Stream

Major Watershed: Marsh Stream/Penobscot River

Scope Group: Replacement—box culvert

Species/Habitat: The Project location is within the Existing DPS and Proposed Critical Habitat

In water work window: Standard--July 15 to September 30

DeLorme Map 22, E-3

**Action Area Description**

Upstream cover type:  forested  grassy/agricultural Describe: urban/residential/forested

Downstream cover type:  urban/residential Describe: maintained lawn, no riparian cover

% Gradient upstream:  >3 % Gradient downstream:  >3

Bankfull width upstream: ~2-3 ft Bankfull width downstream: ~4-5 ft

Observed stream conditions/alterations: stream appears natural

Upstream bed:  boulder  cobble

Downstream bed:  boulder  cobble

Embedded invert:  yes Inlet lifted?  no

Outlet hanging?  no

Depth of water in scour pool: n/a

Is existing structure passable to fish?  yes

Other observations: degraded; stream channel is over-widened and shallow with slumping banks

**Project Description**

The existing structure is an approximately 4' x 30' concrete box culvert that will be replaced with a 6' x 54' open bottom box. Cofferdams, likely sandbags, will be established approximately 10 feet upstream and downstream of the box location. The stream water will be diverted around the work area through pump discharge hoses. Since the work area is devoid of trees and brush, no clearing will be required. Instream construction (cofferdam installation and removal) will be during periods of low flow throughout the Standard work window. The cofferdam installation period will take approximately 1 week; the cofferdam removal period will take approximately 1 to 2 days.

**Predicted Impacts--Critical Habitat**

| PCEs in Action Area |    |    |    |    |    |    |    |    |    |    |    |    |  |
|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|--|
| A1                  | A2 | A3 | A4 | A5 | A6 | A7 | B1 | B2 | B3 | B4 | B5 | B6 |  |
|                     |    | D* | D  | D  | D  | D  |    |    |    |    |    |    |  |

\* Downstream

Due to stream channel degradation, the habitat in the work area does not provide the adequate structure, depth, and diversity necessary for Atlantic salmon rearing habitat. However, the potential for impacts from construction activities, namely sediment discharge, to possible rearing and migratory habitat in Marsh Stream located approximately 1/4 mile downstream is remote but nonetheless possible. However, based on the stream characteristics of this unnamed stream, namely gradient, width, and shallow depth, as well as

distance from the Project to the confluence of Marsh Stream, any impacts from sediment discharge, noise, or minor stream fluctuations from Project activities into possible rearing and migratory habitat in Marsh Stream would be temporary and insignificant compared to the overall migratory habitat available in Marsh Stream. Because no PCEs are present in the Project Area, there will be no permanent impacts to Critical Habitat.

#### **Predicted Impacts—Atlantic Salmon**

According to MDMR, Atlantic salmon may be seasonally present in Marsh Stream, although Atlantic salmon are not expected to be in the unnamed tributary due to the lack of suitable habitat. As a result all instream work will occur during the Standard window of July 15 to September 30. The use of proper BMPs and a summer-time work window will serve to preclude adverse effects in Marsh Stream. Therefore, there will be no significant adverse impacts to the species as a result of Project activities.

#### **Predicted Impacts—Shortnose Sturgeon**

Shortnose sturgeon are not present in this unnamed tributary to Marsh Stream. Therefore, there will be no impacts to the species as a result of Project activities.

#### **Determination**

Given the impacts to the Proposed Critical Habitat are temporary, the ACOE has made a preliminary determination of Not Likely to Adversely Affect for the proposed Critical Habitat and Not Likely to Adversely Affect for the Proposed GOM DPS due to Project activities. No effects to shortnose sturgeon are expected to occur as a result of this proposed project.

## 4.0 Project Impacts

Potential impacts to the species and Critical Habitat are described below.

### 4.1 Gulf of Maine DPS of Atlantic salmon

The Existing GOM DPS of Atlantic salmon encompasses all naturally reproducing remnant populations of Atlantic salmon from the Kennebec River downstream of the former Edwards Dam site, northward to the mouth of the St. Croix River. The proposed Expanded GOM DPS Geographic Range is comprised of all anadromous Atlantic salmon whose freshwater range occurs in the watersheds from the Androscoggin River northward along the Maine coast to the Dennys River, including all associated conservation hatchery populations used to supplement natural populations<sup>8</sup>.

