

**Updated 1/19/12**

# **FEDERAL PROJECT**

## **BIDDING INSTRUCTIONS**

### **FOR ALL PROJECTS:**

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

#### **For a Paper Bid:**

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

#### **For an Electronic Bid:**

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

### **IN ADDITION, FOR FEDERAL AID PROJECTS:**

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

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

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

# NOTICE

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

Prospective bidders, subcontractors or suppliers who wish to download a copy of the bid package and receive a courtesy notification of project specific bid amendments, must provide an email address to Diane Barnes or David Venner at the MDOT Contracts mailbox at: [MDOT.contracts@maine.gov](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 Patrick Corum at [patrick.corum@maine.gov](mailto:patrick.corum@maine.gov) , Rebecca Snowden at [rebecca.snowden@maine.gov](mailto:rebecca.snowden@maine.gov) or Diane Barnes at [diane.barnes@maine.gov](mailto:diane.barnes@maine.gov).

# NOTICE

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

Bid Enclosed - Do Not Open

PIN:

Town:

Date of Bid Opening:

Name of Contractor with mailing address and telephone number:

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

Double Envelope: Bid Enclosed

PIN:

Town:

Date of Bid Opening:

Name of Contractor:

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

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

Bid Enclosed: Do Not Open

PIN:

Town:

Name of Contractor:

October 16, 2001

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

force, and effect.

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

WITNESS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

WITNESS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PRINCIPAL:

By \_\_\_\_\_

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

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

SURETY:

By \_\_\_\_\_

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

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

# NOTICE

## Bidders:

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

# REQUEST FOR INFORMATION

Response By: \_\_\_\_\_ Date: \_\_\_\_\_

# NOTICE

## Disadvantaged Business Enterprise Proposed Utilization

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

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

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

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

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

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

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

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

## SPECIFIC INSTRUCTIONS FOR COMPLETING THE FORM:

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

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

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

Revised 1/12

**DBE GOAL NOTICE**  
**Maine Department of Transportation**  
**Disadvantaged Business Enterprise Program**

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

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

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

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

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

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

**Contractor:** \_\_\_\_\_ **Telephone:** \_\_\_\_\_ **Ext.** \_\_\_\_\_

**Contact Person:** \_\_\_\_\_ **Fax:** \_\_\_\_\_

**E-mail:** \_\_\_\_\_

**BID DATE:** \_\_\_\_/\_\_\_\_/\_\_\_\_

**FEDERAL PROJECT PIN #** \_\_\_\_\_ **PROJECT LOCATION:** \_\_\_\_\_

**TOTAL ANTICIPATED DBE \_\_\_\_\_ % PARTICIPATION FOR THIS SUBMISSION**

| <b>W<br/>B<br/>E•</b>               | <b>D<br/>B<br/>E•</b> | <b>Non<br/>DBE</b> | <b>Firm Name</b> | <b>Item Number &amp;<br/>Description of<br/>Work</b> | <b>Quantity</b> | <b>Cost per<br/>Unit/Item</b> | <b>Actual \$ Value</b> |
|-------------------------------------|-----------------------|--------------------|------------------|------------------------------------------------------|-----------------|-------------------------------|------------------------|
|                                     |                       |                    |                  |                                                      |                 |                               |                        |
|                                     |                       |                    |                  |                                                      |                 |                               |                        |
|                                     |                       |                    |                  |                                                      |                 |                               |                        |
|                                     |                       |                    |                  |                                                      |                 |                               |                        |
|                                     |                       |                    |                  |                                                      |                 |                               |                        |
|                                     |                       |                    |                  |                                                      |                 |                               |                        |
|                                     |                       |                    |                  |                                                      |                 |                               |                        |
|                                     |                       |                    |                  |                                                      |                 |                               |                        |
|                                     |                       |                    |                  |                                                      |                 |                               |                        |
| <b>Subcontractor<br/>Total &gt;</b> |                       |                    |                  |                                                      |                 |                               |                        |
| <b>DBE Total &gt;</b>               |                       |                    |                  |                                                      |                 |                               |                        |

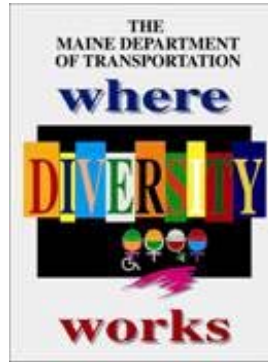
**NOTE: THIS INFORMATION IS USED TO TRACK AND REPORT ANTICIPATED DBE PARTICIPATION IN ALL  
FEDERALLY FUNDED MAINE DOT CONTRACTS. THE ANTICIPATED DBE AMOUNT IS VOLUNTARY AND WILL NOT  
BECOME A PART OF THE CONTRACTUAL TERMS.**

Equal Opportunity Use:

Form received: \_\_\_\_/\_\_\_\_/\_\_\_\_ Verified by: \_\_\_\_\_

cc: ☐ Contracts ☐ Other \_\_\_\_\_

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



## **Maine Department of Transportation Civil Rights Office**

### **Directory of Certified Disadvantaged Business Enterprises**

**Listing can be found at:**

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

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

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

September 14, 2007

### **Vendor Registration**

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

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

## STATE OF MAINE DEPARTMENT OF TRANSPORTATION NOTICE TO CONTRACTORS

Sealed Bids addressed to the Maine Department of Transportation, Augusta, Maine 04333 and endorsed on the wrapper "Bids for Pavement Milling, Hot Mix Asphalt Overlay, Bridge Deck Repairs, Drainage and Safety Improvements in the towns of Sherman, Crystal, and Island Falls" will be received from contractors at the Reception Desk, Maine DOT Building, Capitol Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on April 25, 2012 and at that time and place publicly opened and read. Bids will be accepted from all bidders. The lowest responsive bidder must have completed, or successfully complete, a Highway Construction, Paving, or project specific prequalification to be considered for the award of this contract. **We now accept electronic bids for those bid packages posted on the bidx.com website. Electronic bids do not have to be accompanied by paper bids. Please note: the Department will accept a facsimile of the bid bond; however, the original bid bond must then be received at the MDOT Contract Section within 72 hours of the bid opening.** Until further notice, dual bids (one paper, one electronic) will be accepted, with the paper copy taking precedence.

Description: Maine Federal Aid Project No. IM-1681(920)E, WIN 16819.20.

Location: In Aroostook County, Project No. IM-1681(920)E is located on I-95 Northbound, beginning 2.45 mi. north of the Benedicta/Sherman town line and extending northerly 12 miles to 1.21 mi. south of the Island Falls/Dyer Brook town line.

Outline of Work: Pavement Milling, Hot Mix Asphalt Overlay, Bridge Deck Repairs, Drainage and Safety Improvements and other incidental work.

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

Plans, specifications and bid forms may be seen at the Maine DOT Building in Augusta, Maine and at the Department of Transportation's Regional Office in Presque Isle. 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 \$13.00 (\$16.50 by mail). Half size plans \$7.50 (\$9.75 by mail), Bid Book \$10 (\$13 by mail), Single Sheets \$2, payment in advance, all non-refundable.

Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of **\$150,000** payable to Treasurer, State of Maine as a Bid guarantee. A Contract Performance Surety Bond and a Contract Payment Surety Bond, each in the amount of 100 percent of the Contract price, will be required of the successful Bidder.

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

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

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

Augusta, Maine  
April 4, 2012



  
KENNETH L. SWEENEY P.E.  
CHIEF ENGINEER

# NOTICE

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

**SPECIAL PROVISION 102.7.3**  
**ACKNOWLEDGMENT OF BID AMENDMENTS**

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

| Amendment Number | Date |
|------------------|------|
|                  |      |
|                  |      |
|                  |      |
|                  |      |
|                  |      |
|                  |      |
|                  |      |
|                  |      |
|                  |      |
|                  |      |

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

CONTRACTOR

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of authorized representative

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

## SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 016819.20

PROJECT(S): IM-1681(920)E

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

| LINE<br>NO                 | ITEM<br>DESCRIPTION                                            | APPROX.<br>QUANTITY<br>AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|----------------------------|----------------------------------------------------------------|----------------------------------|------------|-----|------------|-----|
|                            |                                                                |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| SECTION 0001 HIGHWAY ITEMS |                                                                |                                  |            |     |            |     |
| 0010                       | 202.202 REMOVING<br>PAVEMENT SURFACE                           | 227000.000<br>SY                 |            |     |            |     |
| 0020                       | 202.205 RUMBLE STRIPS -<br>SHOULDER                            | 128000.000<br>LF                 |            |     |            |     |
| 0030                       | 202.30 REMOVING EXISTING<br>CONCRETE WEARING SURFACE<br>681 SY | LUMP                             | LUMP       |     |            |     |
| 0040                       | 205.512 WIDENING OF<br>EXISTING SHOULDER                       | 720.000<br>SY                    |            |     |            |     |
| 0050                       | 403.102 HOT MIX ASPHALT<br>PAVEMENT - SPECIAL AREAS            | 150.000<br>T                     |            |     |            |     |
| 0060                       | 403.208 HOT MIX ASPHALT<br>12.5 MM HMA SURFACE                 | 22250.000<br>T                   |            |     |            |     |
| 0070                       | 403.211 HOT MIX ASPHALT<br>(SHIMMING)                          | 2800.000<br>T                    |            |     |            |     |
| 0080                       | 403.213 HOT MIX ASPHALT<br>12.5 MM BASE                        | 66.000<br>T                      |            |     |            |     |
| 0090                       | 409.15 BITUMINOUS TACK<br>COAT - APPLIED                       | 16160.000<br>G                   |            |     |            |     |
| 0100                       | 410.151 EMULSIFIED<br>ASPHALT SEALCOAT,<br>APPLIED             | 52810.000<br>SY                  |            |     |            |     |

## SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 016819.20

PROJECT(S): IM-1681(920)E

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

| LINE<br>NO | ITEM<br>DESCRIPTION                                            | APPROX.<br>QUANTITY<br>AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|------------|----------------------------------------------------------------|----------------------------------|------------|-----|------------|-----|
|            |                                                                |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0110       | 424.3331 ASPHALT LOW<br>MODULUS CRACK SEALER,<br>APPLIED       | 11000.000<br>LB                  |            |     |            |     |
| 0120       | 424.3333 LOW MODULUS<br>JOINT SEALER, APPLIED                  | 63360.000<br>LF                  |            |     |            |     |
| 0130       | 429.34 GRID/ FABRIC<br>FABRIC COMPOSITE<br>PAVEMENT INTERLAYER | 255.000<br>SF                    |            |     |            |     |
| 0140       | 504.07 CONCRETE PIPE<br>TIES                                   | 72.000<br>GP                     |            |     |            |     |
| 0150       | 507.0926 FURNISH<br>ALUMINUM BRIDGE RAIL<br>COMPONENTS         | LUMP                             | LUMP       |     |            |     |
| 0160       | 507.0927 ALUMINUM<br>BRIDGE RAIL, 2 BAR POST<br>REPLACEMENT    | 6.000<br>EA                      |            |     |            |     |
| 0170       | 507.0928 ALUMINUM BRIDGE<br>RAIL, RAIL SECTION<br>REPLACEMENT  | 40.000<br>LF                     |            |     |            |     |
| 0180       | 507.30 ALUMINUM RAIL BAR<br>SPLICE RETROFIT                    | 7.000<br>EA                      |            |     |            |     |
| 0190       | 507.31 ALUMINUM BRIDGE<br>RAIL SPLICE INSPECTION               | LUMP                             | LUMP       |     |            |     |
| 0200       | 508.14 HIGH PERFORMANCE<br>WATERPROOFING MEMBRANE              | LUMP                             | LUMP       |     |            |     |
| 0210       | 515.21 PROTECTIVE<br>COATING FOR CONCRETE<br>SURFACES 113 SY   | LUMP                             | LUMP       |     |            |     |

## SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 016819.20

PROJECT(S): IM-1681(920)E

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

| LINE<br>NO | ITEM<br>DESCRIPTION                                                                  | APPROX.<br>QUANTITY<br>AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|------------|--------------------------------------------------------------------------------------|----------------------------------|------------|-----|------------|-----|
|            |                                                                                      |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0220       | 518.391 REPAIRING<br>GRANITE CURB JOINT AND<br>BEDDING MORTAR                        | 301.000<br>LF                    |            |     |            |     |
| 0230       | 518.50 REPAIR OF UPWARD<br>FACING SURFACES - TO<br>REINFORCING STEEL < 7.9<br>IN.    | 490.000<br>SF                    |            |     |            |     |
| 0240       | 518.51 REPAIR OF UPWARD<br>FACING SURFACES - BELOW<br>REINFORCING STEEL < 7.9<br>IN. | 110.000<br>SF                    |            |     |            |     |
| 0250       | 518.52 REPAIR OF UPWARD<br>FACING SURFACES > 7.9 IN.                                 | 1.000<br>CY                      |            |     |            |     |
| 0260       | 518.60 REPAIR OF<br>VERTICAL SURFACES < 7.9<br>IN.                                   | 10.000<br>SF                     |            |     |            |     |
| 0270       | 518.61 REPAIR OF<br>VERTICAL SURFACES > 7.9<br>IN.                                   | 1.000<br>CY                      |            |     |            |     |
| 0280       | 520.242 BRIDGE JOINT<br>MODIFICATION TYPE 2                                          | 1.000<br>EA                      |            |     |            |     |
| 0290       | 520.2421 BRIDGE JOINT<br>MODIFICATION TYPE 2A                                        | 3.000<br>EA                      |            |     |            |     |
| 0300       | 520.2422 BRIDGE JOINT<br>MODIFICATION TYPE 2B                                        | 1.000<br>EA                      |            |     |            |     |
| 0310       | 520.246 BRIDGE JOINT<br>MODIFICATION TYPE 6                                          | 1.000<br>EA                      |            |     |            |     |

## SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 016819.20

PROJECT(S): IM-1681(920)E

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

| LINE<br>NO | ITEM<br>DESCRIPTION                                    | APPROX.<br>QUANTITY<br>AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|------------|--------------------------------------------------------|----------------------------------|------------|-----|------------|-----|
|            |                                                        |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0320       | 521.32 FABRIC TROUGH FOR<br>FINGER JOINT               | 1.000<br>EA                      |            |     |            |     |
| 0330       | 521.51 FABRIC COVERING<br>FOR CONCRETE SURFACES        | LUMP                             | LUMP       |     |            |     |
| 0340       | 526.301 TEMPORARY<br>CONCRETE BARRIER TYPE I<br>880 LF | LUMP                             | LUMP       |     |            |     |
| 0350       | 526.34 PERMANENT<br>CONCRETE TRANSITION<br>BARRIER     | 12.000<br>EA                     |            |     |            |     |
| 0360       | 527.34 WORK ZONE CRASH<br>CUSHIONS                     | 3.000<br>UN                      |            |     |            |     |
| 0370       | 603.16 15 INCH CULVERT<br>PIPE OPTION I                | 280.000<br>LF                    |            |     |            |     |
| 0380       | 603.7424 REMOVE & RELAY<br>24 INCH CONCRETE PIPE       | 64.000<br>LF                     |            |     |            |     |
| 0390       | 603.743 REMOVE & RELAY<br>30 INCH CONCRETE PIPE        | 160.000<br>LF                    |            |     |            |     |
| 0400       | 603.7436 REMOVE & RELAY<br>36 INCH CONCRETE PIPE       | 72.000<br>LF                     |            |     |            |     |
| 0410       | 603.7442 REMOVE & RELAY<br>42 INCH CONCRETE PIPE       | 72.000<br>LF                     |            |     |            |     |
| 0420       | 603.7448 REMOVE & RELAY<br>48 INCH CONCRETE PIPE       | 48.000<br>LF                     |            |     |            |     |

## SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 016819.20

PROJECT(S): IM-1681(920)E

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

| LINE<br>NO | ITEM<br>DESCRIPTION                                         | APPROX.<br>QUANTITY<br>AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|------------|-------------------------------------------------------------|----------------------------------|------------|-----|------------|-----|
|            |                                                             |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0430       | 603.7454 REMOVE & RELAY<br>54 INCH CONCRETE PIPE            | 40.000<br>LF                     |            |     |            |     |
| 0440       | 603.746 REMOVE & RELAY<br>60 INCH CONCRETE PIPE             | 64.000<br>LF                     |            |     |            |     |
| 0450       | 603.7466 REMOVE & RELAY<br>66 INCH CONCRETE PIPE            | 24.000<br>LF                     |            |     |            |     |
| 0460       | 603.7472 REMOVE & RELAY<br>72 INCH CONCRETE PIPE            | 32.000<br>LF                     |            |     |            |     |
| 0470       | 606.1721 BRIDGE<br>TRANSITION - TYPE 1                      | 12.000<br>EA                     |            |     |            |     |
| 0480       | 606.178 GUARDRAIL BEAM                                      | 625.000<br>LF                    |            |     |            |     |
| 0490       | 606.24 GUARDRAIL TYPE 3D<br>- SINGLE RAIL                   | 500.000<br>LF                    |            |     |            |     |
| 0500       | 606.241 GUARDRAIL TYPE<br>3D - 15 FOOT RADIUS AND<br>LESS   | 100.000<br>LF                    |            |     |            |     |
| 0510       | 606.265 TERMINAL END -<br>SINGLE RAIL - GALVANIZED<br>STEEL | 4.000<br>EA                      |            |     |            |     |
| 0520       | 606.352 REFLECTORIZED<br>BEAM GUARDRAIL<br>DELINEATORS      | 490.000<br>EA                    |            |     |            |     |
| 0530       | 606.353 REFLECTORIZED<br>FLEXIBLE GUARDRAIL<br>MARKER       | 57.000<br>EA                     |            |     |            |     |

## SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 016819.20

PROJECT(S): IM-1681(920)E

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

| LINE<br>NO | ITEM<br>DESCRIPTION                                            | APPROX.<br>QUANTITY<br>AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|------------|----------------------------------------------------------------|----------------------------------|------------|-----|------------|-----|
|            |                                                                |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0540       | 606.356 UNDERDRAIN<br>DELINEATOR POST                          | 40.000<br>EA                     |            |     |            |     |
| 0550       | 606.362 GUARDRAIL<br>ADJUSTED                                  | 1000.000<br>LF                   |            |     |            |     |
| 0560       | 606.367 REPLACE UNUSABLE<br>EXISTING GUARDRAIL POSTS           | 10.000<br>EA                     |            |     |            |     |
| 0570       | 606.754 WIDEN SHOULDER<br>FOR GUARDRAIL 350 FLARED<br>TERMINAL | 4.000<br>EA                      |            |     |            |     |
| 0580       | 606.79 GUARDRAIL 350<br>FLARED TERMINAL                        | 17.000<br>EA                     |            |     |            |     |
| 0590       | 610.08 PLAIN RIPRAP                                            | 100.000<br>CY                    |            |     |            |     |
| 0600       | 613.319 EROSION CONTROL<br>BLANKET                             | 2250.000<br>SY                   |            |     |            |     |
| 0610       | 615.07 LOAM                                                    | 100.000<br>CY                    |            |     |            |     |
| 0620       | 618.1401 SEEDING METHOD<br>NUMBER 2 - PLAN QUANTITY            | 2140.000<br>UN                   |            |     |            |     |
| 0630       | 619.1201 MULCH - PLAN<br>QUANTITY                              | 2140.000<br>UN                   |            |     |            |     |
| 0640       | 619.1401 EROSION CONTROL<br>MIX                                | 100.000<br>CY                    |            |     |            |     |

## SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 016819.20

PROJECT(S): IM-1681(920)E

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

| LINE<br>NO | ITEM<br>DESCRIPTION                                                           | APPROX.<br>QUANTITY<br>AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|------------|-------------------------------------------------------------------------------|----------------------------------|------------|-----|------------|-----|
|            |                                                                               |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0650       | 620.58 EROSION CONTROL<br>GEOTEXTILE                                          | 700.000<br>SY                    |            |     |            |     |
| 0660       | 627.18 12 " SOLID WHITE<br>PAVEMENT MARKING                                   | 1700.000<br>LF                   |            |     |            |     |
| 0670       | 627.30 GROOVING FOR<br>PAVEMENT MARKING                                       | 142600.000<br>SF                 |            |     |            |     |
| 0680       | 627.744 6" WHITE OR<br>YELLOW PAINTED PAVEMENT<br>MARKING LINE                | 195510.000<br>LF                 |            |     |            |     |
| 0690       | 627.75 WHITE OR YELLOW<br>PAVEMENT & CURB MARKING                             | 550.000<br>SF                    |            |     |            |     |
| 0700       | 627.77 REMOVING PAVEMENT<br>MARKINGS                                          | 3320.000<br>SF                   |            |     |            |     |
| 0710       | 627.781 TEMPORARY 6 INCH<br>PAINTED PAVEMENT MARKING<br>LINE, WHITE OR YELLOW | 195510.000<br>LF                 |            |     |            |     |
| 0720       | 629.05 HAND LABOR,<br>STRAIGHT TIME                                           | 300.000<br>HR                    |            |     |            |     |
| 0730       | 631.10 AIR COMPRESSOR<br>(INCLUDING OPERATOR)                                 | 24.000<br>HR                     |            |     |            |     |
| 0740       | 631.11 AIR TOOL<br>(INCLUDING OPERATOR)                                       | 24.000<br>HR                     |            |     |            |     |
| 0750       | 631.12 ALL PURPOSE<br>EXCAVATOR (INCLUDING<br>OPERATOR)                       | 300.000<br>HR                    |            |     |            |     |

## SCHEDULE OF ITEMS

DATE: 120326

REVISED:

CONTRACT ID: 016819.20

PROJECT(S): IM-1681(920)E

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

| LINE<br>NO | ITEM<br>DESCRIPTION                             | APPROX.<br>QUANTITY<br>AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|------------|-------------------------------------------------|----------------------------------|------------|-----|------------|-----|
|            |                                                 |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0760       | 631.132 SMALL BULLDOZER<br>(INCLUDING OPERATOR) | 50.000<br>HR                     |            |     |            |     |
| 0770       | 631.133 SKID STEER<br>(INCLUDING OPERATOR)      | 200.000<br>HR                    |            |     |            |     |
| 0780       | 631.14 GRADER (INCLUDING<br>OPERATOR)           | 350.000<br>HR                    |            |     |            |     |
| 0790       | 631.172 TRUCK - LARGE<br>(INCLUDING OPERATOR)   | 1500.000<br>HR                   |            |     |            |     |
| 0800       | 631.18 CHAIN SAW RENTAL<br>(INCLUDING OPERATOR) | 10.000<br>HR                     |            |     |            |     |
| 0810       | 631.22 FRONT END LOADER<br>(INCLUDING OPERATOR) | 350.000<br>HR                    |            |     |            |     |
| 0820       | 631.32 CULVERT CLEANER<br>(INCLUDING OPERATOR)  | 10.000<br>HR                     |            |     |            |     |
| 0830       | 639.18 FIELD OFFICE TYPE<br>A                   | 1.000<br>EA                      |            |     |            |     |
| 0840       | 645.306 FLEXIBLE<br>REFLECTORIZED DELINEATOR    | 152.000<br>EA                    |            |     |            |     |
| 0850       | 652.30 FLASHING ARROW<br>BOARD                  | 3.000<br>EA                      |            |     |            |     |
| 0860       | 652.33 DRUM                                     | 480.000<br>EA                    |            |     |            |     |

## SCHEDULE OF ITEMS

DATE: 120326

REVISED:

CONTRACT ID: 016819.20

PROJECT(S): IM-1681(920)E

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

| LINE<br>NO | ITEM<br>DESCRIPTION                                             | APPROX.<br>QUANTITY<br>AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|------------|-----------------------------------------------------------------|----------------------------------|------------|-----|------------|-----|
|            |                                                                 |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0870       | 652.34 CONE                                                     | 440.000<br>EA                    |            |     |            |     |
| 0880       | 652.35 CONSTRUCTION<br>SIGNS                                    | 1500.000<br>SF                   |            |     |            |     |
| 0890       | 652.36 MAINTENANCE OF<br>TRAFFIC CONTROL DEVICES                | 110.000<br>CD                    |            |     |            |     |
| 0900       | 652.38 FLAGGER                                                  | 400.000<br>HR                    |            |     |            |     |
| 0910       | 652.41 PORTABLE<br>CHANGEABLE MESSAGE SIGN                      | 4.000<br>EA                      |            |     |            |     |
| 0920       | 656.75 TEMPORARY SOIL<br>EROSION AND WATER<br>POLLUTION CONTROL | LUMP                             | LUMP       |     |            |     |
| 0930       | 659.10 MOBILIZATION                                             | LUMP                             | LUMP       |     |            |     |
|            | TOTAL BID                                                       |                                  |            |     |            |     |

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

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

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

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

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

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, **WIN No. 16819.20, for the Pavement Milling, Hot Mix Asphalt Overlay, Bridge Deck Repairs, Drainage and Safety Improvements in the towns of Sherman, Crystal, and Island Falls, County of Aroostook, 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 8, 2012.** Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of December 2002 and related Special Provisions.

**C. Price.**

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

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

**D. Contract.**

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

**E. Certifications.**

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

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

**F. Offer.**

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications Revision of December 2002, Standard Details Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of: **WIN No. 16819.20, for the Pavement Milling, Hot Mix Asphalt Overlay, Bridge Deck Repairs, Drainage and Safety Improvements in the towns of Sherman, Crystal, and Island Falls, County of Aroostook, 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 Bernhardt, Commissioner

\_\_\_\_\_  
Witness

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

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

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

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

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

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, **WIN No. 16819.20, for the Pavement Milling, Hot Mix Asphalt Overlay, Bridge Deck Repairs, Drainage and Safety Improvements in the towns of Sherman, Crystal, and Island Falls, County of Aroostook, 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 8, 2012.** Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of December 2002 and related Special Provisions.

**C. Price.**

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

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

**D. Contract.**

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

**E. Certifications.**

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

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

**F. Offer.**

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications Revision of December 2002, Standard Details Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of: **WIN No. 16819.20, for the Pavement Milling, Hot Mix Asphalt Overlay, Bridge Deck Repairs, Drainage and Safety Improvements in the towns of Sherman, Crystal, and Island Falls, County of Aroostook, 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 Bernhardt, Commissioner

\_\_\_\_\_  
Witness

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

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

**(Name of the firm bidding the job)**

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

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

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

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

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

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

### **B. Time.**

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

**C. Price.**

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

**D. Contract.**

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

**E. Certifications.**

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

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

**F. Offer.**

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

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

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

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

As Offeror also agrees:

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

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

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

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

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

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

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

\_\_\_\_\_  
Date

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

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

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

**G. Award.**

Your offer is hereby accepted.  
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_  
Date

\_\_\_\_\_  
By: David Bernhardt, Commissioner

\_\_\_\_\_  
(Witness)

BOND # \_\_\_\_\_

CONTRACT PERFORMANCE BOND  
(Surety Company Form)

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

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

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

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

WITNESSES:

Signature.....  
Print Name Legibly .....

Signature .....

SURETY ADDRESS:

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

TELEPHONE.....

SIGNATURES:

CONTRACTOR:

.....  
Print Name Legibly .....

SURETY:

.....  
Print Name Legibly .....

NAME OF LOCAL AGENCY:

ADDRESS .....

BOND # \_\_\_\_\_

CONTRACT PAYMENT BOND  
(Surety Company Form)

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

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

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

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

WITNESS:

SIGNATURES:

CONTRACTOR:

Signature.....

Print Name Legibly .....

.....

Print Name Legibly .....

SURETY:

Signature.....

Print Name Legibly .....

.....

Print Name Legibly .....

SURETY ADDRESS:

NAME OF LOCAL AGENCY:

.....

ADDRESS .....

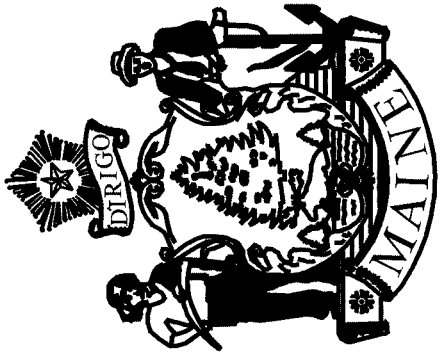
.....

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TELEPHONE .....

.....

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION



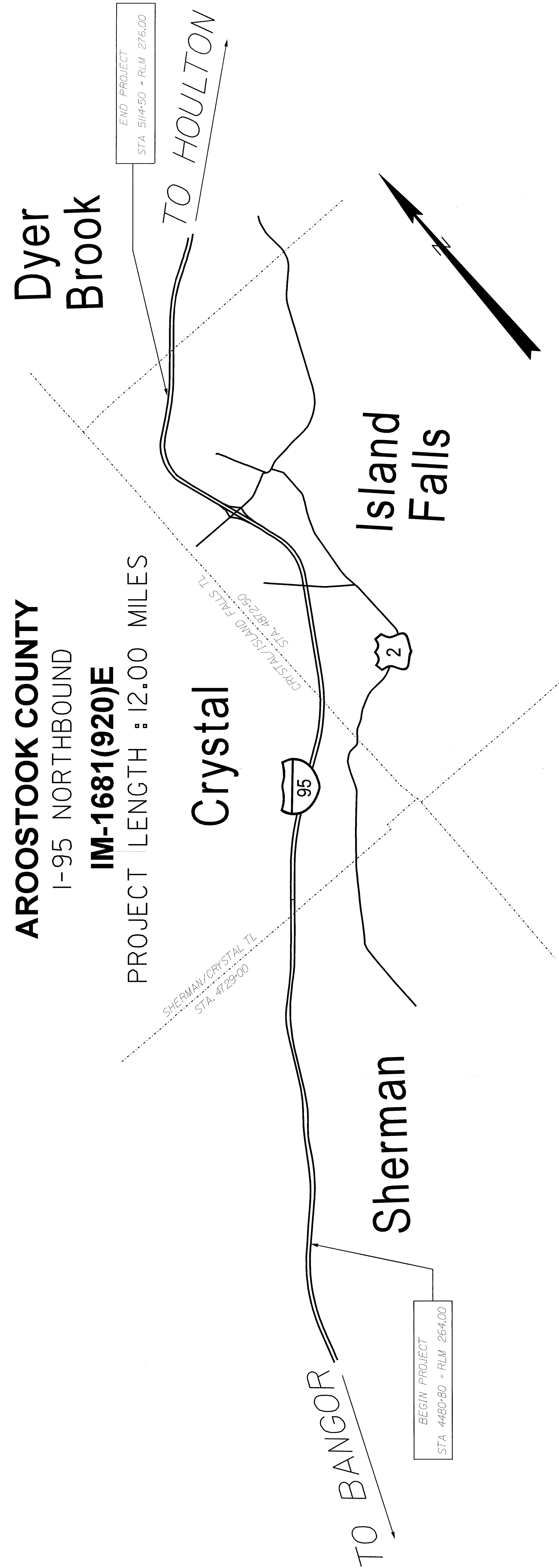
SHERMAN - ISLAND FALLS

AROOSTOOK COUNTY

I-95 NORTHBOUND

IM-1681(920)E

PROJECT LENGTH : 12.00 MILES



| TRAFFIC DATA                   | SEC. 1                        |                       | SEC. 2                   |                   |
|--------------------------------|-------------------------------|-----------------------|--------------------------|-------------------|
|                                | Exit 264-SHERMAN TO           | EXIT 276-ISLAND FALLS | EXIT 276-ISLAND FALLS TO | EXIT 286-OAKFIELD |
| Current (2012) AADT            | 2060                          |                       | 2120                     |                   |
| Future (2032) AADT             | 2580                          |                       | 2740                     |                   |
| DHV - % of AADT                | 12                            |                       | 12                       |                   |
| Design Hour Volume             | 310                           |                       | 329                      |                   |
| % Heavy Trucks (AADT)          | 24                            |                       | 23                       |                   |
| % Heavy Trucks (DHV)           | 21                            |                       | 20                       |                   |
| Directional Distribution (DHV) | 100                           |                       | 100                      |                   |
| 18 kip Equivalent P 2.0        | 314                           |                       | 314                      |                   |
| 18 kip Equivalent P 2.5        | 299                           |                       | 299                      |                   |
| Design Speed (mph)             | 75                            |                       | 75                       |                   |
| Functional Class:              | PRINCIPAL ARTERIAL INTERSTATE |                       |                          |                   |

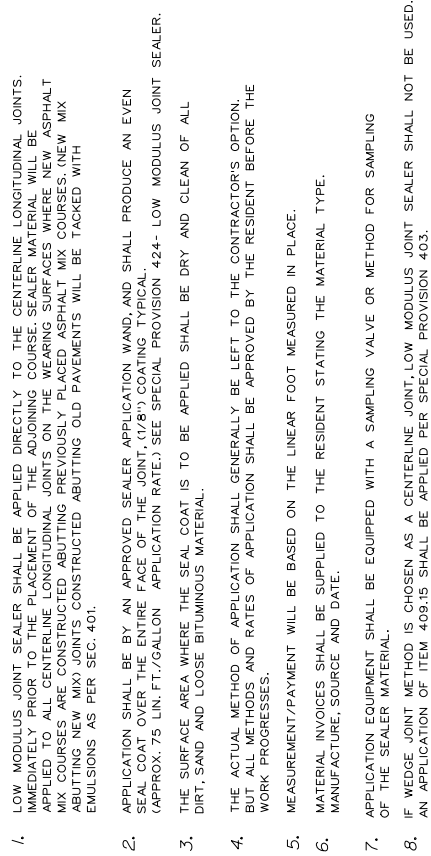
|                          |                                                                                                                                                                     |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>PROJECT LOCATION:</u> | Beginning 2.45 miles north of the Benedicta/Sherman town line and extending northerly 12.00 miles ending 1.21 miles south of the Island Falls/Dyer Brook town line. |
| <u>PROGRAM AREA:</u>     | Highway Program                                                                                                                                                     |
| <u>SCOPE OF WORK:</u>    | Mill and Fill with drainage and safety improvements.                                                                                                                |

|                                                |  |             |  |                                                                                                                                                                               |  |                                                        |  |                           |  |
|------------------------------------------------|--|-------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------|--|---------------------------|--|
| STATE OF MAINE<br>DEPARTMENT OF TRANSPORTATION |  |             |  | PROJECT INFORMATION<br>PROGRAM: THOMAS STEVENS<br>PROJECT MANAGER: THOMAS STEVENS<br>DESIGNER:<br>CONSULTANT:<br>PROJECT RESIDENT:<br>CONTRACTOR:<br>PROJECT COMPLETION DATE: |  | TITLE SHEET<br>SHERMAN-ISLAND FALLS<br>I-95 NORTHBOUND |  | SHEET NUMBER<br>1<br>OF 1 |  |
| APPROVED                                       |  | P.E. NUMBER |  | DATE                                                                                                                                                                          |  | CHIEF ENGINEER                                         |  | COMMISSIONER<br>DATE      |  |
| 3/30/12                                        |  | 3/27/12     |  | 3/27/12                                                                                                                                                                       |  | 3/27/12                                                |  | 3/27/12                   |  |





LONGITUDINAL CENTERLINE JOINT  
WITH LOW MODULUS JOINT SEALER APPLIED



DATE \_\_\_\_\_

PAGE NUMBER \_\_\_\_\_

SIGNATURE \_\_\_\_\_

TYPICAL SECTIONS

3

OF 3

NOT TO SCALE

**STATIONING**

|                                |              |
|--------------------------------|--------------|
| End Project                    | Sta. 5114+50 |
| Mile Marker 277                | Sta. 5083+30 |
| Crossover                      | Sta. 5077+20 |
| 75 MPH Sign                    | Sta. 5059+80 |
| Island Falls Overpass          | Sta. 5023+90 |
| Crossover                      | Sta. 5003+27 |
| Belvedere Rd. Overpass         | Sta. 4951+50 |
| Exit 2 Miles Sign              | Sta. 4899+95 |
| Crystal/Island Falls Town Line | Sta. 4872+50 |
| Mile Marker 272                | Sta. 4820+00 |
| Crossover                      | Sta. 4812+00 |
| Sherman/Crystal Town Line      | Sta. 4729+00 |
| Mile Marker 269                | Sta. 4661+20 |
| Crossover                      | Sta. 4612+50 |
| Mile Marker 267                | Sta. 4556+35 |
| Begin Project                  | Sta. 4480+80 |

## Construction Notes

### **Item 202.202 Removing Pavement Surface**

| <b><u>Station</u></b> | <b><u>to</u></b> | <b><u>Station</u></b> | <b><u>Mainline<br/>Depth</u></b> | <b><u>Remarks</u></b>                        |
|-----------------------|------------------|-----------------------|----------------------------------|----------------------------------------------|
| 4480+80               | -                | 5114+50               | 1 ¾"                             | 30.5' +/-<br>LT SHDR/Travel Lanes/2' RT SHDR |
| Bridge Approaches     |                  |                       | variable                         | 100' +/- full width to bridge profile.       |

### **Item 205.512 Widening of Existing Shoulder**

This Item is estimated for widening existing BCT's or other end treatments to the limits of a 350 shoulder widening for guardrail 350 terminal as per the Standard Details page 606(19). This Item will also be used to widen shoulder for lengthening guardrail runs. The following criteria will be required and considered incidental: All excavation/grubbing, the top 36" of gravel or match existing, any borrow needed to build sub-grade and any borrow needed to create a 4:1 slope. Compaction of borrow and gravel shall be completed with a 3-5 ton roller.

