

Updated 12/01/08

FEDERAL PROJECT

BIDDING INSTRUCTIONS

FOR ALL PROJECTS:

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

For a Paper Bid:

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

For an Electronic Bid:

- a) a completed Bid using Expedite® software and submitted via the Bid Express™ webbased service, b) a Bid Guaranty (as described below) or a faxed copy of a Bid Bond (with original to be delivered within 72 hours), and c) any other certifications or Bid requirements listed in the Bid Documents as due by Bid opening.
3. Include prices for all required items in the Schedule of Items. (“Zero is not considered a Bid price.”)
4. Include a Bid Guaranty. Acceptable forms are:
 - a) a properly completed and signed Bid Bond on the Department’s prescribed form (or on a form that does not contain any significant variations from the Department’s form as determined by the Department) for 5% of the Bid Amount or
 - b) an Official Bank Check, Cashier’s Check, Certified Check, U.S. Postal Money Order or Negotiable Certificate of Deposit in the amount stated in the Notice to Contractors.
5. If a paper Bid is to be sent, Federal Express overnight delivery is suggested as the package is delivered directly to the DOT Headquarters Building located at 16 Child Street in Augusta.
6. Other means, such as U.S. Postal Service’s Express Mail has proven not to be reliable.

IN ADDITION, FOR FEDERAL AID PROJECTS:

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

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

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

NOTICE

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

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

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

The downloading of bid packages from the MDOT website is not the same as providing an electronic bid to the Department. Electronic bids must be submitted via <http://www.BIDX.com>. For information on electronic bidding contact Larry Childs at Larry.Childs@maine.gov.

NOTICE

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

Bid Enclosed - Do Not Open

PIN:

Town:

Date of Bid Opening:

Name of Contractor with mailing address and telephone number:

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

Double Envelope: Bid Enclosed

PIN:

Town:

Date of Bid Opening:

Name of Contractor:

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

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

Bid Enclosed: Do Not Open

PIN:

Town:

Name of Contractor:

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

KNOW ALL MEN BY THESE PRESENTS THAT _____

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

as Principal, and _____ as Surety, a

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

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

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

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

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

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

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

_____ and if the Department shall accept said bid

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

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

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

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

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

force, and effect.

Signed and sealed this _____ day of _____ 20_____

WITNESS:

WITNESS

PRINCIPAL:

By _____

By: _____

By: _____

SURETY:

By _____

By: _____

Name of Local Agency: _____

NOTICE

Bidders:

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

NOTICE

Disadvantaged Business Enterprise Proposed Utilization

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

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

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

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

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

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

INSTRUCTIONS FOR PREPARING THE CONTRACTOR'S DISADVANTAGED BUSINESS ENTERPRISE UTILIZATION PLAN

The Contractor Shall:

1. Submit a completed Contractor's Disadvantaged Business Enterprise Utilization Plan with your bid on the Bid day.
2. Extend equal opportunity to MDOT certified DBE firms (as listed in MDOT's DBE Directory of Certified Businesses) in the selection and utilization of Subcontractors and Suppliers.

SPECIFIC INSTRUCTIONS FOR COMPLETING THE FORM:

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

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

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

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

NOTICE

Maine Department of Transportation Disadvantaged Business Enterprise Program

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

For FFY 2009 (October 1, 2008 through September 30, 2009), MaineDOT has established a DBE participation goal of 5.8% to be achieved through race/gender neutral means.

Interested parties may view MaineDOT's DBE goal setting methodology for the next 45 days during normal business hours (8-4, M-F) at the Maine Department of Transportation, Civil Rights Office, 16 State House Station, Augusta ME 04333-0016. Appointments may be scheduled by telephone at (207) 624-3519. The goal setting methodology is also available for viewing on the MaineDOT website: <http://www.maine.gov/mdot/disadvantaged-business-enterprises/dbe-home.php>.

Public comment will be accepted for 45 days following the last date of publication. The public comment period will be complete on September 26th, 2008. The goal will be submitted for approval to the FHWA on September 1st, 2008. Updated goal will be submitted to FHWA, if necessary, based on public comment.

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

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

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

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

Contractor: _____ Telephone: _____ Ext. _____

Contact Person: _____ Fax: _____

E-mail: _____

BID PRICE: \$ _____ BID DATE: ____/____/____

FEDERAL PROJECT PIN # _____ PROJECT LOCATION: _____

TOTAL DBE _____ % PARTICIPATION FOR THIS SUBMISSION

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

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

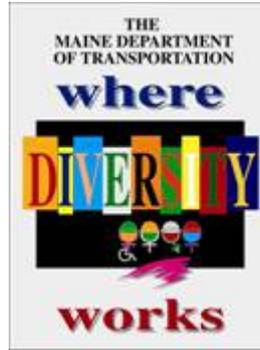
Equal Opportunity Use:

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

___ Accepted ___ Rejected _____

cc: Contracts Other _____

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



**Maine Department of Transportation
Civil Rights Office**

**Directory of Certified Disadvantaged
Business Enterprises**

Listing can be found at:

www.maine.gov/mdot/disadvantaged-business-enterprises/dbe-home.php

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

September 14, 2007

Vendor Registration

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

<http://www.maine.gov/purchases/vendorinfo/vss.htm>

**STATE OF MAINE DEPARTMENT OF TRANSPORTATION
NOTICE TO CONTRACTORS**

Sealed Bids addressed to the Maine Department of Transportation, Augusta, Maine 04333 and endorsed on the wrapper "Bids for the **New Construction of Path and Bridge for Bicycles and Pedestrians in the City of Biddeford and Towns of Arundel and Kennebunk**" will be received from contractors at the Reception Desk, Maine DOT Building, Child Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on July 1, 2009 and at that time and place publicly opened and read. Bids will be accepted from all bidders. The lowest responsive bidder must have completed, or successfully complete, a Highway, or project specific prequalification to be considered for the award of this contract. **We now accept electronic bids for those bid packages posted on the bidx.com 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. STP-1334(100)S, PIN: 13341.00

Location: In York County, Off Road Trail is Located from Rt. 111 in Biddeford to Rt. 35 in Kennebunk

Outline of Work: New Construction of Path for Bicycles / Pedestrians including a Bridge over the Maine Turnpike.

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

Plans, specifications and bid forms may be seen at the Maine DOT Building in Augusta, Maine. They may be purchased from the Department between the hours of 8:00 a.m. to 4:30 p.m. by cash, credit card (Visa/Mastercard) or check payable to Treasurer, State of Maine sent to Maine Department of Transportation, Attn.: Mailroom, 16 State House Station, Augusta, Maine 04333-0016. They also may be purchased by telephone at (207) 624-3536 between the hours of 8:00 a.m. to 4:30 p.m. Full size plans \$69.00 (\$74.50 by mail). Half size plans \$34.50 (\$37.75 by mail), Bid Book \$10 (\$13 by mail), Single Sheets \$2, payment in advance, all non-refundable.

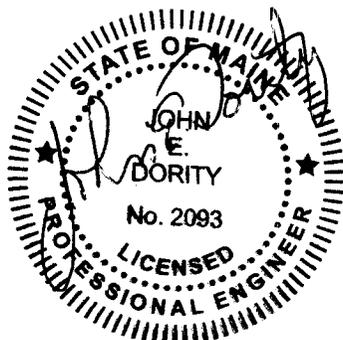
Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of \$50,000 payable to Treasurer, State of Maine as a Bid guarantee. A Contract Performance Surety Bond and a Contract Payment Surety Bond, each in the amount of 100 percent of the Contract price, will be required of the successful Bidder.

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

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

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

Augusta, Maine
June 10, 2009



JOHN E. DORITY
CHIEF ENGINEER

NOTICE

All bids for Federal Projects opened after December 1, 2008 **MUST** be accompanied by the DBE Proposed Utilization form. If you are submitting an electronic bid, the DBE Utilization Form may be faxed to 207-624-3431.

SPECIAL PROVISION 102.7.3
ACKNOWLEDGMENT OF BID AMENDMENTS

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

Amendment Number	Date

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

CONTRACTOR

_____ Date

_____ Signature of authorized representative

_____ (Name and Title Printed)

MAINE DEPARTMENT OF TRANSPORTATION

BID

DATE OF OPENING :

CALL ORDER :

CONTRACT ID : 013341.00

PROJECTS

STP-1334(100)S

COUNTY : YORK

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 013341.00

PROJECT(S): STP-1334(100)S

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
SECTION 0001 PROJECT ITEMS						
0010	201.11 CLEARING	6.000 AC				
0020	201.12 SELECTIVE CLEARING AND THINNING	4.000 AC				
0030	202.12 REMOVING EXISTING STRUCTURAL CONCRETE	2.000 CY				
0040	203.20 COMMON EXCAVATION	2050.000 CY				
0050	203.24 COMMON BORROW	16200.000 CY				
0060	206.082 STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	43.000 CY				
0070	209.29 VERTICAL DRAINAGE WICKS	87600.000 LF				
0080	304.09 AGGREGATE BASE COURSE - CRUSHED	11260.000 CY				
0090	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	456.000 CY				
0100	403.209 HOT MIX ASPHALT 9.5 MM HMA (SIDEWALKS, DRIVES, INCIDENTALS)	12.000 T				5

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 013341.00

PROJECT(S): STP-1334(100)S

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0110	403.210 HOT MIX ASPHALT 9.5 MM HMA	79.000 T				
0120	411.13 STONE DUST SURFACE COURSE	4400.000 T				
0130	502.219 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	LUMP	LUMP			
0140	502.60 PORTLAND CEMENT MORTAR	10.000 CF				
0150	502.71 BRIDGE DRAIN EXTENSIONS	1.000 EA				
0160	530.01 STEEL PEDESTRIAN BRIDGE	LUMP	LUMP			
0170	603.175 18 INCH REINFORCED CONCRETE PIPE CLASS III	160.000 LF				
0180	603.179 18 INCH CULVERT PIPE OPTION III	20.000 LF				
0190	603.199 24 INCH CULVERT PIPE OPTION III	72.000 LF				
0200	603.471 60 INCH REINFORCED CONCRETE PIPE CLASS V	112.000 LF				
0210	606.611 TIMBER GUARDRAIL	300.000 LF				6

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 013341.00

PROJECT(S): STP-1334(100)S

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0220	607.16 CHAIN LINK FENCE - 4 FOOT	500.000 LF				
0230	607.22 CEDAR RAIL FENCE	7150.000 LF				
0240	607.294 BARRIER BOULDERS	61.000 EA				
0250	607.32 BRACING ASSEMBLY TYPE I - METAL POSTS	2.000 EA				
0260	607.33 BRACING ASSEMBLY TYPE II - METAL POSTS	2.000 EA				
0270	608.26 CURB RAMP DETECTABLE WARNING FIELD	160.000 SF				
0280	610.08 PLAIN RIPRAP	541.000 CY				
0290	610.21 RIVER STONES	40.000 CY				
0300	610.212 STREAM STONE	10.000 CY				
0310	613.319 EROSION CONTROL BLANKET	3970.000 SY				
0320	615.07 LOAM	1771.000 CY				

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 013341.00

PROJECT(S): STP-1334(100)S

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0330	618.13 SEEDING METHOD NUMBER 1	282.000 UN				
0340	618.143 SPECIAL SEED MIX:	8.000 UN				
0350	618.15 TEMPORARY SEEDING	71.000 LB				
0360	619.12 MULCH	282.000 UN				
0370	619.1401 EROSION CONTROL MIX	50.000 CY				
0380	620.58 NON WOVEN GEOTEXTILE	1125.000 SY				
0390	620.60 SEPARATION GEOTEXTILE	1400.000 SY				
0400	621.037 EVERGREEN TREES (5 FOOT - 6 FOOT) GROUP A	21.000 EA				
0410	621.546 DECIDUOUS SHRUBS (2 FOOT - 3 FOOT) GROUP A	700.000 EA				
0420	621.80 ESTABLISHMENT PERIOD	LUMP	LUMP			
0430	627.75 WHITE OR YELLOW PAVEMENT AND CURB MARKING	1300.000 SF				8

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 013341.00

PROJECT(S): STP-1334(100)S

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0440	629.05 HAND LABOR, STRAIGHT TIME	120.000 HR				
0450	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	50.000 HR				
0460	631.133 SKID STEER (INCLUDING OPERATOR)	20.000 HR				
0470	631.14 GRADER (INCLUDING OPERATOR)	20.000 HR				
0480	631.171 TRUCK - SMALL (INCLUDING OPERATOR)	30.000 HR				
0490	631.18 CHAIN SAW RENTAL (INCLUDING OPERATOR)	10.000 HR				
0500	631.32 CULVERT CLEANER (INCLUDING OPERATOR)	20.000 HR				
0510	631.36 FOREPERSON	40.000 HR				
0520	641.89 KIOSK	2.000 EA				
0530	645.103 DEMOUNT GUIDE SIGN	1.000 EA				
0540	645.113 REINSTALL GUIDE SIGN	1.000 EA				

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 013341.00

PROJECT(S): STP-1334(100)S

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0550	645.271 REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGNS, TYPE I	430.000 SF				
0560	646.091 SETTLEMENT PLATFORMS	LUMP	LUMP			
0570	652.33 DRUM	140.000 EA				
0580	652.34 CONE	20.000 EA				
0590	652.35 CONSTRUCTION SIGNS	780.000 SF				
0600	652.361 MAINTENANCE OF TRAFFIC CONTROL DEVICES	LUMP	LUMP			
0610	652.362 MAINTENANCE OF TRAFFIC CONTROL DEVICES - MTA	LUMP	LUMP			
0620	652.38 FLAGGER	40.000 HR				
0630	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP			
0640	659.10 MOBILIZATION	LUMP	LUMP			
0650	841.48 BOLLARDS	4.000 EA				10

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 013341.00

PROJECT(S): STP-1334(100)S

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0660	841.49 BOLLARDS - COLLAPSIBLE	24.000 EA				
	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, STP-1334(100)S, **PIN No. 13341.00, for the new Construction of Path and Bridge for Bicycles and Pedestrians in the City of Biddeford and Towns of Arundel and Kennebunk, County of York, 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 19, 2010**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of December 2002 and related Special Provisions.

C. Price.

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

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

D. Contract.

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

E. Certifications.

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

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

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications Revision of December 2002, Standard Details Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of: **PIN No. 13341.00, for the new Construction of Path and Bridge for Bicycles and Pedestrians in the City of Biddeford and Towns of Arundel and Kennebunk, County of York, State of Maine**, on which bids will be received until the time specified in the "Notice to Contractors" do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached "Schedule of Items".