#### *Designated Critical Habitat*

On August 31, 2008, the National Marine Fisheries Service Northeast Region (NMFS) proposed designation of Critical Habitat for the GOM DPS pursuant to Section 4(b)(2) of the Endangered Species Act (ESA)<sup>9</sup>. Under the ESA, a species' critical habitat (CH) refers to the physical, chemical and biological features, or primary constituent elements (PCEs), that are essential for its survival and reproduction. Therefore, the rationale for designating CH is that particular habitats, when lost, are disproportionately limiting to populations and therefore must be prioritized for protection.

#### *Critical Habitat Primary Constituent Elements*

Any proposed action funded, authorized, or carried out by a Federal agency must not destroy or adversely modify the essential habitat features of the critical habitat<sup>10</sup>. Two essential habitat features, or Primary Constituent Elements (PCEs), were identified by NMFS in the September 5, 2008 proposed rule including two general categories: A) Spawning and Rearing PCEs and B) Migratory PCEs. A breakdown of the Physical and Biological Features of both Spawning and Rearing and Migratory PCEs summarized below:

#### A). Physical and Biological Features of the Spawning and Rearing PCE

1. Deep, oxygenated pools and cover (e.g., boulders, woody debris, vegetation, etc.), near freshwater spawning sites, necessary to support adult migrants during the summer while they await spawning in the fall. Adult salmon can arrive at spawning grounds several months in advance of spawning activity.
2. Freshwater spawning sites that contain clean, permeable gravel and cobble substrate with oxygenated water and cool water temperatures to support spawning activity, egg incubation, and larval development.
3. Freshwater spawning and rearing sites with clean, permeable gravel and cobble substrate with oxygenated water and cool water temperatures to support emergence, territorial development and feeding activities of Atlantic salmon fry.
4. Freshwater rearing sites with space to accommodate growth and survival of Atlantic salmon parr.

<sup>8</sup> National Oceanic and Atmospheric Administration website.

<http://www.nefsc.noaa.gov/salmon/pic's/Factsheets/Final%20Critical%20Habitat%20pics%20and%20docs/critical%20habitat/Critical%20habitat%20for%20Atlantic%20salmon.pdf>

<sup>9</sup> National Marine Fisheries Service. Northeast Region Designation of Critical Habitat for Atlantic Salmon (*Salmo salar*) in the Gulf of Maine Distinct Population Segment Draft ESA Section 4(b)(2) Report August 2008.

<sup>10</sup> Ibid.

5. Freshwater rearing sites with a combination of river, stream, and lake habitats that accommodate parr's ability to occupy many niches and maximize parr production.
6. Freshwater rearing sites with cool, oxygenated water to support growth and survival of Atlantic salmon parr.
7. Freshwater rearing sites with diverse food resources to support growth and survival of Atlantic salmon parr.

(B). Physical and Biological Features of the Migration PCE

1. Freshwater and estuary migratory sites free from physical and biological barriers that delay or prevent access of adult salmon seeking spawning grounds needed to support recovered populations.
2. Freshwater and estuary migration sites with pool, lake, and instream habitat that provide cool, oxygenated water and cover items (e.g., boulders, woody debris, and vegetation) to serve as temporary holding and resting areas during upstream migration of adult salmon.
3. Freshwater and estuary migration sites with abundant, diverse native fish communities to serve as a protective buffer against predation. Adult Atlantic salmon and Atlantic salmon smolts interact with other diadromous species indirectly. Adult and smolt migration through the estuary often coincides with the presence of alewives (*Alosa* spp.), American shad (*Alosa sapidissima*), blueback herring (*Alosa aestivalis*), and striped bass (*Morone saxatilis*).
4. Freshwater and estuary migration sites free from physical and biological barriers that delay or prevent emigration of smolts to the marine environment. Atlantic salmon smolts require an open migration corridor from their juvenile rearing habitat to the marine environment.
5. Freshwater and estuary migration sites with sufficiently cool water temperatures and water flows that coincide with diurnal cues to stimulate smolt migration
6. Freshwater migration sites with water chemistry needed to support sea water adaptation of smolts. The effects of acidity on Atlantic salmon have been well documented.

A matrix analyzing MaineDOT Project-specific impacts on PCEs is contained in **Section 2.0**.