### **Item 403.102 Hot Mix Asphalt Pavement - Special Areas**

This item for use in areas where existing pavement does not come to within 3" of the guardrail posts.

### **Item 403.208 12.5mm HMA Surface**

This item to be used for 1 ¾" surface course, ramps, and crossovers.

### **Item 403.211 Hot Mix Asphalt shim 9.5mm**

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

### **Item 424.3331 Asphalt Low Modulus Crack Sealer Applied**

Right shoulder, as directed.

### **Item 424.3333 Low Modulus Joint Sealer, Applied**

Centerline longitudinal joint entire project. See Typical 3 of 3.

## **Construction Notes**

### **Item 606.356 Underdrain Delineator Post**

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

### **Item 615.07 Loam**

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

### **Item 629.05 Hand Labor, Straight Time**

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

### **Item 631.12 APE, 631.133 Skid Steer, & 631.172 Truck-Large**

These items estimated for removing excess material from in-slopes, in-slopes behind guardrail areas, ditching, and other work as directed. Skid steer intended to be used under guardrail beam. These items will also be used to remove the island at the Island Falls off ramp.

# DRAINAGE WIN 16819.20 SHERMAN – ISLAND FALLS I-95 NB

| STATION | SIZE<br>(inches) | REMOVE<br>(l.f.) | RELAY<br>(l.f.) | INSTALL<br>NEW (l.f.) | RIPRAP<br>*(c.y.) | *PIPE<br>TIES | REMARKS                         |
|---------|------------------|------------------|-----------------|-----------------------|-------------------|---------------|---------------------------------|
| 4497+50 | 48"              | 8'               | 8'              |                       |                   | 1             | Remove/Reset 8'RCP LT (Stream)  |
| 4497+50 | 48"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP RT (Stream) |
| 4522+00 | 42"              | 8'               | 8'              |                       |                   | 1             | Remove/Reset 8'RCP LT (Stream)  |
| 4522+00 | 42"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP RT (Stream) |
| 4525+00 | 36"              | 8'               | 8'              |                       |                   | 1             | Remove/Reset 8'RCP LT           |
| 4553+00 | 48"              | 8'               | 8'              |                       |                   | 1             | Remove/Reset 8'RCP LT (Stream)  |
| 4553+00 | 48"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP RT (Stream) |
| 4572+85 | 36"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP LT (Stream) |
| 4572+85 | 36"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP RT (Stream) |
| 4586+00 | 36"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP LT          |
| 4600+00 | 60"              | 24'              | 24'             |                       |                   | 3             | Remove/Reset 24'RCP LT (Stream) |
| 4600+00 | 60"              | 32'              | 32'             |                       |                   | 4             | Remove/Reset 32'RCP RT (Stream) |
| 4608+00 | 30"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP LT          |
| 4608+00 | 30"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP RT          |
| 4618+50 | 54"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP LT          |
| 4631+50 | 30"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP LT          |
| 4631+50 | 30"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP RT          |
| 4644+15 | 72"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP LT (Stream) |
| 4644+15 | 72"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP RT (Stream) |
| 4670+50 | 36"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP RT          |
| 4692+45 | 66"              | 24'              | 24'             |                       |                   | 3             | Remove/Reset 24'RCP RT (Stream) |
| 4698+00 | 24"              | 8'               | 8'              |                       |                   | 1             | Remove/Reset 8'RCP LT           |
| 4698+00 | 24"              | 8'               | 8'              |                       |                   | 1             | Remove/Reset 8'RCP RT           |
| 4709+50 | 30"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP LT          |
| 4709+50 | 30"              | 16'              | 16'             |                       |                   | 2             | Remove/Reset 16'RCP RT          |
| 4726+00 | 24"              | 16'              | 16'             |                       |                   | 1             | Remove/Reset 16'RCP LT          |
| 4726+00 | 24"              | 8'               | 8'              |                       |                   | 1             | Remove/Reset 8'RCP RT           |
|         |                  |                  |                 |                       |                   |               |                                 |

\* Estimate only. Metal End Wall = MEW

\* Length of ditching estimate only



# **GUARDRAIL WIN 16819.20 SHERMAN – ISLAND FALLS I-95 NB**

| 350<br>FLARED<br>TERMINAL<br>Station | BRIDGE TRANSITION/<br>NEW GUARDRAIL<br>TYPE 3D |            | SHOULDER<br>WIDENING<br>*s.y. | REMARKS                  |
|--------------------------------------|------------------------------------------------|------------|-------------------------------|--------------------------|
|                                      | Station to                                     | I.f.       |                               |                          |
| 4496+00 – 4496+38 LT                 |                                                |            |                               |                          |
| 4516+00 – 4516+38 LT                 |                                                |            |                               |                          |
| 4519+75 – 4520+13 RT                 |                                                |            |                               |                          |
| 4541+50 – 4541+88 LT                 |                                                |            |                               |                          |
| 4590+00 – 4590+38 LT                 |                                                |            |                               |                          |
| 4590+88 – 4591+25 RT                 |                                                |            |                               |                          |
| 4638+50 – 4638+88 LT                 |                                                |            |                               |                          |
| 4641+25 – 4641+63 RT                 |                                                |            |                               |                          |
| 4734+75 – 4735+13 LT                 |                                                |            |                               |                          |
| 4736+13 – 4736+51 RT                 |                                                |            |                               |                          |
| 4849+50 – 4849+88 LT                 |                                                |            |                               |                          |
| 4849+50 – 4849+88 RT                 |                                                |            |                               |                          |
| 5036+00 – 5036+38 LT                 | 5035+29.5                                      | 5036+35 LT | 62.5                          |                          |
| 5037+21 – 5037+59 RT                 | 5036+52.5                                      | 5037+59 RT | 62.5                          |                          |
|                                      | 5050+34                                        | LT         |                               | Type I Bridge Transition |
|                                      | 5050+34                                        | RT         |                               | Type I Bridge Transition |
|                                      | 5052+17                                        | LT         |                               | Type I Bridge Transition |
|                                      | 5052+17                                        | RT         |                               | Type I Bridge Transition |
|                                      | 5055+10                                        | LT         |                               | Type I Bridge Transition |
|                                      | 5055+10                                        | RT         |                               | Type I Bridge Transition |
|                                      | 5058+45                                        | LT         |                               | Type I Bridge Transition |
|                                      | 5058+45                                        | RT         |                               | Type I Bridge Transition |
|                                      |                                                |            |                               |                          |
|                                      |                                                |            |                               |                          |

**GUARDRAIL WIN 16819.20 SHERMAN – ISLAND FALLS I-95 NB**

[illegible]

**GENERAL NOTES**

1. Reference to left or right is in the direction of stationing which runs south to north. Roadway stationing was derived from As-built stationing and is continuous for roadway features in this contract. Bridge plans are from As-built stationing. Cross referencing sheets can be made available upon award of contract if needed.
2. No utility involvement is anticipated.
3. Hot mix asphalt shall be placed along longitudinal exposed joints at ramps (milled and paved surfaces) on a 12:1 taper to maintain traffic to the length specified by the Resident. Hot mix asphalt shall be placed in accordance with Standard Detail 202(01) for all transverse joints on mainline. Placement, maintenance and removal of these tapers will be considered incidental to 403 Items.
4. Where deemed necessary by the Resident, unsuitable excess material shall be removed from the edges of shoulders and placed in designated areas or disposed of. Payment will be made under the appropriate contract items.
5. When milling the lane adjacent to newly placed pavement, the milling machine shall mill the newly placed pavement by 3"± or as directed by the Resident. The contractor will be responsible for the quarter point milling mark ups. See Special Provision 400 if wedge joint method is being used.
6. All waste material not used on the project shall be disposed of off the project in waste areas approved by the Resident. Grading, seeding and mulching of waste areas will be incidental to rental items.
7. Any damage to the slopes caused by the Contractor's equipment, personnel or operation shall be repaired to the satisfaction of the Resident. All work, equipment and materials required to make repairs shall be at the Contractor's expense.
8. Any necessary cleaning of existing pavement prior to paving or milling shall be incidental to the related paving items.
9. No existing drainage shall be abandoned, removed or plugged without prior approval of the Resident.
10. Existing culverts and catch basins will be cleaned as directed by the Resident under the appropriate contract items.
11. As directed by the Resident, all existing Underdrain Outlets shall be located, cleaned out, and ditched as required or replaced as necessary. Payment will be made under appropriate hourly contract items.

**GENERAL NOTES**

12. 350 Flared Terminals shall be installed concurrently with the placement of each section of beam guardrail and or replacement of end treatments.
13. All guardrail which is removed and not reused on the project shall become property of the Contractor.
14. Holes created by Guardrail removal will be filled and compacted with approved materials as directed by the Resident. Payment to be considered incidental to the guardrail items.
15. Connections for proposed guardrail to existing guardrail will be considered incidental to Item 606.
16. Milling widths may be adjusted by the Resident.
17. Item# 205.512 widening of existing shoulder shall be 3' or 5' wide in areas where new guardrail shall be installed. In areas where Item # 205.512 widening of existing shoulder is used for guardrail end treatments, Item 205.512 shall conform to the dimensions for shoulder widening for guardrail 350 end terminal on page 606 (19) of the Departments Standard Detail book Revision of December 2002.
18. Payment for Item #645.306 Flexible Reflectorized Delineator shall include the cost of removing all existing metal delineators.
19. Contractor will be allowed to keep 25% of the millings. All pavement grindings/millings that will become property of the State of Maine will be delivered and stockpiled as follows: The millings shall be delivered to the State Lot on Rte 158 in Sherman until that lot is filled and the rest will go to the state lot in Oakfield. Payment for delivery and stockpiling will be incidental to Item 202.202. Stockpiling shall include all equipment, personnel and all necessary incidentals required to construct stockpiles as per normal construction practices.
20. The contractor must have passing job mix formulas for shim and surface before milling can begin.
21. "Undetermined Locations" shall be determined by the Resident.
22. Stations referenced are approximate.
23. Paving needs to be completed in an area before crack sealing adjacent shoulders.
24. Interstate crossovers may be used by the Contractor at the discretion of the Department only.
25. The paved gore areas between the on/off ramps and the mainline shall have an edge line of 12" white pavement marking line, Item 627.18, as directed by the Resident.

**GENERAL NOTES**

26. The following shall be incidental to the 603 Item(s):
- Any cutting of existing culverts and or connectors necessary to install new culvert replacements or extensions
  - All pipe excavation including any cutting and removal of pavement
  - All ditching at pipe ends
  - Furnishing, placing, grading, and compacting of any new gravel and/or fill material. This also includes Granular Borrow used under pipes and for temporary detours to maintain traffic during pipe installation (excavation is also incidental).
  - Granular Borrow under the pipe shall meet the requirements for Underwater Backfill
  - All work necessary to connect to existing pipes
  - Flow lines may be changed by 0.5M [1.5 ft]
  - Any necessary clearing of brush and small trees at culvert ends
  - An 18" wide strip of non woven geotextile meeting the requirements of Item 620.58 shall be placed over all pipe joints
27. Cleaning of the pavement following rental work will be considered incidental to the rental items. Cleaning will be done daily and to the satisfaction of the Resident prior to the Contractor leaving the project for the day.
28. All ditches that are regraded/excavated must receive erosion control immediately, as directed by the Resident.
29. Temporary erosion control blanket is estimated for use in ditching areas. When used in other areas to conform to Special Provision 656, blanket will not be measured.
30. The actual type and location of ditch protection will be determined by the Resident.
31. No separate payment for superintendent or foreman will be made for the supervision of work paid under equipment rental items, however supervision is required.
32. All work shall be done in accordance with the Maine Department of Transportation's Best Management Practices for Erosion & Sedimentation Control, February, 2008.

General Decision Number: ME120038 01/06/2012 ME38

Superseded General Decision Number: ME20100049

State: Maine

Construction Type: Highway

County: Aroostook County in Maine.

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

|                     |                  |
|---------------------|------------------|
| Modification Number | Publication Date |
| 0                   | 01/06/2012       |

SUME2011-033 09/14/2011

|                                                                         | Rates    | Fringes |
|-------------------------------------------------------------------------|----------|---------|
| CARPENTER, Includes Form Work....                                       | \$ 18.34 | 2.84    |
| INSTALLER - GUARDRAIL.....                                              | \$ 11.53 | 1.55    |
| IRONWORKER, REINFORCING.....                                            | \$ 18.71 | 0.00    |
| LABORER: Asphalt Raker.....                                             | \$ 13.10 | 2.65    |
| LABORER: Flagger.....                                                   | \$ 9.00  | 0.00    |
| LABORER: Landscape.....                                                 | \$ 14.44 | 0.16    |
| LABORER: Pipelayer.....                                                 | \$ 13.21 | 1.58    |
| LABORER: Wheelman.....                                                  | \$ 13.81 | 1.47    |
| LABORER: Common or General<br>incl Highway/Parking Lot<br>Striping..... | \$ 11.20 | 1.89    |
| OPERATOR: Backhoe.....                                                  | \$ 16.18 | 4.98    |
| OPERATOR: Bobcat/Skid Loader....                                        | \$ 16.73 | 5.57    |
| OPERATOR: Bulldozer.....                                                | \$ 14.72 | 3.11    |
| OPERATOR: Cold Planer.....                                              | \$ 17.63 | 0.00    |
| OPERATOR: Crane.....                                                    | \$ 21.21 | 6.19    |
| OPERATOR: Excavator.....                                                | \$ 15.22 | 2.73    |
| OPERATOR: Grader/Blade.....                                             | \$ 19.46 | 6.30    |
| OPERATOR: Loader.....                                                   | \$ 13.99 | 1.45    |

|                                                   |          |      |
|---------------------------------------------------|----------|------|
| OPERATOR: Milling Machine<br>Reclaimer Combo..... | \$ 16.81 | 0.80 |
| OPERATOR: Screed.....                             | \$ 15.34 | 3.67 |
| OPERATOR: Roller (Earth).....                     | \$ 11.55 | 1.72 |
| TRUCK DRIVER: Semi-Trailer<br>Truck.....          | \$ 16.36 | 9.09 |
| TRUCK DRIVER: 1, 2 and 3 Axles...                 | \$ 11.29 | 1.78 |
| TRUCK DRIVER: All Dump Trucks....                 | \$ 11.92 | 2.41 |

-----

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

=====

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

-----

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

#### Union Identifiers

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

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

#### Non-Union Identifiers

Classifications listed under an "SU" identifier were derived

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

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

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#### WAGE DETERMINATION APPEALS PROCESS

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

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

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

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

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

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

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

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

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

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

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

=====

END OF GENERAL DECISION

Town: **Sherman to Island Falls, Maine I-95 NB**  
Project: **IM-1681(920)E**; Win: **016819.20**  
Date: **March 14, 2012**

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

**MEETING**

A Preconstruction Utility Conference, as defined in Subsection 104.4.6 of the Standard Specifications **is not** 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/Railroad</b>                       | <b>Aerial</b> | <b>Underground</b> | <b>Railroad</b> |
|-----------------------------------------------|---------------|--------------------|-----------------|
| Maine Public Service Co.                      | X             |                    |                 |
| Eastern Maine Electric                        | X             |                    |                 |
| Fairpoint Communications                      | X             | X                  |                 |
| Maine Department of Transportation            |               | X                  |                 |
| Northern New England Telephone Operations LLC | X             | X                  |                 |

Temporary utility adjustments are **not** anticipated.

**AERIAL**

No Aerial Utility adjustments are anticipated as part of this project. If utility relocations become necessary, they will be scheduled in compliance with Section 104 of the Standard Specifications and will be done by the utilities in conjunction with the work by the Contractor. All above ground utility locations ( poles, guys, etc.) will be reviewed for compliance with the Department's Accommodation Policy following the completion of the paving operation. Any above ground utility locations not meeting the Department's Accommodation Policy will require relocation to the proper offset.

**Maine Public Service Co.**  
**Eastern Maine Electric**

**Chris Nicholas**  
**Tom Farnham**

**(207)760-2550**  
**(207)454-7555**

## **SUBSURFACE**

### ***Utility Specific Issues:***

**MDOT** has several facilities located within the project limits. Underground facilities are located in and around the “on” and “off” ramps at Exit 276. If any excavation, ditching or inslope work is necessary in these areas MDOT may want a representative present should any subsurface work be necessary in the vicinity of these Ramps and Speed Sign locations, The contractor shall provide five (5) working days notice before commencing any work in that area. The contact person for MDOT is Ron Cote at (207)624-3602.

**Fairpoint Communications** may have underground facilities located in and around the “on” and “off” ramps at Exit 276. If any excavation, ditching or inslope work is necessary in these areas applicable utility may want a representative present. The contractor shall provide five (5) working days notice prior to commencing any work in this area. Any damage to the buried cable caused by the Contractor during construction shall be repaired by the utility at the contractor’s expense. The contact for Fairpoint Communications is Dwayne Hartin at (207)463-9950.

## **UTILITY SIGNING**

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

## **SAFE PRACTICES AROUND UTILITY FACILITIES**

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

## **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**

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

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

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

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

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

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

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

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

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

Project No. IM-1681(920)E

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

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

- (a) The section of highway under construction in Aroostook County, Project No. IM-1681(920)E is located on I-95 Northbound, beginning 2.45 mi. north of the Benedicta/Sherman town line and extending northerly 12 miles to 1.21 mi. south of the Island Falls/Dyer Brook town line.

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

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

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

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

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

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

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

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

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

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

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

**Special Provision**  
**Section 105**  
**General Scope of Work**  
**(Limitations of Operations)**

- 1) This contract allows for only one paving operation per day unless otherwise authorized by the Resident.
- 2) A 24 hour notice is required for any changes in work schedule.
- 3) A 48 hour notice is required prior to paving operations.
- 4) Ramps may be closed for milling and paving only from 7p.m. to 7 a.m. The Department requires 72 hours notice prior to closing a ramp. Message boards will be in-place 72 hours prior to ramp closure with a message approved by the Department. The Contractor is responsible for notifying the parties listed in section 104.4.10.
- 5) The maximum length of a lane closure shall be 4 miles. There shall be a minimum of 2 miles open between lane closures.
- 6) All guardrail, pipe and rental items shall be completed in an area prior to the Contractor commencing milling and paving operations in that area unless otherwise approved by the Resident.
- 7) The Contractor's Traffic Control Plan shall discuss/address ways to minimize impact to the traveling public.
- 8) The Contractor will cease all operations on Friday, May 25, 2012 by 3:00 p.m. and will not be allowed to commence work until Tuesday, May 29, 2012 at 6:00 a.m.
- 9) The Contractor will cease all operations on Tuesday, July 3, 2012 by 3:00 p.m. and will not be allowed to commence work until Thursday, July 5, 2012 at 6:00 a.m.
- 10) The Contractor will cease all operations on Friday, August 31, 2012 by 3:00 p.m. and will not be allowed to commence work until Tuesday September 4, 2012 at 6:00 a.m.

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 7/15.

**(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. 4522+00
2. 4600+00
3. 4618+50
4. 4644+15 (Section 7 Stream)
5. 4692+45 (Section 7 Stream)
6. 4798+70 (Section 7 Stream)
7. 4889+00 (Section 7 Stream)
8. 5202+76
9. 5365+76
10. 5636+36

III. Special Conditions:

1. Maine DOT shall hold a pre-construction meeting for each project with appropriate MEDOT Environmental Office staff, other MEDOT staff, and the MEDOT construction crew (as practicable) or the contractor(s), to review all procedures and requirements for avoiding and minimizing impacts to Atlantic salmon and to emphasize the importance of these measures for protecting salmon and their habitat. ACOE staff will attend these meetings as practicable.
2. The contractor shall notify the Resident at least one week prior to dewatering of any cofferdams so that qualified MaineDOT Environmental Staff can be on-site to monitor the drawdown and relocate any Atlantic salmon downstream of the project area. The contractor shall not begin dewatering activities until MaineDOT Environmental Staff are onsite. (This condition only applies to Section 7 streams).
3. See ACOE permit for additional conditions
4. See attachment to this special provision for excerpts from the BO.

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.

### **Excerpts from the ESA Biological Assessment:**

#### ***1.2.1 Cofferd Dam Descriptions***

While the projects in this batch consultation vary by scope, the same conceptual construction guidelines for the installation of cofferdams will be employed whenever cofferdams are used. Individual details will vary by project. The initial step in culvert and box Replacement Projects is to dewater the work area so that all in-stream 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 banks and then returning the flow to the stream downstream of the work area.

#### ***Cofferdam Placement***

Cofferdams constructed of various materials (e.g. sheetpile, sandbag, industrial sandbag, inflatable dam) will be placed to keep water out of the work area by blocking flow both upstream and downstream. This isolation technique has the added benefit of keeping all sediment released by instream construction in the dry work area, where it can be removed before stream flow is restored.

#### ***For sandbag cofferdams:***

- 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 work area to catch accumulating water, which is then pumped into the "Dirty Water" Treatment System (described below on page 10).

#### ***For sheetpile cofferdams:***

- a. The upstream portion of the dam will be installed first, followed by the downstream dam if it is deemed necessary to keep the work area dry. If the substrate is conducive to driving sheets (i.e. substrate without ledge and/or boulders), then the dam would be installed by vibrating the interlocking sheets into the substrate. If the substrate has ledge or boulders, then pre-excavation may be required to install the sheets. This would consist of a small amount of dredging with a clam-shell bucket.
- b. If the cofferdam is being established around a culvert structure, the sheets will be driven deep enough into the stream substrate so that they are self supporting. If there is any concern about the bottom of the sheets "kicking out", then large sand bags or rip-rap will be placed along the bottom on the inside of the sheets.
- c. If the cofferdam is being established around a new pier location, then a concrete seal will be placed on the floor of the dam. This seal provides a concrete pad on which to construct the new pier footing and ensures that the cofferdam is sealed tightly. If placing a seal, the substrate within the dam will be excavated with a clam-

shell bucket prior to pouring the concrete seal. Once the seal is placed on the stream bottom and the cofferdam is braced, the work area can be dewatered.

d. If a concrete seal has been placed, dewatering will take place after the underwater concrete has cured, which generally takes seven days. Sediment is allowed to settle on top of the seal. Most of the water inside the cofferdam is discharged overboard (i.e., directly into the stream) as the water in the upper elevations of the cofferdam has not been in contact with the concrete or accumulated sediments.

At the first sign of sediment stirring in the cofferdam, the pump is stopped and an outlet hose is attached so that sediment laden (high pH) water can be captured and properly treated in the “Dirty Water” Treatment System. A representative of the MEDOT Surface Water Quality Unit will periodically monitor pH and determine what water is sufficiently clean to be pumped directly back into the river or what water needs to be treated first. Once dewatered, the seal can be cleaned of sediment to accommodate construction work. After the seal is cleaned, the cofferdam can be maintained in a “dry” condition by pumping to facilitate construction of the new structure.

#### *For inflatable cofferdams:*

a. Inflatable dams require a relatively even and stable substrate for successful installation. Relatively narrow spots in the stream are chosen both upstream and downstream. The cofferdams are laid across the channel, either by hand or by boat.

b. The inflatable cofferdams are pumped full of water and installed around the structure.

The weight of the water creates a seal with the stream substrate.

c. Prior to dewatering, upstream diversion pumps are started and flow is pumped around the work area while the area between the cofferdams would remain flooded. During dewatering, a representative of the MEDOT Surface Water Quality Unit will determine what water is sufficiently clean to be pumped directly back into the river or what water needs to be treated first. As the area between the cofferdams is dewatered, either overboard into the stream if clean or into a sediment basin if the installation has disturbed the sediment, the hydraulic pressure on the outside of the inflatable dam becomes greater than that inside the cofferdams. When this happens, the cofferdams have a tendency to roll toward the dewatered side. The contractor will generally support the cofferdam on the inside using sandbags, clean stone, or Jersey barriers. Once the cofferdam is stabilized, it can be maintained in a “dry” condition by pumping to facilitate construction of the new structure.

#### *Stream Diversion after Cofferdam Installation*

Stream diversion is generally not a consideration when cofferdams are established around instream piers or abutments along the stream bank. When cofferdams block the entire channel, however, the stream will need to be continually diverted around the work area. If there is a large volume of water in the stream, a culvert may be placed adjacent to the existing structure to carry the stream flow during construction. Generally, however, stream flow is diverted around the work area using the following procedure, which applies to all types of cofferdams:

a. Prior to instream work, a diversion culvert may be placed under the road away from the stream to run a diversion hose. This protects the hose during the construction activities. Another approach is to run the hose over the road and block up around it with wood to protect it from vehicle 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 fabric. A screen will be placed at the intake hose end to prevent injury to fish and other aquatic organisms within the work area. To prevent fish entrainment into the hose, the screen openings shall not exceed 6.35 mm (¼ inch) in the narrow direction (example: 6-14 mesh) (NMFS 1995). In order to prevent impingement of Atlantic salmon parr on the screened intake hoses, additional barriers consisting of either placing the intake within a 5-gallon bucket or creating a barrier with a ¼ knotless block seine around the perimeter of the intake will be utilized. Other additional barriers, including barriers made of sandbags, plastic sheeting, or other suitable materials may be utilized depending on site conditions. The approach velocity will be kept below 0.24 m/sec (0.8 ft/second) to avoid impingement of Atlantic salmon parr (NMFS 1995).

c. The gasoline diversion pump(s) will then be placed as far away from the stream as possible. The number and size of pumps used varies depending on the stream flows present when the work is being conducted.

d. The downstream discharge point within the stream channel will be protected from scour caused by high-velocity water by discharging onto ledge, large boulders, or non-woven geotextile fabric laid along the streambed.

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

After the cofferdams are in place and water diversion pumps have diverted the stream around the work area, it will be necessary to dewater the work area itself. The water from inside the cofferdam will be pumped into a sediment basin for filtration, as the water typically contains some amount of sediment. When dewatering cofferdams around mid-river piers, dirty water may be pumped onto a barge outfitted with a sediment treatment basin. A representative of the MEDOT Surface Water Quality Unit will determine what water is sufficiently clean to be pumped directly back into the river (if any) and what water needs to be run through a filtration system first for further treatment.

a. The system will be installed according to the MEDOT BMP Manual (2008a).

b. The “dirty water” treatment system will either be comprised of a hay bale basin or a “dirt bag”. Erosion control fabric is draped over the hay bales and sometimes placed underneath to assist in trapping sediments. These sediments will be disposed of away from the stream in a manner that they cannot erode back into the stream.

c. The sedimentation basin will be located close to the work location, with adequate vegetation between it and the stream to act as a sediment filter.

d. Pumping

i. Hoses will be laid between the treatment basin and the downstream scour pool within the work area.

ii. The “dirty water” pump(s) will then be started in the downstream scour pool.

iii. Before dewatering of the area inside the cofferdam is started, MEDOT staff will generally electrofish the pool to remove Atlantic salmon and other aquatic organisms. As the pool is dewatering, any stranded aquatic organisms (including Atlantic salmon) will be caught and transferred to the downstream channel by a MEDOT biologist (See Appendix B for the fish evacuation plan). Electrofishing within cofferdams on “big river” projects (like the Norridgewock bridge replacement on the Kennebec River) may not be feasible due to the depth of the water.

e. The work area will then be pumped dry, with this water going to the “dirty water” treatment system.

f. If there is leakage around the cofferdam, or upwelling in the work area through the stream substrate, this water will be pumped into the “dirty water” system for treatment prior to its release back into the stream. In some situations, it is necessary to excavate a pocket within the cofferdam to allow such pumping.

#### *Closeout Procedures*

After all construction work within the cofferdams has been completed, the cofferdams can be removed and stream flow restored through or around the crossing structure. The same basic closeout procedure is followed for all cofferdam types, with some slight variations in the removal techniques.

a. The upstream “dirty water” pump will be stopped and removed.

b. The diversion pump system will be stopped and the upstream coffer dam will slowly be breached. The first flush of dirty water from the restored stream flow 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 downstream 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 permanent erosion and/or sediment control BMPs will be installed as appropriate.

Sandbag cofferdams will either be removed by hand for small bags or by an excavator or crane working from the stream bank for large, industrial-sized sandbags. Sheetpile cofferdams will be removed by vibrating or pulling the sheets out with an excavator or other equipment. Sometimes sheetpiles are cut off at the bottom and left in place below the river bottom. If a concrete seal is used, it will be left in place (generally having been

incorporated into a new bridge pier). Inflatable cofferdams will be removed by slowly opening the dam so that the water can drain into the dam at a steady rate. The inflatable “bags” are heavy and are generally removed from the stream with an excavator or other equipment.

### ***1.2.3 Culvert Rehabilitation Projects—Pipe End Reset, Invert Line or Slip Line***

#### ***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 existing 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 or to allow placement of a new pipe end or pipe extension. This typically includes adding gravel bedding that the pipe end can sit on. To prevent scour at the outlet, a riprap apron is placed below the water line under the pipe invert. This apron may extend downstream beyond the end of the pipe. The installation of gravel bedding or rip-rap will not affect fish passage through the culvert. Once final grading is complete, the pipe end will be placed back onto the culvert. The site is then backfilled and slopes rip-rapped. Finally, the cofferdams are removed and normal stream flow is restored.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Firm Name

Firm Address

Firm status (DBE or non-DBE)

Age of firm (years)

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

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

|                                                                                   |
|-----------------------------------------------------------------------------------|
| <p>MaineDOT DBE Project Attainment Target (PAT)<br/>for this Project is 3.5 %</p> |
|-----------------------------------------------------------------------------------|

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

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

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

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

**Special Provision**  
**Section 107**  
**Prosecution and Progress**  
**(Contract Time)**

- 1) The Contractor will be allowed to commence work on or after May 21, 2012 as long as all applicable plans required under this contract have been submitted and approved.
- 2) The completion date for this project is September 8, 2012.
- 3) For every weekday not worked once operations commence, the contractor will be charged supplemental liquidated damages per standard specification 107.7.2 (excluding days lost to inclement weather).

SPECIAL PROVISION  
SECTION 107  
SCHEDULING OF WORK

Replace Section 107.4.2 with the following:

”107.4.2 Schedule of Work Required Within 21 Days of Contract Execution and before beginning any on-site activities, the Contractor shall provide the Department with its Schedule of Work. The Contractor shall plan the Work, including the activity of Subcontractors, vendors, and suppliers, such that all Work will be performed in Substantial Conformity with its Schedule of Work. The Schedule must include sufficient time for the Department to perform its functions as indicated in this Contract, including QA inspection and testing, approval of the Contractor's TCP, SEWPCP and QCP, and review of Working Drawings.

At a minimum, the Schedule of Work shall include a bar chart which shows the major Work activities, milestones, durations, submittals and approvals, and a timeline. Milestones to be included in the schedule include: (A) start of Work, (B) beginning and ending of planned Work suspensions, (C) Completion of Physical Work, and (D) Completion. If the Contractor Plans to Complete the Work before the specified Completion date, the Schedule shall so indicate.

Any restrictions that affect the Schedule of Work such as paving restrictions or In-Stream Work windows must be charted with the related activities to demonstrate that the Schedule of Work complies with the Contract.

The Department will review the Schedule of Work and provide comments to the Contractor within 20 days of receipt of the schedule. The Contractor will make the requested changes to the schedule and issue the finalized version to the Department.”

SPECIAL PROVISION

SECTION 107

TIME

(Scheduling of Work – Projected Payment Schedule)

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

SPECIAL PROVISION  
SECTION 108  
PAYMENT  
(Asphalt Escalator)

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

- Item 403.102 Hot Mix Asphalt – Special Areas
- Item 403.206 Hot Mix Asphalt - 25 mm
- Item 403.207 Hot Mix Asphalt - 19 mm
- Item 403.2071 Hot Mix Asphalt - 19 mm (Polymer Modified)
- Item 403.2072 Hot Mix Asphalt - 19 mm (Asphalt Rich Base)
- Item 403.2073 Warm Mix Asphalt - 19 mm
- Item 403.208 Hot Mix Asphalt - 12.5 mm
- Item 403.2081 Hot Mix Asphalt - 12.5 mm (Polymer Modified)
- Item 403.20813 Warm Mix Asphalt - 12.5 mm (Polymer Modified)
- Item 403.2083 Warm Mix Asphalt - 12.5 mm
- Item 403.209 Hot Mix Asphalt - 9.5 mm (sidewalks, drives, & incidentals)
- Item 403.210 Hot Mix Asphalt - 9.5 mm
- Item 403.2101 Hot Mix Asphalt - 9.5 mm (Polymer Modified)
- Item 403.2102 Hot Mix Asphalt - 9.5 mm (Asphalt Rich Base)
- Item 403.2103 Warm Mix Asphalt - 9.5 mm
- Item 403.2104 Hot Mix Asphalt - 9.5 mm (3/4" Surface)
- Item 403.211 Hot Mix Asphalt – Shim
- Item 403.2111 Hot Mix Asphalt – Shim (Polymer Modified)
- Item 403.2113 Warm Mix Asphalt - Shim
- Item 403.212 Hot Mix Asphalt - 4.75 mm (Shim)
- Item 403.2123 Warm Mix Asphalt - 4.75 mm (Shim)
- Item 403.213 Hot Mix Asphalt - 12.5 mm (base and intermediate course)
- Item 403.2131 Hot Mix Asphalt - 12.5 mm (base and intermediate course Polymer Modified)
- Item 403.2132 Hot Mix Asphalt - 12.5 mm (Asphalt Rich Base and intermediate course)
- Item 403.2133 Warm Mix Asphalt - 12.5 mm (base and intermediate course)
- Item 403.214 Hot Mix Asphalt - 4.75 mm (Surface)
- Item 403.2143 Warm Mix Asphalt - 4.75 mm (Surface)
- Item 461.13 Maintenance Surface Treatment

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

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

Item 403.102–6.2%  
Item 403.206–4.8%  
Item 403.207–5.2%    Item 403.2071–5.2%    Item 403.2072–5.8%    Item 403.2073–5.2%  
Item 403.208–5.6%    Item 403.2081–5.6%    Item 403.20813–5.6%    Item 403.2083–5.6%  
Item 403.209–6.2%  
Item 403.210–6.2%    Item 403.2101–6.2%    Item 403.2102–6.8%    Item 403.2103–6.2%  
Item 403.2104–6.2%  
Item 403.211–6.2%    Item 403.2111–6.2%    Item 403.2113–6.2%  
Item 403.212–6.8%    Item 403.2123–6.8%  
Item 403.213–5.6%    Item 403.2131–5.6%    Item 403.2132–6.2%    Item 403.2133–5.6%  
Item 403.214–6.8%    Item 403.2143–6.8%  
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 (Excluding the Connecticut market area), as listed in the Asphalt Weekly Monitor.