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

As Offeror also agrees:

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

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

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

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

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

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

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

CONTRACTOR

Date

(Signature of Legally Authorized Representative
of the Contractor)

Witness

(Name and Title Printed)

G. Award.

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

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: David A. Cole, Commissioner

Witness

CONTRACT AGREEMENT, OFFER & AWARD

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

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

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

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, STP-1334(100)S, **PIN No. 13341.00, for the new Construction of Path and Bridge for Bicycles and Pedestrians in the City of Biddeford and Towns of Arundel and Kennebunk, County of York, 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 19, 2010**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of December 2002 and related Special Provisions.

C. Price.

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

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

D. Contract.

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

E. Certifications.

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

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

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications Revision of December 2002, Standard Details Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of: **PIN No. 13341.00, for the new Construction of Path and Bridge for Bicycles and Pedestrians in the City of Biddeford and Towns of Arundel and Kennebunk, County of York, State of Maine**, on which bids will be received until the time specified in the “Notice to Contractors” do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached “Schedule of Items”.

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

As Offeror also agrees:

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

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

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

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

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

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

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

CONTRACTOR

Date

(Signature of Legally Authorized Representative
of the Contractor)

Witness

(Name and Title Printed)

G. Award.

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

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: David A. Cole, Commissioner

Witness

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at 1705 U.S. Route 202, Winthrop, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and (Name of the firm bidding the job) a corporation or other legal entity organized under the laws of the State of Maine, with its principal place of business located at (address of the firm bidding the job)

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

A. The Work.

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

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

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

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before November 15, 2003. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of December 2002.

C. Price.

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

D. Contract.

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

E. Certifications.

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

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

F. Offer.

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

PIN 1234.00 West Eastport, Hot Mix Asphalt Overlay

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

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

As Offeror also agrees:

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

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

Third: To begin the Work on the date specified in the Engineer's "Notice to Commence Work" as stated in Section 107.2 of the Standard Specifications Revision of 2002 and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor's Disadvantaged Business Enterprise Utilization Plan by 4:30pm on the day of bid opening to the Contracts Engineer.

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

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

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

CONTRACTOR
(Sign Here)

(Signature of Legally Authorized Representative
of the Contractor)
(Print Name Here)

(Name and Title Printed)

Date _____

(Witness Sign Here)

Witness

G. Award.

Your offer is hereby accepted.

This award consummates the Contract, and the documents referenced herein.

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: David A. Cole, Commissioner

(Witness)

BOND # _____

CONTRACT PERFORMANCE BOND
(Surety Company Form)

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

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

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

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

WITNESSES:

SIGNATURES:

CONTRACTOR:

Signature.....

.....

Print Name Legibly

Print Name Legibly

SURETY:

Signature

.....

Print Name Legibly

Print Name Legibly

SURETY ADDRESS:

NAME OF LOCAL AGENCY:

ADDRESS

.....

.....

.....

.....

TELEPHONE.....

.....

BOND # _____

CONTRACT PAYMENT BOND
(Surety Company Form)

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

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

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

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

WITNESS:

SIGNATURES:

CONTRACTOR:

Signature.....

.....

Print Name Legibly

Print Name Legibly

SURETY:

Signature.....

.....

Print Name Legibly

Print Name Legibly

SURETY ADDRESS:

NAME OF LOCAL AGENCY:

.....

ADDRESS

.....

.....

TELEPHONE

.....

SPECIAL PROVISION
SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES

(Cooperation with other Contractors)

This Contract is one of two Contracts for construction of the Eastern Trail Project between Kennebunk and Biddeford. The Contractor is advised that a second Contract will be awarded by the Maine Turnpike Authority for construction of the Eastern Trail Bridge over the Maine Turnpike. The Maine Turnpike Authority contract will include work adjacent to, and within the limits of, this Contract. The MaineDOT Contractor shall cooperate with the Maine Turnpike Authority Contractors and Resident so that all Work can be completed in a safe and timely manner.

The MaineDOT Contractor's Superintendent or Project Manager shall attend coordination meetings with the Resident and the adjacent Contractors at least once every two weeks. All Contractors bear the full responsibility of cooperation and coordination with each other in the planning and scheduling of traffic closures, stoppages, and other construction activity. The Resident's responsibility for coordination is limited to the timely dissemination of all schedules and information submitted by adjacent Contractors. Issues and concerns not presented for review and discussion at joint Contractor meetings will not later be cause for claims. This cooperation shall be completed at no additional cost.

Contractors working on adjacent Contracts may require the temporary placement of materials, equipment and traffic control devices within this project area. The placement and maintenance of these materials, equipment and devices by another Contractor shall be allowed in this Contract at no additional cost to the Department.

The Contractor shall be allowed to temporarily place and maintain equipment, materials and traffic control devices within the project area of adjacent Contracts at no additional cost to the Department. The locations are subject to the approval of the Engineer.

SPECIAL PROVISION
SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES
(Contractor's General Authority and Responsibilities)

104.3.6 Project Records Add the following:

Section 902 of the American Recovery and Reinvestment Act (ARRA) of 2009 requires that each contract awarded using ARRA funds must include a provision that provides the U.S. Comptroller General and his representatives with the authority to:

“(1) to examine any records of the contractor or any of its subcontractors, or any State or local agency administering such contract, that directly pertain to, and involve transactions relating to, the contract or subcontract; and

(2) to interview any officer or employee of the contractor or any of its subcontractors, or of any State or local government agency administering the contract, regarding such transactions.”

Accordingly, the Comptroller General and his representatives shall have the authority and rights as provided under Section 902 of the ARRA with respect to this contract, which is funded with funds made available under the ARRA. Section 902 further states that nothing in this section shall be interpreted to limit or restrict in any way any existing authority of the Comptroller General.

Additionally, please be advised that Section 1515(a) of the ARRA provides as follows:

Section 1515(a) of the ARRA provides authority for any representatives of the Inspector General to examine any records or interview any employee or officers working on this contract. The contractor is advised that representatives of the inspector general have the authority to examine any record and interview any employee or officer of the contractor, its subcontractors or other firms working on this contract. Section 1515(b) further provides that nothing in this section shall be interpreted to limit or restrict in any way any existing authority of an inspector general.

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

104.3.8.1 Electronic Payroll Submission The prime contractor and all subcontractors and lower-tier subcontractors will submit their certified payrolls electronically on this contract utilizing the Elation System web based reporting. There is no charge to the contracting community for the use of this service. The successful contractor will receive detailed instruction on the use of this system to pass onto their subcontractors.

SPECIAL PROVISION PARTNERING

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

1. Contractor shall select and provide a third-party facilitator to conduct the team building workshop for the Contractor and Department personnel. Facilitator selection shall require Department concurrence. The cost for the facilitator and his associated expenses will be shared equally by the Department on the next monthly estimate, following receipt of invoice(s) from the Contractor, on an extra work basis.
2. Contractor and Department will exchange lists of the key personnel to be participants in the workshop. The list will contain the name and job title of each person, a contact phone number, and the address for job related correspondence.
3. The Contractor shall select the location and make all arrangements for space as required by facilitator, and for any meals required. This cost to be shared equally.
4. A working arrangement for the partnership will be agreed upon in writing at the workshop. The arrangement will set out the mutually recognized goals and expectation of the parties.
5. The Contractor and the Department agree to make an effort to maintain identified key personnel assigned to the work for its duration. A timely notice by each shall be given if changes by either must be made.
6. Project issues shall be processed in the manner agreed upon by the parties during the orientation.
7. Follow-up workshops may be held periodically throughout the duration of the contract as agreed by the Contractor and the Department.
8. The Partnering Agreement is not intended to be a legal document. Failure by either party to follow the process identified will not be grounds for any claim under the contract.
9. ARE YOU INTERESTED IN THIS OPPORTUNITY? YES _____ NO _____

General Decision Number: ME080009 07/25/2008 ME9

Superseded General Decision Number: ME20070009

State: Maine

Construction Type: Highway

Counties: Aroostook, Franklin, Hancock, Kennebec, Knox, Lincoln, Oxford, Piscataquis, Sagadahoc, Somerset, Waldo and York Counties in Maine.

HIGHWAY CONSTRUCTION PROJECTS excluding major bridging (for example: bascule, suspension and spandrel arch bridges; those bridging waters presently navigating or to be navigatable; and those involving marine construction in any degree); tunnels, building structures in rest area projects and railroad construction.

Modification Number	Publication Date
0	02/08/2008
1	06/06/2008
2	07/25/2008

ENGI0004-015 04/01/2008

	Rates	Fringes
Power equipment operators:		
Pavers.....	\$ 18.22	8.50
Rollers.....	\$ 18.22	8.50

* SUME2000-008 10/24/2000

	Rates	Fringes
CARPENTER.....	\$ 11.60	1.51
Ironworkers:		
Structural.....	\$ 12.03	1.58
Laborers:		
Drillers.....	\$ 10.00	2.50
Flaggers.....	\$ 6.55	
Guardrail Installers.....	\$ 7.92	
Landscape.....	\$ 7.87	.16
Line Stripper.....	\$ 8.69	.23
Pipelayers.....	\$ 9.21	2.31
Rakers.....	\$ 9.00	1.51
Sign Erectors.....	\$ 10.00	
Unskilled.....	\$ 8.66	1.38
Wheelman.....	\$ 8.50	.43
Power equipment operators:		
Backhoes.....	\$ 11.87	2.05
Bulldozers.....	\$ 12.33	2.88
Cranes.....	\$ 14.06	1.75
Excavators.....	\$ 12.38	2.48

Graders.....	\$ 13.06	3.73
Loaders.....	\$ 11.41	2.87
Mechanics.....	\$ 13.18	2.57

Truck drivers:

Dump.....	\$ 9.35	3.10
Tri axle.....	\$ 8.70	1.18
Two axle.....	\$ 8.56	2.19

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)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

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

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

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

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

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

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request

review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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

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

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

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

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

=====

END OF GENERAL DECISION

SPECIAL PROVISIONS
SECTION 104
UTILITIES

MEETING

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

GENERAL 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 or near the limits of this project or intending to install facilities during project construction, unless otherwise provided.

Utility	Aerial	Underground
Central Maine Power Company	X	
City of Biddeford		X
Fairpoint Communications	X	
Granite State Gas Transmission Co. \ Unitil Service Corp.		X
Kennebunk, Kennebunkport and Wells Water District		X
Kennebunk Light and Power District	X	
Kennebunk Sewer District		X
Northern Utilities		X
Time Warner Cable	X	

Temporary utility adjustments are **not** anticipated.

The respective utility company will make all utility adjustments – **none** are anticipated

Any times and dates mentioned are estimates only and are dependent upon favorable weather, working conditions, and freedom from emergencies. The Contractors shall have no claim against the Department if they are exceeded. Utility working days are Monday through Friday, conditions permitting. Times are estimated on the basis of a single crew for each utility.

TELEPHONE NUMBERS FOR NOTIFICATION

The following information is provided to assist the Contractor with contacting utility companies and is a guide only:

<u>Utility</u>	<u>Contact Name</u>	<u>Telephone #</u>
Central Maine Power	Gary Crabtree	791-8025
City of Biddeford	John Perry	284-9118
Fairpoint Communications	Steve Polyot	990-5280
Granite State Gas Transmission 0967	Frank Callahan	(800) 542-
Kennebunk, Kennebunkport and Wells Water District	Donald Gobiell	985-3385
Kennebunk Light and Power District	Raymond Brulotte	985-3311
Kennebunk Sewer District	Nick Rico	985-4741
Northern Utilities x6246	Rick Bellemare	797-8002
Time Warner Cable	Andrew Trottier	253-2325
Unitil Service Corp. 5191	Roger Barham	(603) 294-

AERIAL (PIN #13341.00)

Central Maine Power Company, Fairpoint Communications, Kennebunk Light and Power District and Time Warner Cable have aerial utilities within the project limits. The project does not require relocation of aerial utilities.

UNDERGROUND (PIN #13341.00)

City of Biddeford, Granite State Gas Transmission Co.\Unitil Services Corp, Kennebunk, Kennebunkport and Wells Water District, Kennebunk Sewer District, and Northern Utilities have underground facilities within the project limits. The project does not require relocation of underground utilities.

Special Note to the Contractor

Granite State Gas Transmission, Co. has a high pressure natural gas transmission line located in the immediate vicinity of the proposed work along the full length of the project. No relocation or adjustment of the gas main is anticipated. Work within the transmission corridor shall be completed in accordance with the procedures and requirements outlined in Appendix A. Construction within the transmission corridor will not be allowed without a representative of Granite State Gas Transmission, Co. on site.

Special Note to the Contractor

Northern Utilities Inc. (Portland Office) has a gas main located in the immediate vicinity of the project between stations 4828+00 and 4857+15. No relocation or adjustment of the gas main is anticipated. Work within the transmission corridor shall be completed in accordance with the procedures and requirements outlined in Appendix A.

AERIAL AND UNDERGROUND UTILITY ADJUSTMENTS

No aerial or underground utility adjustments are anticipated to accommodate construction of the project.

SAFE PRACTICES AROUND UTILITY FACILITIES

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

DIG SAFE

The Contractor shall be responsible for determining the presence of underground utility facilities prior to commencing any excavating work and shall notify utilities of proposed excavation in accordance with M.R.S.A. Title 23 3360-A, Maine “Dig Safe” System.

BLASTING

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

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 field conditions determine. 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. Utility Companies shall use National Cooperative Highway Research Program Report 350 Compliant Signs and Channelization devices as specified by the FHWA with in all MDOT work zones.

THE CONTRACTOR SHALL PLAN AND CONDUCT HIS WORK ACCORDINGLY

APPENDIX A
UTILITY COORDINATION WITH GRANITE STATE GAS TRANSMISSION CO.

A. General Conditions

Utility Coordination shall be governed by MaineDOT Standard Specifications, Revision of December 2002, as updated periodically by MaineDOT, unless otherwise provided herein.