#### **4.2 Shortnose Sturgeon**

On March 11, 1967, shortnose sturgeon were listed as endangered throughout its range. NMFS assumed jurisdiction for shortnose sturgeon under a 1974 government reorganization plan (38 FR 41370). According to NMFS's 1998 Recovery Plan for shortnose sturgeon, a population of this federally endangered fish is recognized to exist in the Penobscot, Kennebec, Sheepscot, and Androscoggin Rivers.

#### **4.3 Impacts to Listed Atlantic salmon and Shortnose Sturgeon**

In designing the Projects contained in this Batched, Informal Consultation, MaineDOT considered whether listed shortnose sturgeon, Atlantic salmon or proposed Critical Habitat would be present in the Action Area. In doing so, MaineDOT was able to effectively minimize adverse effects to the species and proposed Critical Habitat by employing appropriate work windows, construction Best Management Practices, and minimizing any permanent loss of Critical Habitat. To that end, there are largely two scenarios for which potential impacts to listed species were considered:

1. **No Species Present but within Proposed Critical Habitat:** All Projects located within the Existing or Proposed DPS do not have Atlantic salmon present in the Project Area (due to downstream impediments or lack of recolonization). In addition, few projects had shortnose sturgeon in the Action Area. Atlantic salmon Critical Habitat impacts will either be temporary (i.e. cofferdam

activities); offset due to in-pipe stream habitat that is re-created (coarse sediment deposited within the structures); or enhanced by opening up access to previously inaccessible upstream habitat (i.e. providing passage at a structure that was an impediment). Thus, these projects will have No Effect on the species. Any impacts to proposed critical habitat such as including substrate disturbance, sedimentation, and loss of riparian vegetation is expected to be short-lived (less than several months).

2. **Species Present and within Proposed Critical Habitat:** All Projects located within the Existing or proposed DPS will have constructions activities take place during the appropriate in-water work windows at a time when neither Atlantic salmon or shortnose sturgeon are expected to be in the action area. Any impacts to proposed Atlantic salmon Critical Habitat will either be temporary (i.e. cofferdam activities); offset due to in-pipe stream habitat that is re-created (coarse sediment deposited within the structures); or enhanced for by opening up access to previously inaccessible upstream habitat (i.e. providing passage at a structure that was an impediment). Thus, although listed species could be seasonally present in the Action Area of these projects, any effects to the species or Critical Habitat is expected to be insignificant or discountable.

In both scenarios, Project Impacts will be minimized to the extent practical, including adhering to MaineDOT's 2008 Waterway and Wildlife Crossing Policy and Design Guide, 3rd edition to facilitate passage of the appropriate life stages of Atlantic salmon; following MaineDOT's Best Management Practices as outlined in the updated MaineDOT Best Management Practices for Erosion and Sedimentation Control (BMP Manual); and onsite inspections of coffer dam installation and dewatering by qualified MaineDOT Environmental staff.

#### 4.4 Summary of MaineDOT Data Collection

All of the Project locations in this Batch Consultation have been assessed by qualified MaineDOT biologists with experience in Atlantic salmon life history requirements and aquatic habitat determination, and who are familiar with MaineDOT construction practices. MaineDOT biologists utilized written descriptions of Atlantic salmon PCEs during site visits to determine whether suitable rearing or migratory habitat was within the action area of each project. In addition, throughout the data collection process for this Batch Consultation MaineDOT biologists have been in multiple discussions with Norm Dube, Atlantic salmon Biologist with the Bureau of Sea-Run Fisheries and Habitat at the Maine Department of Marine Resources, who has been instrumental in providing historical information on Atlantic salmon studies in Maine.

#### 5.0 Summary and Conclusion

##### *Impacts to Atlantic Salmon*

Based on the preceding information, the ACOE believes that a finding of either No Effect or Not Likely to Adversely Affect is warranted under Section 7 of the Endangered Species Act for the Projects within both the Existing and Proposed Atlantic salmon Gulf of Maine Distinct Population Segment.

##### *Impacts to Critical Habitat*

Based on the preceding information, the ACOE believes that a finding of either No Effect or Not Likely to Adversely Affect is warranted under Section 7 of the Endangered Species Act for the Projects located within the Proposed Critical Habitat for Atlantic salmon.

DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)

PERMIT BY RULE NOTIFICATION FORM

(For use with DEP Regulation, Chapter 305)

MDOT PIN: 14309.00 & 12717.00

Name of Applicant: State of Maine Department of Transportation Name of Contact:
Mailing Address: 16 Station State House Town/City: Augusta State: Me. Zip Code: 04330-0016
Daytime Telephone #: Name of Wetland, Water Body or Stream: un-named trib to Marsh Stream

Detailed Directions to Site: On Rt. 139 Beginning at the intersection of Rt. 7/Rt 139 and extends westerly 0.35 miles to 0.13 miles west of School St.