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

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

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

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

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

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

On highways or expressways with directional traffic, the Contractor will be required to remove the pavement surface on the adjacent sections of travel lane and designated portions of adjacent shoulder before the end of the following calendar day unless the centerline edge is tapered to a 12:1. Failure to remove the centerline vertical edge by milling, using the approved taper, or matching the adjacent course the following day will constitute a traffic control violation unless an excusable delay is granted by the Department. The Contractor will be required to remove the specified pavement course over the full width of the mainline traveled ways prior to opening the sections to weekend or holiday traffic.

On roadways with two-way traffic, the Contractor will be required to remove the specified pavement course over the full width of the mainline traveled ways prior to opening the sections to weekend or holiday traffic.

During any period that a centerline vertical or tapered edge exists, the Contractor will be responsible for installing additional warning signage that clearly defines the centerline vertical or tapered edge and elevation differential hazard, as well as additional centerline delineation such as double RPM application, or temporary painted line. The Traffic Control Plan shall include the additional requirements. All signs and traffic control devices will conform to Section 719.01, and Section 652, and will be installed prior to the work, at a maximum spacing of 0.50 mile [0.80 km] for the entire length of the effected roadway section. All additional signing, labor, traffic control devices, or incidentals will not be paid for directly, but will be considered incidental to the appropriate 652 bid items.

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

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

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

CONSTRUCTION REQUIREMENTS

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

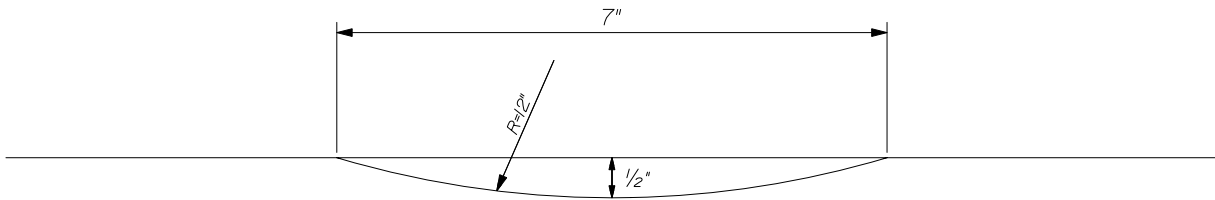
Equipment The equipment shall be a cold milling machine or a cold planing machine specially manufactured for rumble strips. This machine shall be capable of cutting 1200 rumble strips per hour of operation. The Contractor will perform a test section prior to rumble strip installation and at any time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

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

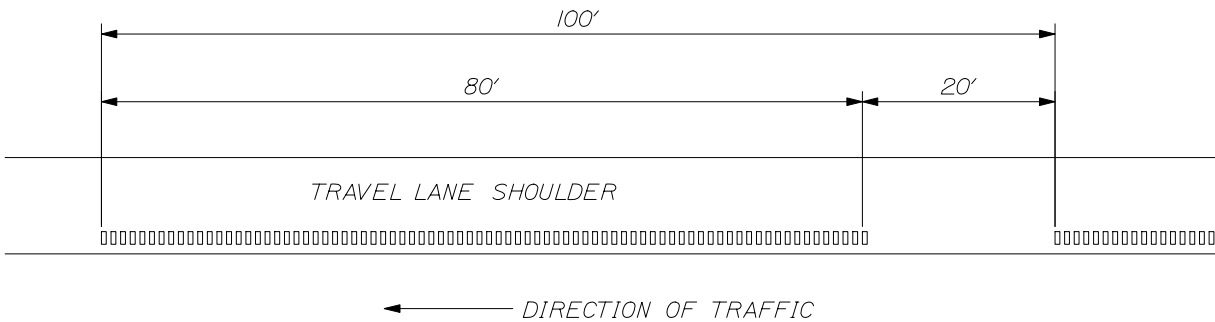
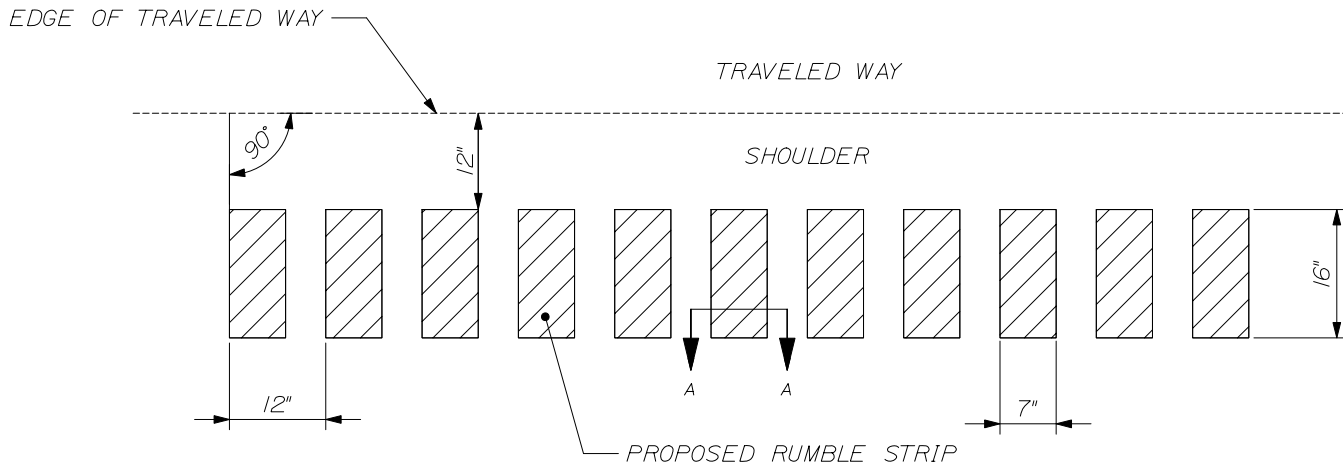
Basis of Payment The accepted quantity of rumble strips will be paid for at the unit price bid per foot [meter] which price will be full compensation for removing and salvaging the bituminous material and for any labor, equipment, and incidentals needed to complete this work.

Payment will be made under:

| <u>Pay Item</u>                 | <u>Pay Unit</u> |
|---------------------------------|-----------------|
| 202.205 Rumble Strip - Shoulder | Foot [Meter]    |



SECTION A - A



BREAK DETAIL

NOTES:

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

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

# SHOULDER RUMBLE STRIP DETAIL - INTERSTATE

SPECIAL PROVISION  
DIVISION 400  
PAVEMENTS

SECTION 401 - HOT MIX ASPHALT PAVEMENT

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

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

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

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

For specification purposes, RAP will be categorized as follows:

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

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

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

401.03 Composition of Mixtures The Contractor shall compose the Hot Mix Asphalt Pavement with aggregate, Performance Graded Asphalt Binder (PGAB), and mineral filler if required. HMA shall be designed and tested according to AASHTO R35 and the volumetric criteria in Table 1. The Contractor shall size, uniformly grade, and combine the aggregate fractions in proportions that provide a mixture meeting the grading requirements of the Job Mix Formula (JMF). The Contractor may use a maximum of 20 percent Classified RAP in any base, binder, surface, or shim course. For Unclassified RAP stockpiles no more than 15 percent shall be used. The Contractor may be allowed to use more than 20 percent Classified RAP, up to a maximum of 25 percent Classified RAP, in a base, binder, or shim course provided that PG 58-34 asphalt binder is used in the mixture. A PG 52-34 may be used when approved by the Department.

The Contractor shall submit for Department approval a JMF to the Central Laboratory in Bangor for each mixture to be supplied. The Department may approve 1 active design per nominal maximum size, per traffic level, per plant, plus a 9.5mm “fine” mix for shimming and where required, a non-RAP design for bridge decks. The Department shall then have 15 calendar days in which to process a new design before approval. The JMF shall establish a single percentage of aggregate passing each sieve size within the limits shown in section 703.09. The mixture shall be designed and produced, including all production tolerances, to comply with the allowable control points for the particular type of mixture as outlined in 703.09. The JMF shall state the original source, gradation, and percentage to be used of each portion of the aggregate including RAP when utilized, and mineral filler if required. It shall also state the proposed PGAB content, the name and location of the refiner, the supplier, the source of PGAB submitted for approval, the type of PGAB modification if applicable, and the location of the terminal if applicable.

In addition, the Contractor shall provide the following information with the proposed JMF:

- Properly completed JMF indicating all mix properties (Gmm, VMA, VFB, etc.)
- Stockpile Gradation Summary
- Design Aggregate Structure Consensus Property Summary
- Design Aggregate Structure Trial Blend Gradation Plots (0.45 power chart)
- Trial Blend Test Results for at least three different asphalt contents
- Design Aggregate Structure for at least three trial blends
- Test results for the selected aggregate blend at a minimum of three binder contents
- Specific Gravity and temperature/viscosity charts for the PGAB to be used
- Recommended mixing and compaction temperatures from the PGAB supplier
- Material Safety Data Sheets (MSDS) For PGAB
- Asphalt Content vs. Air Voids trial blend curve
- Test report for Contractor’s Verification sample
- Summary of RAP test results (if used), including count, average and standard deviation of binder content and gradation

At the time of JMF submittal, the Contractor shall identify and make available the stockpiles of all proposed aggregates at the plant site. There must be a minimum of 150 Mg [150 ton] for stone stockpiles, 75 Mg [75 ton] for sand stockpiles, and 50 Mg [50 ton] of blend sand before the Department will sample. The Department shall obtain samples for laboratory testing. The Contractor shall also make available to the Department the PGAB proposed for use in the mix in sufficient quantity to test the properties of the asphalt and to produce samples for testing of the mixture. Before the start of paving, the Contractor and the Department shall split a production sample for evaluation. The Contractor shall test its split of the sample and determine if the results meet the requirements of the Department’s written policy for mix design verification (See Maine DOT Policies and Procedures for HMA Sampling and Testing available at the Central Laboratory in Bangor). If the results are found to be acceptable, the Contractor will forward their results to the Department’s Lab, which will test the Department’s split of the sample. The results of the two split samples will be compared and shared between the Department and the Contractor. If the Department finds the mixture acceptable, an approved JMF will be forwarded to the Contractor and paving may commence. The first day’s production shall be monitored, and the approval may be withdrawn if the mixture exhibits undesirable characteristics such as checking, shoving or displacement. The Contractor shall be allowed to submit aim changes within 24 hours of receipt of the first Acceptance test result. Adjustments will be allowed of up to 2% on the percent passing the 2.36 mm sieve through the 0.075 mm and 3% on the percent passing the 4.75 mm or larger sieves. Adjustments will be allowed on the %PGAB of up to 0.2%. Adjustments will be allowed on GMM of up to 0.010.

The Contractor shall submit a new JMF for approval each time a change in material source or materials properties is proposed. The same approval process shall be followed. The cold feed percentage of any aggregate may be adjusted up to 10 percentage points from the amount listed on the JMF, however no aggregate listed on the JMF shall be eliminated. The cold feed percentage for RAP may be adjusted up to 5

percentage points from the amount listed on the JMF but shall not exceed the maximum allowable percentage for RAP for the specific application.

TABLE 1: VOLUMETRIC DESIGN CRITERIA

| Design<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.

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

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

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

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

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

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

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

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

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

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

The Contractor may place Hot Mix Asphalt Pavement for use other than a traveled way wearing course in either Zone between the dates of April 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 detailed description of RAP processing, stockpiling and introduction into the plant as well as a note detailing conditions under which the percent of RAP will vary from that specified on the JMF.
- s. A detailed procedure outlining when production will be halted due to QC or Acceptance testing results.
- t. A plan to address the change in PGAB source or supplier and the potential co-mingling of differing PGAB's.
- u. A procedure to take immediate possession of acceptance samples once released by MaineDOT and deliver said samples to the designated acceptance laboratory.

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

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

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

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

TABLE 2 : MINIMUM QUALITY CONTROL FREQUENCIES

| Test or Action                             | Frequency                                       | Test Method         |
|--------------------------------------------|-------------------------------------------------|---------------------|
| Temperature of mix                         | 6 per day at street and plant                   | -                   |
| Temperature of mat                         | 4 per day                                       | -                   |
| %TMD (Surface)                             | 1 per 125 Mg [125 ton]<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 T308 |
| Voids at $N_{design}$                      | 1 per 500 Mg [500 ton]                          | AASHTO T 312*       |
| Voids in Mineral Aggregate at $N_{design}$ | 1 per 500 Mg [500 ton]                          | AASHTO T 312*       |
| Rice Specific Gravity                      | 1 per 500 Mg [500 ton]                          | AASHTO T209         |
| Coarse Aggregate Angularity                | 1 per 5000 Mg [5000 ton]                        | ASTM D5821          |
| Flat and Elongated Particles               | 1 Per 5000 Mg [5000 ton]                        | ASTM D4791          |
| Fine Aggregate Angularity                  | 1 Per 5000 Mg [5000 ton]                        | AASHTO T304         |

\*Method A and B only

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

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

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

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

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

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

TABLE 3: Control Limits

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

\*Based on AASHTO T 308

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

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

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

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

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

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

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

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

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

TABLE 4: ACCEPTANCE CRITERIA

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

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

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

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

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

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

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

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

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

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

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

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

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

TABLE 5: METHOD A ACCEPTANCE LIMITS

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

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

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

TABLE 6: METHOD B ACCEPTANCE LIMITS

| Property                                  | USL and LSL                                    |
|-------------------------------------------|------------------------------------------------|
| Percent Passing 4.75 mm and larger sieves | Target +/-7                                    |
| Percent Passing 2.36 mm to 1.18 mm sieves | Target +/-5                                    |
| Percent Passing 0.60 mm                   | Target +/-4                                    |
| Percent Passing 0.30 mm to 0.075 mm sieve | Target +/-3                                    |
| PGAB Content                              | Target +/-0.5                                  |
| Air Voids                                 | 4.0% +/-2.0                                    |
| Fines to Effective Binder                 | 0.6 to 1.4                                     |
| Voids in the Mineral Aggregate            | LSL from Table 1                               |
| Voids Filled with Binder                  | Table1 plus a 4% production tolerance for USL. |
| % TMD (In-place Density)                  | 95.0% +/- 2.5%                                 |

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

TABLE 7: METHOD C ACCEPTANCE LIMITS

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

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

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

TABLE 8: METHOD D ACCEPTANCE LIMITS

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

TABLE 8b Method "D" Price Adjustments

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

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

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

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

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

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

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

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

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

Density If the pay factor for Density falls below 0.80 for Method A or C or 0.86 for Method B, all of the cores will be randomly re-cut by Sublot. A new pay factor will be calculated that combines all initial and retest results. If the resulting pay factor is below 0.80 for Method A or C or below 0.86 for Method B, the entire Lot shall be removed and replaced with material meeting the specifications at no additional cost to the Department, except that the Department may, when it appears that there is a distinct pattern of defective material, isolate any defective material by investigating each mix sample 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<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 0.86, then the composite pay factor for PGAB Content, VMA, and Air Voids shall be 0.70.

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

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

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

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

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

#### Pay Adjustment Method C

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

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

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

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

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

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

#### Pay Adjustment Method D

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

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

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

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

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

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

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

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

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

TABLE 10: DISPUTE RESOLUTION VARIANCE LIMITS

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

## SECTION 402 - PAVEMENT SMOOTHNESS

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

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

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

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

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

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

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

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

Computation of Smoothness Pay Adjustment:

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

where:

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

PF = smoothness pay factor for the Lot

P = Contract unit price for surface pavement

PA = pay adjustment

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

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

Payment will be made under:

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

## SECTION 403 - HOT BITUMINOUS PAVEMENT

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

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

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

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

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

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

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

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

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

Payment will be made under:

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

SPECIAL PROVISION  
DIVISION 400  
PAVEMENTS

SECTION 401 - HOT MIX ASPHALT PAVEMENT

(Longitudinal joint construction using wedge/taper apparatus)

The Special Provision 400. Section 401 – Hot Mix Asphalt Pavement, subsection 401.15 – Spreading and Finishing, and subsection 401.17- Joints have been modified with the following revisions. All sections not revised by this Special Provision shall be as outlined in the Special Provision 400 Pavements, Section 401 – Hot Mix Asphalt Pavement. References to Standard Specifications, Special Provisions, or other documents, shall be determined as the most current version available at the time of bid, or as amended. All costs associated with this Item will not be paid for directly, but shall be considered included in the associated contract items.

401.15 Spreading and Finishing The section has been amended as follows:

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 that 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, or within this Special Provision.

When an approved longitudinal joint construction method is utilized, such as a manufactured notched wedge apparatus, the Department may allow the placement of mixtures in one continuous lane for each calendar day worked, with the following conditions:

The Contractor may utilize a manufactured notched wedge joint apparatus on all HMA layers 1 ½ inch or greater in Zone 1 between the dates of May 30<sup>th</sup> and the Saturday following September 1<sup>st</sup>, and in Zone 2 between the dates of May 15<sup>th</sup> and the Saturday following September 15<sup>th</sup>. When the work is to be performed, either by contract requirement or Contractor option, during conditions defined as “night work”, the same seasonal limitations shall apply unless the Department determines that the construction method is producing an unsound joint. This work will not be allowed during times of inclement weather as outlined in Division 400 – Special Provision 401; subsection 401.06 Weather and Seasonal Limitations.

If this option is utilized on roadways with two-way traffic, the Contractor will be required to place a matching course of HMA over the adjacent section of travel lane before the end of the following calendar day. Failure to match the centerline course the following day will constitute a traffic control violation unless an excusable delay is granted by the Department.

If this option is utilized on divided highways or expressways with directional traffic, the Contractor will be required to place a matching course of HMA over the adjacent section of travel lane within seven calendar days from placement of the initial paved lane. Failure to match the centerline course the within the seven calendar days will constitute a traffic control violation unless an excusable delay is granted by the Department.

The Contractor will also be responsible for installing additional warning signage that clearly defines the centerline elevation differential hazard, as well as additional centerline delineation such as double RPM application, or temporary painted line. The Traffic Control Plan shall include this option and the additional requirements. All signs and traffic control devices will conform to Section 719.01, and Section 652, and will be installed prior to the work, at a maximum spacing of 0.50 mile [0.80 km] for the entire length of the effected roadway section. On roadways with two-way traffic, the Contractor will be required to place the specified course over the full width of the mainline traveled way being paved prior to opening the sections to weekend or holiday traffic. If this option is utilized, all additional signing, labor, traffic control devices, or incidentals will not be paid for directly, but will be considered incidental to the appropriate 652 bid items.

Any notched wedge joint constructed areas that become cracked or broken shall be trimmed back to the limits affected prior to placing the adjoining lane. Any materials that become unbound or separated from the wedge or tapered joint section, or contaminated by materials determined by the Department as being detrimental to the construction of a sound construction joint, shall be removed by sweeping, compressed air and lance, or by hand tools as required. This work, if necessary, will not be paid for directly, but shall be considered incidental to the related contract items.

401.17 Joints The following section has been amended as follows:

Should the notched wedge joint device be used, the Contractor shall apply a coating of emulsified asphalt on the vertical and tapered surface of the longitudinal centerline joint immediately before paving. The rate of application shall be approximately 0.050 G/SY. This application shall be in addition to the normal application of tack coats to the construction joint face and horizontal surfaces prior to placing a new lift. 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.

**SPECIAL PROVISION****SECTION 400****Pavements**

(Emulsified Asphalt Seal Coat, Applied)

**Description** This work consists of furnishing and applying one or more applications of emulsified asphalt sealcoat material on an approved surface in accordance with these specifications, and in reasonably close conformity with the lines shown on the plans or established.

**Materials** The bituminous material shall meet the applicable requirements of Section 702 – Bituminous Materials. Liquid asphalt grades for the fog coat treatment shall meet the requirements for SS-1, SS-1h, CSS-1, or CSS-1h.

The emulsified asphalt shall be produced by diluting an approved, tested and certified emulsion product at a 1:1 ratio, and thoroughly mixed into a homogenous liquid. Each load shall be accompanied by a loading invoice listing the material supplier, emulsion type, dilution rate, total quantity loaded, and copy of the undiluted emulsified asphalt product certification. The diluted emulsion shall meet the requirements listed in Table 1 of this specification.

Diluted emulsified asphalt materials may be stored for up to 48 hours once loaded into the distributor if the material is circulated daily during storage to discourage material separation. In the event that diluted emulsified asphalt materials are loaded and stored in trailered tanks, the storage tanks must be equipped to circulate the stored materials daily for a maximum of 7 calendar days. Materials that separate and are determined to be unacceptable for use during the storage period shall be removed from the project and replaced with new material at no cost to the Department.

Table 1 – Diluted Asphalt Emulsion for Seal Coat

| <u>Test requirements for diluted material</u> | <u>Range</u> |
|-----------------------------------------------|--------------|
| Sieve test %                                  | 0 – 0.10     |
| Residue by distillation, %                    | 28 - 40      |
| Oil distillation, volume of total emulsion    | 40 - 90      |
| Application Temperature                       | 80 – 130 °F  |

**Equipment** Emulsified asphalt sealcoat material application equipment shall meet the requirements specified in Section 409 – Bituminous Tack Coat, subsection 409.05 - Equipment.

**CONSTRUCTION PROCEDURES**

**Seasonal and Weather Limitations** Emulsified asphalt sealcoat material shall not be applied when the atmospheric temperature is below 10°C (50°F), or the pavement temperature is below 15°C (59°F). Emulsified asphalt sealcoat material shall not be applied before June 1<sup>st</sup>, or after September 15<sup>th</sup> unless approved by the Department.

Emulsified asphalt sealcoat shall not be applied in wet conditions, or when wet weather conditions are forecasted within the cure period.

Preparation of Surface Before application of the bituminous material the surface shall be thoroughly cleaned of all loose and objectionable material. Preparation of the surface shall be considered incidental to the contract. The Contractor shall be responsible for covering all utility irons just prior to application of emulsion and uncovering utilities after application.

Immediately before applying the emulsified asphalt seal coat, the pavement surface must be cleaned with a road sweeper, power broom, or flushed with a water pump-unit to remove dust, dirt, and debris. The pavement surface must be clean and dry before applying the emulsified asphalt sealcoat. If flushing with water is required, it should be completed 24 hours prior to the application of the fog seal to allow for adequate drying.

Application Emulsified asphalt seal coat materials shall be applied by a pressure distributor in a uniform, continuous spread over the area to be treated and within the temperature range specified in Section 702.05 – Application Temperatures or as otherwise listed in this specification. No moisture shall be present on the roadway surface.

Application rates shall be determined by the emulsion supplier and Contractor, but will generally be in the range of 0.50 to 0.90 liters per square meter (0.10 to 0.20 gallons per square yard). For the purposes of this specification, the approximate application rate at the time of bid shall be 0.50 liters per square meter (0.10 gallons per square yard). Should emulsion supplier and Contractor determine that the rate of application increase or decrease from the 0.50 liters per square meter (0.10 gallons per square yard) rate, then the unit price shall be adjusted by contract modification.

During bituminous material application, adequate provisions shall be made to prevent marring and discoloration of adjacent pavements, structures, vehicles, foliage or personal property. The use of skirting or end panels may be required to control application widths, and limit overspray.

Areas found to lack the proper emulsified asphalt seal coat application rate will require a re-application of emulsion material to meet the required rate. Areas requiring re-application will not be paid for directly but shall be considered incidental to the emulsified asphalt seal coat pay item.

In the event that excessive emulsion materials are applied, the use of sand blotter material shall be used to reduce the risk of bleeding and tracking by traffic. Blotter material, if used, will be considered incidental to the emulsified asphalt seal coat pay item.

Traffic Control and Maintenance All traffic shall be kept off the emulsified asphalt seal coat areas for a minimum of 4 hours or until curing is complete. The emulsified asphalt seal coat surface will be considered cured when the emulsion does not track off the treated surface, does not adhere to blotter paper, or when approved by the Department. The Contractor shall protect the sealed surface from project related activity damage.

Traffic control will not be paid for separately, but will be considered incidental to the emulsified asphalt sealcoat pay item. The Traffic Control Plan shall include provisions for completing this work

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Method of Measurement The Department will measure the emulsified asphalt seal coat by the square meter (square yard). Payment will be for the actual number of square yards, applied and accepted, in accordance with the typicals, Specifications, and Section 109 - Measurement and Payment. Payment shall be full compensation for all labor, materials, transport, storage, and equipment required to complete the work in accordance with these specifications.

Basis of Payment The Department will pay for the Work, in place and accepted, in accordance with the applicable sections of the Special Provisions at the contract unit price per square meter (square yard) applied.

Payment will be made under:

| <u>Pay Item</u>                               | <u>Pay Unit</u>            |
|-----------------------------------------------|----------------------------|
| 410.151 Emulsified Asphalt Seal Coat, Applied | Square Meter (Square Yard) |

**SPECIAL PROVISION**  
**SECTION 401**  
(Hot Mix Asphalt Pavement for Special Areas)

Description The Contractor shall furnish and place Hot Mix Asphalt (HMA) pavement in an approved manner in accordance with the Contract documents and in reasonably close conformity with the lines, grades, thicknesses and typical cross sections shown on the plans or established. The Department shall accept this work under Quality Assurance provisions, Method D testing as specified in Standard Specification 106 and 401.

The Hot Mix Asphalt for Special Areas shall meet all of the Materials, Seasonal Limitations and Construction requirements of Section 401, with the following additions and changes.

| DESIGN CRITERIA |               |
|-----------------|---------------|
| PGAB Content    | 7.0 % minimum |

The mixture shall meet the gradation requirements of a current MDOT approved 9.5 mm JMF and the minimum PGAB content noted above. The Acceptance Limit targets for gradation will be as specified on the JMF. The Acceptance Limits target for PGAB content will be 7.0%. The mixture will not be evaluated for volumetric properties, but will be required to meet the Standard Specification 401, Table 8: Method D Acceptance Limits for PGAB content and gradation.

A mixture meeting the requirements of section 703.09 Grading 'D', with a minimum PGAB content of 7%, and the limits of Standard Specification 401, Table 8: Method D Acceptance Limits for PGAB content and gradation, may be substituted for this item. A job mix formula shall be submitted to the department for approval.

Price Adjustment Price adjustments for Hot Mix Asphalt Pavement for Special Areas shall be in accordance Standard Specification 401, Section 401.204- Method D, Table 8b.

Method of Measurement The Department will measure Hot Mix Asphalt pavement by the megagram [ton] in accordance with Section 108 - Measurement and Payment.

Basis of Payment The Department will pay for the Work, in place and accepted, in accordance with the applicable sections of the Standard Specifications and Special Provisions at the contract unit price per megagram [ton].

Payment will be made under:

| <u>Pay Item</u>                           | <u>Pay Unit</u> |
|-------------------------------------------|-----------------|
| 403.102 Hot Mix Asphalt for Special Areas | Megagram [Ton]  |

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

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

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

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

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

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

**SPECIAL PROVISION**

**SECTION 403**

**HOT MIX ASPHALT**

| <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>1 ¾" HMA Mill and 1 ¾" HMA Overlay Areas</u></b>                                    |                     |                    |                           |                    |                      |                    |
| <b><u>Mainline Travel &amp; Passing Lane, LT Shoulder, and 2 ½ ft. of RT Shoulder</u></b> |                     |                    |                           |                    |                      |                    |
| Wearing                                                                                   | 12.5 mm             | 403.208            | N/A                       | 1 ¾"               | 1                    | 5,7,20,22,24,25    |
| <b><u>1 ¾" HMA Mill and 1 ¾" HMA Overlay Areas</u></b>                                    |                     |                    |                           |                    |                      |                    |
| <b><u>Off &amp; On Ramps (Travelway and Shoulders)</u></b>                                |                     |                    |                           |                    |                      |                    |
| Wearing                                                                                   | 12.5 mm             | 403.208            | N/A                       | 1 ½"               | 1                    | 5,7,20             |
| <b><u>1 ½" HMA Overlay Areas</u></b>                                                      |                     |                    |                           |                    |                      |                    |
| <b><u>Crossovers</u></b>                                                                  |                     |                    |                           |                    |                      |                    |
| Wearing                                                                                   | 12.5 mm             | 403.208            | N/A                       | 1 ½"               | 1                    | 5,7                |
| <b><u>3 ¼" HMA Overlay Areas</u></b>                                                      |                     |                    |                           |                    |                      |                    |
| <b><u>Bridge Overlay Areas</u></b>                                                        |                     |                    |                           |                    |                      |                    |
| Wearing                                                                                   | 12.5 mm             | 403.208            | N/A                       | 1 ¾"               | 1                    | 1,5,7              |
| Base                                                                                      | 12.5 mm             | 403.213            | N/A                       | 1 ½"               | 1                    | 1,5,8              |
| <b><u>Widening to Face of Guardrail Areas</u></b>                                         |                     |                    |                           |                    |                      |                    |
| Wearing                                                                                   | 9.5 mm              | 403.102            | 7.0%                      | variable           | 1/more               | 23                 |
| <b><u>Spot Shims – Delaminated Areas as Directed</u></b>                                  |                     |                    |                           |                    |                      |                    |
| Shim                                                                                      | 9.5 mm              | 403.211            | N/A                       | variable           | 1                    | 2,5,8,11           |

**COMPLEMENTARY NOTES**

1. The use of Recycled Asphalt Pavement (RAP) will not be permitted in mixtures placed on bridge decks.
2. The density requirements are waived. In addition, the use of an oscillating steel roller shall be required to compact all HMA pavements placed on bridge decks.
5. The aggregate qualities shall meet the design traffic level of 3 to <10 million ESALS for mix placed under this contract. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at 75 gyrations.
7. Section 106.6 Acceptance, (1) Method A.
8. Section 106.6 Acceptance, (2) Method B.
11. The combined aggregate gradation required for this item shall be classified as a 9.5mm "**fine graded**" mixture, (using the Primary Control Sieve control point) as defined in 703.09.

20. The Contractor may place the specified HMA pavement course, not to exceed 2" inch (50mm) compacted depth, over the full single travel lane width, for each production day. If this option is utilized the Contractor will be required to place a matching course of HMA over the adjacent section of travel lane before the end of the following calendar day. The Contractor will also be responsible for installing additional warning signage that clearly defines the centerline elevation differential hazard, as well as additional centerline delineation such as double RPM application, or temporary painted line. The Traffic Control Plan shall be amended to include this option and the additional requirements. All signs and traffic control devices will conform to Section 719.01, and Section 652, and will be installed to the work, at a maximum spacing of 0.50 mile [0.80 km] for the entire length of effected roadway section. If this option is utilized, all additional signing, labor, traffic control devices, or incidentals will not be paid for directly, will be considered incidental to the appropriate 652 items.
22. The final pavement surface shall be evaluated for smoothness in accordance with the most current 400 Special Provision section 402 – Pavement Smoothness. Acceptance limits shall be as outlined under the **Level I** classification.
23. Refer to Special Provision 401 –Hot Mix Asphalt for Special Areas for specifics.
24. A tack coat of a RS-1, Item #409.15 shall be applied along the longitudinal centerline construction joint, on the horizontal surface immediately adjacent to the construction joint, and in a minimum width of one foot. The rate of application shall be approximately 0.050 to 0.075 G/SY. This application shall be in addition to the normal application of tack coats to the construction joint face and horizontal surfaces prior to placing a new lift.
25. Refer to Special Provision 401 –Hot Mix Asphalt Pavement (Longitudinal joint construction using wedge/taper apparatus) for specifics.

#### Tack Coat

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

SPECIAL PROVISION  
SECTION 424  
 LOW MODULUS CRACK SEALER

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

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

|                                   |                                                                                           |
|-----------------------------------|-------------------------------------------------------------------------------------------|
| Cone Penetration                  | 90 - 150                                                                                  |
| Flow @ 60°C [140°F]               | < 3.0mm [ $\frac{1}{8}$ in]                                                               |
| Bond, non-immersed                | Three 12.7mm [ $\frac{1}{2}$ in] specimens pass 3 cycles @ 200% extension @ -29°C [-20°F] |
| Resilience, %                     | 60 min                                                                                    |
| Asphalt Compatibility, ASTM D5329 | pass*                                                                                     |

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

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

CONSTRUCTION REQUIREMENTS

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

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

(a) Air Compressor: Air compressors shall be portable and capable of furnishing not less than 3 m<sup>3</sup> [4 yd<sup>3</sup>] of air per minute at not less than 620 kPa [90 psi] pressure at the nozzle. The compressor shall be equipped with traps that will maintain the compressed air free of oil and water.

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

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

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

(e) Melting Kettle: The unit used to melt the joint sealing compound shall be a double boiler, indirect fired type. The space between inner and outer shells shall be filled with a suitable heat transfer oil or substitute having a flash point of not less than 320°C [608°F]. The kettle shall be equipped with a satisfactory means of agitating and mixing the joint sealer at all times. This may be accomplished by continuous stirring with mechanically operated paddles and/or a continuous circulating gear pump attached to the heating unit. The kettle must be equipped with thermostatic control calibrated between 94°C [200°F] and 290°C [550°F].

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

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

Preparation and Placement of Sealer The low modulus crack sealer material shall be heated and applied at the temperature specified by the manufacturer and approved by the Resident or authorized representative. Any material that has been heated above the manufacturer's specification shall not be used. Material that is reheated or held at temperature for an extended period of time may be used as allowed by the manufacturer's specification and approval of the Resident or authorized representative. The Contractor shall provide the Resident or authorized representative with a suitable device for verifying the sealant temperature in the kettle and at the application site.

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

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

If the sealed area is to be opened to traffic immediately, a barrier material such as Glenzoil or an equivalent approved by the Resident shall be provided by the Contractor and shall be applied to the crack sealer to prevent pickup as directed by the Resident or authorized representative.