Prior to commencement of work, the Contractor, by careful examination, must become sufficiently familiar with all utilities in the work area. The locations shown on the plan are based on the best information available, but MaineDOT and the Engineer do not warrant their accuracy in either horizontal or vertical locations. The MaineDOT, the Eastern Trail Management District (ETMD) and Granite State Gas Transmission, Inc. (GSGT) are working together to create a trail segment that will carry both utilities and intended trail users. To that end, the ETMD has executed a co-location agreement with Granite GSGT that outlines the respective rights, responsibilities and obligations between all parties during the construction of the trail, as well as all construction activities related to the Project as a whole. A copy of the project co-location agreement is included as part of this appendix. The Contractor is responsible for understanding, following and abiding by the obligations and limitations outlined in both the co-location agreement and this Appendix throughout the Project. During construction the Contractor shall carefully protect all utilities from damage. **The Contractor shall be fully responsible for any damage to existing utilities.**

B. Dig Safe & Maintaining Utility Markings

The Contractor shall be responsible for determining the presence of underground utility facilities prior to commencing any excavation work and shall notify utilities of proposed excavation in accordance with M.R.S.A. Title 23 §3360-A, Maine “Dig Safe” System. Call 1-888-344-7233

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

C. Pre-Construction Meeting

A Preconstruction Utility Conference, as defined in Subsection 104.4.6 of the MaineDOT Standard Specifications, Revision of December 2002, as updated periodically by MaineDOT, is required.

D. Granite State Gas Transmission (GSGT)

GSGT owns an approximately 66-foot right of way to operate an eight-inch, high-pressure, natural gas pipeline. The pipeline runs within the right-of-way along the entire length of the Project. The Contractor is responsible for meeting the following requirements agreed to by, and among, GSGT, the ETMD, the Towns of Kennebunk and Arundel, and the City of Biddeford:

1. **Primary Contact** – The Contractor will be required to work with representatives from GSGT and its engineers and contractors throughout the project. Initially all communications with GSGT should be channeled through the Resident until primary contacts are established.
2. **Bridge Work** – In order to complete work on the Kennebunk River Bridge the proposed construction activities will need to be fully coordinated with GSGT. The proposed bridge will likely need to be assembled on site to minimize the weight and size of each piece being erected. Depending on the proposed sequence of work, equipment and construction methods the gas line may need to be temporarily removed from service during the construction. If the proposed work

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UTILITY COORDINATION WITH GRANITE STATE GAS TRANSMISSION CO.

requires a temporary shut down of the gas line bridge construction will need to occur between the months of May 15 and September 15, or as required by GSGT.

Prior to starting work at Abutment 2 of the Kennebunk River Bridge the Contractor shall transition support of the gas line from the existing concrete pedestal to a temporary support constructed in front of (southwest of) the existing abutment ruins. The proposed method of temporary support shall be designed and detailed by a Professional Engineer licensed in the state of Maine. The proposed method of temporary support shall be submitted to the resident for approval. The temporary support shall remain in place until support of the gas line is transitioned onto the proposed bridge.

3. **Construction Supervision** - GSGT has agreed to work with the Resident, Project Engineers, and Contractor(s) to arrange for personnel to be present at appropriate times as defined below and in accordance with the Project schedule to oversee any contractors or subcontractors who may be working near the gas pipeline. Supervision shall be required any time work is being done within GSGT's right-of-way.
4. **Work Stoppage** - GSGT shall have the right to stop work immediately if the gas pipeline or the safety of the public are or might be negatively impacted. Immediately following the decision to stop work, the Resident must be contacted and a meeting held with GSGT, the Resident, the Project Engineer and the Contractor(s) to evaluate the concern(s) and determine a corrective course of action.
5. **Minimum Guidelines for Construction** - Except as noted below, the Contractor shall observe the *Minimum Guidelines for Construction* established by GSGT. The *Minimum Guidelines For Construction Activities In The Vicinity Of Gas Pipelines* is included as part of this appendix. The following guidelines shall also apply:
 - (a) GSGT shall schedule personnel for inspection and monitoring of construction activities in connection with the project in accordance with the mutually agreed to Project schedule.
 - (b) Existing levels of ground cover above and within five (5) feet of either side of the Pipeline shall not be reduced or increased as a result of the Project unless previously approved by GSGT during the design and review process. Where GSGT requires an increase in the level of cover over its Pipeline in connection with the installation of the Trail, the Resident will direct the Contractor to complete such work. The placement of additional cover will be compensated at the Contract unit price for the material required.
 - (c) The Contractor shall provide the Resident with a listing of all construction equipment and vehicles that will be working within the co-location area at least 72 hours prior to entry of such equipment into the area, which listing shall include weight load factors. At the discretion of GSGT, the Contractor may be required to utilize temporary matting, or to place temporary fill, to protect the integrity of the pipeline when utilizing certain equipment. No additional compensation will be made to the Contractor for this work.
 - (d) GSGT shall provide the Resident and Contractor with any weight restrictions or acceptable weight ranges for construction equipment working on or within 7 feet of the Pipeline.
6. **Weight Restrictions** – GSGT has weight restrictions for all equipment working on or within seven (7) feet of the gas pipeline. The successful Bidder will be required to work with the

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UTILITY COORDINATION WITH GRANITE STATE GAS TRANSMISSION CO.

Resident and GSGT to fine tune allowable weights and possible alternative measures that could be taken to protect the pipeline from usage of heavier equipment. The successful Bidder will be asked to provide a list of specific equipment to be reviewed by GSGT; however, at this time the Resident and GSGT will not individually evaluate equipment lists from Bidders.

An engineering analysis of the existing pipe material, pipe depth, and weights of construction equipment shows that there is no heavy equipment that GSGT can allow to safely work over the pipeline. In places, there may be some light equipment that may be acceptable. If it is the desire by the Contractor to use light equipment, each use will need to be evaluated on a case-by-case basis and require prior approval from GSGT. Light equipment could include, but is not limited to small front-end loaders such as Bobcats, small rubber tired backhoes, and light dump trucks (2 ½ tons or less).

Heavy equipment could include, but is not limited to, concrete trucks, excavators, bulldozers, tri-axle dump trucks, tractor-trailer combinations, cranes, etc. Equipment required to construct and erect the proposed Kennebunk River Bridge will be evaluated on a case-by-case basis and require approval from GSGT.

To protect the gas pipeline, as a general rule GSGT will not allow heavy equipment or trucks to work within 7 feet of the pipeline. This distance may be lengthened if, in the judgment of the inspector, soil conditions exist where seven feet may not be sufficient.

Please note that there are places where GSGT, at the discretion of the local supervisor or inspector, may require barriers or fencing to keep construction equipment away from the pipeline. This will protect the gas line by keeping equipment away from the pipeline, and will also help the contractor by defining the area where work can safely take place. No additional compensation will be made to the Contractor for the installation and maintenance of barrier or fencing for this purpose.

7. **Access** – At all times during construction GSGT will require immediate access to their pipeline facilities. GSGT shall be given a key to locks used on any gates or chains erected by the Contractor. Large or heavy objects should not be used as a barrier during non-working hours unless they can be moved at a moments notice.

GSGT-ETMD Kennebunk-Biddeford Co-Location Agreement

Agreement made as of this _____ day of _____, 2009 by and among GRANITE STATE GAS TRANSMISSION, Inc., a corporation organized and existing under the laws of New Hampshire, with a principal place of business at 325 West Road, Portsmouth, New Hampshire 03801 (GSGT), and THE EASTERN TRAIL MANAGEMENT DISTRICT (ETMD) a Maine not-for-profit corporation with an address at PO Box 250 Saco, Maine, 04072 relating to the installation and maintenance of a multi-use trail, as is more specifically defined herein.

WHEREAS, Maine Department of Transportation (MDOT) is working with the ETMD and the Eastern Trail Alliance (ETA) on the development of the Eastern Trail, which shall be part of the East Coast Greenway, a non-motorized transportation corridor running the full length of the East Coast of the United States and

WHEREAS, MDOT and ETMD desire to construct a segment of the Eastern Trail running in a southwesterly direction from West Cole Road in the City of Biddeford, York County, Maine, to the existing gas pipeline corridor at Rt. 35 in the Town of Kennebunk, such segment being generally depicted on Exhibit A attached hereto and made a part hereof by this reference (such segment of the Eastern Trail defined below as the "Trail", and the installation of the Trail being defined below as the "Project"); and

WHEREAS, MDOT and the ETMD have executed a Transportation Enhancement Project Agreement ("MDOT/ETMD Project Agreement") State PIN13441.00, in connection with the Project; and

WHEREAS, provided that it can secure the requisite funding, approvals and permissions, the ETMD plans to locate, construct, maintain and operate the Trail pursuant to grants to be obtained from the fee owners of the land crossed thereby or an assignment of trail easement(s) to be obtained from the current holders thereof, which grants and assignments are to be duly recorded in the County Registry of Deeds of York County, as applicable; and

WHEREAS, GSGT, or its predecessors, have, since the mid-1960's, owned, operated and maintained an active natural gas line through land to be affected by the Project; and

WHEREAS, On December 01, 2008, GSGT and Northern Utilities were purchased by Unitil Service Corporation, and

WHEREAS, upon the terms and conditions set forth herein, GSGT has agreed to permit ETMD to construct, install, operate and maintain certain portions of the Trail upon certain property owned or controlled by GSGT.

NOW, THEREFORE, in consideration of the mutual promises, covenants and agreements set forth herein, ETMD and GSGT, with the intent of being legally bound, do hereby covenant and agree as follows:

Section 1 - Definitions

As used in this Agreement, the following terms have the meaning indicated:

MDOT - Means the Maine Department of Transportation

The Co-Location Area - Means any portion of the Trail (defined below), situated on land owned or controlled by GSGT, as preliminarily and generally depicted on Exhibit A attached hereto, provided that the final location of such Trail upon land owned or controlled by GSGT shall be subject to the prior written approval of GSGT pursuant to the terms of Section 3 hereof and of this Agreement in general.

The Project - Means the initial construction and installation of that segment of the Eastern Trail consisting of approximately 6.2 miles running in a southwesterly direction from West Cole road in the City of Biddeford, York

County, Maine, to Rt. 35 in the Town of Kennebunk, York County, Maine, as generally depicted on Exhibit A attached hereto.

The Trail – Means that portion of the Eastern Trail that is generally 12 feet in width, to be constructed in connection with the Project.

The Pipeline - Means the existing high-pressure natural gas transmission pipeline and its related facilities owned and operated by GSGT and all future replacements, alterations and upgrades thereof.

Minimum Guidelines – Means the recommended guidelines for construction near natural gas pipeline facilities, of which will be incorporated as a part of the ongoing engineering review.

Project Coordinator - Means the person appointed by the ETMD to coordinate and supervise all aspects of the Project on behalf of ETMD.

Project Engineer - Means the engineer and its subcontractors who were contracted by the ETMD and are responsible for the design and construction oversight of the Project

Section 2 - Co-Location

- 2.1 Co-Location:** The ETMD hereby agrees to design, construct, install, operate and maintain the Trail in accordance with the terms and conditions of this Agreement so as not to interfere with GSGT's operation and maintenance of the Pipeline within any portion of the Co-Location Area. GSGT agrees to the co-location of the Trail within the Co-Location Area, subject to and in accordance with the terms of this Agreement.
- 2.2 Sound Practices:** The ETMD agrees to ensure that at all times, initial and any subsequent design, construction, installation, operation, and maintenance of the Trail and all access to and by their volunteers, employees, agents and contractors on or about the Co-Location Area shall comply with: (a) sound engineering and construction practices; (b) all applicable engineering, environmental, land use, safety and other standards, statutes, laws, ordinances, rules, directives, orders, guidelines and regulations (whether now or hereinafter enacted) imposed by any federal, state or local governmental authority applicable to the Project or operation of the Pipeline; and (c) the Minimum Guidelines and all other requirements of GSGT.
- 2.3 Reservation of Rights:** GSGT reserves and shall have the right to use the Co-Location Area for any lawful purpose pursuant to GSGT's ownership or easement rights, and any future modifications or amendments thereto. Nothing contained herein is intended to limit or restrict GSGT's right or ability to place additional pipeline(s) or facilities or to acquire additional or different land rights. GSGT shall make reasonable attempts to minimize the impact to the Trail or its components and shall undertake reasonable restoration to the trail base of any portions of the Trail or its components disturbed during any such future expansion. GSGT shall not be responsible to restore trail surface.
- 2.4 Prohibited Uses:** ETMD shall not use all terrain vehicles and/or snow mobiles in the Co-Location Area, except as permitted hereunder or as otherwise permitted by GSGT by a separate written agreement.

Section 3 - Initial Construction of the Trail

- 3.1 GSGT Review of Construction Plans:** The ETMD will provide GSGT with engineering and construction plans prior to commencement of construction so as to permit GSGT to perform engineering reviews, evaluations and field inspections as may be reasonably necessary and appropriate for the protection of its Pipeline and property. Actual on-site construction work on the Project shall not commence within the Co-Location Area until GSGT has reviewed and approved in writing ETMD's engineering and construction plans, which approvals may be withheld at the sole discretion of GSGT if GSGT reasonably determines that the plans present safety issues or concerns.