Town/City: Brooks Map #: N/A Lot #: N/A County:

Description of Project: Project scope is a highway project that includes full depth excavation, paving, replace and improve existing drainage system, add curb and add sidewalk with a replacement of an existing open bottom box culvert 4' x 6' x 34' with an open bottom box culvert that is 4' x 6' x 64'. The project will be performed in accordance with erosion control measures conforming with the latest versions of the State of Maine Department of Transportation Standard Specifications for Highways and Bridges and the Department of Transportation's Best Management Practices for Erosion and Sediment Control.

Part of a larger project? [ ] Yes [ ] No

(CHECK ONE) This project... [x] does [ ] does not ...involve work below mean low water.

I am filing notice of my intent to carry out work which meets the requirements for Permit By Rule (PBR) under DEP Regulation, Chapter 305. I have a copy of PBR Sections checked below. I have read and will comply with all of the standards.

- [ ] Sec. (2) Soil Disturbance [ ] Sec. (8) Shoreline stabilization [ ] Sec. (14) Piers, Wharves & Pilings
[ ] Sec. (3) Intake Pipes [ ] Sec. (9) Utility Crossing [ ] Sec. (15) Public Boat Ramps
[ ] Sec. (4) Replacement of Structures [ ] Sec. (10) Stream Crossing [ ] Sec. (16) Coastal Sand Dune Projects
[ ] Sec. (5) REPEALED [x] Sec. (11) State Transport. Facilities [ ] Sec. (17) Transfers/Permit Extension
[ ] Sec. (6) Movement of Rocks or Vegetation [ ] Sec. (12) Restoration of Natural Areas [ ] Sec. (18) Maintenance Dredging
[ ] Sec. (7) Outfall Pipes [ ] Sec. (13) F&W Creation/Enhance/Water Quality Improvement

I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules. I also understand that this permit is not valid until approved by the Department or 14 days after receipt by the Department, whichever is less.

I have attached all of the following required submittals. NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS:

- [x] A \$55 (non-refundable) payment shall be done by internal billing.
[x] Attach a U.S.G.S. topo map or Maine Atlas & Gazetteer map with the project site clearly marked.
[ ] Attach photographs showing existing site conditions (unless not required under standards).