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

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

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

Payment will be made under:

| <u>Pay Item</u>                            | <u>Pay Unit</u>  |
|--------------------------------------------|------------------|
| 424.3331 Low Modulus Crack Sealer, Applied | Kilogram [Pound] |

SPECIAL PROVISION  
SECTION 424  
LOW MODULUS JOINT SEALER

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

Materials Asphalt Low Modulus Joint Sealer shall be a modified asphalt and rubber compound designed for sealing and improving the strength and performance of the base asphalt cement and shall conform to ASTM D-3405 and the following specification.

|                                   |                                                                              |
|-----------------------------------|------------------------------------------------------------------------------|
| Cone Penetration                  | 90 - 150                                                                     |
| Flow @ 60°C [140°F]               | < 3.0mm [? in]                                                               |
| Bond, non-immersed                | Three 12.7mm [½ in] specimens pass 3 cycles @ 200% extension @ -29°C [-20°F] |
| Resilience, %                     | 60 min                                                                       |
| Asphalt Compatibility, ASTM D5329 | pass*                                                                        |

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

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

CONSTRUCTION REQUIREMENTS

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

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

the joint through a pressure hose line and applicator shoe. The shoe width and the sealer overbanding area shall vary from 35 mm - 40 mm [1 3/8 in - 1 1/2 in] depending on the joint height variability. The sealer shall be applied at a rate that produces a coating thickness of 3 mm [3/16 in], typical. The material shall not be applied more than 12 hours prior to the placement of any pavement course, and subject to approval by the Resident.

Preparations of Joints All joints shall be swept or blown free of loose material, dirt, and other debris. Material removed from the joint shall be removed from the pavement surface by means of a power sweeper or appropriate hand tools as required. Joints shall additionally be cleaned by appropriate hand tools if contaminants remain on the face. All debris and water shall be removed to enhance adhesion of the joint sealing material. THIS WORK SHALL NOT BE DONE IN INCLEMENT WEATHER.

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

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

(b) Melting Kettle: The unit used to melt the joint sealing compound shall be a double boiler, indirect fired type. The space between inner and outer shells shall be filled with a suitable heat transfer oil or substitute having a flash point of not less than 320°C [608°F]. The kettle shall be equipped with a satisfactory means of agitating and mixing the joint sealer at all times. This may be accomplished by continuous stirring with mechanically operated paddles and/or a continuous circulating gear pump attached to the heating unit. The kettle must be equipped with thermostatic control calibrated between 94°C [170°F] and 290°C [525°F].

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

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

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

Payment will be made under:

| <u>Pay Item</u>                            | <u>Pay Unit</u> |
|--------------------------------------------|-----------------|
| 424.3333 Low Modulus Joint Sealer, Applied | Meter [Foot]    |

**SPECIAL PROVISION**  
**SECTION 429**  
**PAVEMENT REINFORCING SYSTEM**  
 (Grid/Paving Fabric Composite Pavement Interlayer)

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

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

**Composite**

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

**Nonwoven Paving Fabric**

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

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

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

## CONSTRUCTION REQUIREMENTS

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

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

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

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

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

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

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

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

Basis of Payment The accepted quantity of Grid/Fabric Fabric Composite Pavement Interlayer will be paid for at the contract unit price per square foot (m<sup>2</sup>). Payment will be full compensation for furnishing and placing the paving composite and for all labor and other incidentals necessary to complete the work.

Payment shall be made under:

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

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

| CLASS OF CONCRETE | ITEM NUMBER | DESCRIPTION                                                         | P | METHOD |
|-------------------|-------------|---------------------------------------------------------------------|---|--------|
|                   |             |                                                                     |   |        |
| A                 | 518.50      | Repair of Upward Facing Surfaces – To Reinforcing Steel < 7.9 IN    |   | C      |
| A                 | 518.51      | Repair of Upward Facing Surfaces – Below Reinforcing Steel < 7.9 IN |   | C      |
| A                 | 518.52      | Repair of Upward Facing Surfaces > 7.9 IN                           |   |        |
| A                 | 518.60      | Repair of Vertical Surfaces < 7.9 IN                                |   | C      |
| A                 | 518.61      | Repair of Vertical Surfaces > 7.9 IN                                |   | C      |
|                   |             |                                                                     |   |        |
| LP                | 520.242     | Bridge Joint Modification Type 2                                    |   | C      |
| LP                | 520.2421    | Bridge Joint Modification Type 2A                                   |   | C      |
| LP                | 520.2422    | Bridge Joint Modification Type 2B                                   |   | C      |
| LP                | 520.246     | Bridge Joint Modification Type 6                                    |   | C      |
| LP                | 526.34      | Permanent Concrete Transition Barrier                               |   | C      |
|                   |             |                                                                     |   |        |
|                   |             |                                                                     |   |        |
|                   |             |                                                                     |   |        |

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

SPECIAL PROVISION  
SECTION 507  
RAILINGS  
(Furnish Aluminum Bridge Rail Components)

507.01 Description

This work shall consist of furnishing, unloading and stacking the materials listed below at the Maine Department of Transportation Maintenance Facility at 159 Bangor Street, Houlton Maine 04730. The maintenance foreman is Joel Rideout, telephone (207) 532-3684.

Upon receipt and acceptance of the furnished aluminum bridge rail components the Contractor shall remove the necessary components from the Department's stockpile to undertake the bridge rail repairs indicated on the plans or directed by the Resident.

The Contractor shall keep a careful inventory of the furnished aluminum bridge rail components so the quantities stockpiled, in the Contractor's possession (not installed), and installed on the Project (location by bridge) can be totaled and confirmed.

The Contractor is advised the Department has no inventory of these components so all components to be installed on this Project are being furnished to the project by the Contractor. Quantities of furnished components, in excess of those needed for the rail repairs, will be retained by the Department.

Material List The following materials shall be furnished in the quantities listed:

|                                                                                        | Type J | Type Z  |
|----------------------------------------------------------------------------------------|--------|---------|
| Bridge rail posts                                                                      | 0 each | 6 each  |
| Bridge rail post preformed pads                                                        | 0 each | 9 each  |
| Bridge rail (40 LF sections)                                                           | 0 feet | 40 feet |
| Bridge rail splice bars                                                                | 0 each | 1 each  |
| Bridge rail toggle bolts with nut and washer                                           | 0 each | na      |
| Bridge rail clamp bars                                                                 | na     | 34 each |
| Bridge rail clamp bar bolts - (½" – 13UNC<br>* 1" stainless steel hex head cap screws) | na     | 17 each |

|                                                                                                 | Type J | Type Z  |
|-------------------------------------------------------------------------------------------------|--------|---------|
| Bridge rail clamp bar washers - (1 1/16" OD*<br>17/32" ID * 3/32" thick stainless steel washers | na     | 17 each |
| Bridge rail end caps                                                                            | 0 each | 24 each |

#### 507.02 Materials

All materials shall meet the applicable requirements outlined in MaineDOT Standard Specifications, Section 507.02 "Materials".

All Type J rail components shall be of the type and dimensions shown on MaineDOT Standard Details BD 108-64, dated October 1964, except that the toggle bolts, washers, and nuts shall be fabricated in substantial conformance with the AASHTO-AGC-ARTBA Joint Committee/ Subcommittee on New Highway Materials/ Task Force 13/ A Guide to Standardized Highway Barrier Hardware/ FBT12 Toggle Bolt Detail and Specifications, dated May, 1995.

All Type Z rail components shall be of the type and dimensions shown on MaineDOT Standard Details BD 114-77.

#### 507.08 Method of Measurement

Aluminum Bridge Rail Components of the type, size, and quantity noted and satisfactorily furnished by the Contractor will be measured for payment by the lump sum.

Materials needed to relocate existing bridge rail posts or bridge rail (anchor bolts, fabreeka pads, toggle bolts, clamp bars and fasteners, etc.) for constructing Permanent Concrete Transition Barriers, if required, are not furnished or paid under this item, but are furnished by the Contractor and paid under Item 526.34 Permanent Concrete Transition Barrier.

#### 507.09 Basis of Payment

The accepted quantity of Aluminum Bridge Rail Components furnished by the Contractor will be paid for at the contract lump sum price. This payment shall be considered full compensation for furnishing, unloading and stacking the materials at the Maine Department of Transportation Houlton Maintenance Facility.

| <u>Pay Item</u>                                  | <u>Pay Unit</u> |
|--------------------------------------------------|-----------------|
| 507.0926 Furnish Aluminum Bridge Rail Components | Lump Sum        |

## SPECIAL PROVISION

### SECTION 507

#### RAILINGS

(Aluminum Bridge Rail, 2 Bar Post Replacement)

Description This work shall consist of removing existing damaged 2 bar Type J or Type Z aluminum bridge rail posts and installing replacement 2 bar aluminum bridge rail posts, matching the rail post type removed, at locations shown on the plans or as directed by the Resident.

This work excludes the relocation of undamaged 2 bar Type J or Type Z aluminum bridge rail posts required for the installation of new Permanent Concrete Transition Barrier.

Materials Unless otherwise noted, materials for work specified under this section will come from the stockpile furnished to the Department under this contract. The Contractor is advised the Department has no inventory of these components so all components to be installed on this Project are being furnished to the Department under this contract.

The contractor shall procure and load the required replacement materials at the Maine Department of Transportation Maintenance Facility at 159 Bangor Street, Houlton Maine 04730 and transport them to the replacement site(s). The maintenance foreman is Joel Rideout, telephone (207) 532-3684.

Materials to be furnished by the Department (provided to the Department under Item 507.0926 Furnish Aluminum Bridge Rail Components):

- Replacement Type J and Type Z rail posts
- Replacement fabric rail posts pads for Type J and Type Z posts
- Replacement toggle bolts for Type J posts
- Replacement clamp bars and fasteners for Type Z posts

Materials to be furnished by the contractor when required:

- Anchor bolts for attaching the replacement posts to the existing curb when existing anchor bolts are not suitable for reuse.
- Replacement nuts and washers for anchor bolts used to attach the posts to the existing curb when existing nuts and washers bolts are not suitable for reuse.
- Anchoring material, from the MaineDOT's Qualified Products List, for installing contractor furnished anchor bolts for attaching the posts to the existing curb when existing anchor bolts are not suitable for reuse.

All anchor bolts, nuts and washers supplied by the Contractor shall conform to the requirements of MaineDOT Standard Specification, Section 716.

Construction Damaged bridge rail posts shall be removed and disposed by the contractor. Anchor bolts, not reused or suitable for reuse, shall be cut off and ground flush with the top of the curb and coated with two coats of zinc rich cold galvanizing paint.

The replacement rail posts shall be replaced individually unless concrete barrier is on the bridge deck to prevent traffic from crossing into the work zone.

Method of Measurement Aluminum Bridge Rail, 2 Bar Post Replacement will be measured per each for the number of 2 bar aluminum rail posts replaced, whether Type J or Type Z. All work necessary to load and transport posts, remove and treat existing anchor bolts, furnish replacement anchor bolts, nuts and washers, drill and grout anchor bolts, and install replacement clamp bars or replacement toggle bolts, etc. shall be incidental and will not be measured for payment.

The relocation of undamaged 2 bar Type J or Type Z aluminum bridge rail posts required for the installation of new Permanent Concrete Transition Barriers, including replacement clamp bars and toggle bolts, anchor bolts, nuts and washers, is not measured and paid under this item, but is measured and paid under Item 526.34 Permanent Concrete Transition Barrier.

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

| <u>Pay Item</u>                                       | <u>Pay Unit</u> |
|-------------------------------------------------------|-----------------|
| 507.0927 Aluminum Bridge Rail, 2 Bar Post Replacement | Each            |

## SPECIAL PROVISION

### SECTION 507

#### RAILINGS

(Aluminum Bridge Rail, Rail Section Replacement)

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

This work excludes the relocation or modification of undamaged 2 bar Type J or Type Z aluminum bridge rail required for the installation of new Permanent Concrete Transition Barrier.

Materials Unless otherwise noted, materials for work specified under this section will come from the stockpile furnished to the Department under this contract. The Contractor is advised the Department has no inventory of these components so all components to be installed on this Project are being furnished to the Department under this contract.

The contractor shall procure and load the required replacement materials at the Maine Department of Transportation Maintenance Facility at 159 Bangor Street, Houlton Maine 04730 and transport them to the replacement site(s). The maintenance foreman is Joel Rideout, telephone (207) 532-3684.

Materials to be furnished by the Department (provided to the Department under Item 507.0926 Furnish Aluminum Bridge Rail Components):

- Replacement Type J and Type Z rail sections
- Replacement Type J splice tubes and Type Z splice bars
- Replacement toggle bolts for Type J posts
- Replacement clamp bars and fasteners for Type Z posts

Materials to be furnished by the contractor when required:

- $\frac{3}{8}$ "Ø x 1", Type F, stainless steel hex washer head tapping screws (to secure the splice tube or splice bar to one side of the rail joint, as shown on the applicable Aluminum Bridge Rail Splice Detail)

Construction Damaged bridge rail sections and components shall be removed and disposed by the contractor. At the Resident's option damaged rail sections may be replaced "full length" or an additional field splice may be added provided each completed rail section spans at least two bridge rail posts and all splices are 2'-0" o.c. off the centerline of a bridge rail post. Field cuts of the existing and replacement bridge rail sections shall be clean, square and free of burrs and sharp edges. The contractor shall recover and reuse the existing splice tubes and splice bars, and toggle bolts and rail clamp bars where feasible.

The rail splices on each end of the replacement rail section shall be properly centered and secured when installing the replacement rail section.

The replacement rail sections shall be replaced individually unless concrete barrier is on the bridge deck to prevent traffic from crossing into the work zone.

Method of Measurement Aluminum Bridge Rail, Rail Section Replacement, whether Type J or Type Z, will be measured as the number of linear feet of rail section replaced. All work necessary to load and transport rail, remove and dispose existing damaged rail, furnish replacement stainless steel hex washer head tapping screws, field cut and de-burr existing and replacement rail sections, install Aluminum Bridge Rail Splice Retrofits on existing and new bridge rail splices, and install replacement toggle bolts or clamp bars, etc. will be incidental and will not be measured for payment.

The relocation of undamaged 2 bar Type J or Type Z aluminum bridge rail posts required for the installation of new Permanent Concrete Transition Barriers, including replacement clamp bars and toggle bolts, anchor bolts, nuts and washers, is not measured and paid under this item, but is measured and paid under Item 526.34 Permanent Concrete Transition Barrier.

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

| <u>Pay Item</u>                                         | <u>Pay Unit</u> |
|---------------------------------------------------------|-----------------|
| 507.0928 Aluminum Bridge Rail, Rail Section Replacement | Linear Foot     |

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

Description This work shall consist of re-centering, if required, and securing existing Type J or Type Z aluminum bridge rail splices located in the rail splice inspection or as directed by the Resident.

Construction Re-centering of the existing Type J splice tube or Type Z splice bar shall be accomplished in a non-destructive manner which moves the splice tube or splice bar back to the center of the splice opening (+/- 1.0") as detailed on the attached Type J Bridge Rail Splice Modification Detail and Type Z Bridge Rail Splice Modification Detail.

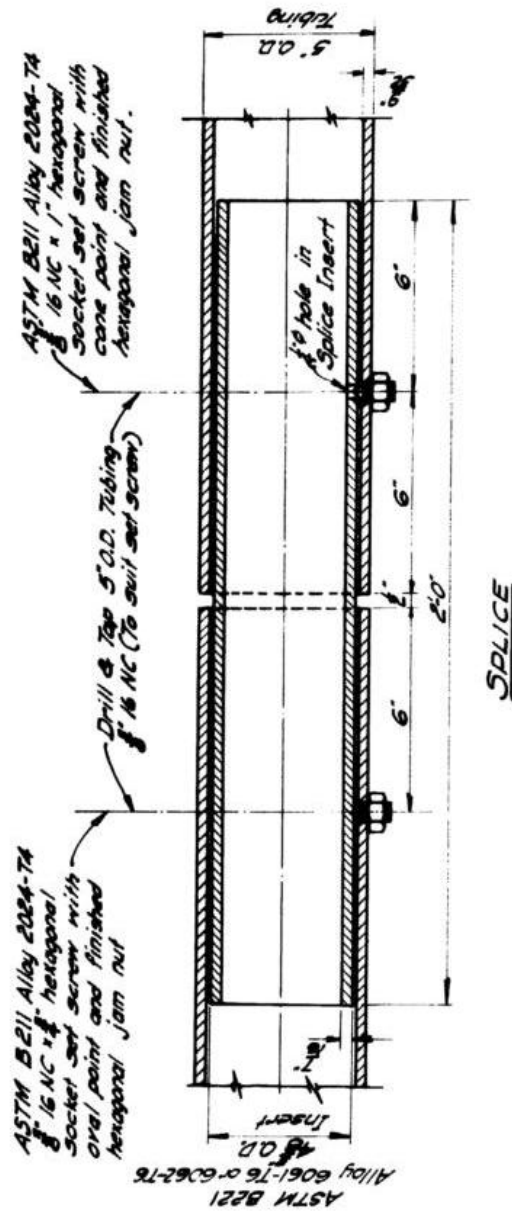
After re-centering, if required, the contractor shall secure the splice tube or splice bar by installing two  $\frac{3}{8}$ " $\varnothing$  x 1", Type F, hex washer head tapping screws, in two  $\frac{5}{16}$ " $\varnothing$  holes, field drilled through the rail and splice tube, or rail and splice bar, on one side of the rail splice joint. Tapping screw shall be stainless steel conforming to the requirements of Section 716.01(e). As an alternate, hex head tapping screws with appropriate washers may be used.

Method of Measurement Aluminum Bridge Rail Splice Retrofit, whether Type J or Type Z, will be measured per each for re-centering, if required, and securing rail splice tubes or splice bars in conformance with this specification.

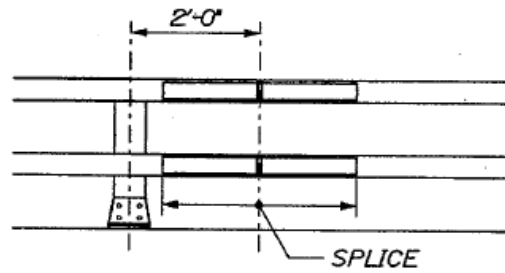
All work necessary for re-centering of the existing splice tubes or splice bars and modification of the splices, including but not limited to the disassembly and subsequent reassembly of rail bars to allow retrieval of splice tubes or splice bars that have slid into a rail bar, and any staging deemed necessary for access to the back of the rail splices, will be incidental to the rail splice retrofit and will not be measured for payment.

Basis of Payment The accepted quantity of Aluminum Bridge Rail Splice Retrofit, whether Type J or Type Z, will be paid for at the contract unit price for each, complete in-place, and accepted.

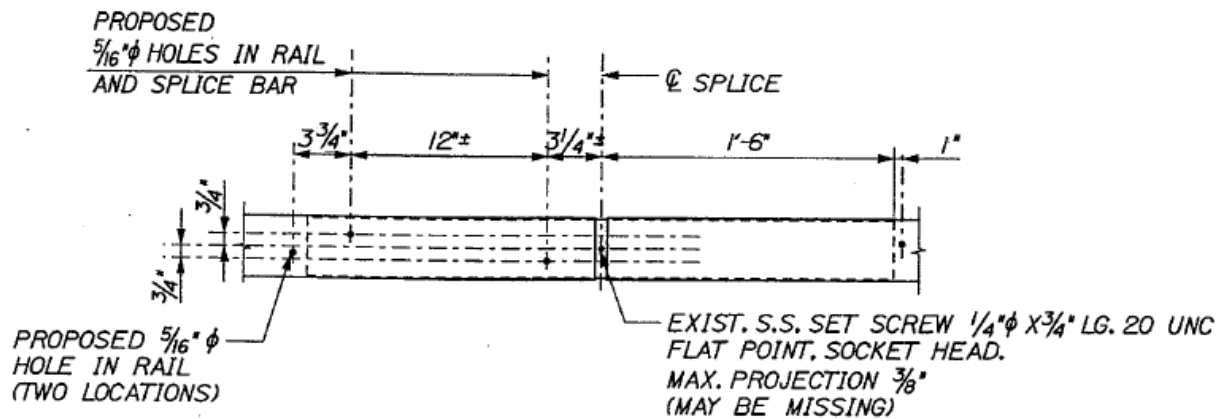
| <u>Pay Item</u>                             | <u>Pay Unit</u> |
|---------------------------------------------|-----------------|
| 507.30 Aluminum Bridge Rail Splice Retrofit | Each            |



TYPE J BRIDGE RAIL SPLICE MODIFICATION DETAIL



RAILING - ELEVATION



SPLICE MODIFICATION DETAIL  
(ELEVATION VIEW FROM BACK SIDE OF RAIL)

TYPE Z BRIDGE RAIL SPLICE MODIFICATION DETAIL

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

Description This work shall consist of inspecting all existing Type J or Type Z aluminum bridge rail splices to determine the bridge rail splices are properly centered and secured.

Construction For each existing bridge rail splice, whether Type J or Type Z, the contractor shall inspect and document whether the rail splice is properly centered and secured.

Prior to verifying if the Type J rail splice is properly centered the contractor shall visually assess whether the Type J rail splice is properly secured by looking at the rail splice attachment devices and comparing them to the Type J Bridge Rail Splice Modification Detail in SP 507 Railings (Aluminum Bridge Rail Splice Retrofit). If the contractor concludes the Type J rail splice is properly secured with two set screws no additional inspection of that rail splice is required.

If the Type J rail splice is not properly secured with two set screws the contractor shall determine if the existing 2'-0" tube splice is centered on the opening (+/- 1.0 inch) by one of the following techniques: 1) visually checking the open tapped hole/ holes for the set screws and observing the ¼ inch diameter hole/ holes drilled into the splice tube are directly behind the open tapped hole/ holes for the set screws; 2) drilling small "inspection holes" (¼" to 5/16" diameter) left and right of the splice tube's theoretical limits (13.0" left and 13.0" right of the splice opening centerline) to determine there is only one thickness of aluminum tube at those locations; or 3) developing and demonstrating a sounding technique that differentiates the sound of one thickness of aluminum tube (the rail) or two thicknesses of aluminum tube (the rail and the rail splice tube).

Prior to verifying if the Type Z rail splice is properly centered the contractor shall visually assess whether the Type Z rail splice is properly secured by looking at the rail splice attachment devices and comparing them to the Type Z Bridge Rail Splice Modification Detail in SP 507 Railings (Aluminum Bridge Rail Splice Retrofit). If the contractor concludes the Type Z rail splice is properly secured with two set screws no additional inspection of that rail splice is required.

If the Type Z rail splice is not properly secured with two set screws the contractor shall determine if the existing 3'-0" splice bar is centered on the opening (+/- 1.0 inch) by one of the following techniques: 1) visually checking the open drilled hole/ holes for the set screws in the bridge rail and observing the previously tapped hole/ holes drilled into the splice bar are directly behind the open drilled hole/ holes in the bridge rails; 2) visually checking the splice bar between the two rail sections and observing the original pressed

pin, hole for the original pressed pin, or suitable replacement fastener is still visible between the rail sections. previously tapped hole/ holes drilled into the splice bar are directly behind the open drilled hole/ holes in the bridge rails; 3) drilling small “inspection holes” (5/16” diameter) left and right of the splice bar’s theoretical limits (19.0” left and 19.0” right of the splice opening centerline) to determine there is only the thickness of elliptical aluminum railing at those locations; or 4) developing and demonstrating a sounding technique that differentiates the sound of the thickness of the elliptical aluminum railing (the rail) or two thicknesses of aluminum material (the elliptical aluminum railing and the extruded rail splice).

Documentation For each bridge in the project the contractor shall document on an electronic spreadsheet the findings of the inspection. The spreadsheet would identify the bridge structure, which curb the splice was on, the splice distance from the north or south abutment, whether the splice was on the upper or lower rail along with whether the rail splice was properly secured and properly centered.

Method of Measurement Aluminum Bridge Rail Splice Inspection will be measured as one lump sum for inspecting and documenting all the rail splices on the six bridge structures in the project.

Centering of rail splice tubes or bars that are not centered; and/ or securing rail splice tubes or bars that are not secure will be paid under Item 507.30 Aluminum Bridge Rail Splice Retrofit.

Basis of Payment The accepted quantity of Aluminum Bridge Rail Splice Inspection will be paid for at the contract lump sum price, completed and accepted.

| <u>Pay Item</u>                               | <u>Pay Unit</u> |
|-----------------------------------------------|-----------------|
| 507.31 Aluminum Bridge Rail Splice Inspection | Lump Sum        |

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

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

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

Construction Requirements: For structures where the existing wearing surface is not removed, the Resident will designate areas where the existing granite curb joint mortar is to be repaired.

For structures where the existing wearing surface is removed the Resident will, after the existing wearing surface is removed, designate areas where the existing granite curb joint mortar and the existing granite curb bedding mortar is to be repaired.

In areas designated for granite curb joint mortar repair, the existing granite curb joint mortar shall be removed between curb sections to a min. depth of 25 mm [1 in] from the face of curb. Any loose mortar shall also be removed. The repair area shall be repointed with new mortar and tooled concave at the face of curb. The mortar shall be proportioned, mixed, and applied in accordance with the Manufacturer's recommendations.

In areas designated for granite curb bedding mortar repaired, the existing granite bedding mortar shall be removed under the curb to a min. depth of 25 mm [1 in] from the face of curb. Any loose mortar shall also be removed. The mortar shall be replaced with new mortar and finished with a 45° bevel at the face of curb. The mortar shall be proportioned, mixed, and applied in accordance with the Manufacturer's recommendations.

Method of Measurement: Repairing Granite Curb Joint and Bedding Mortar will be measured for payment by the linear foot along the face of the curb, horizontally and vertically, complete and accepted.

Basis of Payment: Repairing Granite Curb Joint and Bedding Mortar will be paid for at the contract unit price per linear foot, which will include all materials, labor, equipment, and incidentals necessary to complete the work including removal of existing mortar.

I-95 Northbound  
IM-1681(920)E  
March, 2012

Payment will be made under:

Pay Item

518.391 Repairing Granite Curb Joint and Bedding Mortar

Pay Unit

Linear Foot

SPECIAL PROVISION  
SECTION 520  
EXPANSION DEVICES  
(Header Concrete – Elastomeric Concrete)

Materials: When called for in the plans or specifications, Elastomeric Concrete shall be one of the products listed on the Maine Department of Transportation's Qualified Product List for Elastomeric Concrete.

The Elastomeric Concrete materials furnished, and equipment and installation procedures used shall be in strict accordance with the manufacturer's/ supplier's published product data and installation guidelines. Product data, installation guidelines, test data and reports, and material certifications shall be submitted for review and approval.

The concrete surface preparation requirements shall be submitted for review and approval.

The installers (Contractors personnel) shall have a factory trained lead person(s) onsite during the Elastomeric Concrete installation, or the approved manufacturer/supplier shall provide a qualified technical representative(s) to supervise the Contractor's personnel in the proper methods of installation of Elastomeric Concrete. The manufacturer's technical representative(s) shall be onsite for the first placement and shall provide training to the Contractors personnel.

SPECIAL PROVISION  
SECTION 520  
EXPANSION DEVICES  
(Bridge Joint Modifications)

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

Materials All structural concrete removed shall be replaced with Class LP concrete, per Section 502. A bonding agent from the Maine Department of Transportation's Qualified Product List shall be used for bonding fresh concrete or patching material to existing hardened concrete.

As an alternative to the standard Class LP concrete, the contractor may propose the use of an accelerated Class LP concrete. Acceptable methods for rapid strength gain shall include, but are not limited to, additional cementitious content, non chloride chemical accelerators, Type III Portland Cement, and heated mix water and aggregates. Trial batches shall be performed and submitted to the Department indicating a minimum of 4000 PSI compressive strength in 24 hours.

The use of rapid setting cement may be substituted for normal Portland Cement and must obtain a minimum of 5000 PSI compressive strength in 24 hours. Rapid set cement products proposed for use must have a history of long term durability and be used in strict accordance with the manufacturer's recommendations.

When called for in the plans or specifications, Elastomeric Concrete shall be one of the products listed on the Maine Department of Transportation's Qualified Product List for Elastomeric Concrete.

The Joint and Seals, as required, shall be the type indicated on the plans and shall meet the material, fabrication, and construction requirements of Section 520 - Expansion Devices - Non-Modular. Expansion Joints and Seals shall be selected from the appropriate MaineDOT Qualified Product List of Bridge Compression Seals and Gland Seals.

Construction Requirements The removal, adjustment, modification and replacement of bridge joints shall be done in a manner that accommodates maintenance of traffic requirements and shall be coordinated with the highway paving.

Bridge decks and curbs may contain electrical conduit (rigid metal or PVC) and wiring. The Contractor shall field verify the presence of electrical conduit and shall take all precautions necessary to avoid damaging any embedded conduits. Any conduit or

electrical wiring damaged as a result of the contractors operations shall be repaired by the contractor at no expense to the Department. Where the specified joint modifications include reconstruction of the backwall and deck on bridges that contain conduit, and existing conduit expansion couplers do not exist or are damaged during demolition, a new conduit expansion coupling approved by the Resident shall be installed to accommodate expansion and contraction of the bridge deck.

The contractor shall field measure existing joint openings as required to determine the appropriate replacement joint seal. All angles, joint extrusions, gland seals and compression seals shall be approved by the Resident before any materials are ordered.

Shop drawings shall be submitted for approval for all replacement joints and joint systems. The contractor shall construct the joint to the dimensions shown on the plans and as approved by the manufacturer.

The contractor shall install the joint according to the manufacturer's recommendations. Construction joints in the joint armor, or the steel extrusions, shall be fully welded at each construction joint required by phasing, and at the tie-ins to the existing joint armor and steel extrusion adjacent to the deck curbs. Replacement seals shall be installed full width in one piece after the remainder of the joint modification is completed.

Where applicable, the contractor shall cut a neat line for the substrate blackout per the dimensions indicated on the plans and standard details. The contractor shall sand blast the substrate, blow it clean with dry oil-free compressed air, and thoroughly dry the substrate prior to placing joint material. Care shall be taken where reinforcing steel is uncovered not to damage the steel or its bond to the surrounding concrete. All existing reinforcing steel exposed by the joint and concrete removal shall be cleaned by sandblasting, or by other means approved by the Resident. Prior to casting the new concrete the contractor shall apply an epoxy bonding agent from the Department's Qualified Products List.

All transverse reinforcing steel shall be continuous across the length of the joint. The contractor shall provide approved reinforcing steel coupler bars at all construction joints.

- Bridge Joint Modification Type 2 involves replacing the existing compression seal "in kind" full deck width and completely through raised curbs plus six inch extensions per side; and replacing damaged sections of the WT vertical leg joint armor and installing elastomeric concrete, minimum 3 inch depth, full deck width to inside faces of curbs. The new compression seal shall be an appropriate size selected from the Department's Qualified Products List.
- Bridge Joint Modification Type 2A involves replacing the existing compression seal "in kind" full deck width and completely through raised curbs plus six inch extensions per side; and installing elastomeric concrete, minimum 3 inch depth, on the backwall full deck width to inside faces of curbs. The new compression

seal shall be an appropriate size selected from the Department's Qualified Products List.

- Bridge Joint Modification Type 2B involves installing elastomeric concrete, minimum 3 inch depth, on the backwall full deck width to inside faces of raised curbs.
- Bridge Joint Modification Type 6 involves replacing the existing joint system full width with a deck slab over backwall system, including deck concrete, backwall concrete, deck and backwall curbs and overhangs, and deck and backwall fascias. The structural concrete work is full deck width to outside faces of raised curbs.

#### Temporary Structures and Approaches

In work zones where the roadway and ramps are opened up to traffic during non-work hours the Contractor shall submit a plan to on how the roadway surfaces will be suitable for vehicular traffic. Depending on the work completed during the work hours the contractor shall shim, plate, ramp or mat the joint or deck areas being repaired prior to opening the roadway(s) to vehicular traffic.

The Contractor shall design, construct, and maintain in good condition, and remove all temporary structures (plates, mats, etc.) and approaches (shims, ramps, etc.) required for the satisfactory maintenance of vehicular traffic.

Where required, the Contractor shall install temporary structures (temporary bridge plates or temporary bridge mats) over the bridge joints, across all vehicle lanes and shoulders. Temporary structures shall be recessed flush with the adjacent roadways or ramped transversely and longitudinally per Standard Detail 202(01) for approaches.

All temporary structures and approaches shall be constructed in accordance with the plans submitted by the Contractor. Barricades, warning signs, lights and other traffic control devices shall be provided in accordance with the Contract and the approved Traffic Control Plan. Materials used for all temporary structures and approaches shall conform to the detailed plans and specifications submitted by the Contractor.

Temporary structures shall be designed and sealed by a Professional Engineer, licensed in accordance with the laws of the State of Maine. The Contractor shall submit the design computations and detailed plans of the temporary structures to the Resident prior to beginning construction of the temporary structures. If the Department requires changes to temporary structures plans or computations, based on Contract requirements, then the Contractor shall implement the changes at no additional cost to the Department.

Shims and ramps shall conform to the Standard Detail 202(01) for approaches for the posted speeds and differential elevations being corrected.

The Department shall have no obligation to review or comment on any design, construction, maintenance or removal of temporary structures and approaches. No review or comment by the Department, or any lack of review or comment by the Department, shall not relieve the Contractor of its responsibility to properly design, construct, maintain in good condition, and remove the temporary structures and approaches in accordance with the Contract, nor shall no review or comment by the Department, or any lack of review or comment by the Department shift any responsibility to the Department. The Contractor shall be responsible for all damages resulting from the failure of temporary structures or approaches.

Temporary structures shall be designed in accordance with the AASHTO Standard Specifications for Highway Bridges, 17<sup>th</sup> Edition, 2002, or the current edition of AASHTO LRFD Bridge Design Specifications, except as noted herein, to meet live load requirements of HS25, for ASD and LFD, or HL-93 Maine Modified, for LRFD designs. The design speed of the temporary structures shall not be less than the construction area posted speed limit, or the advisory speed limit, as applicable, unless otherwise indicated in the Contract. Provisions shall be made for a skid resistant wearing surface throughout the period of time the temporary structure is open to public travel for vehicular traffic.

The temporary structures and support members shall be fastened or anchored so that all contact surfaces with adjacent supporting members bear continuously. Immediate corrective action shall be taken by the Contractor to remedy any condition in the structure that results in objectionable or distracting noise levels, or results in the decking becoming loose, when subject to traffic loads.

The Contractor shall be responsible for normal maintenance, should any part, or all, of the temporary structures and approaches be damaged or destroyed by any cause, prior to, or after, opening the temporary structures and approaches to traffic, it shall be repaired or replaced by the Contractor without additional compensation.

#### Method of Measurement

Bridge Joint Modification Types 2, 2A, 2B and 6 will be measured by each unit, complete in place and accepted for the type(s) identified on the plans and described in this specification.

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

Basis of Payment The accepted quantity of Bridge Joint Modification Types 2, 2A, 2B and 6 will be paid for at the contract unit price per each. Payment will be full compensation for furnishing and installing all materials, labor, equipment, and incidentals necessary to complete the work, including removing, disposing and installing structural concrete and steel, drilling and grouting, adjusting and cleaning existing joint materials and reinforcing steel, fabricating and installing new joint material and new seals, welding, phasing the joint installation, prepping and sealing raised curbs, salvaging existing

electrical conduit, installing new conduit expansion couplings, removing and resetting bridge rail posts and bridge rail, and temporary structures and supports, as required.