- 3.2 Design & Construction Schedules:** It is the intent of the ETMD to begin design of the Project in SPRING 2009. Construction is planned to begin in 2009 or 2010. The Project Coordinator will hold timely meetings as necessary with GSGT to discuss the timing and sequencing of any work that may impact or involve the Pipeline.
- 3.3 Construction Inspection and Monitoring:** GSGT agrees to work with the Project Coordinator, Project Engineers, and Contractors to arrange for GSGT personnel to be present at appropriate times while work on the Trail or the Project is being conducted within the Co-Location Area, including without limitation those times discussed in Section 3.6 below, and, in accordance with the Project schedule, to monitor any contractors or subcontractors of ETMD who may be working near the Pipeline. Such inspection and monitoring may be required by GSGT any time work is being done within the Co-Location Area.
- 3.4 Work Stoppage:** Under the provisions of Section 4 of this Agreement, GSGT shall have the right to stop work on the Project immediately if the Pipeline or the safety of the public or GSGT employees or its agents or ETMD personnel and its agents are or might be negatively impacted during design or construction of the Project. Immediately following the decision to stop work during construction, the Project Coordinator must be contacted and a meeting held with GSGT, the Project Coordinator, the Project Engineer and the Contractor to evaluate the concern(s) and determine a corrective course of action.
- 3.5 Dig Safe:** The ETMD or its agents will follow and comply with the state requirement that Maine's "Dig Safe" be called and notified at least 72 hours before any excavation. Such notification shall alert all applicable underground facilities and cause such facilities to be identified and marked prior to the start of construction activities.
- 3.6 Minimum Guidelines for Construction:** Except set forth in this Section, the ETMD shall, at all times, observe and comply with the Minimum Guidelines.
- (A) GSGT shall schedule personnel for inspection and monitoring of construction activities in connection with the Project in accordance with the mutually agreed to Project schedule.
 - (B) Existing levels of ground cover above and within five (5) feet of either side of the Pipeline shall not be reduced or increased as a result of a Project unless previously approved by GSGT during the design and review process. Where GSGT requires an increase in the level of cover over its Pipeline in connection with the installation of the Trail, ETMD shall reasonably accommodate GSGT in such efforts. Any costs associated with improvements to cover shall be borne by ETMD.
 - (C) ETMD shall provide GSGT with a listing of all construction equipment and vehicles that will be working within the Co-Location Area at least 72 hours prior to entry of such equipment into the area, which listing shall include weight load factors. Upon review, GSGT shall provide the Project Engineer with any weight restrictions or acceptable weight ranges for construction equipment working in the Co-Location Area or that must travel over the Pipeline for inclusion in bid documents so that prospective contractors may include such limits in any bid packages prepared for the Trail. ETMD will, at its own cost and expense, take such measures as are required by GSGT to protect the integrity of the Pipeline, including the use of matting and temporary protective fill.
- 3.7 Required Permits:** It shall be the responsibility of the ETMD and the Project Engineer to obtain all required permits for the Project at ETMD's sole costs and expense.
- 3.8 Construction Related Expenses:**
- (A) **Trail Related Document Review:** GSGT's expense to review the engineering plans, specifications, or equipment weights related to the Trail shall be considered an eligible Project expense to be reimbursed by the ETMD from Project funds. An estimate is required as outlined in 6.1.

(B) Trail Related Construction Inspection and Monitoring: GSGT's expense to monitor and/or inspect construction or excavation activities related to the Trail and as outlined in Section 3.3 shall be considered an eligible Project expense to be reimbursed by the ETMD from Project funds. An estimate is required as outlined in Section 6.1.

(C) Trail Design and Construction: All expenses associated with the design and construction of the Trail, except as noted herein, shall be considered an eligible Project expense and shall be paid by the ETMD from Project funds.

Section 4 - Endangering Condition

- 4.1 **Endangering Condition:** For the purpose of this Agreement, an "Endangering Condition" is one that in the reasonable judgment of GSGT threatens the physical integrity of the Pipeline, could interfere with the transmission of gas, or presents a threat to public safety or to the safety of GSGT's employees, agents or contractors or the safety of ETMD's personnel, its agents and contractors (hereinafter "Endangering Condition").
- 4.2 **Immediate Endangering Condition:** GSGT may immediately suspend or temporarily prohibit construction activities within and/or the use of the Trail across all of the Co-Location Area, or any portion thereof, and take immediate corrective action, if in the reasonable judgment of GSGT there is an Endangering Condition that presents an immediate or immanent threat of harm or injury. Upon such suspension, GSGT shall notify the ETMD that such action has been taken. GSGT shall not be responsible for any damage to the Trail that results from or occurs in connection with the corrective action(s) taken by GSGT, its employees, agents or contractors to address any such immediate Endangering Condition. GSGT's sole responsibility shall **be to restore its pipeline area** to the same grade as existed prior to installation of the Trail and to restore the trail base of any portions of the Trail affected by such corrective action(s) to substantially similar condition and grade as existed immediately prior to the corrective action. ETMD shall be responsible to restore the Trail surface and any related facilities, at its own cost and expense.
- 4.3 **Non-Immediate Endangering Condition:** If in the reasonable judgment of GSGT there exists an Endangering Condition that is the result of the use of the Trail or is created by the ETMD in its exercise of its rights within the Co-Location Area which does not present an immediate threat to the Pipeline, transmission of gas or public or GSGT employee(s) or its agents or ETMD personnel and its agents safety, GSGT shall require the ETMD to take corrective action by providing verbal and written notification of such Endangering Condition to the ETMD by certified mail, return receipt requested. The ETMD shall, within a reasonable time not to exceed 15 days, initiate action suitable to promptly correct or abate the Endangering Condition. Should the ETMD fail to initiate such appropriate corrective action within the prescribed period, then GSGT shall have the right, but not the obligation, under this Agreement to:
 - (A) Enter upon the Co-Location Area and take the actions that GSGT deems necessary to correct the Endangering Condition, and, thereafter, all reasonable expenses incurred by GSGT to take such corrective action shall be reimbursed to GSGT by the ETMD in accordance with Section 6; and/or
 - (B) Temporarily suspend access to that portion of the Trail affected by the Endangering Condition until such condition is corrected or sufficiently abated.

Section 5 - Operation, Maintenance and Repair of the Co-Location Area

- 5.1 **Vehicular Access to the Co-Location Area:** Vehicular access by ETMD to the Co-Location Area shall be limited and controlled as follows:
 - (A) Use of the Co-Location Area shall be limited to pedestrian and non-motorized vehicle access only, except as set forth below..

- (B) Vehicles of ETMD shall have access to all portions of the Trail as necessary to comply with the terms of this Agreement, and GSGT shall have the right, at any time it determines, to use the Trail for vehicular access in connection with operation of the Pipeline.
- (C) In accordance with plans provided to and approved by GSGT in writing, the ETMD will install gates and locking bollards along the Trail to control vehicular access. The ETMD shall provide GSGT with a key to unlock such gates and bollards. GSGT shall ensure that the gates and bollards are locked upon completion of access. The bollards shall be configured in a manner that prevents snow and debris from clogging the locking mechanism.
- (D) Nothing herein is intended to limit access to the Co-Location Area by GSGT, to include without limitation vehicular access to the Co-Location Area.

- 5.2 Public Access to the Project:** Upon completion of the Trail, it is the intent of the Parties hereto that the public will have access to the Trail. Public access to a portion of the Trail may be modified or prohibited as necessary during construction or maintenance activities. Public access to the Trail may immediately be prohibited by GSGT and/or ETMD in the event of an Endangering Condition as outlined in Section 4.
- 5.3 ETMD Maintenance, Upgrade or Repair:** ETMD shall be responsible, at its sole cost and expense, for all maintenance and repair associated with any portion of the Trail situated within the Co-Location Area. ETMD shall also be responsible, at its sole cost and expense for any excavation, replacement, material upgrade or addition of a component in connection with the Trail within the Co-Location Area, provided that any such action shall be made by the ETMD only upon prior, written notice to and approval by GSGT. The ETMD shall follow the same general provisions established for the initial construction/installation of the Trail as outlined in Section 3 of this Agreement.
- 5.4 GSGT Maintenance, Upgrade or Repair:** In the event that GSGT engages in any excavation, replacement, material upgrade or addition of a component to the Pipeline or related appurtenances thereto within the Co-Location Area, GSGT shall undertake reasonable restoration of any portion of the Trail or its components disturbed during any such work to the extent that it shall restore the Trail base, but GSGT shall not be responsible to restore the Trail surface or any facilities of ETMD placed on or near the Co-Location Area. GSGT will make efforts to provide prior notice to ETMD of such work in conformance with applicable provisions of this Agreement. Notwithstanding the foregoing, this section shall not apply to work undertaken by GSGT to correct an Endangering Condition, as outlined under Section 4, caused by the exercise of the rights granted to the ETMD for the use of the Co-Location Area and operation of the Trail.
- 5.5 Scheduled Maintenance, Upgrade or Repairs:** Except in the case of an immediate Endangering Condition, as outlined in Section 4, and whenever reasonably possible, the ETMD and GSGT shall schedule major maintenance, upgrade or repair projects in the Co-Location Area according to a mutually agreed upon schedule so that the impact(s) to the Trail and/or the Pipeline are minimized and efforts not duplicated. Under no condition will ETMD unreasonably withhold agreement that results in GSGT's inability to maintain its pipeline facilities in a timely and cost-effective manner.
- 5.6 Governing Approval:** It shall be the responsibility of each party respectively to obtain and maintain at their own cost and expense, all permits, licenses, and approvals required for construction, operation and maintenance of their facilities within the Co-Location Area as may be required by any federal, state, or local authority or by any governmental rules, statutes or regulations.
- 5.7 Snow Removal:** In order to maintain year-round access to its Pipeline and related transmission facilities, GSGT and its customers who take deliveries perform snow removal along the Co-Location Area. Such removal shall be the sole obligation and expense of GSGT or its customers and shall be performed as determined by GSGT or its customers in their sole discretion. GSGT shall request its employees, snow removal contractor, and customers that the blade of any plow vehicle used on the Trail shall be raised several inches to maintain a snow base on the trail. When feasible, snow removal should be done such that a portion of the width of the

Trail is left as is. This may minimize damage and provide a base for snow related trail usage, provided such base does not prohibit GSGT from safe and immediate access to the Pipeline and related appurtenances. GSGT shall require its snow removal contractor to close any gates opened and replace any bollards removed during snow removal upon completion of snow removal operations. GSGT shall request that its affiliates perform their snow removal in a similar manner.

Section 6 - Reimbursements

- 6.1 GSGT Related Reimbursements:** Federal and state regulations allow for the reimbursement of certain expenses incurred by a utility company as a result of work performed on or for the Trail. The following conditions shall apply to all reimbursement requests from GSGT:
- (A) All Project expenses are subject to review and final approval by MDOT in accordance with the MDOT/ETMD Project Agreements and are subject to all federal and state regulations.
 - (B) All Project expenses that GSGT and the ETMD anticipate must be outlined in advance and a written estimate provided to the ETMD that includes the following:
 1. Wage Reimbursement - Description of staff position, hourly rate, anticipated transportation, meals and lodging and the total number of hours required.
 2. Equipment Reimbursement - Material cost per item, direct labor cost to replace/repair, number of items required.
 - (C) The ETMD shall issue to GSGT written acceptance/approval of an estimate before it will be considered binding on the ETMD.
 - (D) Request for transportation, meals and lodging reimbursement must be based on federal allowances and are subject to Maine State maximums.
 - (E) Expenses related to the hiring or training of personnel are not eligible for reimbursement.
- 6.2 Reimbursement Procedure:** This section shall apply any time that there is an exchange of funds between the parties. The party requesting reimbursement shall submit an official invoice to the other. The invoice should include the total amount due, including a breakdown of the costs incurred such as material(s), labor, outside services and other information contained in the original estimate. Payment shall be due within 30 days from the receipt of the invoice. In the event that timely payment is not made, interest will be charged on the outstanding balance equal to one and one-half percent (1.5%) per month. Such interest shall accrue on unpaid amounts beginning on the payment due date and shall terminate when such invoice is paid. Such interest will not be payable if such failure to pay is the result of a bona fide dispute of any such charges or costs.
- 6.3 State and Federal Audits:** The parties hereto acknowledge that by receiving reimbursement from State or Federal funds for expenses, whether directly from MDOT or indirectly through the ETMD, they become subject to federal and/or state audits related to said reimbursement. Such audits may include, but are not limited to federal wage rates, estimates and final cost, maximums, Buy America and any other regulation tied to the use of federal and or state funds.

Section 7- Insurance & Mutual Indemnification

- 7.1 ETMD General Liability:** The ETMD shall procure and maintain, solely at its own cost and expense, comprehensive general liability insurance coverage including contractual liability thereunder, naming GSGT as an additional insured, with limits not less than Three Million Dollars (\$3,000,000.00) combined single limit for bodily injury (including death), personal injury and property damage (including loss of use) liability, subject to reasonable increases from time to time at the request of GSGT, with a deductible that shall be no more than ten thousand dollars(\$10,000.00). ETMD shall also obtain other forms of insurance as may be reasonably

requested by GSGT, including without limitation worker's compensation insurance and employer's liability insurance, all naming GSGT as an additional insured, in commercially reasonable amounts. Prior to commencing any work on or access to the Co-Location Area, the ETMD shall submit a certificate of insurance giving evidence of these required coverage amounts and indicating that GSGT is an additional insured. The ETMD shall be required to provide GSGT with a certificate of insurance, showing the required insurance coverage, on an annual basis in a form reasonably acceptable to GSGT. All insurance shall be procured from insurers authorized to do business in the State of Maine. Thirty (30) days prior written notice shall be given to GSGT in the event that coverage is substantially changed, canceled or not renewed.

- 7.2 **Contractor Damage:** ETMD or GSGT shall each cause their respective contractors to have adequate insurance or evidence of financial responsibility sufficient to correct and reasonably restore to the condition immediately prior to the damage incident any damages they may cause to the Trail and its components and the Pipeline and its components within the Co-Location Area.
- 7.3 **Mutual Indemnity:** To the extent not covered by Maine's Landowner's Liability Law at 14 M.R.S.A. Section 159-A, ETMD agrees to indemnify and hold harmless GSGT, its parent, subsidiaries and affiliates, from and against any claims, loss, cost, damage or expense, including reasonable attorneys' fees, suffered or incurred by GSGT arising from any negligent act or omission of the ETMD in connection with this Agreement and in connection with ETMD's exercise of the rights hereunder, and GSGT agrees to indemnify and hold harmless ETMD from and against any claim, loss, cost, damage or expense, including reasonable attorneys' fees, suffered or incurred by ETMD arising from any negligent act or omission of GSGT in connection with its use of the Trail.
- 7.4 **Title:** GSGT has made no representation of whatever nature and gives no covenant in connection with the title or condition of the Co-Location Area or any other property owned, controlled or utilized by GSGT, and ETMD accepts the Co-Location Area "as-is." Without limiting the foregoing, GSGT does not warrant or represent that it has sufficient interest in all or any part of the Co-Location Area for ETMD to exercise the rights described herein. GSGT shall not be liable for any latent or patent defects therein.
- 7.5 **Maine Landowner's Liability Law:** The ETMD and GSGT intend that the Maine Landowner's Liability Law, 14 M.R.S.A. Section 159-A shall apply to members of the public accessing the Trail for recreational purposes.
- 7.6 **Termination:** The provisions of this Section shall survive termination of this Agreement.