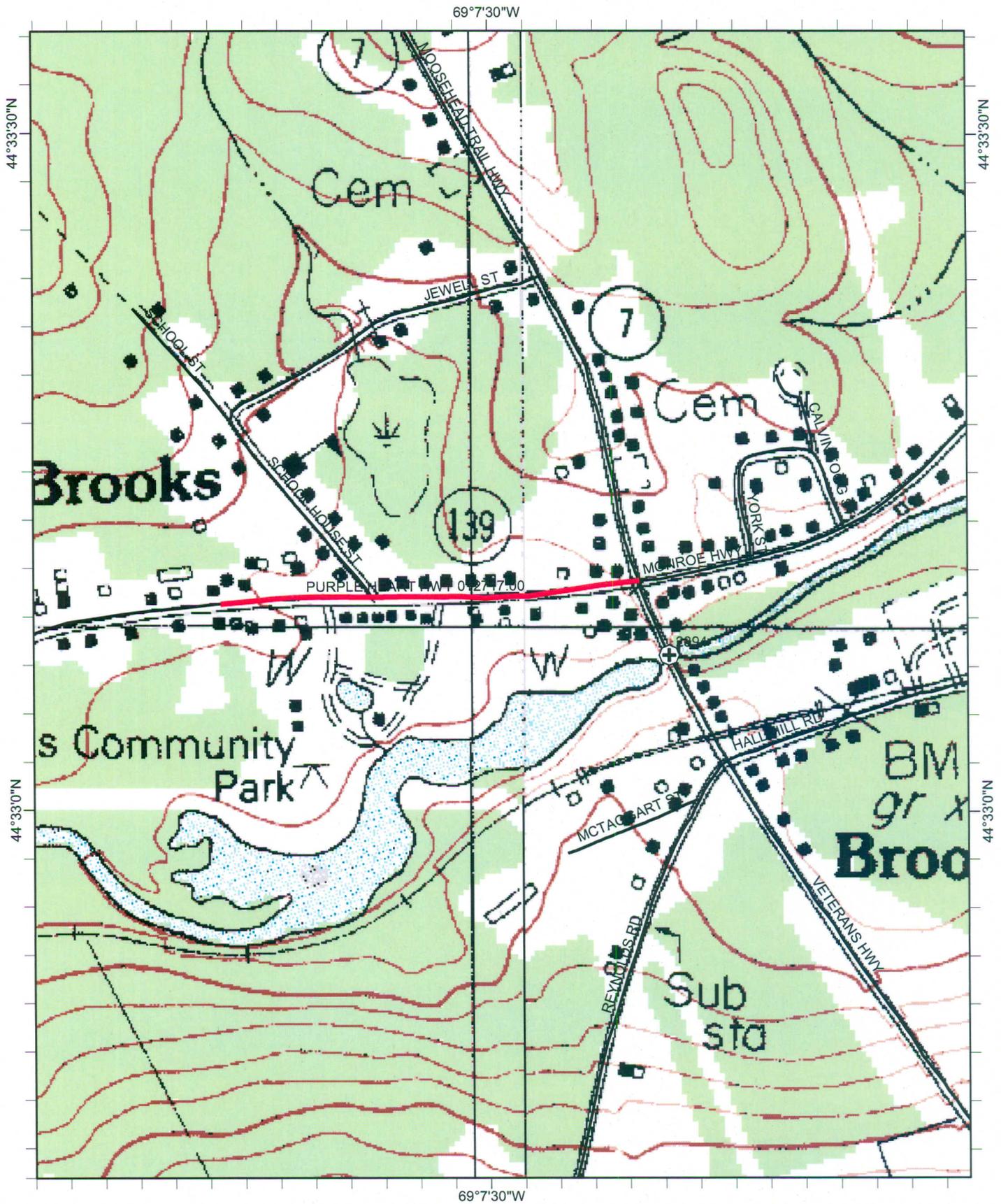
Signature of Applicant: [Handwritten Signature]
John E. Dority, Chief Engineer

Date: 04/09/09

Keep the bottom copy as a record of permit. Send the form with attachments via certified mail to the Maine Dept. of Environmental Protection at the appropriate regional office listed below. The DEP will send a copy to the Town Office as evidence of the DEP's receipt of notification. No further authorization by DEP will be issued after receipt of notice. Permits are valid for two years. Work carried out in violation of any standard is subject to enforcement action.

AUGUSTA DEP STATE HOUSE STATION 17 AUGUSTA, ME 04333-0017 (207)287-2111 PORTLAND DEP 312
CANCO ROAD PORTLAND, ME 04103 (207)822-6300 BANGOR DEP 106 HOGAN ROAD BANGOR, ME
04401 (207)941-4570 PRESQUE ISLE DEP 1235 CENTRAL DRIVE PRESQUE ISLE, ME 04769 (207)764-0477