Traffic control devices used in conjunction with the temporary structures and approaches will be paid in accordance with the applicable Contract items.

Payment will be made under:

| <u>Pay Item</u>                              | <u>Pay Unit</u> |
|----------------------------------------------|-----------------|
| 520.242 Bridge Joint Modifications- Type 2   | Each            |
| 520.2421 Bridge Joint Modifications- Type 2A | Each            |
| 520.2422 Bridge Joint Modifications- Type 2B | Each            |
| 520.246 Bridge Joint Modifications- Type 6   | Each            |

SPECIAL PROVISION  
SECTION 521  
FINGER JOINTS AND FABRIC TROUGH/FABRIC CURTAIN  
(Fabric Covering for Concrete Surfaces)

521.01 Description

The following paragraph is added:

“This work shall also include workmanlike installation of Fabric Covering for Concrete Surfaces as shown in the Plans or as directed by the Resident. The work also includes the cleaning of concrete surfaces, the application of Lubricant Adhesive to the concrete surfaces to be covered, the installation of Fabric Trough material as the concrete protective covering and the sealing of Fabric Covering edges.”

MATERIALS

The following subsection is added:

521.041 Materials Fabric Covering for Concrete Surfaces Materials shall meet the requirements specified in the following subsections:

|                          |        |
|--------------------------|--------|
| Fabric Trough or Curtain | 521.04 |
| Sealant                  | 714.04 |

The Lubricant Adhesive shall be a one-component, moisture-curing polyurethane compound extended with aromatic hydrocarbon solvent meeting the requirements of the most recently published ASTM D4070 specification. If the ASTM D4070 does not provide a greater film strength requirement, the Film Strength shall meet or exceed 1200 psi as determined by ASTM D412.

Chamfer strips may be fabricated from either concrete grout or preservative treated timber. Grout shall be a non-shrink material selected from MaineDOT's qualified products list of grout materials. Preservative treated lumber shall be No. 2 or better Southern Yellow Pine treated with Alkaline Copper Quaternary (ACQ) or Micronized Copper Quaternary with a minimum absorption rate of 0.4 pounds per cubic foot.

CONSTRUCTION REQUIREMENTS

The following subsection is added:

521.061 Construction of Fabric Covering for Concrete Surfaces

The existing concrete surfaces to be covered shall be free of laitance, oil, grease, dirt, and dust. The Contractor shall thoroughly clean surfaces to be covered by power washing, acid washing, or other means as directed by the Resident.

Lubricant Adhesive shall be applied as directed by the manufacturer. If there are no ready manufacturer's directions for this type of installation, the Contractor must submit installation directions including application rates developed in consultation with the Lubricant Adhesive manufacturer to the Department for approval.

The Fabric Covering material, laminated woven nylon covered in layers of neoprene rubber, shall be trimmed to fit within 1/8 inch to all adjacent upward vertical surfaces. Where the covering abuts a downward vertical surface, the material shall be extended over the downward face a minimum of ½ inch. Where practical, the projecting half inch shall be adhered to the downward vertical surface as directed by the Resident. If the stiffness of the Fabric Covering causes it to pull away from the horizontal or sloped surface, when it is adhered to the downward surface, the Contractor may allow the half inch excess to project over the downward surface in the remainder of the applications.

For each section of Fabric Covering, three of four edges will match to upward vertical faces. These three edges of each Fabric Covering section shall be sealed with an elastomeric, non-sag, polyurethane-based sealant meeting Standard Specifications subsection 714.04

#### 521.07 Method of Measurement

The following paragraph shall be added:

Fabric Covering for Concrete Surfaces will be measured for payment by the Lump Sum, satisfactorily applied and accepted.

#### 521.08 Basis of Payment

The following paragraph shall be added:

Fabric Covering for Concrete Surfaces will be paid for at the contract Lump Sum price. Payment shall be considered full compensation for all work and materials necessary to complete the work."

Payment will be made under:

| <u>Pay Item</u>                              | <u>Pay Unit</u> |
|----------------------------------------------|-----------------|
| 521.51 Fabric Covering for Concrete Surfaces | Lump Sum        |

SPECIAL PROVISION  
SECTION 526  
CONCRETE BARRIER  
(Permanent Concrete Transition Barrier)

526.01 Description

This subsection is amended by the addition of the following:

This work also consists of removing existing concrete transition barriers, relocation, removal and addition of bridge rail posts, modifying or lengthening aluminum bridge rail, installing bridge rail end caps, providing necessary bridge rail hardware, bridge curb modifications, and construction of support corbels as shown on the plans and in the locations indicated on the plans.

526.02 Materials

This subsection is amended by the addition of the following:

Materials for bridge rail modifications shall conform to Standard Specification 507. The anchoring material for drilling and anchoring new anchor rods shall be selected from the MaineDOT Qualified Products List.

526.03 Construction Requirements:

This subsection is amended by the addition of the following:

Bridge decks and curbs may contain electrical conduit (rigid steel or PVC) and wiring. Prior to beginning the work the contractor shall field verify the presence of electrical conduit and shall take all precautions necessary to avoid damaging any embedded conduits. If conflicts are discovered between the proposed location of drilled and anchored reinforcing steel and electrical conduit the contractor shall notify the Resident so that appropriate adjustments can be made. Any conduit or electrical wiring damaged as a result of the contractors operations shall be repaired by the contractor at no expense to the Department.

526.04 Method of Measurement

This subsection is amended by the addition of the following:

Permanent Concrete Transition Barriers, regardless of type, will be measured by each unit satisfactorily completed.

526.05 Basis of Payment:

This subsection is amended by the addition of the following:

Payment for Transition Barrier, regardless of type, will be made at the Contract unit price per each. Payment shall be full compensation for removing existing concrete transition barriers, relocating, removing, and adding aluminum bridge rail posts, modifying or lengthening aluminum bridge rail, installing bridge rail end caps, providing necessary bridge rail hardware (including toggle bolts and clamp bars), modifying existing bridge curbs, structural concrete, reinforcing steel, and all materials, equipment, labor and incidentals required to complete the work as shown on the plans and in the locations shown on the plans.

SPECIAL PROVISION  
SECTION 606  
GUARDRAIL

606.01 Description This work shall consist of furnishing and installing guardrail components in accordance with these specifications and in reasonably close conformity with the lines and grades shown on the plans or as established. The types of guardrail are designated as follows:

Type 3-Galvanized steel "w" beam, wood posts or galvanized steel posts.

Type 3a-Galvanized steel "w" beam, wood posts, wood or composite offset blocks.

Type 3aa-Corrosion resistant steel "w" beam, wood posts, wood or composite offset blocks.

Type 3b-Galvanized steel "w" beam, galvanized steel posts, galvanized steel offset blocks.

Type 3c-Galvanized steel "w" beam, wood posts or galvanized steel posts, wood or composite offset blocks.

Type 3d-Galvanized steel "w" beam, galvanized steel posts, wood or composite offset blocks.

Thrie Beam-Galvanized steel thrie beam, wood posts or galvanized steel posts, wood or composite offset blocks.

Median barriers shall consist of two beams of the above types, mounted on single posts. Except for thrie beam, median barriers may include rub rails when called for.

Bridge mounted guardrail shall consist of furnishing all labor, materials, and equipment necessary to install guardrail as shown on the plans. This work shall also include drilling for and installation of offset blocks if specified, and incidental hardware necessary for satisfactory completion of the work.

Remove and Reset and Remove, Modify, and Reset guardrail shall consist of removing the existing designated guardrail and resetting in a new location as shown on the plans or directed by the Resident. Remove, Modify, and Reset guardrail and Modify guardrail include the following guardrail modifications: Removing plate washers at all posts, except at anchorage assemblies as noted on the Standard Details, Adding offset blocks, and other modifications as listed in the Construction Notes or General Notes. Modifications shall conform to the guardrail Standard Details.

Bridge Connection shall consist of the installation and attachment of beam guardrail to the existing bridge. This work shall consist of constructing a concrete end post or modifying an existing endpost as required, furnishing, and installing a terminal connector, necessary hardware, and incidentals required to complete the work as shown on the plans. Bridge Transition shall consist of a bridge connection and furnishing and installing guardrail components as shown in the Standard Details.

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

|                     |        |
|---------------------|--------|
| Timber Preservative | 708.05 |
| Metal Beam Rail     | 710.04 |
| Guardrail Posts     | 710.07 |
| Guardrail Hardware  | 710.08 |

Guardrail components shall meet the applicable standards of "A Guide to Standardized Highway Barrier Hardware" prepared and approved by the AASHTO-AGC-ARTBA Joint Cooperative Committee, Task Force 13 Report.

Posts for underdrain delineators shall be "U" channel steel, 2.44m [8 ft] long, 3.72 kg/m [2 ½ lb/ft] minimum and have 9.5 mm [3/8 in] round holes, 25 mm [1 in] center to center for a minimum distance of 610 mm [2 ft] from the top of the post.

Reflectorized Flexible Guardrail Markers shall be mounted on all guardrails. A marker shall be mounted onto guardrail posts at the flared end treatment's terminal and its tangent point, both at the leading and trailing ends of each run of guardrail. The marker's flexible posts shall be grey with either silver-white or yellow reflectors (to match the edge line striping) at the tangents, red at leading ends, and green at trailing ends. Whenever the end treatment is not flared, markers will only be required at the end treatment's terminal. These shall be red or green as appropriate. Markers shall be installed on the protected side of guardrail posts unless otherwise approved by the Resident. Reflectorized flexible guardrail markers shall be from the Maine DOT's Approved Product List of Guardrail Material. The marker shall be grey, flexible, durable, and of a non-discoloring material to which 75 mm [3 in] by 225 mm [9 in] reflectors shall be applied, and capable of recovering from repeated impacts. Reflective material shall meet the requirements of Section 719.01 for ASTM D 4956 Type III reflective sheeting. The marker shall be secured to the guardrail post with two fasteners, as shown in the Standard Details.

Reflectorized beam guardrail ("butterfly"-type) delineators shall be mounted on all "w"-beam guardrail. The delineators shall be mounted within the guardrail beam at guardrail posts. Delineators shall be fabricated from high-impact, ultraviolet & weather resistant thermoplastic. Reflectorized beam guardrail delineators shall be placed at approximately 20 m [62.5 ft] intervals or every tenth post on tangents and at approximately 10 m [31.25 ft] intervals or every fifth post on curves. Exact locations of the delineators shall be as directed by the Resident. On divided highways, the left hand delineators shall be yellow and the right hand delineators shall be silver/white. On two directional highways, the right hand side shall be silver/white and no reflectorized delineator used on the left. All reflectors shall have reflective sheeting applied to only one side of the delineator facing the direction of traffic as shown in the Standard Detail 606(07). Reflectorized sheeting for guardrail delineators shall meet the requirements of Section 719.01.

Single wood post shall be of cedar, white oak, or tamarack, well seasoned, straight, and sound and have been cut from live trees. The outer and inner bark shall be removed and all knots trimmed flush with the surface of the post. Posts shall be uniform taper and free of kinks and bends.

Single steel post shall conform to the requirements of Section 710.07 b.

Single steel pipe post shall be galvanized, seamless steel pipe conforming to the requirements of ASTM A120, Schedule No. 40, Standard Weight.

Acceptable multiple mailbox assemblies shall be listed on the Department's Approved Products List and shall be NCHRP 350 tested and approved.

The Guardrail 350 Flared Terminal shall be a terminal with a 1.2 m [4 ft] offset as shown in the Manufacturer's installation instructions.

Existing materials damaged or lost during adjusting, removing and resetting, or removing, modifying, and resetting, shall be replaced by the Contractor without additional compensation. Existing guardrail posts and guardrail beams found to be unfit for reuse shall be replaced when directed by the Resident.

606.03 Posts Posts for guardrail shall be set plumb in holes or they may be driven if suitable driving equipment is used to prevent battering and distorting the post. When posts are driven through pavement, the damaged area around the post shall be repaired with approved bituminous patching. Damage to lighting and signal conduit and conductors shall be repaired by the Contractor.

When set in holes, posts shall be on a stable foundation and the space around the posts, backfilled in layers with suitable material, thoroughly tamped.

The reflectorized flexible guardrail markers shall be set plumb with the reflective surface facing the oncoming traffic. Markers shall be installed on the protected side of guardrail posts. Markers, which become bent or otherwise damaged, shall be removed and replaced with new markers.

Single wood posts shall be set plumb in holes and backfilled in layers with suitable material, thoroughly tamped. The Resident will designate the elevation and shape of the top. The posts, that are not pressure treated, shall be painted two coats of good quality oil base exterior house paint.

Single steel posts shall be set plumb in holes as specified for single wood posts or they may be driven if suitable driving equipment is used to prevent battering and distorting the post.

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

606.04 Rails Brackets and fittings shall be placed and fastened as shown on the plans. Rail beams shall be erected and aligned to provide a smooth, continuous barrier. Beams shall be lapped with the exposed end away from approaching traffic.

End assemblies shall be installed as shown on the plans and shall be securely attached to the rail section and end post.

All bolts shall be of sufficient length to extend beyond the nuts but not more than 13 mm [ $\frac{1}{2}$  in]. Nuts shall be drawn tight.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Payment will be made under:

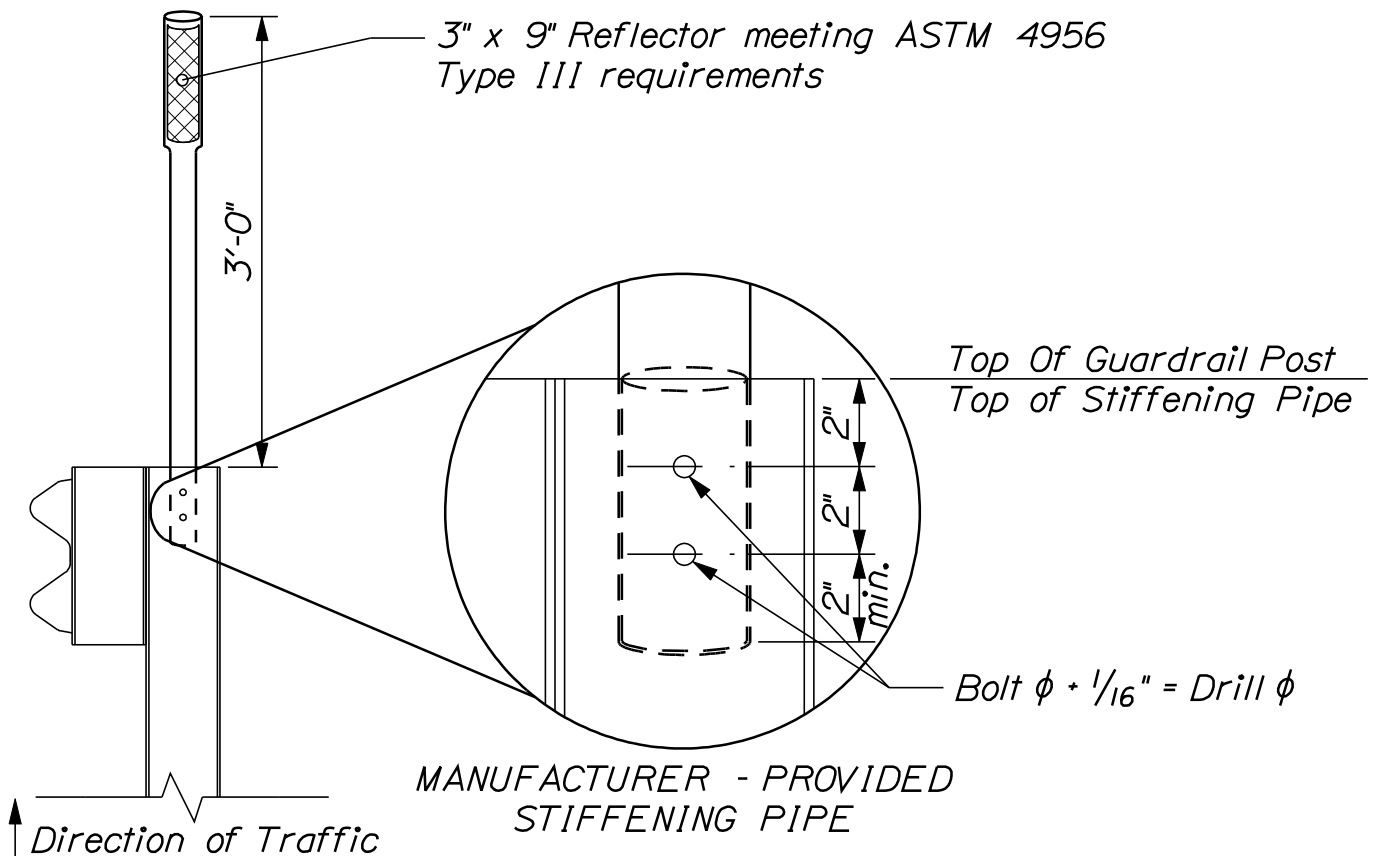
|          | <u>Pay Item</u>                                          | <u>Pay Unit</u>     |
|----------|----------------------------------------------------------|---------------------|
| 606.15   | Guardrail Type 3a-Single Rail                            | meter [Linear Foot] |
| 606.151  | Guardrail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

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

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

2. *Installation:*

- a. *Each bolt-hole diameter shall be the bolt diameter +  $\frac{1}{16}$ ".*
- b. *Wood post attachment - attach marker with 2,  $\frac{5}{16}$ " diameter zinc-coated lag bolts, having 2" of embedment into wood post.*
- c. *Steel post attachment - attach marker with 2,  $\frac{1}{4}$ " diameter zinc-coated bolt, washer and nut assemblies, having  $\frac{1}{2}$ " of bolt extension behind steel post.*
- d. *When provided by the marker manufacturer, a stiffening pipe shall be inserted into the base of the marker prior to drilling bolt holes and shall remain in-place.*



## REFLECTORIZED FLEXIBLE GUARDRAIL MARKER DETAILS

SPECIAL PROVISION  
SECTION - 627  
GROOVING FOR PAVEMENT MARKING

Description.

This work shall consist of furnishing and installing a groove in the pavement for placement of pavement markings as shown on the plans or as directed by the engineer.

Construction Requirements.

The grooves shall be cut such that the surface of the groove is uniform with minimal variation in height.

The grooves shall be located where the final pavement marking will be placed according to the plans or as directed by the engineer.

On bituminous pavements the width of the groove shall be 1 inch wider than the width of the painted lines indicated on the plans or as directed by the Resident. Lengths of grooves shall be determined from contract documents.

The final depth of the groove on bituminous pavements shall be 50 mils, plus or minus 5 mils.

The groove shall be clean and dry before the installation of the pavement marking can begin.

All debris resulting from the installation of the grooves shall be removed and disposed of by the contractor.

Method of Measurement.

Final measurement will not be made except for authorized changes during construction or where significant errors are found in the contract quantity. Where required, grooves will be measured separately and made to the nearest square foot. The revision or correction will be computed and added to or deducted from the contract quantity. When used for sections of broken lines that include the gaps for acceleration/deceleration, auxiliary lanes, and passing zones the length measured for payment shall include only the grooved areas. Breaks will not be included in the length measured for payment.

Basis of Payment.

The accepted quantity of grooves will be paid for at the contract unit price per each of the pay items included in the contract. Payment will be considered full compensation for all labor, equipment, and material necessary to complete the described work, including loading, hauling, stockpiling and disposal of material; and any other incidental items.

Pay Item

Pay Unit

627.30      Grooving for Pavement Marking

Square Foot (ft<sup>2</sup>)

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

Description:

The following sentence is added:

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

SPECIAL PROVISION  
SECTION 627  
PAVEMENT MARKINGS

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

627.10 Basis of Payment:

| <u>Pay Item</u> | <u>Description</u>                               | <u>Pay Unit</u> |
|-----------------|--------------------------------------------------|-----------------|
| 627.744         | 6" White or Yellow Painted Pavement Marking Line | LF              |

SPECIAL PROVISION  
SECTION 631  
EQUIPMENT RENTAL  
EQUIPMENT REQUIREMENTS

The following are added to Subsection 631.02 and 631.08

631.02 General

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

631.08 Basis of Payment

Payment will be made under:

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

SPECIAL PROVISION  
SECTION 652  
MAINTENANCE OF TRAFFIC

Approaches. Approach signing for the work on the Interstate shall include the following signs

|                   |                        |
|-------------------|------------------------|
| Road Work 3 Miles | Road Work 500 Feet     |
| Road Work 2 Miles | Road Work Next x Miles |
| Road Work 1 Mile  | End Road Work          |

Work Areas Interstate. At the work sites, signs, flashing arrow boards and channeling devices as shown on the Work Zone Signing details shall be used as directed by the Resident.

Signs Include:

Right or Left Lane Closed 2 Miles  
Lane Ends 1 mile Merge Right or Left  
Right or Left Lane Closed 1/2 Mile  
Speed Limit 55\* <sup>1</sup> (Existing speed limit signs will be covered when in use)  
Fines Doubled\* <sup>1</sup>  
Work Zone <sup>1</sup>  
Do Not Pass\*  
Right/Left Merge Symbol (W 4-2)  
End Work Zone  
Resume Speed  
Exit (green with white legend and border)  
Road Work Ahead  
Merging Traffic Symbol (At on-ramp in right lane closure)  
Stop Ahead (At on-ramp in right lane closure)  
Single Lane Ahead (At on-ramp in left lane closure)  
Stop (At on-ramp in right lane closure)  
Directional Arrows (At on-ramp in right lane closure)  
Bump  
Trucks Entering  
Left Turning Trucks with 500 Feet Advisory Plate  
Flagger Sign  
Grooved Pavement  
Caution Rumble Strip

\* White with black legend and border

<sup>1</sup> In addition to work zone package these signs will also be required at the end of any on ramps that are within the lane closure

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

General Requirements-Interstate.

There shall be no diverting of traffic between northbound and southbound lanes.

The Contractor shall provide a minimum traveled way width of 14 Feet through an expressway lane closure.

The maximum length of lane closure shall be 4 miles in length.

Lane closures shall not be set up until work in the area is to be performed and must be removed when no work is being performed.

Lane closures shall be separated by at least 2 miles.

All construction work shall be confined to the lane closed to traffic.

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

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

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

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

Road Work Ahead signs shall be used on roads adjacent to the interstate when the Contractor is working on or near an on-ramp or when the on-ramp enters a lane closure area.

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

A temporary pavement marking line, or at the Contractor's option temporary approved raised pavement markers, shall be placed from the existing lane edge line through the length of the taper in overnight lane closures. Temporary painted lines shall only be used where the pavement is to be overlaid. Temporary plastic lines or raised pavement markers shall be used on pavement that it not to be overlaid. Removing existing pavement markings and **installing and removing raised pavement markers in lane closure tapers** shall be incidental to item 652.36. Placing all other temporary pavement marking lines or markers will be paid under Item 627.781 Temporary 6 Inch Painted Pavement Marking Line, White or Yellow.

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

Interstate crossovers may be used by the contractor at the discretion of the Department only.

The Contractor, his Subcontractor or employees shall conduct all work in a safe and professional manner as it relates to the traveling public (i.e. not adversely disrupting the flow of traffic in an unsafe manner when exiting or entering a lane closure or crossover, negative verbal or physical gestures).

Channelization. Channelization devices shall include the following:

Flashing Arrow Boards

Vertical Panel Markers

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

Cones (**During actual work the contractor shall use cones in the work areas in lieu of drums unless otherwise authorized by the Resident**)

Temporary Raised Pavement Markers

Channelization devices shall be installed and maintained at the spacing determined by the MUTCD to delineate travel lanes through the project. Vertical Panel markers shall be placed 2 feet from the outside edge of the shoulder on the passing lane at 600 feet intervals when the travel lane is closed in overnight lane closures. The vertical panel marker size shall be 12 inches x 24 inches. When directed by the Engineer, drums or other channelization devices shall be placed in the closed lane at a maximum spacing of 2 x speed limit.

Temporary Centerline or Edge Line. A temporary painted centerline and edge line shall be marked each day on all new pavement to be used by traffic. The temporary line shall conform to the standard marking patterns used for permanent markings and will be paid for under Section 627. Failure to apply a temporary line daily will result in suspension of paving until temporary markings are applied to all previously placed pavement.

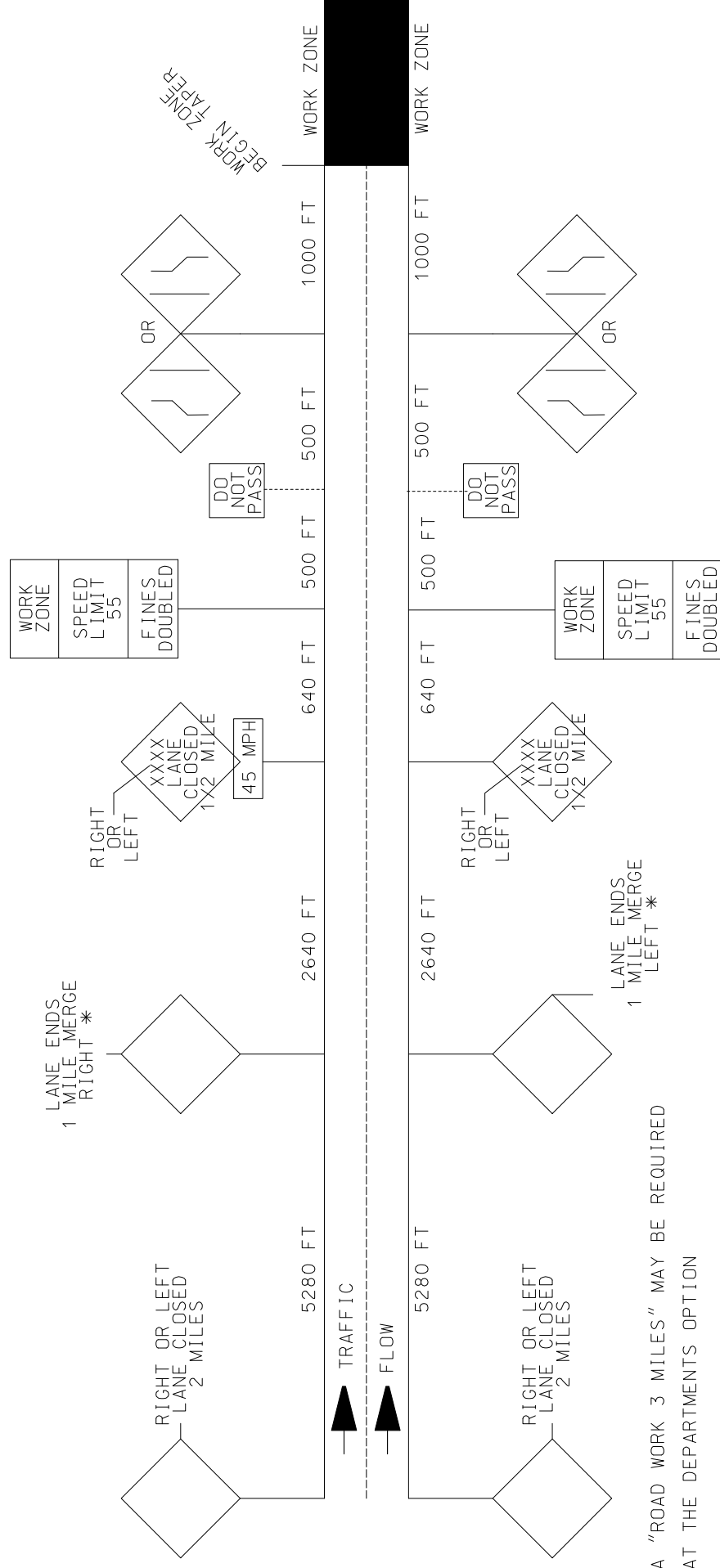
Roadside Recovery Area. The Contractor shall not store material nor park equipment within 15 feet of the edge of the established travel lanes.

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

Vehicles shall not be parked in the median, except at crossovers. Crossovers shall not be blocked from the normal use of maintenance or State Police Forces. Equipment parked in crossovers shall be well delineated with **drums**.

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

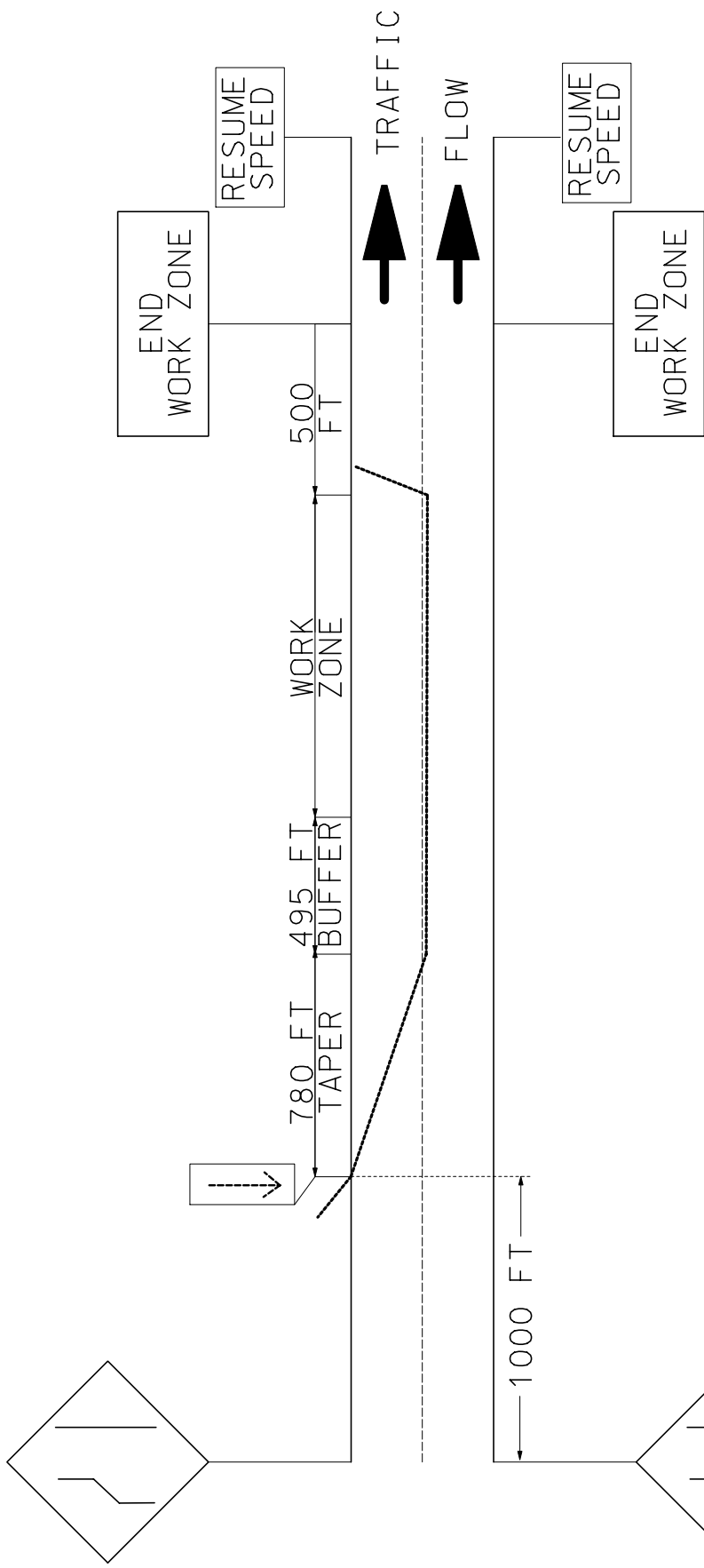
# WORK ZONE SIGNING



A "ROAD WORK 3 MILES" MAY BE REQUIRED AT THE DEPARTMENT'S OPTION

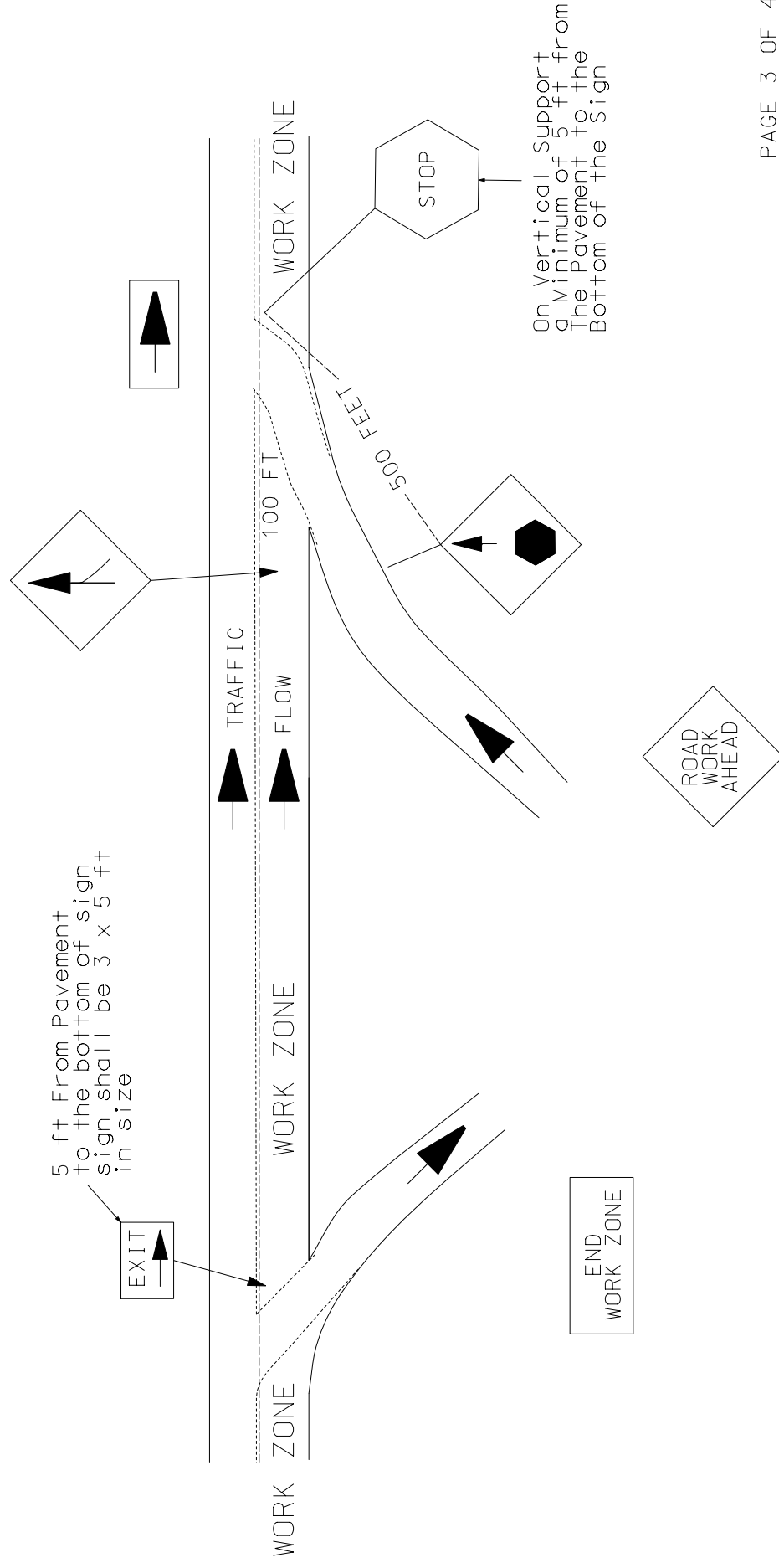
\* LANE ENDS 1 MILE MERGE RIGHT OR LEFT SIGNS SHALL ONLY BE PLACED ON SIDE OF ROAD THAT NEEDS TO MERGE

# WORK ZONE

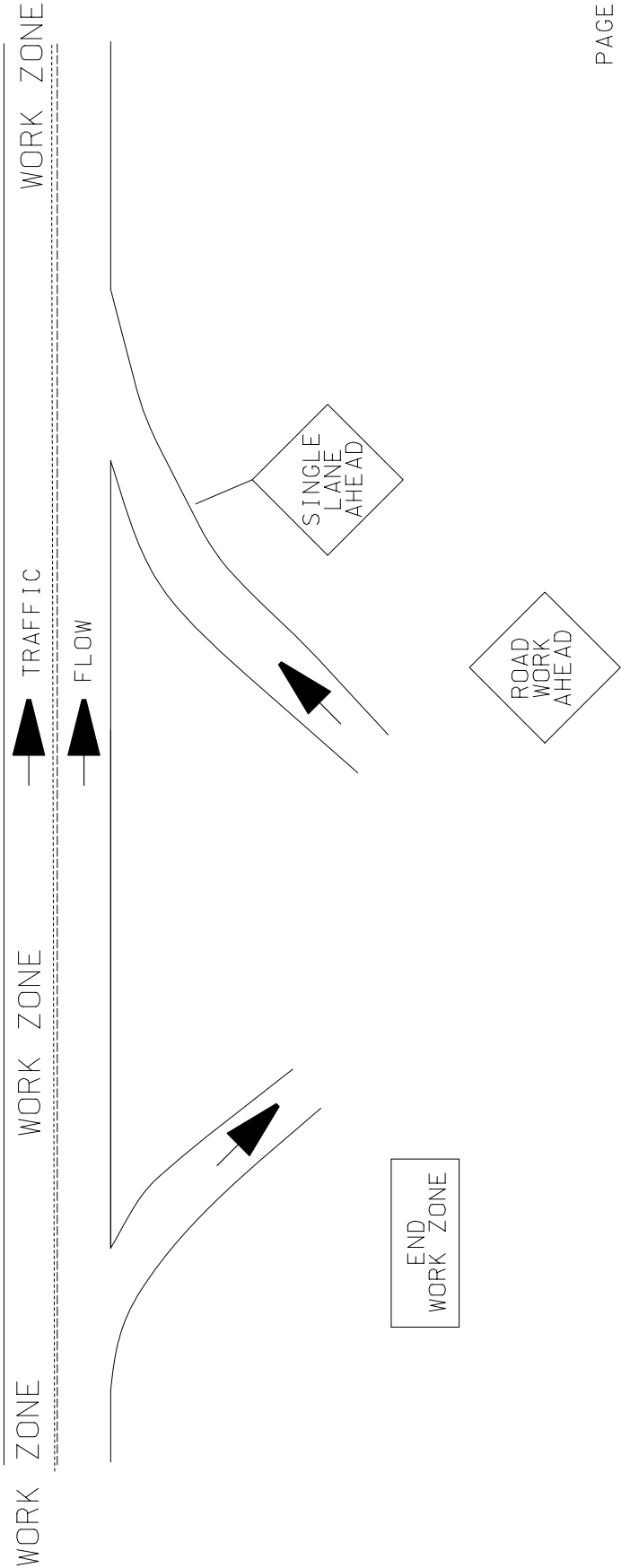


NOTE:  
CHANNELIZING DEVICES SHALL BE SPACED AT A DISTANCE OF 110 FEET  
APART WITH 3 DEVICES ACROSS THE CLOSED LANE EVERY 1500 FEET.  
DEVICES IN THE TAPER SHALL BE SPACED AT 55 FEET APART.