Section 8 - Notices

- 8.1 **Contact Persons:** In order to facilitate communication between GSGT and ETMD, each party will designate a contact person for communication necessary under this Co-Location Agreement, which notices shall be sent in accordance with the written notice provisions of this Co-Location Agreement as below.
- 8.2 **Addresses:** All notices, demands, requests or other communications which may be or are required to be given, served, or sent by one party to the other party pursuant to this Agreement shall be in writing and shall be mailed by first-class registered or certified mail, return receipt requested, postage prepaid, or sent by messenger or a recognized courier or overnight delivery service, addressed as follows:
 - (A) If to GSGT:
 Patty Quinn
 Land Department
 Unitil Service Corporation
 6 Liberty Lane West
 Hampton, NH 03842
 - (B) With a copy to:

Beverly Carver or Frank Callahan
Granite State Gas Transmission, Inc.
325 West Road
Portsmouth, New Hampshire 03801

- (C) If to Eastern Trails Management District (ETMD):
Ms. Carole Brush
Eastern Trails Administrator
P.O. Box 250
Saco, ME 04072

8.2 Change of Address: Either party may designate by notice in writing a new address to which any notice, demand, request or communication made thereafter shall be so given, served or sent.

8.3 Delivery: Each notice, demand, request or communication which shall be delivered in a manner described in this Section 8, shall be deemed sufficiently given, served, sent or received for all purposes at such time as it is delivered to the address set forth above as to each party (with the return receipt or the delivery receipt being deemed conclusive evidence of such delivery), or at such time as delivery is refused by the addressee upon presentation.

Section 9 - Dispute Resolution

- 9.1 Settlement of Disputes:** It is the intent of the parties that any disputes that may arise between them be resolved as quickly and informally as possible. Any agreement between the parties with respect to any dispute shall be in writing.
- 9.2 Enforcement:** Each party shall be liable for their own attorney's fees in litigating any matter arising between the parties concerning the enforcement or interpretation of this Co-Location Agreement.

Section 10 - Miscellaneous

- 10.1 Acknowledgement of Contingency:** ETMD and GSGT acknowledge that all of the obligations under this Agreement for initial construction of the Trail are contingent upon approval by MDOT of all design plans and Project costs. In the event that MDOT does not provide such approval and funds are withheld or reallocated, then ETMD shall notify GSGT of such state of affairs in writing, whereupon all obligations of GSGT incident to the Project shall cease, and ETMD shall reimburse GSGT for all costs expended by GSGT at the time GSGT is notified of such cancellation or postponement.
- 10.2 Severability:** If any one or more of the provisions contained in this Agreement, or the application thereof in any circumstance, is held invalid, illegal or unenforceable in any respect for any reason, the validity, legality and enforceability of any such provision in every other respect and of the remaining provisions of this Agreement shall not be in any way impaired, unless the provisions held invalid, illegal or unenforceable shall substantially impair the benefits or the remaining provisions hereof.
- 10.3 No Joint Venture:** By entering into this Agreement with the ETMD, GSGT is not hereby establishing any joint undertaking, joint venture or partnership with the ETMD their agents or contractors. Each party shall be deemed to be an independent contractor, and shall act solely for its own account.
- 10.4 Successors and Assigns:** This Agreement shall be binding upon and shall inure to the benefit of ETMD and GSGT, and each of their respective successors and assigns.
- 10.5 Merger:** It is understood and agreed that all understandings, agreements or representations, either oral or in writing heretofore between the Parties hereto, are superseded by this Agreement, which document alone fully

and completely expresses the Parties' agreement with respect to the matters covered hereby. This Agreement may not be modified in any manner except by a subsequent instrument in writing signed by ETMD and GSGT.

- 10.6 Counterparts:** This Agreement may be simultaneously executed in any number of counterparts, each of which when so executed and delivered shall be an original, but such counterparts shall constitute one and the same instrument.
- 10.7 Governing Law:** This Agreement, the rights and obligations of ETMD, and GSGT and any claims or disputes relating thereto, shall be governed by and construed in accordance with the laws of the State of Maine, except to the extent that such laws are preempted by federal law under the Natural Gas Act, 15 U.S.C. §§717, et seq., the Natural Gas Pipeline Safety Act, 49 U.S.C. §§ 60101, et seq., or the regulations promulgated pursuant thereto.
- 10.8 Scarborough Agreements:** Nothing in this Agreement shall affect the Scarborough Project Agreement, executed by ETMD and GSGT on January 20, 2004 and the Scarborough Co-Location Agreement, executed by ETMD and GSGT on April 29, 2004.
- 10.9 Lien Waiver:** ETMD and GSGT expressly waive and relinquish any rights that either of them may have pursuant to Maine's Mechanics Lien laws, 10 M.R.S.A. § 3251 et seq., to file or make in whatever manner a mechanics lien in any Registry of Deeds or Court against any property affected by or referred to in this Agreement, for any services, labor, or materials supplied by ETMD or GSGT. ETMD and GSGT expressly agree that this provision is supported by adequate consideration.

Notwithstanding the foregoing, ETMD covenants to promptly pay when due the entire cost of all work done in connection with the Project and in connection with any and all on-going maintenance and repair, or in connection with any future upgrade or replacement of the Trail as permitted hereunder, and shall keep the land owned or controlled by GSGT, including such portions situated within the Co-Location Area, free of all liens for labor and materials arising therefrom or related thereto. Should a mechanic's or materialmen's lien, or other lien arising from the exercise of ETMD's rights hereunder, be filed against any land owned or controlled GSGT, including land situated within the Co-Location Area, ETMD shall pay, bond or obtain a release or discharge of such lien within 10 days of receiving notice of such lien. If such lien is not paid promptly or otherwise satisfied, GSGT shall have the right, at its option, to pay such lien, and ETMD shall promptly reimburse GSGT upon demand, together with expense, charges, interest and attorneys' fees.

IN WITNESS WHEREOF, the parties hereof have executed this instrument acting through their duly authorized representatives as of the day and year first above written.

Seen and agreed to.

GRANITE STATE GAS TRANSMISSION, INC.

*By: [Signature]

Name: MARK H. COLLIN

Title: TREASURER

Date: MAY 13, 2009

State of New Hampshire

County of Rockingham

May 13, 2009

Thence personally appeared the above-named Mark H. Collin, as aforesaid, who acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of Granite State Gas Transmission, Inc.

SANDRA L. WHITNEY
Notary Public - New Hampshire
My Commission Expires March 9, 2010

Before me, [Signature]
Notary Public/Attorney at Law
Printed Name: Sandra L. Whitney
My commission expires: 3/9/10
Title:

Seen and agreed to:

EASTERN TRAIL MANAGEMENT DISTRICT

By: [Signature]

Name: Robert H. Hamblen

Title: President

Date: May 18, 2009

State of Maine
County of York

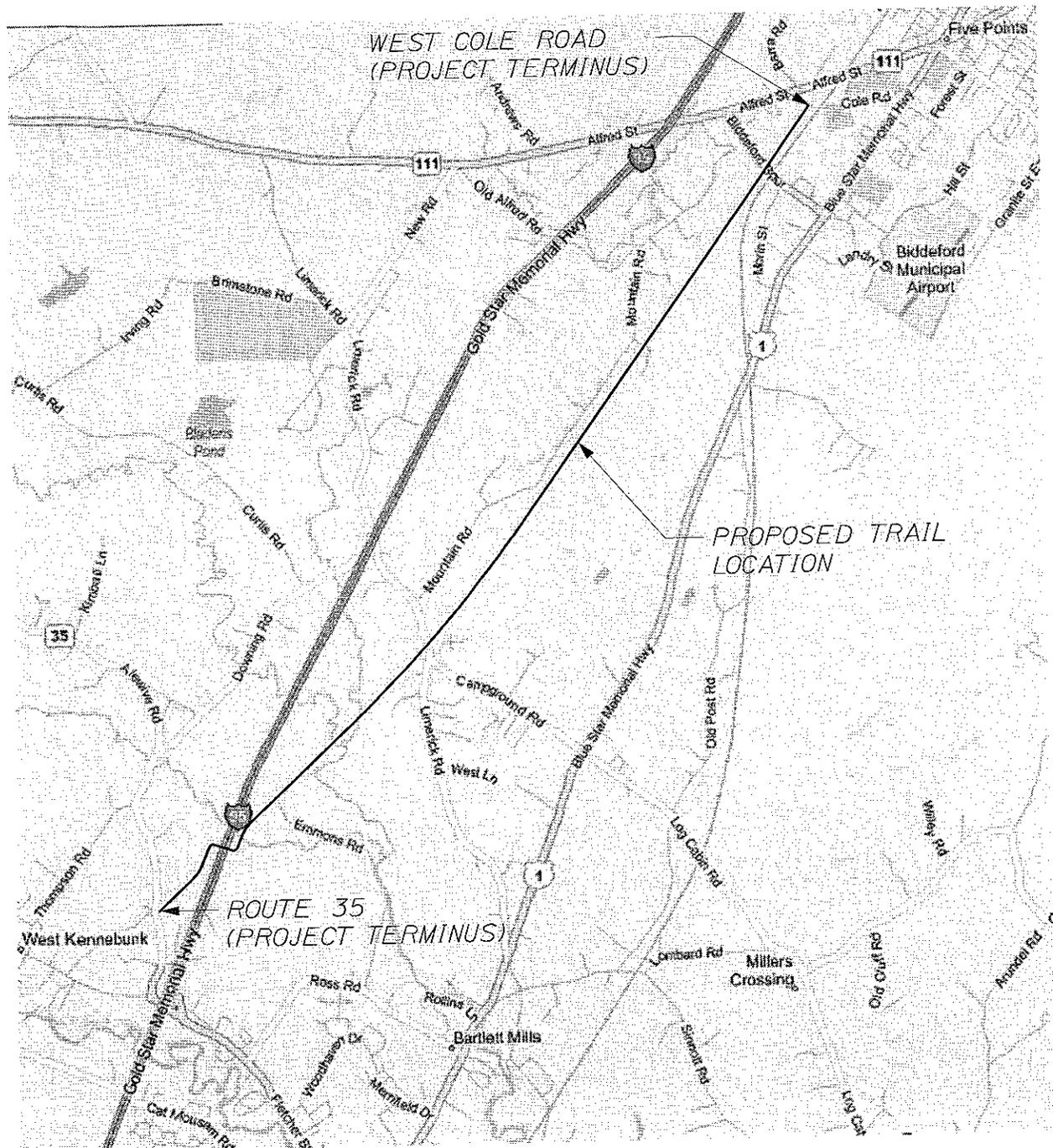
May 18, 2009

Thence personally appeared the above-named Robert H. Hamblen, as aforesaid, who acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of the Eastern Trail Management District.

Before me, [Signature]
Notary Public/Attorney at Law
Printed Name:
My commission expires:
Title:

LUCETTE S. PELLERIN
Notary Public, Maine
My Commission Expires: July 12, 2009

Exhibit A: ETMD Project Location Map, Kennebunk-Arundel -Biddeford



PROJECT LOCATION MAP

APPENDIX A
MINIMUM GUIDELINES FOR CONSTRUCTION

Granite State Gas Transmission, Inc.
Minimum Guidelines For Construction Activities In The Vicinity Of Gas Pipelines

Granite State Gas Transmission Co.'s (GSGT) minimum guidelines for construction activities are intended to ensure the safety of the public and preserve the integrity of GSGT's facilities. GSGT will cooperate to the extent possible in the use of property in the vicinity of its facilities, but to protect public safety and assure the nation's continuous supply of energy deliveries, GSGT cannot allow its facilities and attendant property rights to be compromised.

To minimize conflicts and delays, property owners and developers are encouraged to consult GSGT in the design phase of their project and receive acknowledgement of their construction plans before obtaining zoning permits and committing to construction schedules.

Construction

No construction or excavation activities of any kind, including blasting, shall be done on GSGT's right of way area before GSGT personnel have established the actual location of all affected facilities and the limits of the ROW area. GSGT personnel must be present during any construction or excavation activities.

Notification

GSGT must be notified according to the state one-call regulations before construction begins in the vicinity of its facilities. This notification shall be made through the appropriate state one-call notification service, but follow up contact should be made with the local GSGT office.

Excavation in the vicinity of pipelines/buried facilities

No excavation shall be made on the pipeline right-of-way without prior notification to GSGT through the state one-call notification service. Subsequent follow-up must be made to GSGT to seek approval for the proposed construction. Approved excavations that are done above, below or within three-feet of either side of the pipeline shall be dug using hand tools.

Crossing pipelines with heavy equipment

To adequately protect GSGT pipelines from potential damage by heavy equipment crossing the right-of-way, GSGT may require heavy equipment operators to install mats, dirt pads, or other approved protective materials. All proposed road crossings of buried facilities must be evaluated by GSGT personnel. The additional over-burden must be removed after construction unless otherwise directed by GSGT personnel.

Blasting

Any blasting proposed within 300 feet of GSGT facilities must have prior written acknowledgement by GSGT. Acknowledgement must be requested by submitting a blasting

APPENDIX A
MINIMUM GUIDELINES FOR CONSTRUCTION

plan for evaluation by GSGT personnel. Any modifications to the blasting plan must be acknowledged by GSGT in writing. The blasting contractor may be required to monitor and record seismic shock at the facilities.

Directional Drilling or Boring

When directional drilling or boring is proposed under GSGT's pipelines or buried facilities, contractors shall submit plans to GSGT for review. Adequate clearance must be maintained from GSGT's facilities and additional excavations may be required to ensure adequate clearance. As built plans are required for all borings.

Operating Area of Storage Wells

In order to safely and efficiently operate and maintain GSGT's natural gas storage fields, GSGT requires up to 300-foot or larger clear area around each well. Accordingly, the company requires notification of, and reserves the right to object to, any proposed above-ground or below-ground construction activities or placement of objects closer than 300 feet in any direction of a wellhead.

Rights-of-Way

The requirements listed below are minimum standards that GSGT requires for construction in the vicinity of its pipeline rights-of-way to protect public safety and the integrity of its facilities. A review of individual plans and property rights may reveal more specific requirements.

1. The existing cover over pipelines, which is normally 36-inches, shall be maintained. The minimum earth cover over pipelines at all street and road crossings, including the adjacent ditch line, shall be 36-inches; 60-inches minimum cover shall be maintained at stream and river crossings.
2. Above ground or below ground structures or obstructions of any type shall not be placed within the easement area of any pipeline, which is generally 25 feet each side of the pipeline.
3. Pipeline easements shall not be shared longitudinally with other utilities. All water valves, curb boxes, manholes, etc. must be outside the easement. Other utilities which cross GSGT pipelines must do so at or as near 90 degrees as practical and with a minimum of 12-inches vertical clearance. Any crossing not installed below GSGT's pipelines must have prior written consent from GSGT. Cable or wire utilities must be in conduit the full width of the easement. For safety reasons, all electric and fiber optic lines crossing GSGT's pipelines shall be surrounded with a minimum of six inches of concrete for the full width of the right-of-way. Metallic warning flags shall also be buried above all cable, wire utility, or fiber optic lines crossing a TCO Right-Of-Way. All crossings must be approved by GSGT before installation begins.
4. Roads shall cross pipelines at or as near 90 degrees as practical, but at angles not less than 45 degrees. The entity constructing the street must pay for any measures required by GSGT to protect its pipeline(s). Such protective measures shall be designed and/or approved by GSGT personnel.