OFFICE USE ONLY Ck.# Staff Staff
PBR # FP Date Acc. Date Def. Date After Photos



Date: 3/28/2007

Road Names: ST RTE 139

Town(s): Brooks

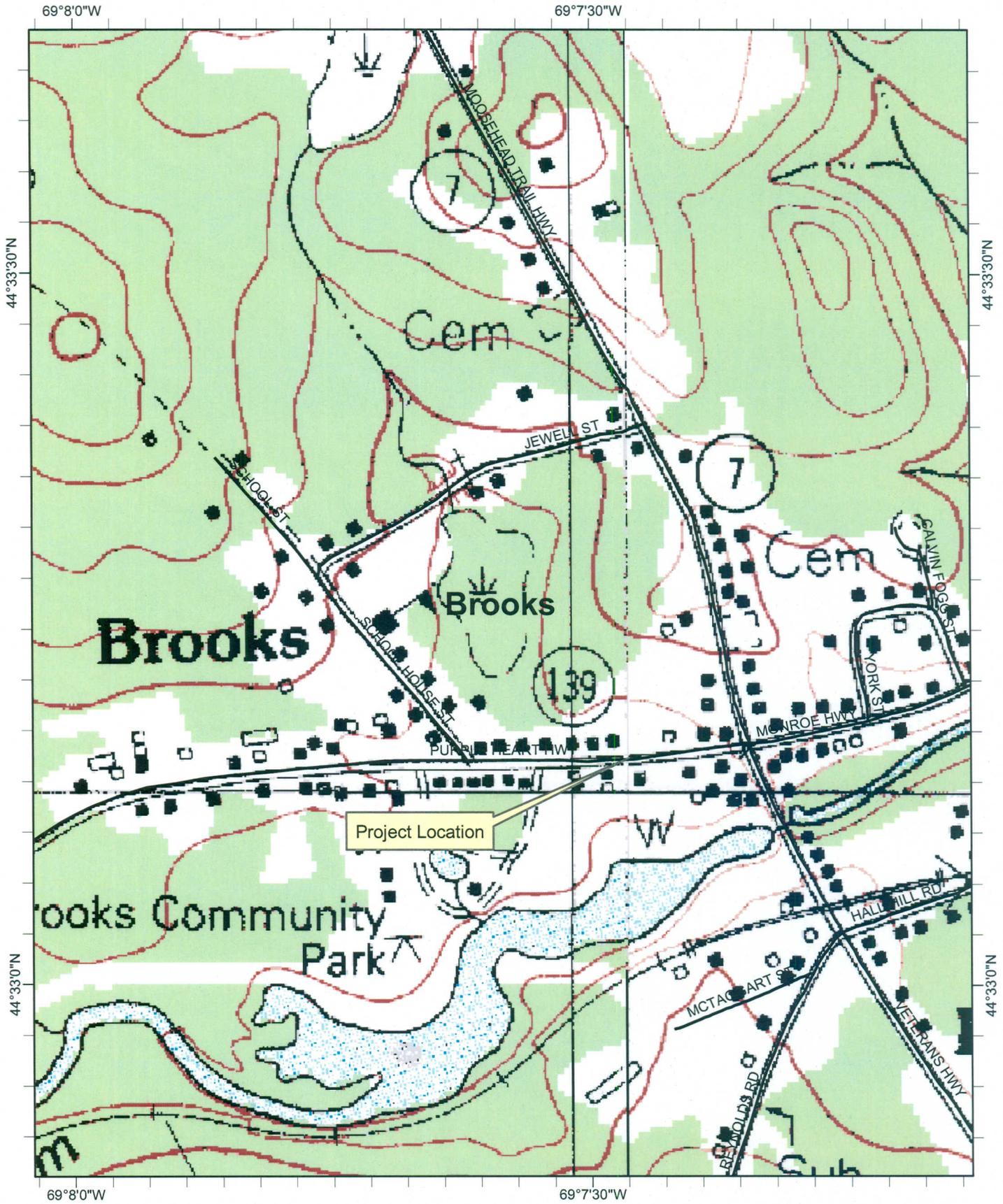
1 inch equals 572 feet

Location: 044 33'9"N 069 7'33"W

Project ID: 01271700

Project Manager: JOEL KITTREDGE

Page 1 of 1



|                                                                                                                          |                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <p>Date: 1/25/08<br/>         Road Names: Route 139<br/>         Town(s): Brooks<br/>         1 inch equals 545 feet</p> | <p>Location: 043 36'13"N 070 35'0"W<br/>         Project ID: 14309.00<br/>         Project Manager: N/A<br/>         Page 1 of 1</p> |
|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|

## 11. State transportation facilities

### A. Applicability

- (1) This section applies to the maintenance, repair, reconstruction, rehabilitation, replacement or minor construction of a State Transportation Facility carried out by, or under the authority of, the Maine Department of Transportation or the Maine Turnpike Authority, including any testing or preconstruction engineering, and associated technical support services.
- (2) This section does not apply to an activity within a coastal sand dune system.

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NOTE: The construction of a transportation facility other than roads and associated facilities may be subject to the Storm Water Management Law, 38 M.R.S.A. Section 420-D.

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### B. Standards

- (1) Photographs of the area to be altered by the activity must be taken before work on the site begins. The photographs must be kept on file and be made available at the request of the DEP.
- (2) The activity must be reviewed by the Department of Inland Fisheries and Wildlife, the Department of Marine Resources, and the Atlantic Salmon Authority. The activity must be performed according to any recommendations from these authorities.
- (3) The activity must be performed in accordance with erosion control measures conforming with the State of Maine Department of Transportation Standard Specifications for Highways and Bridges Revision of April 1995 and with the Department of Transportation's Best Management Practices for Erosion and Sediment Control, September 1997.

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NOTE: Guidance on the use of erosion control best management practices can be obtained from the on site Construction Manager.