# RAMPS – RIGHT LANE CLOSED



# RAMPS – LEFT LANE CLOSED



SPECIAL PROVISION  
SECTION 652  
MAINTENANCE OF TRAFFIC

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

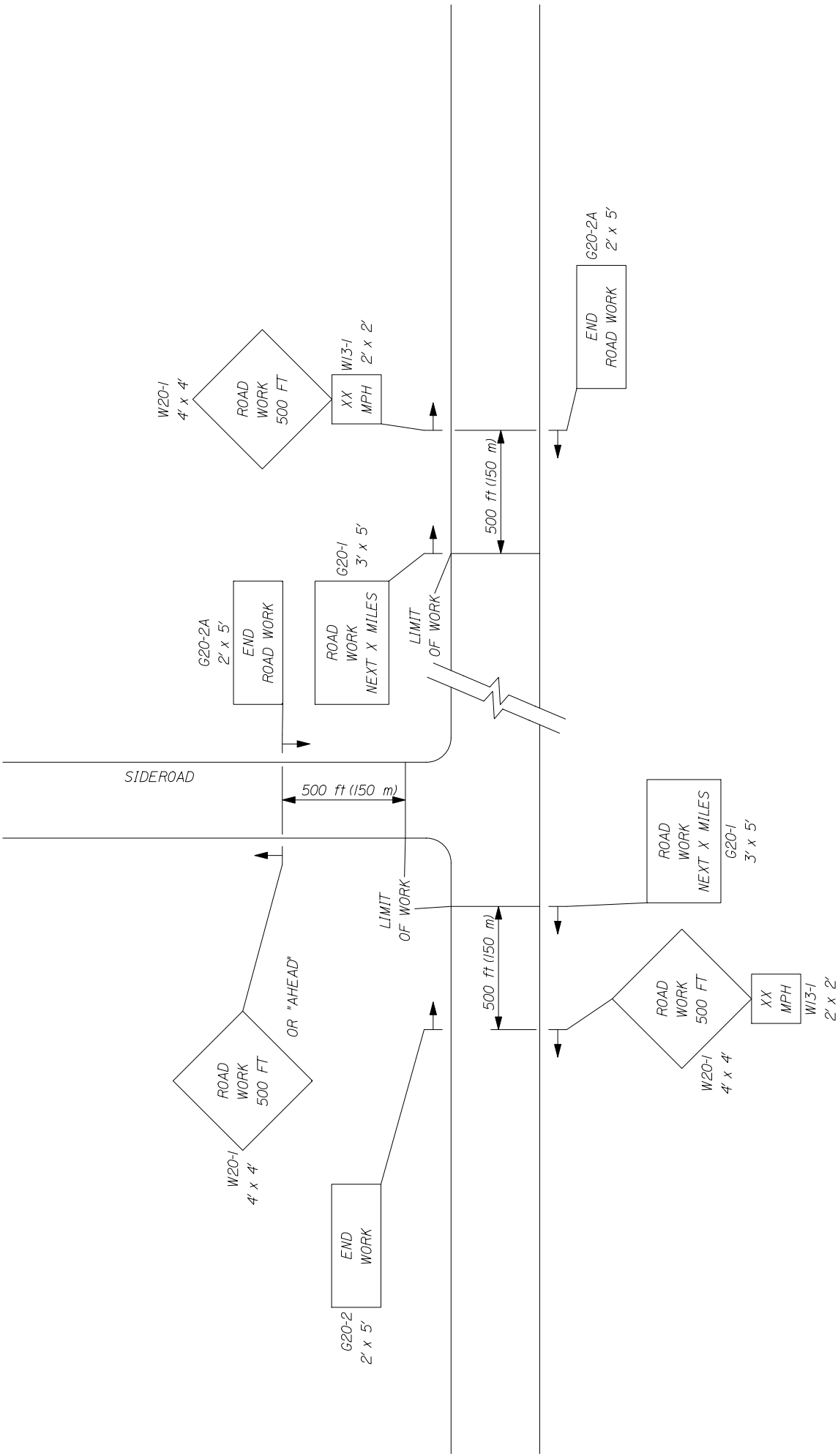
The above lists of Approach signs and Work Area signs are representative of the contract Requirements. Other sign legends may be required.

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. To encourage quality paving in warm-weather conditions, the length can be extended to 4,000 ft depending on the traffic impacts. 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.

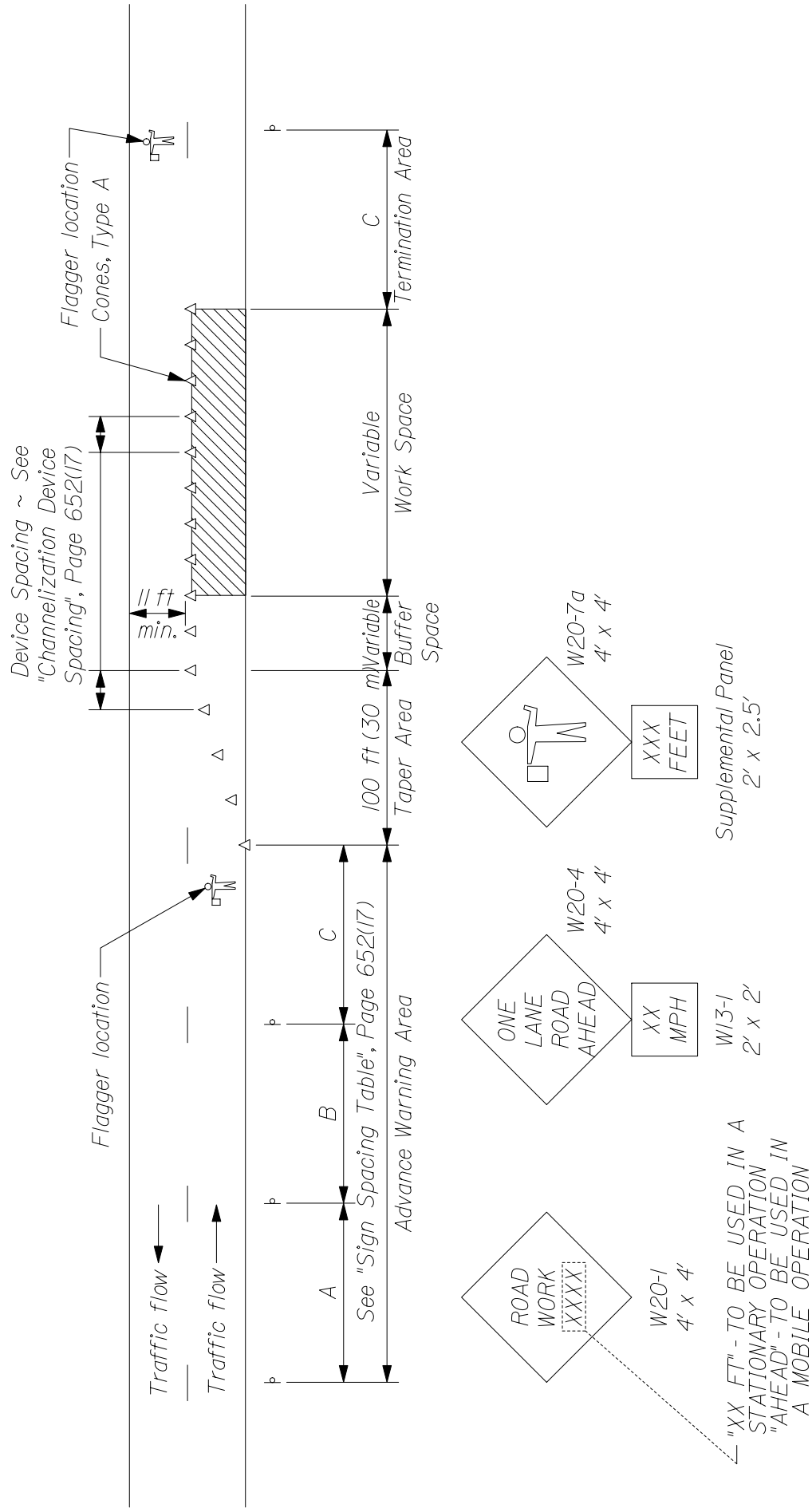
**Temporary Centerline** A temporary centerline shall be placed each day on all new pavement to be used by traffic. The temporary centerline, when specified of reflectorized traffic paint, shall conform to the standard marking patterns used for permanent markings.

Failure to apply a temporary centerline daily will result in a Traffic Control Violation and suspension of paving operations 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



TYPICAL APPLICATION: TWO - WAY, TWO LANE ROADWAY,  
CLOSING ONE LANE USING FLAGGERS

\* 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.

| SIGN SPACING TABLE                 |                          |             |            |
|------------------------------------|--------------------------|-------------|------------|
| Road Type                          | 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 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 656**

**Temporary Soil Erosion and Water Pollution Control**

Standard Specification 656 of the Standard Specifications is deleted and replaced by this Special Provision.

The following information and requirements will constitute the Soil Erosion and Water Pollution Control Plan for this Project. The soil erosion and water pollution control measures associated with this work are as follows:

The following is added to Section 656 regarding Project Specific Information and Requirements. All references to the Maine Department of Transportation Best Management Practices for Erosion and Sedimentation Control (a.k.a. Best Management Practices manual or BMP Manual) are a reference to the latest revision of said manual. The latest version is dated "February 2008" and is available at;

<http://www.maine.gov/mdot/environmental-office-homepage/surface-water-resources.php>

**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 SEWPCP.

1) This project is in the Muduxnekeag River watershed and is considered **SENSITIVE** in accordance with the BMP Manual. The Contractor's SEWPCP shall comply with Section II.B., Guidelines for Sensitive Water bodies in the BMP Manual.

2) Newly disturbed earth shall be mulched by the end of each workday. Mulch shall be maintained on a daily basis.

3) The SEWPCP shall describe the location and method of temporary erosion and sediment control for existing and proposed catch basins, outlet areas and culvert inlets and outlets.

4) Dust control items other than those under *Standard Specification, Section 637 – Dust Control*, if applicable, shall be included in the plan.

5) Permanent slope stabilization measures shall be applied within one week of the last soil disturbance.

**SPECIAL PROVISION**

**SECTION 656**

**Temporary Soil Erosion and Water Pollution Control**

6) Permanent seeding shall be done in accordance with *Standard Specification, Section 618 - Seeding* unless the Contract states otherwise.

7) Culvert inlet and outlet protection shall be installed within 48 hours of culvert installation, or prior to a storm event, whichever is sooner.

8) All disturbed ditches shall be stabilized by the end of each workday. Stabilization shall be maintained on a daily basis.

9) 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.

10) If check dams are used, they shall be constructed of stone in accordance with BMP Manual, Section 9.

11) If water is flowing within the drainage system, the water shall be diverted to a stable area or conduit and work shall be conducted in the dry. The Contractor's plan shall address when and where the diversions will be necessary.

12) 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.

13) Stream flow shall be maintained at all times. Grout from the post-tensioning socket sealing operation and fresh concrete shall not be allowed to contact the stream. Clean out of concrete delivery trucks and the washing of tools shall be addressed in the SEWPCP.

The SEWPCP shall describe the containment method for removal of the existing abutments, including installation of cofferdams and dewatering procedures.

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

**SPECIAL PROVISION**

**SECTION 656**

Temporary Soil Erosion and Water Pollution Control

resource in a manner that will not cause erosion. The location of such a cofferdam sedimentation basin shall be addressed in the SEWPCP.



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

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

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

Corps of Engineers Permit No. NAE-2010-00958 was issued to the Maine Dept. of Transportation. This work is located in numerous waterways and wetlands throughout the State of Maine. The permit authorized the permittee to place permanent and temporary fills in order to repair, rehabilitate, or replace existing deteriorated bridges and culverts.

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

**PLEASE PRINT OR TYPE**

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

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

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

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

**Permittee/Agent Signature:** \_\_\_\_\_      **Date:** \_\_\_\_\_

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

**Date Permit Issued:** \_\_\_\_\_      **Date Permit Expires:** \_\_\_\_\_

\*\*\*\*\*

**FOR USE BY THE CORPS OF ENGINEERS**

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

**Inspection Recommendation:** Inspections should be tied to annual random inspections of  
PGP projects

\_\_\_\_\_



**US Army Corps  
of Engineers®**

New England District

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

**COMPLIANCE CERTIFICATION FORM**

**USACE Project Number:** NAE-2010-00958

**Name of Permittee:** Maine Dept. of Transportation

**Permit Issuance Date:** \_\_\_\_\_

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*

( ) \_\_\_\_\_

*Telephone Number*

DEPARTMENT OF THE ARMY PERMIT

Permittee\_ **Maine Dept. of Transportation, 16 State House Station, Augusta, Maine 04333**

Permit No. **NAE-2010-00958**

Issuing Office: **New England District**

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

**Project Description:**

Place permanent and temporary fill below the ordinary high water line of numerous waterways and in their adjacent freshwater at ten locations throughout the State of Maine in order to repair, rehabilitate, or replace numerous existing deteriorated bridges or culverts.

**Project Description Continued on Page 4**

This work is shown on the attached plans entitled, "MAINE DOT, BRIDGE/CULVERT REPAIR, REPLACEMENT, OR REHAB PROJECTS, MULTIPLE STATEWIDE LOCATIONS", on 20 sheets and undated, and with the 1:2000 USGS Quadrangle Map location plans and tables contained in the administrative record.

**Project Location:**

In numerous waterways and in their adjacent freshwater wetlands throughout the State of Maine

**Permit Conditions:**

**General Conditions:**

December 31, 2020

1. The time limit for completing the work authorized ends on \_\_\_\_\_. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Special Conditions:**

1. The permittee shall ensure 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 work.

**Special Conditions continued on Page 4**

**Further Information:**

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

☐ Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

☒ Section 404 of the Clean Water Act (33 U.S.C. 1344).

☐ Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of 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 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.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Andy C. Gatus  
(PERMITTEE)

10/18/10  
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Philip T. Feir  
(DISTRICT ENGINEER)

10-19-2010  
(DATE)

*for* Philip T. Feir  
Colonel, Corps of Engineers

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFeree)

\_\_\_\_\_  
(DATE)

### **Project Description Continued from Page 1**

This work is designed to address critical bridges and other structures that need immediate attention to insure public safety and protect the economic vitality of Maine's transportation network. Refer to attached table(s) for a list of locations, scope of work, and anticipated impacts.

### **Special Conditions continued from Page 2**

If the permit is issued after the construction specifications but before receipt of bids or quotes, the entire permit shall be included as an addendum to the specifications. If the permit is issued after receipt of bids or quotes, the entire permit shall be included in the contract or sub-contract as a change order. 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 jurisdiction.

2. The permittee shall complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work.
3. 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.
4. The permittee shall implement all terms and conditions contained in water quality certifications from the Maine Dept. of Environmental Protection. Copies of all required submittals shall also be provided to the Corps.
5. No temporary fill (e.g., access roads, cofferdams) may be placed in waters or wetlands unless specifically authorized by this permit. If temporary fill is used, it shall be disposed of at an upland site and suitably contained to prevent its subsequent erosion into a water of the U.S., and the area shall be restored to its original contours (but not higher) and character upon completion of the project. During use, such temporary fill must be stabilized to prevent erosion or, in the case fill placed in flowing water (rivers or streams), clean washed stone should be used.
6. Except where stated otherwise, reports, drawings, correspondence and any other submittals required by this permit shall be marked with the words "Permit No. NAE-2010-00958" and shall be addressed to "Inspection Section, CENAE-R, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751." Documents which are not marked and addressed in this manner may not reach their intended destination and do not comply with the requirements of this permit.

### **Special Conditions Continued on Page 5**

### **Special Conditions Continued from Page 4**

7. The permittee shall minimize the adverse effects to Atlantic salmon and its critical habitat and incidental take of Atlantic salmon in the rivers and streams where bridge or culvert projects will occur by employing construction techniques that avoid or minimize adverse effects to water quality, aquatic and riparian habitats, and other aquatic organisms. He shall also minimize adverse effects to Atlantic salmon and its critical habitat and incidental take of Atlantic salmon by ensuring that fish passage and habitat connectivity at culverts and bridges is either maintained in its current condition or is improved by the replacement or rehabilitated structure. In meeting these requirements, the permittee shall comply with the attached conditions entitled "Corps of Engineers Permit No. NAE-2010-00958, Permit Special Conditions Resulting From Formal Endangered Species Act Consultation With U.S. Fish & Wildlife Service".

9. In-water work window extension. A project-specific time-of-year restriction may be extended by as much as 10 days without having to formally request permit modification provided:

a. The project site does not support federally endangered Atlantic salmon or its critical habitat. Any extension requests for these sites will be reviewed on a case-by-case basis and may require re-initiation of consultation.

b. Only the Maine DOT Coordination & Permits Division Manager or the Environmental Office Director may grant such an extension and only after state and/or federal fisheries agencies that initially requested the restriction have been notified and approve the extension request. It is understood that any request to fisheries agencies will include the need and justification for such an extension; that it will be a one-time only request; and that Maine DOT will not submit extension requests for projects delayed due to issues of scheduling or failure to complete work due to conditions within a contractor's control.

For any project that receives an extension to its time of year restriction, Maine DOT shall notify the Corps in writing to include the agency approval so the modification of an approved in-water work window for the project can be documented in the permit record.

10. Prior to construction on any single project, the permittee shall provide the Corps of Engineers with final project plans for that project. The plans must be on 8-1/2" x 11" paper with a 3/4" margin at the top and must adequately show the proposed work. All plans must be labeled with the bridge number, DOT PIN if applicable, location (roadway name), town, and county. Plans shall be sent to the US Army Corps of Engineers, Maine Project Office, 675 Western Avenue #3, Manchester, Maine 04351; ATTN: Jay Clement. Any submittal(s) to the Corps in compliance with this condition should reference Corps permit no. NAE-2010-00958.

11. This permit does not authorize construction identified as a "Design Build" project. Any work subject to Corps jurisdiction for those bridges may not begin until after the permittee provides project plans that adequately show the proposed work and the Corps approves the work in writing by either an amendment to this permit or a separate permit action. Project plans shall be submitted in a timely fashion that will allow for review and as necessary, coordination/consultation with federal and state resource agencies and the Maine Historic Preservation Commission.

### **Special Conditions Continued on Page 6**

8. Maine DOT or their contractor will follow a Spill Prevention Control and Countermeasure Plan designed to avoid effects to rivers and streams from hazardous materials associated with construction activities. This plan will be approved by appropriate MEDOT Environmental Office staff prior to the start of construction and then carefully enforced throughout the duration of each construction project. It shall include:

a. Vehicle refueling shall occur more than 30.48 m (100 feet) from any water course.

b. All vehicles carrying fuel shall have specific equipment and materials needed to contain or clean up any incidental spills at the project site. Equipment and materials would include spill kits appropriately sized for specific quantities of fuel, shovels, absorbent pads, straw bales, containment structures and liners, and/or booms.

c. During use, all pumps and generators shall have appropriate spill containment structures and/or absorbent pads in place.

d. All equipment used for instream work shall be cleaned of external oil, grease, dirt, and mud. Any leaks or accumulations of grease would be corrected before entering streams or areas that drain directly to streams or wetlands.

9. To minimize adverse effects to Atlantic salmon and ensure that salmon and other fish species are able to pass through replacement culverts and that stream habitat is not fragmented, Maine DOT will monitor and evaluate the replacement culverts as described in Appendix C of the BO. Two forms of monitoring will be conducted: Fish passage Testing and Design Validation. Maine DOT will test fish passage through the following culvert replacement projects: Enfield (PIN: 15644.00), Brownville-1 (no-PIN), Charleston (no-PIN), Columbia Falls (no-PIN), and Meddybemps (no-PIN). Design validation will occur at each of the culvert replacement projects. During the first, third, and fifth years after construction, monitoring will follow the procedures outlined in Appendix C. Monitoring reports will be submitted in a timely fashion that will allow for the planning and implementation of any necessary instream construction work to correct identified fish passage problems during the following July 15 to September 30 work window (unless another work window is approved by USFWS). After the fifth year monitoring report is evaluated, the USFWS will determine the need for any further monitoring or corrective measures. Such monitoring will be used to test Maine DOT's design assumptions and learn from feedback to guide the design of subsequent stream crossings.

Annual monitoring reports that describe the procedures and results at each project, as well as numbers of fish captured and accidental fish mortalities, shall be submitted by March 31st each year to USFWS (Attn: Clayton Hawkes, 17 Godfrey Drive, Orono, ME 04473) with a copy to the Corps (Attn: Jay Clement, Maine Project Office, 675 Western Avenue #3, Manchester, ME 04351) and NMFS (Attn: Jeff Murphy, 17 Godfrey Drive, Orono, ME 04473).

10. All cofferdams shall be removed from the stream immediately following completion of construction, allowing for minor delays due to high stream flows following heavy precipitation, so that fish and other aquatic life passage is not unnecessarily restricted. If a project is not completed but there will be substantial delays in construction, cofferdams will need to be at least partially removed to allow unobstructed passage of Atlantic salmon until construction resumes.

| MaineDOT Batch<br>May 2010       |                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                |                                      |  |  |
|----------------------------------|------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------|--|--|
| Project Name                     | Scope                  | Location         | Scope                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Name of Resource                                                               | Impacts                              |  |  |
| Chesterville-Farmington 12774.10 | Highway Improvements   | Route 156        | This Project will encompass 1.88 miles of horizontal and vertical realignment for safety improvements. Additional work will include improvements in roadway template, subbase and pavement structure, guardrail, and drainage.<br>Location #1: Replace existing 36" x 40' CMP with 36" x 50' CMP; Location #2: Replace existing 36" x 40' CMP with 36" x 50' CMP<br>Replace existing 36" x 40' CMP with a 36" x 50' CMP, culvert will be embedded 6" and installed a 1% grade. Rip rap slopes | 4 Unnamed Tributaries to Wilson Stream; Unnamed wetlands                       | ~11724sq ft wetland/Stream           |  |  |
| Brownville                       | 2 Culvert Replacements | Schoodic Lake Rd |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unnamed Tributary to Alder Brook; Alder Brook                                  | ~1160sq ft stream                    |  |  |
| Columbia Falls                   | Culvert Replacement    | Tiibetstown Road |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unnamed Tributary to Pleasant River                                            | ~506sq ft stream                     |  |  |
| Meddybemps                       | Culvert Replacement    | Route 191        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unnamed Tributary to Meddybemps Lake                                           | ~786sq ft stream                     |  |  |
| Frankfort                        | Culvert Replacement    | Searsport Rd     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unnamed Tributary to Marsh Stream                                              | ~584sq ft stream                     |  |  |
| Charleston                       | Culvert Replacement    | M&O Lot          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unnamed Tributary to Crooked Brook                                             | ~700sq ft stream                     |  |  |
| Strong                           | Bridge Maintenance     | Route 145        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Sandy River                                                                    | ~250 sq ft stream                    |  |  |
| Atkinson                         | Bridge Maintenance     | Stagecoach Rd    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Piscataquis River                                                              | ~3440sq ft stream                    |  |  |
| Kenduskeag-17576.00              | Bridge Replacement     | Townhouse Rd     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Kenduskeag Stream                                                              | 3755sq ft wetland/stream             |  |  |
| Sherman-Smyrna 16819.00          | Highway Improvements   | I-95             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unnamed Tributaries to the West Branch of the Mattawamkeag and Molunkus Stream | ~1100 sq ft temporary Stream Impacts |  |  |

## NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

|                                          |                                                                    |                   |
|------------------------------------------|--------------------------------------------------------------------|-------------------|
| Applicant: Maine Dept. of Transportation | File Number: NAE-2010-00958                                        | Date:             |
| Attached is:                             |                                                                    | See Section below |
|                                          | INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission) | A                 |
| X                                        | PROFFERED PERMIT (Standard Permit or Letter of permission)         | B                 |
|                                          | PERMIT DENIAL                                                      | C                 |
|                                          | APPROVED JURISDICTIONAL DETERMINATION                              | D                 |
| X                                        | PRELIMINARY JURISDICTIONAL DETERMINATION                           | E                 |

**SECTION I -** The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

**A: INITIAL PROFFERED PERMIT:** You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the District Engineer for final authorization in care of "Regulatory Division." If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the District Engineer, in care of the Chief, Regulatory Division, as specified in the last paragraph of the coverletter. Your objections must be received within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the District Engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the District Engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

**B: PROFFERED PERMIT:** You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the District Engineer for final authorization in care of "Regulatory Division." If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the Division Engineer in care of: Michael G. Vissichelli, Administrative Appeals Review Officer, North Atlantic Division, Corps of Engineers, North Atlantic Fort Hamilton Military Community, Bldg. 301, General Lee Avenue, Brooklyn, NY 11252-6700 Telephone: (718) 765-7163, E-mail: [Michael.G.Vissichelli@usace.army.mil](mailto:Michael.G.Vissichelli@usace.army.mil) The Division Engineer must receive this form within 60 days of the date of this notice.

- **C: PERMIT DENIAL:** You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the Division Engineer in care of: Michael G. Vissichelli, Administrative Appeals Review Officer, North Atlantic Division, Corps of Engineers, North Atlantic Fort Hamilton Military Community, Bldg. 301, General Lee Avenue, Brooklyn, NY 11252-6700 Telephone: (718) 765-7163, E-mail: Michael.G.Vissichelli@usace.army.mil The Division Engineer must receive this form within 60 days of the date of this notice.

**D: APPROVED JURISDICTIONAL DETERMINATION:** You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the Division Engineer in care of: Michael G. Vissichelli, Administrative Appeals Review Officer, North Atlantic Division, Corps of Engineers, North Atlantic Fort Hamilton Military Community, Bldg. 301, General Lee Avenue, Brooklyn, NY 11252-6700 Telephone: (718) 765-7163, E-mail: Michael.G.Vissichelli@usace.army.mil The Division Engineer must receive this form within 60 days of the date of this notice.

**E: PRELIMINARY JURISDICTIONAL DETERMINATION:** You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district at the address below for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

## **SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT**

**REASONS FOR APPEAL OR OBJECTIONS:** (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

**ADDITIONAL INFORMATION:** The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

## **POINT OF CONTACT FOR QUESTIONS OR INFORMATION:**

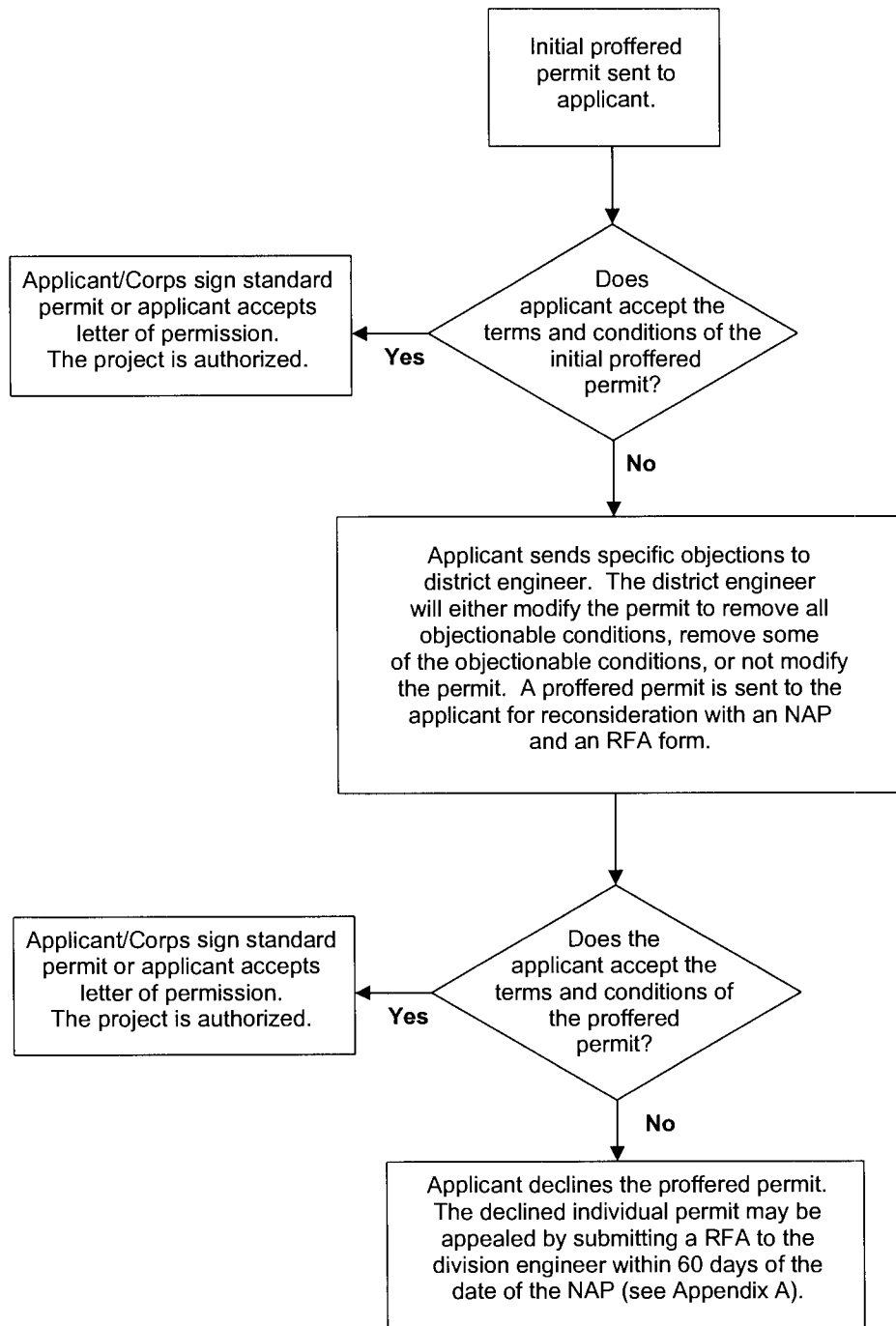
If you have questions regarding this decision and/or the appeal process you may contact Ms. Ruth Ladd at:

Chief, Policy Analysis/Technical Support Branch  
Corps of Engineers  
696 Virginia Road  
Concord, MA 01742 or by calling (978) 318-8818

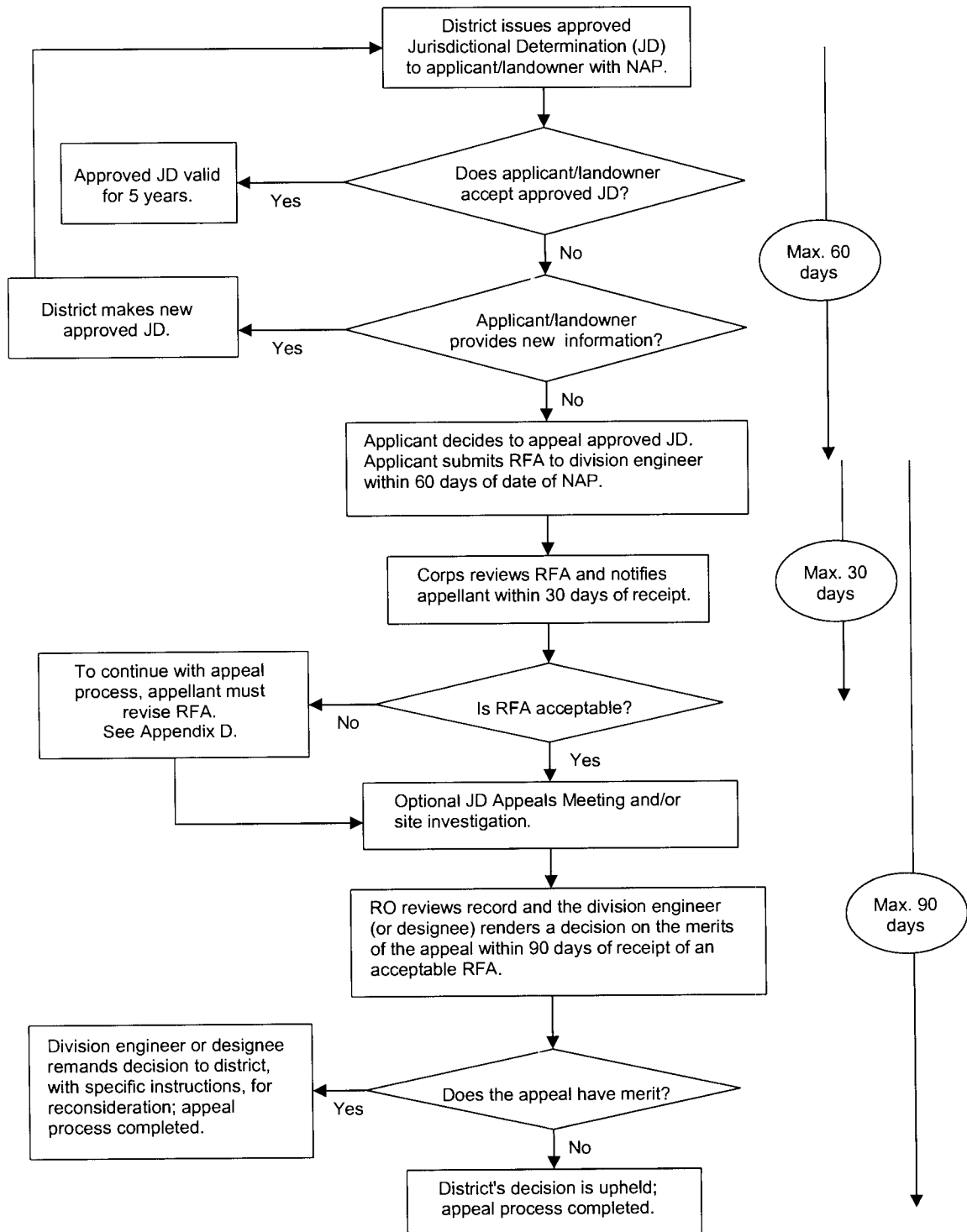
**RIGHT OF ENTRY:** Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

|                                           |       |                   |
|-------------------------------------------|-------|-------------------|
| _____<br>Signature of appellant or agent. | Date: | Telephone number: |
|-------------------------------------------|-------|-------------------|

## Applicant Options with Initial/Proffered Permit



## Administrative Appeal Process for Approved Jurisdictional Determination



**ATTACHMENT to MaineDOT Batch Permit**

**PRELIMINARY JURISDICTIONAL DETERMINATION FORM**

**BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): 6/21/10**

**B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:**  
Richard Bostwick, Maine DOT Environmental Office, 16 State House  
Station, Augusta, ME 04333

**C. DISTRICT OFFICE, FILE NAME, AND NUMBER:** New England District;  
ME DOT Batch Permit Application; NAE-2010-00958

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:** Place  
fill below the ordinary high water line of numerous waterways and in their  
adjacent freshwater wetlands at ten locations throughout the State of  
Maine in order to replace, rehabilitate, or repair numerous bridges and  
culverts. This work is designed to address critical bridges that need  
immediate attention to insure public safety and protect the economic  
vitality of Maine's transportation network.