APPENDIX A
MINIMUM GUIDELINES FOR CONSTRUCTION

5. Paved areas, such as parking lots, shall not be allowed over the easement unless the pavement can be altered so as not to impact the safe and reliable operation and maintenance of GSGT's pipeline. Concrete paving in GSGT's right-of-way is prohibited. Consequently, all plans for pavement within a GSGT right-of-way must be submitted and acknowledged by GSGT personnel before paving can begin.
6. Septic tanks and leach fields should be placed so they drain away from the pipeline where practical. In no case shall they be placed in the easement area.
7. The right-of-way may be planted in lawn and small shrubs (less than 5 feet tall) or may be used for normal agricultural purposes. However, shrubs will not be allowed within 5 feet each side of the pipeline. Shrubs greater than 5 feet tall and trees, including fruit or nut bearing trees of any kind, are prohibited within the right-of-way.
8. Fences that block visual inspection or interfere with access to GSGT's facilities are prohibited within GSGT rights-of-way. Fences permitted by GSGT to cross its rights-of-way must be designed with 12-foot gates centered on the pipelines and must cross at or as near to 90 degrees as possible.

SPECIAL PROVISION 105
CONSTRUCTION AREA

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

- (a) In York County, Project No. 13341.00 is an Off Road Trail located from Rt. 111 in Biddeford to Rt. 35 in Kennebunk.

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

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

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

SPECIAL PROVISION 105
OVERLIMIT PERMITS

Title 29-A § 2382 MRSA Overlimit Movement Permits.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Section History:

PL 1993, Ch. 683, §A2 (NEW).

PL 1993, Ch. 683, §B5 (AFF).

PL 1997, Ch. 144, §1,2 (AMD).

PL 1999, Ch. 117, §2 (AMD).

PL 1999, Ch. 125, §1 (AMD).

PL 1999, Ch. 580, §13 (AMD).

PL 2001, Ch. 671, §30 (AMD).

PL 2003, Ch. 166, §13 (AMD).

PL 2003, Ch. 452, §Q73,74 (AMD).

PL 2003, Ch. 452, §X2 (AFF).

SPECIAL PROVISION
SECTION 105
General Scope of Work
(Limitations of Operations)

Contractor will be allowed to commence work and end work daily according to the Department of Marine Resources Sunrise/Sunset Table at the following Web address (http://www.maine.gov/dmr/sunrise_table.htm). Contractor will be allowed to enter roadway at Sunrise and must be off the roadway before Sunset. "Any work conducted outside these times will require that the contractor provide appropriate lighting and safety attire for their employees in compliance with the MUTCD."

SPECIAL PROVISION
SECTION 106
QUALITY
(Quality Level Analysis- Structural Concrete)

106.7.1 Standard Deviation Method Under H. Replace the Method A payfactor with the following;

“Method A: $PF = [32.5 + (\text{Quality Level} * 0.75)] * 0.01$ ”

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, 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 107
TIME

107.1 Contract Time and Contract Completion Date

This Subsection is amended by the addition of the following:

Work on the site shall be completed by November 19, 2010.

107.1.1 Substantial Completion

This Subsection is amended by the addition of the following:

Substantially complete shall be defined by the Department as having all Contract work complete and all side slopes shall be stabilized with loam, seed and mulch.

107.4.6 Prosecution of Work

The following activities must be completed by the date specified:

- Bridge Embankments 1 and 2, including: final slope treatment; surcharge; installation of the 60" stream culvert; and installation of the two 18" roadside ditch culverts, shall be constructed by **October 13, 2009**. Limits of Embankment 1 are from Station 5001+75 to Station 5006+25. Limits of Embankment 2 are from Station 5007+86 to 5013+75.
- The surcharge must remain in place for a minimum of eight months. The required surcharge period may be shortened or lengthened based on the actual rate of settlement achieved. If the required surcharge period is lengthened, subsequent project milestone dates, with the exception of the in-stream work window, will be adjusted by an equivalent length of time.
- The proposed trail between Embankment 2 and the south side of the Kennebunk River bridge (Station 5013+75 to 4612+94) shall be constructed by **October 13, 2009**, if access from the Maine Turnpike is needed for this work. See Subsection 107.4.7 for Emmons Road access restrictions.
- Construction of the trail between Route 35 and Embankment 1 (Station 4539+15 to 5006+25) shall be complete by **September 10, 2010**. Surcharge material removed from Embankment 1 after the surcharge period, shall be utilized in this construction. Surcharge material shall meet the trail typical section requirements.
- Project shall be substantially complete by September 24, 2010. Substantial completion is defined in Subsection 107.1.1.

Supplemental liquidated damages of Five Hundred (\$500.00) Dollars per calendar day per activity shall be assessed for each calendar day that any of the above noted activities remain incomplete. The assessments shall continue until the activities are complete.

107.4.7 Limitations of Operations

The Contractor's limit of disturbance shall be the proposed slope limit line or the clearing limit line, if applicable.

Access to the work area from the Maine Turnpike is restricted. Refer to Section 652 (Maine Turnpike Authority Facilities) and Appendix B for specific Maine Turnpike Authority requirements.

The following work activities shall take place during the In Stream work window defined by the Army Corps of Engineers and Maine Department of Environmental Protection, which is July 15 to October 1, inclusive.

- Work in the Kennebunk River related to bridge construction
- Proposed culvert at STA. 5005+66.
- Fish weir at STA. 4551+40.
- Stream Transition at Maine Turnpike (off site).
- Stream Relocation STA 4539+92 to STA 4551+55.

Two existing bridges on Emmons Road have weight restrictions. The first is posted for a maximum of 15 tons and the second is posted for a maximum of 3 tons. Vehicles weighing more than 15 tons and 3 tons respectively are prohibited from crossing the bridge. This restriction is not temporary and the Contractor shall plan access accordingly.

Contractor's equipment for proposed construction shall be coordinated with Unitil in accordance with Appendix A.

APPENDIX B
MAINE TURNPIKE AUTHORITY SPECIFICATIONS

Appendix B is a summary of the requirements for the Contractors working within the Maine Turnpike Authority Right of Way. This includes accessing the work area directly from the Turnpike. For the purposes of this Appendix, the Maine Turnpike owned roadway includes I-95 mainline, the northbound and southbound on and off ramps at Interchange 25 and the Mile 25 Service Plaza.

The sections of Appendix B are additions and alterations to the Maine Department of Transportation Standard Specifications.

For this Appendix all references to the Maine Department of Transportation shall also refer to the Maine Turnpike Authority unless otherwise stated.

DIVISION 100 – GENERAL CONDITIONS

101.2 Definitions

The following definitions are added or revised:

Holidays - The following are extended to include the Holiday Period:

<u>HOLIDAY</u>	<u>HOLIDAY PERIOD</u>
Martin Luther King Day	12:01 a.m. (Midnight) to 11:59 p.m. Martin Luther King Day.
President’s Day	12:01 a.m. (Midnight) preceding Friday to 12:01 p.m. following Tuesday.
Easter	12:01 a.m. (Midnight) preceding Friday to 12:01 p.m. following Monday.
Memorial Day	12:01 p.m. preceding Thursday to 6:00 a.m. following Tuesday.
Fourth of July, 2009	12:01 p.m. preceding Thursday to 6:00 a.m. following Tuesday.
Fourth of July, 2010	12:01 p.m. preceding Thursday to 6:00 a.m. following Tuesday.
Labor Day	12:01 p.m. preceding Thursday to 6:00 a.m. following Tuesday.
Columbus Day	12:01 a.m. (Midnight) preceding Friday to 12:01 p.m. following Tuesday.

Veterans' Day	12:01 a.m. (Midnight) to 11:59 p.m. Veterans' Day.
Thanksgiving Day	12:01 a.m. (Midnight) preceding Wednesday to 12:01 p.m. following Monday.
Christmas 2009	12:01 p.m. preceding Thursday to 6:00 a.m. following Tuesday.
New Years 2010	12:01 p.m. preceding Thursday to 6:00 a.m. following Tuesday.

Resident – The Maine Turnpike Authority's duly authorized representative.

Working Day - The Contractor shall not work during the period from 1/2-hour after sunset to 1/2-hour before sunrise, unless otherwise required by the contract or approved by the Resident.

If, after approval, Work is performed on a Saturday, Sunday, or a holiday, the day shall be considered a Working Day.

104.3.11 Responsibility for Property of Others

This Subsection is amended by the addition of the following:

The Contractor shall respond to all damage claims in writing, within 30 days, to the party making a damage claim. The response shall state that the Contractor accepts responsibility for the damage or outlines the reasons why the claim has been denied. If the Contractor has turned the claim over to their insurance agent or carrier, the name of the agent or carrier, along with the contact person, address and telephone information shall be included in the response to the claimant and a copy to the Authority. A standard form letter denying the claim without an explanation of the situation shall be unacceptable. A copy of the response letter shall be submitted to the Authority within the 30 day response time. The Authority shall review the response letter and will determine if the Contractor has replied in a responsive manner. If the Authority does not receive a response letter or action report from the Contractor within the 30 day response time, the Authority will determine if the Contractor is responsible for the claimed damage. If, in the absence of the Contractor's response or action report, the Authority deems the claim to be valid, the Authority will at its option pay the damage claim and deduct the amount of the claim from the Contractor. The Contractor will not be entitled to recoup these funds if their response was not transmitted within the 30 day response time. The Authority will not intervene in any claim actions where the Contractor's insurance carrier is conducting a valid, ongoing claim investigation.

104.4.7 Cooperation With Other Contractors

This Subsection is amended by the addition of the following:

The Contractor shall cooperate with the Maine Turnpike Authority and all Maine Turnpike Authority Contractors. The Authority reserves the right to conduct maintenance operations and to erect and remove traffic control devices as deemed necessary by the Authority or the Resident within or adjacent to the Project.

105.4.1 Maintenance During Construction

This Subsection is amended by the addition of the following:

Paved Surface - The Contractor is responsible for maintaining the existing paved shoulder, ramps, and travel lanes on the Maine Turnpike in good condition. The presence of tracked dirt on the paved surfaces is unacceptable. The Resident shall have the sole authority to determine the acceptability of the paved surfaces. The use of stabilized construction entrances and frequent sweeping are the responsibility of the Contractor. This work shall be incidental to the contract and no separate payment shall be made. Failure to keep the shoulders, ramps and travel lanes clear of tracked-mud will result in termination of permission to access the project from the Maine Turnpike.

Signs and Delineators - The Contractor is responsible for maintaining all mile markers, delineators, and signs including regulatory, warning, and guide signs during construction. Maintenance of signs shall mean that signs are clearly visible to motorists at the required height during construction. These items shall be kept in their existing location as long as is practicable. At no time shall any signs not be visible to the driver. Construction material or equipment shall not obscure signs. This work shall be incidental to the contract and no separate payment shall be made.

105.4.3 Maintenance During Winter Construction

This Subsection is amended by the addition of the following:

The Maine Turnpike Authority will be responsible for winter maintenance including snow removal and application of salt on Maine Turnpike pavement open to traffic.

105.5.1 General Requirements

This Subsection is amended by the addition of the following:

Temporary Toll Free Passage on the Turnpike

The Contractor shall be granted free use of the Turnpike for movement of vehicles, labor and equipment and for delivery of material essential to the Work during the construction of Embankments 1 and 2 as defined in Subsection 107.4.6. The Contractor will be issued ten

(10) cards with the Contract Number and Contractor Name while working on the Project. The cards shall be transferable and distributed by the Contractor to employees and vehicles working on the Project. The cards may only be used while working on the Project designated on the cards. Such free use shall be limited to the portion of the Turnpike between the site of the Work and the nearest practicable exit including movement of vehicles, labor, equipment and materials from one site to another Work site. All vehicles must stop at a manned lane at the toll plazas to present the cards to the toll attendant. Vehicles without the required cards shall pay the required toll. This shall not be a reimbursable expense. All cards shall be returned to the Resident at the completion of the Project. The use of the cards for toll free travel shall be revoked if the cards are misused. The Contractor shall nevertheless comply with regulations of the Authority relating to use of the Turnpike and with established controls for non-revenue vehicles.

Construction Access From The Maine Turnpike (I-95)

The Contractor may access the project area from the Maine Turnpike at locations approved by the Resident. The Contractor shall construct a stabilized construction entrance in accordance with the Best Management Practices at any location where construction vehicles will enter/exit the Maine Turnpike mainline and/or enter the existing paved shoulder from a non-paved area. All costs associated with the access, including but not necessarily limited to, the construction, restoration, and stabilized construction entrance, shall be the responsibility of the Contractor. If guardrail needs to be removed in order to gain access, the blunt end of guardrail shall be protected by an approved crashworthy end treatment meeting NCHRP 350 Test Level 3.

The Contractor will be allowed to construct one access from the northbound roadway and one access from the southbound roadway. The proposed access locations shall be determined by the Contractor and approved by the Resident.

The Contractor shall not impact wetlands or streams to construct access, with the exception of wetlands within the proposed trail embankment footprint. On the east side of the Maine Turnpike, the access shall not be constructed within Unitil's right-of-way. On the west side of the Maine Turnpike, the access shall be a minimum of 20' from the gas line. The 20' offset shall be marked in the field to delineate this requirement.

If the Contractor removed a portion of guardrail to gain access, upon completion of the project, the guardrail shall be restored to its original condition. The stabilized construction entrance shall remain in place for use by the adjacent bridge Contractor.

The Contractor shall keep the existing mainline shoulders clear of construction activity. The Contractor shall not park or store construction equipment, vehicles, or materials on the shoulder. Construction vehicles shall not enter the mainline travel lane until they can safely merge with the traffic in the travel lane. The construction access shall be in accordance with the details in the Plans.

Refer to Special Provision 652 for specific maintenance of traffic requirements on the Maine Turnpike.

Change of Direction

The Contractor will not be permitted to reverse directions (U-turns) at the toll plazas or at interchanges. All vehicles must exit the Turnpike prior to reversing directions.