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- (4) Alignment changes may not exceed a distance of 200 feet between the old and new center lines in any natural resource.
- (5) The activity may not alter more than 300 feet of shoreline (both shores added together) within a mile stretch of any river, stream or brook, including any bridge width or length of culvert.
- (6) The activity may not alter more than 150 feet of shoreline (both shores added together) within a mile stretch of any outstanding river segment identified in 38 M.R.S.A. 480-P, including any bridge width or length of culvert.
- (7) The activity must minimize wetland intrusion. The activity is exempt from the provisions of Chapter 310, the Wetland Protection Rules, if the activity alters less than 15,000 square feet of natural resources per mile of roadway (centerline measurement) provided that the following impacts are not exceeded within the 15,000 square foot area:

- (a) 1,000 square feet of coastal wetland consisting of salt tolerant vegetation or shellfish habitat; or
- (b) 5,000 square feet of coastal wetland not containing salt tolerant vegetation or shellfish habitat; or
- (c) 1,000 square feet of a great pond.

All other activities must be performed in compliance with all sections of Chapter 310, the Wetland Protection Rules, except 310.2(C), 5(A), 9(1), 9(B) and 9(C).

- (8) The activity may not permanently block any fish passage in any watercourse containing fish. The applicant must improve passage beyond what restriction may already exist unless the Department of Inland Fisheries and Wildlife, the Department of Marine Resources, and the Atlantic Salmon Authority concur that the improvement is not necessary.
- (9) Rocks may not be removed from below the normal high water line of any coastal wetland, freshwater wetland, great pond, river, stream or brook except to the minimum extent necessary for completion of work within the limits of construction.
- (10) If work is performed in a river, stream or brook that is less than three feet deep at the time and location of the activity, with the exception of culvert installation, the applicant must divert flow away from the activity while work is in progress.
  - (a) Diversion may be accomplished by the use of stable, inert material. No more than two thirds (2/3) of stream width may be diverted at one time.
  - (b) Any material used to divert water flow must be completely removed upon completion of the activity, and the stream bottom must be restored to its original condition.
  - (c) A pump may be operated, where necessary, for a temporary diversion. The pump outlet must be located and operated such that erosion or the discharge of sediment to the water is prevented.

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NOTE: Guidance on the appropriate location of a diversion and materials which should be used for a stream diversion can be obtained from the on site Construction Manager.

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- (11) Wheeled or tracked equipment may not operate in the water. Equipment operating on the shore may reach into the water with a bucket or similar extension. Equipment may cross streams on rock, gravel or ledge bottom.
- (12) All wheeled or tracked equipment that must travel or work in a vegetated wetland area must travel and work on mats or platforms.
- (13) Any debris or excavated material must be stockpiled either outside the wetland or on mats or platforms. Hay bales or silt fence must be used, where necessary, to prevent sedimentation. Any debris generated during the activity must be prevented from washing downstream and must be removed from the wetland or water body. Disposal

of debris must be in conformance with the Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Section 1301 *et seq.*

- (14) Work below the normal high water line of a great pond, river, stream or brook must be done at low water except for emergency work or work agreed to by the resource agencies listed in paragraph 2 above. Measures, such as a silt boom or staked fencing, must be employed to reduce and isolate turbidity.
- (15) Perimeter controls must be installed before the work starts. Disturbance of natural resources beyond the construction limits shown on the plans is not allowed under this rule.

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NOTE: Guidance on the location of construction limits can be obtained from the on site Construction Manager.