**SEE ATTACHED TABLE OF WATERS AND WETLANDS AND THEIR  
IMPACTS**

State: **Maine** County/parish/borough: **Various** City: **Various**  
Center coordinates of site (lat/long in degree decimal format): **See attached  
Table**  
Universal Transverse Mercator: **Zone 19 - see Table**  
Name of nearest waterbody: **Various- see Table**

Identify (estimate) amount of waters in the review area: **See attached Table**  
Non-wetland waters: linear feet: width (ft) and/or acres.  
Cowardin Class:  
Stream Flow:  
Wetlands: acres.  
Cowardin Class:

Name of any water bodies on the site that have been identified as Section 10  
waters: **See attached Table**  
Tidal: **NA**  
Non-Tidal: **Penobscot & Kennebec Rivers**

**E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

- ☒ Office (Desk) Determination. Date: 6/9/10  
☒ Field Determination. Date(s): Multiple

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary

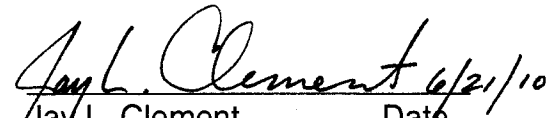
to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

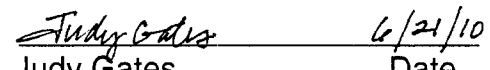
**SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply**

- checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: **Contained in administrative record.**
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☒ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☒ U.S. Geological Survey Hydrologic Atlas: **Statewide.**
- ☐ USGS NHD data.
- ☒ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: **Multiple.**
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation **all Maine counties mapped**
- ☒ National wetlands inventory map(s). Cite name: **Statewide layer in Maine Office of GIS (MEGIS) Database used.**
- ☐ State/Local wetland inventory map(s): .
- ☒ FEMA/FIRM maps: **Various as Mapped in the MEGIS database:**
- ☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): **MEGIS Ortho Rectified mapping of various dates since 2002.**
- or ☒ Other (Name & Date): **Ground photos taken by John Perry and Dan Tierney (DOT Staff) taken in 2009 and MaineDOT Bridge maintenance files from 1970s to present..**
- ☐ Previous determination(s). File no. and date of response letter: .
- ☒ Other information (please specify): **All of these projects are bridges or culverts with wetland area immediately adjacent to USGS mapped streams, that flow into other mapped waterways and eventually into the Gulf of Maine**

**IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.**

  
Jay L. Clement      Date  
Senior Project Manager  
Maine Project Office

  
Judy Gates      Date  
Director, Environmental Office  
Maine Dept. of Transportation

| DEP Status | Town                                 | Location         | Cowardin Code | HGM Code | Area (acres) | Linear Waters Types | Wetland Functions                 | Latitude (dd m n) | Longitude (dd m n) | Local Waterway             | Watershed   | Area in one unit type<br>Linear in one unit type<br>Either Area or Linear for each row |
|------------|--------------------------------------|------------------|---------------|----------|--------------|---------------------|-----------------------------------|-------------------|--------------------|----------------------------|-------------|----------------------------------------------------------------------------------------|
| 48002A     | Brownville - Farmington - 12774.10   | Schoodic Lake Rd | R2            | RIVERINE | 1160         | 74 RPW              | Fish habitat- Groundwater disc    | 45.34692893       | -69.00603792       | Alder Brook                | Piscataquis |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 16+50L           | PSS           | RIVERINE | 2168         | RPW                 | Wildlife habitat/shoreland stable | 44.61836828       | -70.07642348       | Tributary to Sandy         | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 23+25L           | PFO           | SLOPING  | 66           | RPWWN               | Wildlife habitat/Groundwater disc | 44.617706521      | -70.07808836       | Sandy River                | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 24+50            | PFO           | RIVERINE | 134          | RPWWD               | Wildlife habitat/shoreland stable | 44.617706521      | -70.07808836       | Sandy River                | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 33+00R           | PSS           | SLOPING  | 77           | RPWWN               | Wildlife habitat/Groundwater disc | 44.6153238        | -70.08135834       | Sandy River                | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 58+75R           | PSS           | SLOPING  | 674          | RPWWN               | Wildlife habitat/Groundwater disc | 44.61500765       | -70.09093131       | Wilson Stream              | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 64+75L           | PEM           | SLOPING  | 1106         | RPWWN               | Wildlife habitat/Groundwater disc | 44.61346853       | -70.0927804        | Wilson Stream              | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 66+00R           | PSS           | SLOPING  | 45           | RPWWN               | Wildlife habitat/Groundwater disc | 44.61413412       | -70.0928433        | Wilson Stream              | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 74+50L           | PEM           | SLOPING  | 50           | RPWWN               | Wildlife habitat/Groundwater disc | 44.61202695       | -70.09478247       | Wilson Stream              | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 86+50L           | R2            | RIVERINE | 709          | 50 RPW              | Fish habitat- Groundwater disc    | 44.60947766       | -70.09775918       | Tributary to Wilson Stream | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 86+50L           | PSS           | RIVERINE | 1422         | RPWWN               | Wildlife habitat/shoreland stable | 44.60952645       | -70.09830201       | Tributary to Wilson Stream | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 86+50R           | R2            | RIVERINE | 117          | 50 RPW              | Wildlife habitat/Groundwater disc | 44.60981581       | -70.09816884       | Wilson Stream              | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 86+50R           | PEM           | RIVERINE | 589          | RPWWD               | Wildlife habitat/shoreland stable | 44.6097612        | -70.09823082       | Wilson Stream              | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 93+00L           | R2            | RIVERINE | 793          | 75 RPW              | Fish habitat- Groundwater disc    | 44.60848043       | -70.09941651       | Tributary to Wilson Stream | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 94+00L           | R2            | RIVERINE | 564          | 80 RPW              | Fish habitat- Groundwater disc    | 44.60848043       | -70.09941651       | Tributary to Wilson Stream | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 95+00R           | PFO           | SLOPING  | 36           | RPWWN               | Wildlife habitat/Groundwater disc | 44.60809426       | -70.10025357       | Tributary to Wilson Stream | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 98+00L           | R2            | RIVERINE | 763          | 100 RPW             | Fish habitat- Groundwater disc    | 44.60721668       | -70.10070328       | Tributary to Wilson Stream | Sandy River |                                                                                        |
|            | Chesterville - Farmington - 12774.10 | 99+00R           | R2            | RIVERINE | 299          | 25 RPW              | Fish habitat- Groundwater disc    | 44.60719649       | -70.10186229       | Tributary to Wilson Stream | Sandy River |                                                                                        |

|                                               |                                    |     |          |      |      |     |       |                                   |             |              |                               |                             |
|-----------------------------------------------|------------------------------------|-----|----------|------|------|-----|-------|-----------------------------------|-------------|--------------|-------------------------------|-----------------------------|
| Chesterville -<br>Farmingington -<br>12774.10 | 99+00R                             | R2  | RIVERINE |      | 31   |     | RPWWD | Fish habitat- Groundwater disc    | 44.60711913 | -70.10148276 | Tributary to<br>Wilson Stream | Sandy River                 |
| Chesterville -<br>Farmingington -<br>12774.1  | 126+00R                            | PSS | SLOPING  |      | 58   |     | RPWWN | Wildlife habitat/Groundwater disc | 44.60137605 | -70.10793924 | Wilson Stream                 | Sandy River                 |
| Chesterville -<br>Farmingington -<br>12774.10 | 127+60R                            | PSS | SLOPING  |      | 82   |     | RPWWN | Wildlife habitat/Groundwater disc | 44.60119383 | -70.10816259 | Wilson Stream                 | Sandy River                 |
| Chesterville -<br>Farmingington -<br>12774.1  | 131+00L                            | PSS | RIVERINE |      | 27   | 25  | RPW   | Wildlife habitat/shoreland stable | 44.60031685 | -70.10664993 | Wilson Stream                 | Sandy River                 |
| Chesterville -<br>Farmingington -<br>12774.10 | 136+00R                            | R2  | SLOPING  |      | 286  |     | RPWWN | Fish habitat- Groundwater disc    | 44.59820749 | -70.11160866 | Tributary to<br>Wilson Stream | Sandy River                 |
| Chesterville -<br>Farmingington -<br>12774.10 | 138+00R                            | PSS | SLOPING  |      | 399  |     | RPWWN | Wildlife habitat/Groundwater disc | 44.59913625 | -70.11053014 | Tributary to<br>Wilson Stream | Sandy River                 |
| Chesterville -<br>Farmingington -<br>12774.10 | 141+50L                            | PSS | RIVERINE |      | 61   | 25  | RPW   | Wildlife habitat/Groundwater disc | 44.59786928 | -70.11131221 | Wilson Stream                 | Sandy River                 |
| Chesterville -<br>Farmingington -<br>12774.10 | 145+00R                            | R2  | SLOPING  |      | 139  |     | RPWWN | Wildlife habitat/Groundwater disc | 44.59730597 | -70.11266246 | Wilson Stream                 | Sandy River                 |
| Chesterville -<br>Farmingington -<br>12774.1  | 146+00L                            | PEM | SLOPING  |      | 1039 |     | RPWWN | Wildlife habitat/Groundwater disc | 44.59798443 | -70.1114028  | Wilson Stream                 | Sandy River                 |
| 48002A                                        | Columbia Falls<br>Tibbetstown Road | R2  | RIVERINE |      | 506  | 75  | RPW   | Fish habitat- Groundwater disc    | 44.65920503 | -67.72693643 | Tributary                     | Pleasant River              |
| 48002A                                        | Meddybemps<br>Route 191            | R2  | RIVERINE |      | 786  | 100 | RPW   | Fish habitat- Groundwater disc    | 45.04660402 | -67.32745761 | Tributary                     | Denus River                 |
| PBR Approved                                  | Frankfort<br>Searsport Rd          | R2  | RIVERINE |      | 584  | 75  | RPW   | Fish habitat- Groundwater disc    | 44.58521367 | -68.94590704 | Tributary                     | Marsh Stream                |
| PBR Approved                                  | Charleston<br>M&O Lot              | R2  | RIVERINE |      | 700  | 75  | RPW   | Fish habitat- Groundwater disc    | 45.05347189 | -69.05594222 | Crooked Brook                 | Kenduskeag                  |
| PBR Approved                                  | Strong<br>Route 145                | R2  | RIVERINE |      | 250  | 9   | TNW   | Fish habitat- Groundwater disc    | 44.90312002 | -70.22081627 | Sandy River                   | Sandy River                 |
| PBR Approved                                  | Alkinson<br>Slagcoach Rd           | R2  | RIVERINE |      | 3440 | 40  | TNW   | Fish habitat- Groundwater disc    | 45.20447073 | -69.07964656 | Piscataquis                   | Piscataquis                 |
| PBR Pending                                   | Kenduskeag<br>Townhouse Rd         | R2  | RIVERINE | temp | 100  | 100 | TNW   | Fish habitat- Groundwater disc    | 44.91938127 | -68.93191068 | Kenduskeag                    | Kenduskeag                  |
| PBR Pending                                   | Kenduskeag<br>Townhouse Rd         | PSS | RIVERINE |      | 1329 |     | RPWWN | Wildlife habitat/shoreland stable | 44.91938127 | -68.93191068 | Kenduskeag                    | Kenduskeag                  |
|                                               | Sherman to<br>Houlton              | R2  | RIVERINE |      | 0    | 0   | RPW   | Fish habitat- Groundwater disc    | 45.89099474 | -68.40240399 | Unmapped Trib                 | Molunkus Stream             |
|                                               | Sherman to<br>Houlton              | R2  | RIVERINE |      | 0    | 0   | RPW   | Fish habitat- Groundwater disc    | 45.8996485  | -68.39127625 | Unmapped Trib                 | Molunkus                    |
|                                               | Sherman to<br>Houlton              | R2  | RIVERINE |      | 0    | 0   | RPW   | Fish habitat- Groundwater disc    | 45.91322803 | -68.37584795 | Unmapped Trib                 | Molunkus Stream             |
|                                               | Sherman to<br>Houlton              | R2  | RIVERINE |      | 0    | 0   | RPW   | Fish habitat- Groundwater disc    | 45.90956595 | -68.37935735 | Unmapped Trib                 | Molunkus                    |
|                                               | Sherman to<br>Houlton              | R2  | RIVERINE |      | 0    | 0   | RPW   | Fish habitat- Groundwater disc    | 45.91924293 | -68.36975818 | Unmapped Trib                 | Molunkus Stream             |
|                                               | Sherman to<br>Houlton              | R2  | RIVERINE |      | 0    | 0   | RPW   | Fish habitat- Groundwater disc    | 45.93089769 | -68.35988783 | Unmapped Trib                 | Molunkus Stream             |
|                                               | Sherman to<br>Houlton              | R2  | RIVERINE |      | 0    | 0   | RPW   | Fish habitat- Groundwater disc    | 45.95320949 | -68.3300042  | Unmapped Trib                 | West Branch<br>Matiawamkeag |
|                                               | Sherman to<br>Houlton              | R2  | RIVERINE |      | 0    | 0   | RPW   | Fish habitat- Groundwater disc    | 45.96632316 | -68.304407   | Cold Brook                    | West Branch<br>Matiawamkeag |

Latitude /Longitude in Decimal  
Degrees, NAD83  
If you have no data for a cell, leave  
it empty (blank)  
Match the CODE values from  
Cowardin/HGM/Waters type  
PEM1B/PEM1F won't be imported.  
Example Longitude: -75.22342  
Example Latitude: 45.12123

|                       |         |    |          |   |       |                                |             |              |                            |                             |
|-----------------------|---------|----|----------|---|-------|--------------------------------|-------------|--------------|----------------------------|-----------------------------|
| Sherman to<br>Houlton | 5202+76 | R4 | RIVERINE | 0 | 0 RPW | Fish habitat- Groundwater disc | 46.04005068 | -68.26363807 | Ephemeral<br>Unmapped Trib | West Branch<br>Mattawamkeag |
| Sherman to<br>Houlton | 5365+76 | R4 | RIVERINE | 0 | 0 RPW | Fish habitat- Groundwater disc | 46.07242106 | -68.22101242 | Ephemeral<br>Unmapped Trib | West Branch<br>Mattawamkeag |
| Sherman to<br>Houlton | 5636+36 | R4 | RIVERINE | 0 | 0 RPW | Fish habitat- Groundwater disc | 46.11492614 | -68.13787362 | Ephemeral<br>Unmapped Trib | East Branch<br>Mattawamkeag |

## 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> |
|------------------------|------------------------------------------------|-----------------------------|
| 203(03)                | Backslope Rounding                             | 1/29/08                     |
| 502(03)                | Concrete Curb - Bituminous Wearing Surface     | 8/08/11                     |
| 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           | 10/28/09                    |
| 502(12)A               | Precast Concrete Deck Panels - Notes           | 2/2/09                      |
| 504(15)                | Diaphragms                                     | 5/19/11                     |
| 504(22)                | Diaphragm & Crossframe Notes                   | 10/28/09                    |
| 504(23)                | Hand-Hold Details                              | 12/08/05                    |
| 507(04)                | Steel Bridge Railing                           | 2/05/03                     |
| 507(09)                | Steel Bridge Railing                           | 5/19/11                     |
| 507(09)A               | Steel Bridge Railing                           | 5/19/11                     |
| 526(06)                | Permanent Concrete Barrier                     | 2/2/09                      |
| 526(08)                | Permanent Concrete Barrier – Type IIIA         | 10/07/10                    |
| 526(08)A               | Permanent Concrete Barrier – Type IIIA         | 12/07/10                    |

|         |                                                |          |
|---------|------------------------------------------------|----------|
| 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(33) | Concrete Transition Barrier                    | 8/18/03  |
| 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   |
| 535(01) | Precast Superstructure - Shear Key             | 10/12/06 |
| 535(02) | Precast Superstructure - Curb Key & Drip Notch | 5/20/08  |
| 535(03) | Precast Superstructure - Shear Key             | 12/5/07  |
| 535(04) | Precast Superstructure - Shear Key             | 12/05/07 |
| 535(05) | Precast Superstructure - Post Tensioning       | 5/20/08  |
| 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                                                    | 12/05/07 |
| 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 |
| 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(03) | Curb Type 3                                                                       | 6/27/06  |
| 609(06) | Vertical Bridge Curb                                                              | 2/12/09  |
| 609(07) | Curb Type 1                                                                       | 6/27/06  |
| 609(08) | Precast Concrete Transition Curb                                                  | 2/2/09   |
| 610(02) | Stone Scour Protection                                                            | 8/9/11   |
| 610(03) | Stone Scour Protection                                                            | 5/19/11  |
| 610(04) | Stone Scour Protection                                                            | 5/19/11  |
| 620(05) | Geotextile Placement for Protection of Slopes<br>Adjacent to Stream & Tidal Areas | 5/19/11  |
| 626(09) | Electrical Junction Box for Traffic Signals<br>and Lighting                       | 8/27/10  |

|         |                                 |          |
|---------|---------------------------------|----------|
| 645(06) | H-Beam Posts – Highway Signing  | 7/21/04  |
| 645(09) | Installation of Type II Signs   | 7/21/04  |
| 801(01) | Drives on Sidewalk Sections     | 12/13/07 |
| 801(02) | Drives on Non-Sidewalk Sections | 12/13/07 |

## SUPPLEMENTAL SPECIFICATION

(Corrections, Additions, & Revisions to Standard Specifications - Revision of December 2002)

### SECTION 101

#### CONTRACT INTERPRETATION

##### 101.2 Definitions

Closeout Documentation Replace the sentence “A letter stating the amount..... DBE goals.” with “DBE Goal Attainment Verification Form”

Add “Environmental Information Hazardous waste assessments, dredge material test results, boring logs, geophysical studies, and other records and reports of the environmental conditions. For a related provision, see Section 104.3.14 - Interpretation and Interpolation.”

Add “Fabrication Engineer The Department’s representative responsible for Quality Assurance of pre-fabricated products that are produced off-site.”

Geotechnical Information Replace with the following: “Boring logs, soil reports, geotechnical design reports, ground penetrating radar evaluations, seismic refraction studies, and other records of subsurface conditions. For a related provision, see Section 104.3.14 - Interpretation and Interpolation.”

### SECTION 102

#### DELIVERY OF BIDS

102.7.1 Location and Time Add the following sentence “As a minimum, the Bidder will submit a Bid Package consisting of the Notice to Contractors, the completed Acknowledgement of Bid Amendments form, the completed Schedule of Items, 2 copies of the completed Agreement, Offer, & Award form, a Bid Bond or Bid Guarantee, and any other Certifications or Bid Requirements listed in the Bid Book.”

102.11.1 Non-curable Bid Defects Replace E. with “E. The unit price and bid amount is not provided or a lump sum price is not provided or is illegible as determined by the Department.”

### SECTION 103

#### AWARD AND CONTRACTING

103.3.1 Notice and Information Gathering Change the first paragraph to read as follows: “After Bid Opening and as a condition for Award of a Contract, the Department may require an Apparent Successful Bidder to demonstrate to the Department’s satisfaction that the Bidder is responsible and qualified to perform the Work.”

### SECTION 104

#### GENERAL RIGHTS AND RESPONSIBILITIES

104.3.14 Interpretation and Interpolation In the first sentence, change “...and Geotechnical Information.” to “...Environmental Information, and Geotechnical Information.”

## SECTION 105 GENERAL SCOPE OF WORK

Delete the entire Section 105.6 and replace with the following:

105.6.1 Department Provided Services The Department will provide the Contractor with the description and coordinates of vertical and horizontal control points, set by the Department, within the Project Limits, for full construction Projects and other Projects where survey control is necessary. For Projects of 1,500 feet in length, or less: The Department will provide three points. For Projects between 1,500 and 5,000 feet in length: The Department will provide one set of two points at each end of the Project. For Projects in excess of 5,000 feet in length, the Department will provide one set of two points at each end of the Project, plus one additional set of two points for each mile of Project length. For non-full construction Projects and other Projects where survey control is not necessary, the Department will not set any control points and, therefore, will not provide description and coordinates of any control points. Upon request of the Contractor, the Department will provide the Department's survey data management software and Survey Manual to the Contractor, or its survey Subcontractor, for the exclusive use on the Department's Projects.

105.6.2 Contractor Provided Services Utilizing the survey information and points provided by the Department, described in Subsection 105.6.1, Department Provided Services, the Contractor shall provide all additional survey layout necessary to complete the Work. This may include, but not be limited to, reestablishing all points provided by the Department, establishing additional control points, running axis lines, providing layout and maintenance of all other lines, grades, or points, and survey quality control to ensure conformance with the Contract. The Contractor is also responsible for providing construction centerline, or close reference points, for all Utility Facilities relocations and adjustments as necessary to complete the Work. When the Work is to connect with existing Structures, the Contractor shall verify all dimensions before proceeding with the Work. The Contractor shall employ or retain competent engineering and/or surveying personnel to fulfill these responsibilities.

The Contractor must notify the Department of any errors or inconsistencies regarding the data and layout provided by the Department as provided by Section 104.3.3 - Duty to Notify Department If Ambiguities Discovered.

105.6.2.1 Survey Quality Control The Contractor is responsible for all construction survey quality control. Construction survey quality control is generally defined as, first, performing initial field survey layout of the Work and, second, performing an independent check of the initial layout using independent survey data to assure the accuracy of the initial layout; additional iterations of checks may be required if significant discrepancies are discovered in this process. Construction survey layout quality control also requires written documentation of the layout process such that the process can be followed and repeated, if necessary, by an independent survey crew.

105.6.3 Survey Quality Assurance It is the Department's prerogative to perform construction survey quality assurance. Construction survey quality assurance may, or may not, be performed by the Department. Construction survey quality assurance is generally defined as an independent check of the construction survey quality control. The construction survey

quality assurance process may involve physically checking the Contractor's construction survey layout using independent survey data, or may simply involve reviewing the construction survey quality control written documentation. If the Department elects to physically check the Contractor's survey layout, the Contractor's designated surveyor may be required to be present. The Department will provide a minimum notice of 48 hours to the Contractor, whenever possible, if the Contractor's designated surveyor's presence is required. Any errors discovered through the quality assurance process shall be corrected by the Contractor, at no additional cost to the Department.

105.6.4 Boundary Markers The Contractor shall preserve and protect from damage all monuments or other points that mark the boundaries of the Right-of-Way or abutting parcels that are outside the area that must be disturbed to perform the Work. The Contractor indemnifies and holds harmless the Department from all claims to reestablish the former location of all such monuments or points including claims arising from 14 MRSA § 7554-A. For a related provision, see Section 104.3.11 - Responsibility for Property of Others.

## SECTION 106 QUALITY

106.4.3 Testing Change the first sentence in paragraph three from "...maintain records of all inspections and tests." to "...maintain original documentation of all inspections, tests, and calculations used to generate reports."

106.6 Acceptance Add the following to paragraph 1 of A: "This includes Sections 401 - Hot Mix Asphalt, 402 - Pavement Smoothness, and 502 - Structural Concrete - Method A - Air Content."

Add the following to the beginning of paragraph 3 of A: "For pay factors based on Quality Level Analysis, and"

106.7.1 Standard Deviation Method Add the following to F: "Note: In cases where the mean of the values is equal to either the USL or the LSL, then the PWL will be 50 regardless of the computed value of s."

Add the following to H: "Method C Hot Mix Asphalt:  $PF = [55 + (Quality\ Level * 0.5)] * 0.01$ "

## SECTION 107 TIME

107.3.1 General Add the following: "If a Holiday occurs on a Sunday, the following Monday shall be considered a Holiday. Sunday or Holiday work must be approved by the Department, except that the Contractor may work on Martin Luther King Day, President's Day, Patriot's Day, the Friday after Thanksgiving, and Columbus Day without the Department's approval."

107.7.2 Schedule of Liquidated Damages Replace the table of Liquidated Damages as follows:

| From | Up to and | Amount of Liquidated |
|------|-----------|----------------------|
|------|-----------|----------------------|

| <u>More Than</u> | <u>Including</u> | <u>Damages per Calendar Day</u> |
|------------------|------------------|---------------------------------|
| \$0              | \$100,000        | \$225                           |
| \$100,000        | \$250,000        | \$350                           |
| \$250,000        | \$500,000        | \$475                           |
| \$500,000        | \$1,000,000      | \$675                           |
| \$1,000,000      | \$2,000,000      | \$900                           |
| \$2,000,000      | \$4,000,000      | \$1,000                         |
| \$4,000,000      | and more         | \$2,100                         |

## SECTION 108 PAYMENT

Remove Section 108.4 and replace with the following:

“108.4 Payment for Materials Obtained and Stored Acting upon a request from the Contractor and accompanied by bills or receipted bills, the Department will pay for all or part of the value of acceptable, non-perishable Materials that are to be incorporated in the Work, including Materials that are to be incorporated into the Work, not delivered on the Work site, and stored at places acceptable to the Department. Examples of such Materials include steel piles, stone masonry, curbing, timber and lumber, metal Culverts, stone and sand, gravel, and other Materials. The Department will not make payment on living or perishable Materials until acceptably planted in their final locations.

If payment for Materials is made to the Contractor based on bills, only, then the Contractor must provide receipted bills to the Department for these Materials within 14 days of the date the Contractor receives payment for the Materials. Failure of the Contractor to provide receipted bills for these Materials within 14 days of the date the Contractor receives payment will result in the paid amount being withheld from the subsequent progress payment, or payments, until such time the receipted bills are received by the Department.

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

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

## SECTION 109 CHANGES

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

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

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

109.5.1 Definitions - Types of Delays

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

109.7.2 Basis of Payment Replace with the following: “Adjustments will be established by mutual Agreement based upon Unit or Lump Sum Prices. These agreed Unit or Lump Sum prices will be full compensation and no additions or mark-ups are allowed. If Agreement cannot be reached, the Contractor shall accept payment on a Force Account basis as provided in Section 109.7.5 - Force Account Work, as full and complete compensation for all Work relating to the Equitable Adjustment.”

109.7.3 Compensable Items Delete this Section entirely.

109.7.4 Non-Compensable Items Replace with the following: “The Contractor is not entitled to compensation or reimbursement for any of the following items:

- A. Total profit or home office overhead in excess of 15%,
- B. ....”

109.7.5 Force Account Work

C. Equipment

Paragraph 2, delete sentence 1 which starts; “Equipment leased....”

Paragraph 6, change sentence 2 from “The Contractor may furnish...” to read “If requested by the Department, the Contractor will produce cost data to assist the Department in the establishment of such rental rate, including all records that are relevant to the Actual Costs including rental Receipts, acquisition costs, financing documents, lease Agreements, and maintenance and operational cost records.”

Add the following paragraph; “Equipment leased by the Contractor for Force Account Work and actually used on the Project will be paid for at the actual invoice amount plus 10% markup for administrative costs.”

Add the following section;

“F. Subcontractor Work When accomplishing Force Account Work that utilizes Subcontractors, the Contractor will be allowed a maximum markup of 5% for profit and overhead on the Subcontractor’s portion of the Force Account Work. If the Department does not accept the Subcontractor quote, then the Subcontractor work will be subject to the Force Account provisions with a 5% markup for profit & overhead..”

## SECTION 110 INDEMNIFICATION, BONDING, AND INSURANCE

Delete the entire Section 110.2.3 and replace with the following:

110.2.3 Bonding for Landscape Establishment Period The Contractor shall provide a signed, valid, and enforceable Performance, Warranty, or Maintenance Bond complying with the Contract, to the Department at Final Acceptance.

The bond shall be in the full amount for all Pay Items for work pursuant to Sec 621, Landscape, payable to the “Treasurer - State of Maine,” and on the Department’s forms, on exact copies thereof, or on forms that do not contain any significant variations from the Department’s forms as solely determined by the Department.

The Contractor shall pay all premiums and take all other actions necessary to keep said bond in effect for the duration of the Landscape Establishment Period described in Special Provision 621.0036 - Establishment Period. If the Surety becomes financially insolvent, ceases to be licensed or approved to do business in the State of Maine, or stops operating in the United States, the Contractor shall file new bonds complying with this Section within 10 Days of the date the Contractor is notified or becomes aware of such change.

All Bonds shall be procured from a company organized and operating in the United States, licensed or approved to do business in the State of Maine by the State of Maine Department of Business Regulation, Bureau of Insurance, and listed on the latest Federal Department of the Treasury listing for “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies.”

By issuing a bond, the Surety agrees to be bound by all terms of the Contract, including those related to payment, time for performance, quality, warranties, and the Department’s self-help remedy provided in Section 112.1 - Default to the same extent as if all terms of the Contract are contained in the bond(s).

Regarding claims related to any obligations covered by the bond, the Surety shall provide, within 60 Days of Receipt of written notice thereof, full payment of the entire claim or written notice of all bases upon which it is denying or contesting payment. Failure of the Surety to provide such notice within the 60-day period constitutes the Surety’s waiver of any right to deny or contest payment and the Surety’s acknowledgment that the claim is valid and undisputed.

## SECTION 202 REMOVING STRUCTURES AND OBSTRUCTIONS

202.02 Removing Buildings Make the following change to the last sentence in the final paragraph, change “...Code of Maine Regulations 401.” to “...Department of Environmental Protection Maine Solid Waste Management Rules, 06-096 CMR Ch. 401, Landfill Siting, Design and Operation.”

## SECTION 203 EXCAVATION AND EMBANKMENT

203.01 Description Under b. Rock Excavation; add the following sentence: “The use of perchlorate is not allowed in blasting operations.”

Delete the entire Section 203.041 and replace with the following:

“203.041 Salvage of Existing Hot Mix Asphalt Pavement All existing hot mix asphalt pavement designated to be removed under this contract must be salvaged for utilization. Existing hot mix asphalt pavement material shall not be deposited in any waste area or be placed below subgrade in any embankment.

Methods of utilization may be any of the following:

1. Used as a replacement for untreated aggregate surface course on entrances provided the material contains no particles greater than 50 mm [2 in] in any dimension. Payment will be made under Pay Item 411.09, Untreated Aggregate Surface Course or 411.10, Untreated Aggregate Surface Course, Truck Measure. Material shall be placed, shaped, compacted and stabilized as directed by the Resident.

2. Used as the top 3” of gravel. Recycled Asphalt Pavement (RAP) shall be process to 1½” minus and blending will not be allowed. When this method is utilized, a surcharge will not be required

3. Stockpiled at commercial or approved sites for commercial or MaineDOT use.

4. Other approved methods proposed by the Contractor, and approved by the Resident which will assure proper use of the existing hot mix asphalt pavement.

The cost of salvaging hot mix asphalt material will be included for payment under the applicable pay item, with no additional allowances made, which will be full compensation for removing, temporarily stockpiling, and rehandling, if necessary, and utilizing the material in entrances or other approved uses, or stockpiling at an approved site as described above. The material will also be measured and paid for under the applicable Pay Item if it is reused for aggregate in entrances, or other approved uses.”

## SECTION 502 STRUCTURAL CONCRETE

502.05 Composition and Proportioning; TABLE #1; NOTE #2; third sentence; Change “...alcohol based saline sealer...” to “alcohol based silane sealer...”. Add NOTE #6 to Class S Concrete.

502.0502 Quality Assurance Method A - Rejection by Resident Change the first sentence to read: “For an individual subplot with test results failing to meet the criteria in Table #1, or if the calculated pay factor for Air Content is less than 0.80.....”

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

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

502.10 Forms and False work

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

502.11 Placing Concrete

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

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

Second paragraph; delete the first two sentences.

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

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

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

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

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

## SECTION 503 REINFORCING STEEL

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

## SECTION 504 STRUCTURAL STEEL

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

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

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

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

## SECTION 535

### PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE

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

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

535.26 Lateral Post-Tensioning Replace the first paragraph; "A final tension..." with "Overstressing strands for setting losses cannot be accomplished for chuck to chuck lengths of 7.6 m [25 ft] and less. In such instances, refer to the Plans for all materials and methods. Otherwise, post-tensioning shall be in accordance with PCI standards and shall provide the anchorage force noted in the Plans. The applied jacking force shall be no less than 100% of the design jacking force."