The Contractor shall not use the median openings on the Turnpike. The Contractor will be assessed a fine every time any employee of the Contractor, Subcontractor or Supplier is observed using a median opening by a Resident or Turnpike employee anywhere on the Maine Turnpike during the duration of the Contract. The fine will be deducted from monies owed to the Contractor.

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

<u>NUMBER OF OCCURRENCES</u>	<u>FINE</u>
First	\$100

For the second occurrence, and any occurrence thereafter, the fine is increased by \$100 per each occurrence. The number of occurrences is not specific to a Contract, an individual or a vehicle, but based solely on the number of times any employee of the Contractor, Subcontractor or Supplier is observed using a median opening anywhere on the Maine Turnpike. The Contractor shall be notified in writing of the violation by the Authority.

107.3.3 Sundays and Holidays

This Subsection is amended by the addition of the following:

“Saturday” is added before Sunday.

Requests to work outside of the allowable periods must be submitted in writing and approved by the Resident prior to the start of Work. Approval for Work that in the Authority’s opinion will not significantly impact traffic flow will not be unreasonably withheld.

107.4.2 Schedule of Work Required

This Subsection is amended by the addition of the following:

In addition to the Schedule required hereinbefore, the Contractor shall submit, no later than 12:00 p.m. (noon) every Thursday, a detailed plan of his operations for the following week. This plan shall show the type of Work to be done and the traffic lanes that

are to be impacted. This updated plan will be used by the Resident to schedule the appropriate resources and inform other interested parties of the proposed Work.

110.1 Indemnification.

This Subsection is amended by the addition of the following:

“and Maine Turnpike Authority” is added after “Department” in the first sentence.

110.3.2 Commercial General Liability

This Subsection is amended by the addition of the following:

“and Maine Turnpike Authority” is added after “Department” in the third sentence.

110.3.8 Administrative & General Provisions.

A. Additional Insured. This section is amended by the addition of the following:

“and Maine Turnpike Authority” is added after “Department of Transportation” in the first sentence.

SPECIAL PROVISION
SECTION 209
WICK DRAINS
(prefabricated vertical drains)

Description. This work shall consist of furnishing all necessary plant, labor, equipment, and materials, and performing all operations for the installation of prefabricated vertical (PV) drains in accordance with the details shown on the plans and with the requirements of these specifications. The drains shall consist of a band-shaped plastic core enclosed in a suitable jacket material and shall be spaced and arranged as shown on the plans, or as otherwise directed by the Engineer. The work shall include installing PV drains through up to 3 ft. of aggregate subbase course gravel which will be placed as a working surface, and penetrating to a minimum depth of 3 ft. below the bottom of the marine silty clay stratum or to mandrel refusal below the marine silty clay.

MATERIALS

PV Drain - General. The PV drain shall consist of a core enclosed in a geotextile jacket. The jacket shall allow free passage of pore water to the core without loss of soil material or piping (i.e., jacket shall have a range of openings to perform similar to a graded filter). The core shall provide continuous vertical drainage. The drain shall be band shaped with a width to thickness ratio of 10 or more.

The quality of the jacket and core materials shall not deteriorate over an extended period of time and shall be resistant against wet rot, mildew, bacterial action, insects, salts in solution in groundwater, acids, alkalis, and solvents. The jacket and core materials shall be environmentally safe.

PV Drain - Jacket.

The jacket shall be commercially available, non-woven polypropylene filter fabric acceptable to the Engineer.

The jacket material shall not be subject to localized damage (e.g., punching through the filter by sand/gravel particles). The jacket material shall be sufficiently rigid to withstand lateral earth pressures to the maximum project installation depth so that the vertical flow capacity through the core channels will not be adversely affected.

The jacket material shall be sufficiently flexible to bend smoothly during induced consolidation settlement without structural breakage. The function of the drain shall not be affected due to the lateral movements which will likely accompany large settlements. The jacket material shall not undergo cracking and peeling during installation of the drain.

The jacket material shall conform to the following specifications:

<u>Item</u>	<u>Test Designation</u>	<u>Requirement (Minimum)</u>
Grab Tensile Strength	ASTM 4632	135 lbs.
Elongation at Break	ASTM 4632	30%
Mullen Burst Strength	ASTM 3786	175 psi

- * The jacket material shall be tested in saturated and dry conditions. These requirements apply to the lower of the two tested conditions.

The jacket should have a minimum permeability of 1×10^{-5} cm/sec when tested according to the ASTM D4491.

PV Drain - Core.

The core shall be a continuous plastic material fabricated with suitable drainage channels. The core shall be in physical contact with the jacket, but should not be continuously bonded to the jacket.

The core material shall conform to the following specifications:

<u>Item</u>	<u>Test Designation</u>	<u>Requirement (Minimum)</u>
Tensile Strength	(Uniaxial	200 lbs.
Elongation at Break	extension)	10%

- * The core material shall be tested in saturated and dry conditions. These requirements apply to the lower of the two tested conditions.

The mechanical properties of the assembled PV drain shall equal or exceed those specified for the component jacket and core.

Splicing of the jacket and core shall not directly coincide. Necessary splices should be adequately offset to provide structural and hydraulic continuity.

A single type of assembled drain shall be used on the project unless otherwise approved by the Engineer.

The assembled drain shall have a minimum discharge capacity of 1.3 gal./min. as determined by ASTM D4716.

The assembled drain shall have a minimum equivalent diameter of 2.56 in. using the following definition of equivalent diameter:

$$d_w = \frac{2(a+b)}{\pi}$$

d_w = equivalent diameter of a circular drain

a = drain thickness

b = drain width

Each material roll shall be labeled or tagged in such a manner that the information for sample identification and other quality control purposes can be read from the label. As a minimum, each roll shall be identified by the manufacturer including lot or control numbers, individual roll number, date of manufacture, and manufacturer and product identification of the component parts (jacket and core).

Material which is damaged during shipment, unloading, storage, or handling at the job site and which does not meet the minimum requirements of the drain material shall be rejected by the Engineer. No payment of any kind shall be made for rejected drain materials.

Material shall be stored on site under protective cover to minimize possible damage due to sunlight, general weather conditions, and other site conditions.

The actual type of PV drain installed will be at the option of the Contractor subject to the approval of the Engineer.

SUBMITTALS

The Contractor shall submit for approval to the Engineer within two weeks after the award of the contract manufacturer's literature documenting the physical and mechanical properties of the drain (as a minimum those properties required by the specifications), a list of other similar projects where the proposed drain has been installed, and a sample of the drain material at least 10 feet long.

At least four weeks prior to the installation of the PV drains, the Contractor shall submit to the Engineer for review details of the sequence and method of installation including information on the installation rig, penetration method, mandrel and anchor, method of splicing, method for clearing obstruction, and source of material. Review by the Engineer shall not relieve the Contractor of his responsibility to install drains in accordance with these specifications.

CONSTRUCTION REQUIREMENTS

The Contractor shall submit for approval to the Engineer the proposed source of the materials prior to delivery to the site. The Contractor shall also retain a supplier's purchase certificate to verify the type and physical characteristics of the drain to be used.

During construction, individual test samples shall be cut from at least one product roll selected at random. Individual samples shall be no less than 10 ft. in length and shall be full width. Samples submitted for tests shall indicate the linear feet of drain represented by the sample. The total footage represented by the sample shall not be used until the Engineer has accepted the sample (verified physical dimensions, manufacturer, drain designation, and manufacturers' certification of physical and chemical properties).

Should any individual sample selected at random fail to meet any specification requirement, then that roll shall be rejected and two additional samples shall be taken at random from two other rolls representing the shipment. If either of these two additional samples fail to comply with any portion of the specification, then the entire quantity of vertical drain represented by that sample shall be rejected.

PV drains shall be installed with approved modern equipment of a type which will cause a minimum of disturbance of the subsoil during the installation operation and maintain the mandrel in a vertical position.

Drains shall be installed using a mandrel or sleeve which shall be inserted (i.e., pushed hydraulically, or vibrated into the soil). The mandrel or sleeve shall protect the drain material from tears, cuts, and abrasion during installation, and shall be retracted after each drain installed. The mandrel or sleeve shall be provided with an "anchor plate" or "rod" (or similar arrangement) at the bottom to prevent the soil from entering the bottom of the mandrel during the installation of the drain and to anchor the bottom of the drain at the required depth at the time of the removal of the mandrel.

The dimensions of the anchor shall conform as closely as possible to the dimensions of the mandrel so as to minimize soil disturbance.

In the preparatory stage of installation and prior to the installation of PV drains, the Contractor shall:

- a. Remove any surface obstructions present at the location of proposed drains,
- b. Conduct site stripping and site grading as required,
- c. Provide access to the site for the installation equipment as required.

PV drains will be located, numbered, and staked out by the Contractor. The Contractor shall take all reasonable precautions to preserve the stakes and is responsible for any necessary re-staking. The as-installed location of the PV drains shall not vary by more than six inches from the design locations.

PV drains that are out of proper location by more than six inches or are damaged or improperly installed will be rejected. Rejected drains may be removed or abandoned in place, at the Contractor's option.

PV drains shall be installed from the working surface at the time of installation, and shall penetrate through up to 3 ft. of aggregate subbase course gravel which will be placed as the working surface. PV drains shall penetrate to a minimum depth of 3 ft. below the bottom of the marine silty clay stratum or to mandrel refusal below the marine silty clay, unless otherwise directed by the Engineer. The Contractor shall review the logs of test borings which were drilled near the required prefabricated vertical drain limits for information regarding depths to the bottom of the marine clay stratum and other subsurface information. The Engineer may vary the depths, spacings, or the number of drains to be installed, and may revise the plan limits for this work, as necessary.

During installation of the PV drain, the Contractor shall provide suitable means of determining the depth of the advancing drain at any given time.

The Contractor shall supply the Engineer with suitable means of determining the quantity of PV drain installed at each location.

The Contractor shall supply to the Engineer at the end of each working day a summary of the PV drains installed that day. The summary shall include drain type, locations, and length of PV drain installed at each location.

The Contractor shall be responsible for penetrating overlying material as necessary to satisfactorily install the PV drains including removing obstructions.

The Contractor's obstruction clearance procedure is subject to the review of the Engineer. However, such review shall not relieve the Contractor of the responsibility to clear obstructions in accordance with these specifications.

If obstructions are encountered below the working surface which cannot be penetrated by the drain installation equipment or the Contractor's preaugering or other obstruction clearance procedure, the Contractor shall notify the Engineer prior to completing the drain from the elevation of the obstruction to the working surface and prior to installing any more drains. At the direction of the Engineer, the Contractor shall attempt to install a new offset drain including obstruction clearance procedures within two (2) feet horizontally of the obstructed drain. For all obstructed and offset drains, a maximum of two attempts shall be paid at the contract unit price unless the drain is improperly completed. The Contractor will be paid at the contract unit price for the linear feet of attempted obstructed and offset drains as directed by the Engineer.

Splices or connections in the PV drain material shall be done in a workmanlike manner and so as to ensure structural and hydraulic continuity of the drain. A maximum of one splice per installed drain will be permitted, unless specific permission is granted by the Engineer. Splicing shall be performed in advance of the mandrel insertion so that the mandrel penetration is not stopped during the installation of a drain above the design level for the sole purpose of splicing the drain.

The PV drain shall be anchored using a friction anchor or dead weight anchors to prevent pulling the drain out of the soil as the mandrel is withdrawn. The anchorage system should minimize disturbance of the surrounding soil. The Engineer shall determine whether the anchorage system and procedure is acceptable.

Equipment for installing PV drains shall be plumbed prior to installing each drain and shall not deviate from vertical more than 0.2 feet in 10 feet during installation of any drain.

PV drains shall be installed using a continuous push under the static weight of the equipment.

The mandrel shall be advanced in such a manner as to advance the drain in a continuous manner to the depths required, without any damage to the drain during advancement or retraction of the mandrel. In no case will alternate raising or lowering of the mandrel during advancement be permitted. Raising of the mandrel will only be permitted after completion of a drain installation. Installation techniques requiring driving will not be permitted.

The mandrel penetration rate shall be between 0.5 and 2 feet per second.

The completed PV drain shall be cut off neatly 0.5 feet above the working grade.

The Contractor shall observe precautions necessary for protection of any field instrumentation devices. After instrumentation devices have been installed, the Contractor shall replace, at his own expense, any equipment (instrument) that has been damaged or becomes unreliable as a result of his operations.

Method of Measurement. PV drains will be measured by the linear foot. The length of PV drains to be paid for shall be the distance the installation mandrel tip penetrates below the working grade. All measurements shall be rounded to the nearest whole foot.

PV drains placed in excess of the length as specified herein will not be paid for unless the additional length was authorized by the Engineer prior to or during the drain installation.

Basis of Payment. Payment for PV drains shall be made at the contract unit price per linear foot, which price shall be full compensation for the cost of furnishing the full length of PV drain material, installing the PV drain, altering of the equipment and methods of installation in order to produce the required end result in accordance with the contract drawings and specifications, and shall also include the cost of furnishing all tools, materials, labor, equipment and all other costs necessary to complete the required work.

No direct payment shall be made for unacceptable PV drains, or for any delays or expenses incurred through changes necessitated by improper or unacceptable material or equipment but the costs of such shall be included in the unit price bid for this work.

No direct payment will be made for mobilization, demobilization, obstruction clearance, or constructing any work platform. The cost of such shall be included in the unit price bid for PV drains.

<u>Pay Item</u>	<u>Pay Unit</u>
209.29 Prefabricated Vertical Drains	Linear Foot

SPECIAL PROVISION
DIVISION 400
PAVEMENTS

SECTION 401 - HOT MIX ASPHALT PAVEMENT

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

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

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

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

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

401.03 Composition of Mixtures The Contractor shall compose the Hot Mix Asphalt Pavement with aggregate, Performance Graded Asphalt Binder (PGAB), and mineral filler if required. HMA shall be designed and tested according to AASHTO R35 and the volumetric criteria in Table 1. The Contractor shall size, uniformly grade, and combine the aggregate fractions in proportions that provide a mixture meeting the grading requirements of the Job Mix Formula (JMF). The Contractor may use a maximum of 15% reclaimed asphalt pavement (RAP) in any base, binder, surface, or shim course. The Contractor may be allowed to use more than 15% RAP, up to a maximum of 25% RAP, in a base, binder, or shim course provided that PG 58-34 asphalt binder is used in the mixture.