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- (16) The use of untreated lumber is preferred. Lumber pressure treated with chromated copper arsenate (CCA) may be used, provided it is cured on dry land in a manner that exposes all surfaces to the air for a period of at least 21 days prior to construction. Wood treated with creosote or pentachlorophenol may not be used where it will contact water.
- (17) A temporary road for equipment access must be constructed of crushed stone, blasted ledge, or similar materials that will not cause sedimentation or restrict fish passage. Such roads must be completely removed at the completion of the activity. In addition, any such temporary roads which are in rivers, streams or brooks, must allow for a passage of stormwater flows associated with a 10-year storm.
- (18) Soil may not be disturbed during any period when soils are saturated due to rain or snow melt, except as necessary to protect work in progress or as required for bridge maintenance activities. Areas where soils are saturated (i.e. water drips from the soil when squeezed by hand, or the soil is capable of being rolled into a rod 1/8th inch in diameter that does not crumble) must be immediately mulched if they are disturbed.
- (19) Disturbed soil must be protected within one week from the time it was last actively worked, and prior to any storm event, using temporary or permanent measures such as the placement of riprap, sod, mulch, erosion control blankets, or other comparable measures.
- (20) Hay bale or straw mulch, where used, must be applied at a rate of at least one bale per 500 square feet (1 to 2 tons per acre).
- (21) If mulch is likely to be moved because of steep slopes or wind exposure, it must be anchored with netting, peg and twine, binder or other suitable method and must be maintained until a catch of vegetation is established over the entire disturbed area.
- (22) In addition to the placement of riprap, sod, erosion control blankets or mulch, additional steps must be taken where necessary to prevent sedimentation of the water. Evidence of sedimentation includes visible sheet, rill or gully erosion, discoloration of water by suspended particles and/or slumping of banks. Silt fences, staked hay bales and other sedimentation control measures, where planned for, must be in place

prior to the commencement of an activity, but must also be installed whenever necessary to prevent erosion and sedimentation.

---

NOTE: Guidance on the location and proper installation of erosion control measures can be obtained from the on site Construction Manager.

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- (23) Temporary erosion control measures must be maintained and inspected weekly until the site is permanently stabilized with vegetation or other permanent control measures. Erosion control measures must also be inspected immediately prior to and following storms.
- (24) Permanent erosion control measures protecting all disturbed areas must be implemented within 30 days from the time the areas were last actively worked, or for fall and winter activities by the following June 15, except where precluded by the type of activity (e.g. riprap, road surfaces, etc.). The permanent erosion control measures must be maintained.
- (25) The applicant shall immediately take appropriate measures to prevent erosion or sedimentation from occurring or to correct any existing problems, regardless of the time of year.
- (26) Non-native species may not be planted in restored areas.
- (27) Disposal of debris must be in conformance with Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Sections 1301 *et seq.*
- (28) Disturbance of vegetation must be avoided, if possible. Where vegetation is disturbed outside of the area covered by any road or structure construction, it must be reestablished immediately upon completion of the activity and must be maintained.
- (29) A vegetated area at least 25 feet wide must be established and maintained between any new stormwater outfall structure and the high water line of any open water body. A velocity reducing structure must be constructed at the outlet of the stormwater outfall that will create sheet flow of stormwater, and prevent erosion of soil within the vegetated buffer. If the 25 foot vegetated buffer is not practicable, the applicant must explain the reason for a lesser setback in writing. Approval from the DEP must be in writing and any recommendations must be incorporated into the activity.

**C. Definitions.** The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) Diversion. A rerouting of a river, stream or brook to a location outside of its established channel.
- (2) Fill. a. (verb) To put into or upon, supply to, or allow to enter a water body or wetland any earth, rock, gravel, sand, silt, clay, peat, or debris; b. (noun) Material, other than structures, placed in or immediately adjacent to a wetland or water body.
- (3) Floodplain wetlands. Freshwater wetlands that are inundated with flood water during a 100-year flood event based on flood insurance maps produced by the Federal Emergency Agency or other site specific information.

- (4) Riprap. Rocks that are fit into place, usually without mortar, on a slope as defined in the State of Maine, Department of Transportation, Standard Specifications for Highway and Bridges, revision of April 1995.

**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>(a) NEW FILL/<br/>EXCAVATION<br/>DISCHARGES</p> | <p><b>CATEGORY 1</b></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><b>CATEGORY 2</b></p> <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><b>INDIVIDUAL PERMIT</b></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> |
| <p>Maine PGP</p>                                   | <p align="center">1</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p align="center">1</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p align="right">October 11, 2005</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.<br><br>Temporary fill or excavation <1 acre in SAS <sup>4</sup> .<br><br>Permanent fill or excavation <1,000 SF in SAS <sup>4</sup> .<br><br>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.<br><br>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.<br><br>Temporary fill or excavation ≥1 acre in SAS <sup>4</sup> .<br><br>Permanent fill or excavation ≥1,000 SF in SAS <sup>4</sup> other than as specified in Cat. 2<br><br>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.<br>*Conditions of the original authorization apply.<br>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>                                                                                                                                                                                                                                                                                                                                                                                                    |
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| (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>                                                                                                                                                                                                                                                                                                                                                                                                  |
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| (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).<sup>12</sup></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>                                                                                                                                                       |

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|  | <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*).