## SECTION 603

### PIPE CULVERTS AND STORM DRAINS

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

| Nominal Size<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:

|                        |                                            |
|------------------------|--------------------------------------------|
| <u>Organic Content</u> | <u>Percent by Volume</u>                   |
| Humus                  | “5% - 10%”, as determined by Ignition Test |

## SECTION 618 SEEDING

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

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

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

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

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

## SECTION 620 GEOTEXTILES

### 620.03 Placement Section (c)

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

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

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

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

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

### 620.09 Basis of Payment

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

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

## SECTION 621 LANDSCAPING

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

## SECTION 626 HIGHWAY SIGNING

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

## SECTION 627 PAVEMENT MARKINGS

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

## SECTION 637 DUST CONTROL

637.06 Basis of Payment Add the following after the second sentence of the third paragraph: “Failure by the Contractor to follow Standard Specification or Special Provision - Section 637

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

## SECTION 639 ENGINEERING FACILITIES

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

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

639.09 Telephone Paragraph 1 is amended as follows:

"The contractor shall provide **two** telephone lines and two telephones,...."

Add- "In addition the contractor will supply one computer broadband connection, modem lease and router. The router shall have wireless access and be 802.11n or 802.11g capable and wireless. The type of connection supplied will be contingent upon the availability of services (i.e. DSL or Cable Broadband). It shall be the contractor's option to provide dynamic or static IP addresses through the service. **The selected service will have a minimum downstream connection of 1.5 Mbps and 384 Kbps upstream.** The contractor shall be responsible for the installation charges and all reinstallation charges following suspended periods. Monthly service and maintenance charges shall be billed by the Internet Service Provider (ISP) directly to the contractor."

## SECTION 652 MAINTENANCE OF TRAFFIC

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

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

degrees. The color presented by the elements shall be yellow.

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

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

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

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

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

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

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

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

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

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

The message panel should have adjustable display rates (minimum of 3 seconds per phase), so that the entire message can be read at least twice at the posted speed, the off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed. Each message shall consist of either one or two phases. A phase shall consist of up to eight characters per line. The unit must be capable of displaying at least three lines of text with eight characters per line.

Each character shall be 457 mm [18"] high. Each character module shall use at least a five wide and seven high pixel matrix. The text of the messages shall not scroll or travel horizontally or vertically across the face of the sign.

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

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

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

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

The PCMS shall be mounted on a trailer in such a way that the bottom of the message sign panel shall be a minimum of 2.1 M [7 ft] above the roadway in urban areas and 1.5 M [5 ft] above the roadway in rural areas when it is in the operating mode. PCMS trailers should be of a heavy duty type with a 51 mm [2"] ball hitch and a minimum of four leveling jacks (at each corner). The sign shall be capable of being rotated 360° relative to the trailer. The face of the trailer shall be delineated on a permanent basis by affixing retro-reflective material, known as conspicuity material, in a continuous line as seen by oncoming drivers."

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

Change a. in the list of requirements to: "a. The name, telephone number, and other contact numbers (cellular phone, pager, if any) of the Contractor's Traffic Control Supervisor (the person with overall responsibility for following the TCP), who has received Work Zone Traffic Control Training commensurate with the level of responsibility shown in the requirements of the Contract, and who is empowered to immediately resolve any work zone traffic control deficiencies or issues. Provide documentation that the Traffic Control Supervisor has completed a Work Zone Traffic Control Training Course (AGC, ATSSA, or other industry-recognized training), and a Supervisory refresher training every 5 years thereafter. Submit the course name, training entity, and date of training.

Traffic Control Training Course curriculum must be based on the standards and guidelines of the MUTCD and must include, at a minimum, the following:

1. Parts of Temporary Traffic Control Zone
2. Appropriate use and spacing of signs
3. Use and spacing of channelizing devices

- 4. Flagging basics
- 5. Typical examples and applications

The Traffic Control Supervisor, or designee directly overseeing physical installation, adjustment, and dismantling of work zone traffic control, will ensure all personnel performing those activities are trained to execute the work in a safe and proper manner, in accordance with their level of decision-making and responsibility.”

Add the follow to the list of requirements: “k. The plan for unexpected nighttime work along with a list of emergency nighttime equipment available on-site.”

In the last paragraph add the following as the second sentence: “The Department will review and provide comments to the Contractor within 14 days of receipt of the TCP.” Add the following as the last sentence: “The creation and modification of the TCP will be considered incidental to the related 652 items.”

652.3.5 Installation of Traffic Control Devices In the first paragraph, first sentence; change “Signs shall be erected...” to “Portable signs shall be erected..” In the third sentence; change “Signs must be erected so that the sign face...” to “Post-mounted signs must also be erected so that the sign face...”

652.4 Flaggers Replace the first paragraph with the following; “The Contractor shall furnish flaggers as required by the TCP or as otherwise specified by the Resident. All flaggers must have successfully completed a flagger test approved by the Department and administered by a Department-approved Flagger-Certifier who is employing that flagger. All flaggers must carry an official certification card with them while flagging that has been issued by their employer. Flaggers shall wear safety apparel meeting ANSI 107-2004 Class 2 risk exposure that clearly identifies the wearer as a person, and is visible at a minimum distance of 300 m [1000 ft], and shall wear a hardhat with 360° retro-reflectivity. For nighttime conditions, Class 3 apparel, meeting ANSI 107-2004, shall be worn along with a hardhat with 360° retro-reflectivity. Retro-reflective or flashing SLOW/STOP paddles shall be used, and the flagger station shall be illuminated to assure visibility in accordance with 652.6.2.”

Second paragraph, first sentence; change “...have sufficient distance to stop before entering the workspace.” to “...have sufficient distance to stop at the intended stopping point.” Third sentence; change “At a spot obstruction...” to “At a spot obstruction with adequate sight distance...”

Fourth paragraph, delete and replace with “Flaggers shall be provided as a minimum, a 10 minute break, every 2 hours and a 30 minute or longer lunch period away from the work station. Flaggers may only receive 1 unpaid break per day; all other breaks must be paid. Sufficient certified flaggers shall be available onsite to provide for continuous flagging operations during break periods. If the flaggers are receiving the appropriate breaks, breaker flagger(s) shall be paid starting 2 hours after the work begins and ending 2 hours before the work ends. A maximum of 1 breaker per 6 flaggers will be paid. (1 breaker flagger for 2 to 6 flaggers, 2 breaker flaggers for 7 to 12 flaggers, etc)”

Add the following:

“652.5.1 Rumble Strip Crossing When lane shifts or lane closures require traffic to cross a permanent longitudinal rumble strip for 7 calendar days or less, the Contractor shall install

warning signs that read “RUMBLE STRIP CROSSING” with a supplemental Motorcycle Plaque, (W8-15P).

When lane shifts or lane closures require traffic to cross a permanent longitudinal rumble strip for more than 7 calendar days, the Contractor shall pave in the rumble strips in the area that traffic will cross, unless otherwise directed by the Resident. Rumble strips shall be replaced prior to the end of the project, when it is no longer necessary to cross them.”

652.6 Nightwork Delete this section entirely and replace with the following:

“652.6.1 Daylight Work Times Unless otherwise described in the Contract, the Contractor is allowed to commence work and end work daily according to the Sunrise/Sunset Table at: <http://www.sunrisesunset.com/usa/Maine.asp> . If the Project town is not listed, the closest town on the list will be used as agreed at the Preconstruction Meeting. Any work conducted before sunrise or after sunset will be considered Night Work.

652.6.2 Night Work When Night Work occurs (either scheduled or unscheduled), the Contractor shall provide and maintain lighting on all equipment and at all work stations.

The lighting facilities shall be capable of providing light of sufficient intensity to permit good workmanship, safety and proper inspection at all times. The lighting shall be cut off and arranged on stanchions at a height that will provide perimeter lighting for each piece of equipment and will not interfere with traffic, including commercial vehicles, approaching the work site from either direction.

The Contractor shall have available portable floodlights for special areas.

The Contractor shall utilize padding, shielding or other insulation of mechanical and electrical equipment, if necessary, to minimize noise, and shall provide sufficient fuel, spare lamps, generators, etc. to maintain lighting of the work site.

The Contractor shall submit, as a subset of the Traffic Control Plan, a lighting plan at the Preconstruction Conference, showing the type and location of lights to be used for night work. The Resident may require modifications be made to the lighting set up in actual field conditions.

Prior to beginning any Night Work, the Contractor shall furnish a light meter for the Residents use that is capable of measuring the range of light levels from 5 to 20 foot-candles.

Horizontal illumination, for activities on the ground, shall be measured with the photometer parallel to the road surface. For purposes of roadway lighting, the photometer is placed on the pavement. Vertical illumination, for overhead activities, shall be measured with the photometer perpendicular to the road surface. Measurements shall be taken at the height and location of the overhead activity.

Night Work lighting requirements:

**Mobile Operations:** For mobile-type operations, each piece of equipment (paver, roller, milling machine, etc) will carry indirect (i.e. balloon type) lights capable of producing at least 10 foot-candles of lighting around the work area of the equipment.

**Fixed Operations:** For fixed-type operations (flaggers, curb, bridge, pipes, etc.), direct (i.e. tower) lighting will be utilized capable of illuminating the work area with at least 10 foot-candles of light.

**Hybrid Operations:** For hybrid-type operations (guardrail, sweeping, Inslope excavation, etc.), either direct or indirect lighting may be utilized. The chosen lights must be capable of producing at least 10 foot-candles of light around the work area of the equipment

**Inspection Operations:** Areas required to be inspected by the Department will require a minimum of 5 foot-candles of lighting. This may be accomplished through direct or indirect means.

All workers shall wear safety apparel labeled as meeting the ANSI 107-2004 standard performance for Class 3 risk exposure.

The Contractor shall apply 2- inch wide retro-reflective tape, with alternating red and white segments, to outline the front back and sides of construction vehicles and equipment, to define their shape and size to the extent practicable. Pickup trucks and personal vehicles are exempt from this requirement. The Contractor shall furnish approved signs reading "Construction Vehicle - Keep Back" to be used on trucks hauling to the project when such signs are deemed necessary by the Resident. The signs shall be a minimum of 30 inches by 60 inches, Black and Orange, ASTM D 4956 - Type VII, Type VIII, or Type IX (prismatic).

All vehicles used on the project, including pickup trucks and personal vehicles, shall be equipped with amber flashing lights, visible from both front and rear, or by means of single, approved type, revolving, flashing or strobe lights mounted so as to be visible 360°. The vehicle flashing system shall be in continuous operation while the vehicle is on any part of the project.

The Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item. Failure to follow the approved Lighting Plan will result in a Traffic Control violation.

Payment for lighting, vehicle mounted signs and other costs accrued because of night work will not be made directly but will be considered incidental to the related contract items."

652.8.2 Other Items Replace the first paragraph with the following: "The accepted quantities of flagger hours will be paid for at the contract unit price per hour for each flagging station occupied excluding lunch breaks, and for each approved breaker flagger. Overtime hours, as reported on the certified payrolls, will be paid an additional 30% of the bid price for 652.38. The computation and additional payment for overtime hours will occur during the project close-out process and will be paid as additional hours of 652.38 to the nearest ¼ hour. The

contract unit price shall be full compensation for hiring, transporting, equipping, supervising, and the payment of flaggers and all overhead and incidentals necessary to complete the work.” Replace the last paragraph with the following: “There will be no payment made under any 652 pay items after the expiration of the adjusted total contract time.”

### SECTION 653 POLYSTYRENE PLASTIC INSULATION

653.05 Placing Backfill In the second sentence; change “...shall be not less than 150 mm [6 in] loose measure.” to “...shall be not less than 250 mm [10 in] loose measure.” In the third sentence; change “...crawler type bulldozer of not more than 390 kg/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 (January 2009 version), except that the reported degradation value will be the result of testing a single specimen from that portion of a sample that passes the 12.5 mm [½ in] sieve and is retained on the 2.00 mm [No. 10] sieve, minus any reclaimed asphalt pavement used.”

**703.07 Aggregates for HMA Pavements** Delete the forth paragraph: "The composite blend shall have..." and replace with "The composite blend, minus any reclaimed asphalt pavement used, shall have a Micro-Deval value of 18.0 or less as determined by AASHTO T 327. In the event the material exceeds the Micro Deval limit, a Washington Degradation test shall be performed. The material shall be acceptable if it has a value of 30 or more as determined by Washington State DOT Test Method T 113, Method of Test for Determination of Degradation Value (January 2009 version) except that the reported degradation value will be the result of testing a single composite specimen from that portion of the sample that passes the 12.5mm [1/2 inch] sieve and is retained on the 2.00mm [No 10] sieve, minus any reclaimed asphalt pavement used."

**703.09 HMA Mixture Composition** The coarse and fine aggregate shall meet the requirements of Section 703.07. The several aggregate fractions for mixtures shall be sized, graded, and combined in such proportions that the resulting composite blends will meet the grading requirements of the following table.

#### AGGREGATE GRADATION CONTROL POINTS

| SIEVE<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<br>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 its' entirety, the last sentence which begins "This pipe and resins..." and replace with the following; "Manufacturers of corrugated polyethylene pipe must participate in, and maintain compliance with, AASHTO's National Transportation Product Evaluation Program ([www.ntpep.org](http://www.ntpep.org)) which audits producers of plastic pipe. A certificate of compliance must be provided with each shipment."

## SECTION 708

### PAINTS AND PRESERVATIVES

|| 708.03 Pavement Marking Paint Change the first sentence from "...AASHTO M248" to "...the Maine DOT Maintenance Fast-Dry Water-Based Traffic Paint on file at the Traffic Section in Augusta". Delete, in its' entirety, the last sentence. ||

## SECTION 709

### REINFORCING STEEL AND WELDED STEEL WIRE FABRIC

709.03 Steel Strand Change the second paragraph from "...shall be 12mm [ $\frac{1}{2}$  inch] AASHTO M203M/M203 (ASTM A416/A416M)..." to "...shall be 15.24 mm [0.600 inch] diameter AASHTO M203 (ASTM A416)..."

## SECTION 710

### FENCE AND GUARDRAIL

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

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

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

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

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

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

## SECTION 712 MISCELLANEOUS HIGHWAY MATERIALS

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

712.06 Precast Concrete Units In the first paragraph, change “...ASTM C478M...” to “...AASHTO M199...” Delete the second paragraph and replace with the following; “Approved structural fibers may be used as a replacement of 6 x 6 #10 gauge welded wire fabric when used at an approved dosage rate for the construction of manhole and catch basin units. The material used shall be one of the products listed on the Maine Department of Transportation’s Approved Product List of Structural Fiber Reinforcement.” Delete the fifth paragraph and replace with the following; “The concrete mix design shall be approved by the Department. Concrete shall contain 6% air content, plus or minus 1½% tolerance when tested according to AASHTO T152. All concrete shall develop a minimum compressive strength of

28 MPa [4000 psi] in 28 days when tested according to AASHTO T22. The absorption of a specimen, when tested according to AASHTO T280, Test Method “A”, shall not exceed nine percent of the dry mass.”

Add the following:

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

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

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

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

(a) Aluminum steps-ASTM B221M, [ASTM B211] Alloy 6061-T6 or 6005-T5.

(b) Reinforced plastic steps Steel reinforcing bar with injection molded plastic coating copolymer polypropylene. Polypropylene shall conform to ASTM D 4101.

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

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

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

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

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

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

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

low intensity portion with wide distribution for short distance throw. Lenses shall be marked to indicate the top and bottom of the lens.

(b) Battery operated flashing lights shall be self-illuminated by an electric lamp behind the lens. These lights shall also be externally illuminated by reflex-reflective elements built into the lens to enable it to be seen by reflex-reflection of the light from the headlights of oncoming traffic. The batteries must be entirely enclosed in a case. A locking device must secure the case. The light shall have a flash rate of not less than 50 nor more than 60 flashes per minute from minus 30 °C [minus 20 °F] to plus 65 °C [plus 150 °F]. The light shall have an on time of not less than 10 percent of the flash cycle. The light beam projected upon a surface perpendicular to the axis of the light beam shall produce a lighted rectangular projection whose minimum horizontal dimension shall be 5 degrees each side of the horizontal axis. The effective intensity shall not have an initial value greater than 15.0 candelas or drop below 4.0 candelas during the first 336 hours of continuous flashing. The illuminated lens shall appear to be uniformly bright over its entire illuminated surface when viewed from any point within an angle of 9 degrees each side of the vertical axis and 5 degrees each side of the horizontal axis. The lens shall not be less than 175 mm [7 in] in diameter including a reflex-reflector ring of 13 mm [ $\frac{1}{2}$  in] minimum width around the periphery. The lens shall be yellow in color and have a minimum relative luminous transmittance of 0.440 with a luminance of 2854° Kelvin. The lens shall be one-piece construction. The lens material shall be plastic and meet the luminous transmission requirements of this specification. The case containing the batteries and circuitry shall be constructed of a material capable of withstanding abuse equal to or greater than 1.21 mm thick steel [No. 18 U.S. Standard Gage Steel]. The housing and the lens frame, if of metal shall be properly cleaned, degreased and pretreated to promote adhesion. It shall be given one or more coats of enamel which, when dry shall completely obscure the metal. The enamel coating shall be of such quality that when the coated case is struck a light blow with a sharp tool, the paint will not chip or crack and if scratched with a knife will not powder. The case shall be so constructed and closed as to exclude moisture that would affect the proper operation of light. The case shall have a weep hole to allow the escape of moisture from condensation. Photoelectric controls, if provided, shall keep the light operating whenever the ambient light falls below 215 lx [20 foot candles]. Each light shall be plainly marked as to the manufacturer's name and model number.

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

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

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

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

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

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

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

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

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

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

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

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

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

The granite slabs shall be scabble dressed or sawed to an approximately true plane having no projections or depressions over 13 mm [ $\frac{1}{2}$  in] under a 600 mm [2 ft] straightedge or over 25 mm [1 in] under a 1200 mm [4 ft] straightedge. The arris at the intersection of the top surface and exposed front face shall be pitched so that the arris line is uniform throughout the length of the installed slabs. The sides shall be square to the exposed face unless the slabs are to be set

on a radius or other special condition which requires that the joints be cut to fit, but in any case shall be so finished that when the stones are placed side by side no space more than 20 mm [3/4 in] shall show in the joint for the full exposed height.

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

## SECTION 717 ROADSIDE IMPROVEMENT MATERIAL

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

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

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

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

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

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

## SECTION 722 GEOTEXTILES

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

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

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

APPENDIX A TO DIVISION 100

SECTION 1 - BIDDING PROVISIONS

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

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

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

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

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

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

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

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

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

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

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

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B. Bid Rigging Hotline To report bid rigging activities call: **1-800-424-9071**

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

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## SECTION 2 - FEDERAL EEO AND CIVIL RIGHTS REQUIREMENTS

Unless expressly otherwise provided in the Bid Documents, the provisions contained in this Section 2 of this "Federal Contract Provisions Supplement" are hereby incorporated into the Bid Documents and Contract.

A. Nondiscrimination & Civil Rights - Title VI The Contractor and its subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Department deems appropriate. The Contractor and subcontractors shall comply with Title VI of the Civil Rights Act of 1964, as amended, and with all State of Maine and other Federal Civil Rights laws.

For related provisions, see Subsection B - "Nondiscrimination and Affirmative Action - Executive Order 11246" of this Section 2 and Section 3 - Other Federal Requirements of this "Federal Contract Provisions Supplement" including section II - "Nondiscrimination" of the "Required Contract Provisions, Federal Aid Construction Contracts", FHWA-1273.

B. Nondiscrimination and Affirmative Action - Executive Order 11246 Pursuant to Executive Order 11246, which was issued by President Johnson in 1965 and amended in 1967 and 1978, this Contract provides as follows.

The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its efforts to achieve maximum results from its actions. The Contractor shall

document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

1. Ensure and maintain a working environment free of harassment, intimidations, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all forepersons, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
2. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its union have employment opportunities available, and to maintain a record of the organization's responses.
3. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
4. Provide immediate written notification to the Department's Civil Rights Office when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Design-Builder's efforts to meet its obligations.
5. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under B above.
6. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligation; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
7. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review

of these items with on-site supervisory personnel such as Superintendents, General Forepersons, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

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

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

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

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

§60-4.2 Solicitations

- (d) The following notice shall be included in, and shall be part of, all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts in excess of \$10,000 to be performed in geographical areas designated by the Director pursuant to §60-4.6 of this part (see 41 CFR 60-4.2(a)):

Notice of Requirement for Affirmative Action to Ensure Equal Opportunity (Executive Order 11246)

1. The Offeror's or bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

|                                                     |      |
|-----------------------------------------------------|------|
| <u>Goals for female participation in each trade</u> | 6.9% |
|-----------------------------------------------------|------|

Goals for minority participation for each trade

Maine

|                |      |
|----------------|------|
| 001 Bangor, ME | 0.8% |
|----------------|------|

Non-SMSA Counties (Aroostook, Hancock, Penobscot, Piscataquis, Waldo, Washington)

002 Portland-Lewiston, ME

|                                                           |      |
|-----------------------------------------------------------|------|
| SMSA Counties: 4243 Lewiston-Auburn, ME<br>(Androscoggin) | 0.5% |
|-----------------------------------------------------------|------|

|                                              |      |
|----------------------------------------------|------|
| 6403 Portland, ME<br>(Cumberland, Sagadahoc) | 0.6% |
|----------------------------------------------|------|

|                                                                                   |      |
|-----------------------------------------------------------------------------------|------|
| Non-SMSA Counties:<br>(Franklin, Kennebec, Knox, Lincoln, Oxford, Somerset, York) | 0.5% |
|-----------------------------------------------------------------------------------|------|

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non federally involved construction.

The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be in violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor, estimated dollar amount of the subcontract; estimated started and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the Contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any).

#### STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:
  - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
  - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
  - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department form 941;
  - d. "Minority" includes:
    - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

- (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
  - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
  - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of the North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
  3. If the contractor, is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors for Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
  4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a. through p. of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical areas where the work is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specific.
  5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant, thereto.
  6. In order for the non working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the

apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as expensive as the following:
  - a. Ensure and maintain a working environment free of harassment, intimidation, coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, when possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
  - b. Establish and maintain a current list of minority and female recruitment sources provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organization's responses.
  - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment sources or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
  - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
  - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7b above.
  - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific

review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment, efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing prior to the date for the acceptance of applications for apprenticeship or the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on site and in other areas of a Contractor's work force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are non segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of

solicitation to minority and female contractor associations and other business associations.

- p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7 a through p.). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7 a through p. of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program and reflected in the Contractor's minority and female work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions take on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, specific minority group of women is underutilized.)
10. The Contractor shall not use the goals and timetables or affirmative action even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementation regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the

requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.6.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g. mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and location at which the work was performed. Records be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

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

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D. Disadvantaged Business Enterprise (DBE) Requirements The Department has established an annual Disadvantaged Business Enterprise goal to be achieved through race neutral means. This goal will adjusted periodically and will be provided by Supplemental Provision. The Contractor shall comply with all provisions of this section regarding DBE participation and the Department's latest version of the Disadvantaged Business Enterprise Program Manual, said Manual being incorporated herein by reference. In the case of conflict between this Contract and said Manual, this Contract shall control. The Department reserves the right to adjust DBE goals on a project-by-project basis by addendum.

Policy. It is the Department's policy that DBEs as defined in 23 CFR Part 26 and referenced in the Transportation Equity Act for 21st Century of 1998, as amended from the Surface Transportation Uniform Relocation Assistance Act of 1987, and the Intermeddle Surface Transportation Efficiency Act of 1991. The intent hereto remains to provide the maximum opportunity for DBEs to participate in the performance of contracts financed in whole or in part with federal funds.

The Department and its Contractors shall not discriminate on the basis of race, color, national origin, ancestry, sex, age, or disability in the award and performance of DOT assisted contracts.

Disadvantaged Business Enterprises are those so certified by the Maine Department of Transportation Civil Rights Office prior to bid opening date.

The Department has determined that elements of a good faith effort to meet the contract goal include but are not limited to the following:

1. Whether the Contractor advertised in general circulation, trade association, and minority/women's-focus media concerning the subcontracting opportunities;
2. Whether the Contractor provided written notice to a reasonable number of specific DBEs that their interest in the contract is being solicited;
3. Whether the Contractor followed up on initial solicitations of interest by contacting DBEs to determine with certainty whether the DBEs were interested;
4. Whether the Contractor selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goals;
5. Whether the Contractor provided interested DBEs with adequate information about the plans, specification and requirements of the contract;
6. Whether the Contractor negotiated in good faith with interested DBEs, not rejecting the DBE as unqualified without sound reasons based on a thorough investigation of their capabilities;
7. Whether the Contractor made efforts to assist interested DBEs with other appropriate technical/financial assistance required by the Department or Contractor;
8. Whether the Contractor effectively used the services of available minority/women's community organizations, minority/women's business assistance offices; and other organizations that provide assistance in the recruitment and placement of DBEs.

Substitutions of DBEs. The following may be acceptable reasons for Civil Rights Office approval of such a change order:

- The DBE defaults, voluntarily removes itself or is over-extended;
- The Department deletes portions of the work to be performed by the DBE.

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

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

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

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

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

### SECTION 3 - OTHER FEDERAL REQUIREMENTS

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

#### A. Buy America

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

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

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

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

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

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

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

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

#### B. Materials

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

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

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

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

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

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

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

- the item is purchased or obtained through competitive bidding with equally suitable unpatented items,
- the STA certifies either that the proprietary or patented item is essential for synchronization with the existing highway facilities or that no equally suitable alternative exists, or
- the item is used for research or for a special type of construction on relatively short sections of road for experimental purposes. States should follow FHWA's procedures for "Construction Projects Incorporating Experimental Features" ([expermnt.htm](http://www.fhwa.dot.gov/permnt.htm)) for the submittal of work plans and evaluations.

The primary purpose of the policy is to have competition in selection of materials and allow for development of new materials and products. The policy further permits materials and products that are judged equal may be bid under generic specifications. If only patented or proprietary products are acceptable, they shall be bid as alternatives with all, or at least a

reasonable number of, acceptable materials or products listed; and the Division Administrator may approve a single source if it can be found that its utilization is in the public interest.

Trade names are generally the key to identifying patented or proprietary materials. Trade name examples include 3M, Corten, etc. Generally, products identified by their brand or trade name are not to be specified without an "or equal" phrase, and, if trade names are used, all, or at least a reasonable number of acceptable "equal" materials or products should be listed. The licensing of several suppliers to produce a product does not change the fact that it is a single product and should not be specified to the exclusion of other equally suitable products.

c. State Preference References: 23 U.S.C. 112, 23 CFR 635.409

Materials produced within Maine shall not be favored to the exclusion of comparable materials produced outside of Maine. State preference clauses give particular advantage to the designated source and thus restrict competition. Therefore, State preference provisions shall not be used on any Federal-aid construction projects.

This policy also applies to State preference actions against materials of foreign origin, except as otherwise permitted by Federal law. Thus, States cannot give preference to in-State material sources over foreign material sources. Under the Buy America provisions, the States are permitted to expand the Buy America restrictions provided that the STA is legally authorized under State law to impose more stringent requirements.

d. State Owned/Furnished/Designated Materials References: 23 U.S.C. 112, 23 CFR 635.407

Current FHWA policy requires that the contractor must furnish all materials to be incorporated in the work, and the contractor shall be permitted to select the sources from which the materials are to be obtained. Exceptions to this requirement may be made when there is a definite finding, by MDOT and concurred in by Federal Highway Administration's (FHWA) Division Administrator, that it is in the public interest to require the contractor to use materials furnished by the MDOT or from sources designated by MDOT. The exception policy can best be understood by separating State-furnished materials into the categories of manufactured materials and local natural materials.

Manufactured Materials When the use of State-furnished manufactured materials is approved based on a public interest finding, such use must be made mandatory. The optional use of State-furnished manufactured materials is in violation of our policy prohibiting public agencies from competing with private firms. Manufactured materials to be furnished by MDOT must be acquired through competitive bidding, unless there is a public interest finding for another method, and concurred in by FHWA's Division Administrator.

Local Natural Materials When MDOT owns or controls a local natural materials source such as a borrow pit or a stockpile of salvaged pavement material, etc., the materials may be designated for either optional or mandatory use; however, mandatory use will require a public interest finding (PIF) and FHWA's Division Administrator's concurrence.

In order to permit prospective bidders to properly prepare their bids, the location, cost, and any conditions to be met for obtaining materials that are made available to the contractor shall be stated in the bidding documents.

Mandatory Disposal Sites Normally, the disposal site for surplus excavated materials is to be of the contractor's choosing; although, an optional site(s) may be shown in the contract provisions. A mandatory site shall be specified when there is a finding by MDOT, with the concurrence of the Division Administrator, that such placement is the most economical or that the environment would be substantially enhanced without excessive cost. Discussion of the mandatory use of a disposal site in the environmental document may serve as the basis for the public interest finding.

Summarizing FHWA policy for the mandatory use of borrow or disposal sites:

- mandatory use of either requires a public interest finding and FHWA's Division Administrator's concurrence,
- mandatory use of either may be based on environmental consideration where the environment will be substantially enhanced without excessive additional cost, and
- where the use is based on environmental considerations, the discussion in the environmental document may be used as the basis for the public interest finding.

Factors to justify a public interest finding should include such items as cost effectiveness, system integrity, and local shortages of material.

#### C. Standard FHWA Contract Provisions - FHWA 1273

Unless expressly otherwise provided in the Bid Documents, the following "Required Contract Provisions, Federal Aid Construction Contracts", FHWA-1273, are hereby incorporated into the Bid Documents and Contract.

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#### Start of FHWA 1273 REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS(As revised through March 10, 1994)

##### I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.
2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.
4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;  
Section IV, paragraphs 1, 2, 3, 4, and 7;  
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.
6. Selection of Labor: During the performance of this contract, the contractor shall not:
  - a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or
  - b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION (Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:
  - a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.
  - b. The contractor will accept as his operating policy the following statement:  
"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment,

upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."

2. EEO Officer. The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.
3. Dissemination of Policy. All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:
  - a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.
  - b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
  - c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.
  - d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
  - e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.
4. Recruitment. When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.
  - a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

- b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)
  - c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.
5. Personnel Actions. Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:
- a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
  - b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
  - c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
  - d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.
6. Training and Promotion.
- a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.
  - b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision

for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

- c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
  - d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.
7. Unions. If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:
- a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
  - b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.
  - c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.
  - d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.
8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment. The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

- a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.
  - b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.
  - c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.
9. Records and Reports. The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.
- a. The records kept by the contractor shall document the following:
    - (1) The number of minority and non-minority group members and women employed in each work classification on the project;
    - (2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;
    - (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and
    - (4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.
  - b. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the MDOT and the Federal Highway Administration.

The Contractor will submit to the MDOT a report for the month of July, indicating the total hours worked by minority, women and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR-1391. If on-the-job training is being required by "Training Special Provision," the Contractor will be required to furnish Form FHWA-1409. The report is required for week ending July 15 and can be obtained from MDOT, is due by week ending August 20th. This report is to be furnished directly to MDOT - Civil Rights Office.

III. NONSEGREGATED FACILITIES (Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

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

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

1. General:

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

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

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

2. Classification:

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

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

3. Payment of Fringe Benefits:

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

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

a. Apprentices:

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

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

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

b. Trainees:

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

- (3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.
  - (4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- c. **Helpers.** Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.
5. **Apprentices and Trainees (Programs of the U.S. DOT).** Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.
6. **Withholding.** The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.
7. **Overtime Requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4

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

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

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

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

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

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

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

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

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

## VII. SUBLETTING OR ASSIGNING THE CONTRACT

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

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

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

#### VIII. SAFETY: ACCIDENT PREVENTION

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

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

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

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--  
Primary Covered Transactions

- 1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
  - a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
  - b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or

local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

- c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and
- d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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2. Instructions for Certification - Lower Tier Covered Transactions: (Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

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Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--  
Lower Tier Covered Transactions:

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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**XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

- 1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
  - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
  - b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a

Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

End of FHWA 1273



## Environmental Summary Sheet

Pin: 16819.20  
Town: Sherman-Dyer Brook  
CPD Team Leader: Laurie Rowe  
NEPA Complete: 12/13/11

Date Submitted: 2/24/12

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                              |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | <b>Section 106</b><br>PA- E                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                              |
| <input checked="" type="checkbox"/> | <b>Section 4(f) and 6(f)</b><br><u>Section 4(f)</u><br>Review Complete<br><u>Section 6(f)</u><br>Not Applicable                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                              |
| <input checked="" type="checkbox"/> | <b>Maine Department of Inland Fisheries and Wildlife Essential Habitat</b><br><br>Not Applicable<br>Timing Window: Not Applicable                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                              |
| <input checked="" type="checkbox"/> | <b>Section 7</b><br>Formal Consultation<br>Species of Concern: Atlantic Salmon DPS<br>Atlantic Salmon-Critical Habitat<br>Comments/References: See ACOE permit, ESA Biological Opinion, and SP 105 for special Conditions                                                                                                                                                                                      |                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                              |
| <input checked="" type="checkbox"/> | <b>Maine Department of Conservation/Public Lands, Submerged Land Lease</b><br>Not Applicable                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                              |
| <input checked="" type="checkbox"/> | <b>Maine Land Use Regulation Commission</b><br>Not Applicable<br><i>*Applicable Standards and Permits are included with the contract</i>                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                              |
| <input checked="" type="checkbox"/> | <b>Maine Department of Environmental Protection</b><br>Exempt from Permitting<br><i>*Applicable Standards and Permits are included with the contract</i>                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                              |
| <input checked="" type="checkbox"/> | <b>Army Corps of Engineers, Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Category 3</b><br>*Work start notification form and compliance form must be filled out by MaineDOT resident and submitted to ACOE and the Environmental Office.<br>* See ACOE permit and SP 105 for Special Conditions<br><i>*Applicable Standards and Permits are included with the contract</i> |                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                              |
| <input checked="" type="checkbox"/> | <b>Coast Guard</b><br>Not Applicable<br><i>*Applicable Standards and Permits are included with the contract</i>                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                              |
| <input checked="" type="checkbox"/> | <b>Special Provisions Required</b><br>Special Provision 105-Timing of Work Restriction<br>Special Provision 656-Erosion Control Plan<br>Special Provision 203-Dredge Spec<br>General Note for Hazardous Waste<br>Special Provision 203-Hazardous Waste<br>Special Provision 105.9                                                                                                                              | N/A <input type="checkbox"/><br>N/A <input type="checkbox"/><br>N/A <input checked="" type="checkbox"/><br>N/A <input checked="" type="checkbox"/><br>N/A <input checked="" type="checkbox"/><br>N/A <input checked="" type="checkbox"/> | Applicable <input checked="" type="checkbox"/><br>Applicable <input checked="" type="checkbox"/><br>Applicable <input type="checkbox"/><br>Applicable <input type="checkbox"/><br>Applicable <input type="checkbox"/><br>Applicable <input type="checkbox"/> |

\*All permits and approvals based on plans/scope as of: 11/18/11