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

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

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

At the time of JMF submittal, the Contractor shall identify and make available the stockpiles of all proposed aggregates at the plant site. There must be a minimum of 135 Mg [150 ton] for stone stockpiles, 70 Mg [75 ton] for sand stockpiles, and 45 Mg [50 ton] of blend sand before the Department will sample. The Department shall obtain samples for laboratory testing. The Contractor shall also make available to the Department the PGAB proposed for use in the mix in sufficient quantity to test the properties of the asphalt and to produce samples for testing of the mixture. Before the start of paving, the Contractor and the Department shall split a production sample for evaluation. The Contractor shall test its split of the sample and determine if the results meet the requirements of the Department's written policy for mix design verification (See Maine DOT Policies and Procedures for HMA Sampling and Testing available at the Central Laboratory in Bangor). If the results are found to be acceptable, the Contractor will forward their results to the Department's Lab, which will test the Department's split of the sample. The results of the two split samples will be compared and shared between the Department and the Contractor. If the Department finds the mixture acceptable, an approved JMF will be forwarded to the Contractor and paving may commence. The first day's production shall be monitored, and the approval may be withdrawn if the mixture exhibits undesirable characteristics such as checking, shoving or displacement. The Contractor shall be allowed to submit aim changes within 24 hours of receipt of the first Acceptance test result. Adjustments will be allowed of up to 2% on the percent passing the 2.36 mm sieve through the 0.075 mm and 3% on the percent passing the 4.75 mm or larger sieves. Adjustments will be allowed on the %PGAB of up to 0.2%. Adjustments will be allowed on GMM of up to 0.010.

The Contractor shall submit a new JMF for approval each time a change in material source or materials properties is proposed. The same approval process shall be followed. The cold feed percentage of any aggregate may be adjusted up to 10 percentage points from the amount listed on the JMF, however no aggregate listed on the JMF shall be eliminated. The cold feed percentage for RAP may be adjusted up to 5 percentage points from the amount listed on the JMF but shall not exceed the maximum allowable percentage for RAP for the specific application.

TABLE 1: VOLUMETRIC DESIGN CRITERIA

Design ESAL's (Millions)	Required Density (Percent of G _{mm})			Voids in the Mineral Aggregate (VMA)(Minimum Percent)					Voids Filled with Binder (VFB) (Minimum %)	Fines/Eff. Binder Ratio
				Nominal Maximum Aggregate Size (mm)						
	N _{initial}	N _{design}	N _{max}	25	19	12.5	9.5	4.75		
<0.3	≤91.5	96.0	≤98.0	13.0	14.0	15.0	16.0	16.0	70-80	0.6-1.2
0.3 to <3	≤90.5								65-80	
3 to <10	≤89.0								65-80*	
10 to <30										
≥ 30										

- *For 9.5 mm nominal maximum aggregate size mixtures, the maximum VFB is 82.
- *For 4.75 mm nominal maximum aggregate size mixtures, the maximum VFB is 84.

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

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

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

401.05 Performance Graded Asphalt Binder Unless otherwise noted in Special Provision 403 - Hot Mix Asphalt Pavement, the PGAB shall be 64-28, except that for mixtures containing greater than 15% but no more than 25% RAP the PGAB shall be PG 58-34. The PGAB shall meet the applicable requirements of AASHTO M320 - Standard Specification for PGAB. The Contractor shall provide the Department with an approved copy of the Quality Control Plan for PGAB in accordance with AASHTO R 26 Certifying Suppliers of PGAB. The Contractor shall request approval from the Department for a change in PGAB supplier or source by submitting documentation stating the new supplier or source a minimum of 24 hours prior to the change. In the event that the PGAB supplier or source is changed, the Contractor shall make efforts to minimize the occurrence of PGAB co-mingling.

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

- a. Zone 1 Areas north of US Route 2 from Gilead to Bangor and north of Route 9 from Bangor to Calais.
- b. Zone 2 Areas south of Zone 1 including the US Route 2 and Route 9 boundaries.

The Contractor may place Hot Mix Asphalt Pavement for use other than a traveled way wearing course in either Zone between the dates of April 15th and November 15th, provided that the air temperature as determined by an approved thermometer (placed in the shade at the paving location) is 4°C [40°F] or higher and the area to be paved is not frozen. The Contractor may place Hot Mix Asphalt Pavement as traveled way wearing course in Zone 1 between the dates of May 1st and the Saturday following October 1st and in Zone 2 between the dates of April 15th and the Saturday following October 15th, provided the air temperature determined as above is 10°C [50°F] or higher. For the purposes of this Section, the traveled way includes truck lanes, ramps, approach roads and auxiliary lanes. The atmospheric temperature for all courses on bridge decks shall be 10°C [50°F] or higher.

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

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

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

401.07 Hot Mix Asphalt Plant

401.071 General Requirements HMA plants shall conform to AASHTO M156.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- a. JMF(s)
- b. Hot mix asphalt plant details
- c. Stockpile Management (to include provisions for a minimum 2 day stockpile)
- d. Make and type of paver(s)
- e. Make and type of rollers including weight, weight per inch of steel wheels, and average contact pressure for pneumatic tired rollers
- f. Name of QCP Administrator, and certification number
- g. Name of Process Control Technician(s) and certification number(s)
- h. Name of Quality Control Technicians(s) and certification number(s)
- i. Mixing & transportation including process for ensuring that truck bodies are clean and free of debris or contamination that could adversely affect the finished pavement
- j. Testing Plan
- k. Laydown operations including longitudinal joint construction, procedures for avoiding paving in inclement weather, type of release agent to be used on trucks tools and rollers, compaction of shoulders, tacking of all joints, methods to ensure that segregation is minimized, procedures to determine the maximum rolling and paving speeds based on best engineering practices as well as past experience in achieving the best possible smoothness of the pavement. Solvent based agents developed to strip asphalts from aggregates will not be allowed as release agents.
- l. Examples of Quality Control forms including a daily plant report and a daily paving report
- m. Silo management and details (can show storage for use on project of up to 36 hours)
- n. Provisions for varying mix temperature due to extraordinary conditions
- o. Name and responsibilities of the Responsible onsite Paving Supervisor
- p. Method for calibration/verification of Density Gauge
- q. A note that all testing will be done in accordance with AASHTO and the Maine DOT Policies and Procedures for HMA Sampling and Testing.
- r. A note detailing conditions under which the percent of RAP will vary from that specified on the JMF.
- s. A detailed procedure outlining when production will be halted due to QC or Acceptance testing results.
- t. A plan to address the change in PGAB source or supplier and the potential co-mingling of differing PGAB's.
- u. A procedure to take immediate possession of acceptance samples once released by MaineDOT and deliver said samples to the designated acceptance laboratory.

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

- a. QCP Administrator - A qualified individual shall administer the QCP. The QCP Administrator must be a full-time employee of or a consultant engaged by the Contractor or paving subcontractor. The QCP Administrator shall have full authority to institute any and all actions necessary for the successful operation of the QCP. The QCP Administrator (or its designee in the QCP Administrator's absence) shall be available to communicate with the Department at all times. The QCP Administrator shall be certified as a Quality Assurance Technologist certified by the New England Transportation Technician Certification Program (NETTCP).

- b. Process Control Technician(s) (PCT) shall utilize test results and other quality control practices to assure the quality of aggregates and other mix components and control proportioning to meet the JMF(s). The PCT shall inspect all equipment used in mixing to assure it is operating properly and that mixing conforms to the mix design(s) and other Contract requirements. The QCP shall detail how these duties and responsibilities are to be accomplished and documented, and whether more than one PCT is required. The Plan shall include the criteria to be utilized by the PCT to correct or reject unsatisfactory materials. The PCT shall be certified as a Plant Technician by the NETTCP.

- c. Quality Control Technician(s) (QCT) shall perform and utilize quality control tests at the job site to assure that delivered materials meet the requirements of the JMF(s). The QCT shall inspect all equipment utilized in transporting, laydown, and compacting to assure it is operating properly and that all laydown and compaction conform to the Contract requirements. The QCP shall detail how these duties and responsibilities are to be accomplished and documented, and whether more than one QCT is required. The QCP shall include the criteria utilized by the QCT to correct or reject unsatisfactory materials. The QCT shall be certified as a Paving Inspector by the NETTCP.

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

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

TABLE 2 : MINIMUM QUALITY CONTROL FREQUENCIES

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

. *Method A and B only

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

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

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

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

The Contractor shall fill all holes in the pavement resulting from cutting cores by the Contractor or the Department with a properly compacted, acceptable mixture no later than the following working day. Before filling, the Contractor shall carefully clean the holes and apply a coating of emulsified asphalt. On surface courses, cores shall not be cut except for Verification of the Nuclear Density Gauge, at a rate not to exceed 3 per day or 2 per 900 Mg [1000 ton] placed.

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

TABLE 3: Control Limits

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

*Based on AASHTO T 308

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

- a. Method A: The Pay Factor for VMA, Voids @ N_d , Percent PGAB, composite gradation, VFB, fines to effective binder or density using all Acceptance or all Quality Control tests for the current lot is less than 0.85.
- b. Method B: The Pay Factor for VMA, Voids @ N_d , Percent PGAB, composite gradation, VFB, fines to effective binder or density using all Acceptance or all Quality Control tests for the current lot is less than 0.90.

- c. Method C: The Pay Factor for VMA, Voids @ N_d , Percent PGAB, percent passing the nominal maximum sieve, percent passing 2.36 mm sieve, percent passing 0.300 mm sieve or percent passing 0.075 mm sieve using all Acceptance or all available Quality Control tests for the current lot is less than 0.85.
- d. The Coarse Aggregate Angularity or Fine Aggregate Angularity value falls below the requirements of Table 3: Aggregate Consensus Properties Criteria in Section 703.07 for the design traffic level.
- e. Each of the first 2 control tests for a Method A or B lot fall outside the upper or lower limits for VMA, Voids @ N_d , or Percent PGAB; or under Method C, each of the first 2 control tests for the lot fall outside the upper or lower limits for the nominal maximum, 2.36 mm, 0.300 mm or 0.075 mm sieves, or percent PGAB.
- f. The Flat and Elongated Particles value exceeds 10% by ASTM D4791.
- g. There is any visible damage to the aggregate due to over-densification other than on variable depth shim courses.
- h. The Contractor fails to follow the approved QCP.
- i. The Contractor's control chart shows the process to be out of control (defined as a single point outside of the control limits on the running average of three chart.) on any property listed in Table 3: Control Limits.

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

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

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

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

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

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

TABLE 4: ACCEPTANCE CRITERIA

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

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

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

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

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

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

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

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

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

Pavement Density The Department will measure pavement density using core samples tested according to AASHTO T-166. The Department will randomly determine core locations. The Contractor shall cut 6 inch diameter cores at no additional cost to the Department by the end of the working day following the day the pavement is placed, and immediately give them to the Department. The cores will be placed in a transport container provided by the Department and transported by the Contractor to the designated MDOT Lab as directed by the Department. Pre-testing of the cores will not be allowed. At the time of sampling, the Contractor and the Department shall mutually determine if a core is damaged. If it is determined that the core(s) is damaged, the Contractor shall cut new core(s) at the same offset and within 1 m [3 ft] of the initial sample. At the time the core is cut, the Contractor and the Department will mutually determine if saw cutting of the core is needed, and will mark the core at the point where sawing is needed. The core may be saw cut by the Contractor in the Department's presence onsite, or in an MDOT Lab by The Department, without disturbing the layer being tested to remove lower layers of Hot Mix Asphalt Pavement, gravel, or RAP. No recuts are allowed at a test location after the core has been tested. Upon conclusion of each lot, density results shall be examined for statistical outliers as stated in Section 106.7.2.

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

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

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

TABLE 5: METHOD A ACCEPTANCE LIMITS

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

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

TABLE 6: METHOD B ACCEPTANCE LIMITS

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

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

TABLE 7: METHOD C ACCEPTANCE LIMITS

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

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

TABLE 8: METHOD D ACCEPTANCE LIMITS

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

TABLE 8b Method "D" Price Adjustments

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The following variables will be used for pay adjustment:

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

Pay Adjustment Method A

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

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

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

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

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

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

Pay Adjustment Method B

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

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

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

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

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

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

Pay Adjustment Method C

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

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

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

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

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

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

Pay Adjustment Method D

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

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

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

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

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

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

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

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

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

TABLE 10: DISPUTE RESOLUTION VARIANCE LIMITS

PGAB Content	+/-0.4%
G _{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]
403.208 Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	MG [Ton]
403.209 Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (sidewalks, drives, islands & incidentals)	MG [Ton]
403.210 Hot Mix Asphalt, 9.5 mm Nominal Maximum Size	MG [Ton]
403.211 Hot Mix Asphalt (shimming)	MG [Ton]
403.212 Hot Mix Asphalt, 4.75 mm Nominal Maximum Size	MG [Ton]
403.213 Hot Mix Asphalt, 12.5 mm Nominal Maximum Size, Base	MG [Ton]

SPECIAL PROVISION
SECTION 403
HOT MIX ASPHALT

Desc. of Course	Grad. Design	Item Number	Bit Cont. % of Mix	Total Thick	No. Of Layers	Comp. Notes
<u>Walking Trail</u>						
Wearing	9.5 mm	403.210	N/A	2"	1/more	4,13,17,18
<u>Misc. Handplaced Areas</u>						
Wearing	9.5 mm	403.209	N/A	2"	1/more	4,13,17,18

COMPLEMENTARY NOTES

4. The design traffic level for mix placed shall be 0.3 to <3 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **50 gyrations.** Mix designs shall be approved by the Department for the current calendar year the mixtures are produced.
13. A mixture meeting the requirements of section 703.09 Grading 'D', with a minimum PGAB content of 6%, and the gradation limits of Section 703 – Aggregates, subsection 703.09 - Mixture Composition, Grading D mixtures may be substituted for this item. A job mix formula shall be submitted to the Department for approval.
17. Compaction of the new Hot Mix Asphalt Pavement will be obtained using a minimal roller train consisting of one or more 3-5 ton vibratory rollers. An approved release agent is required to ensure the mixture does not adhere to hand tools, rollers, pavers, and truck bodies. The use of petroleum based fuel oils, or asphalt stripping solvents will not be permitted
18. The Agency administering the contract will accept or reject any HMA based on a visual basis, either prior to its use, during placement, or in its final disposition. Mixtures exceeding the minimum 275 degree (F) lower limit, or the 325 degree(F) upper limit will be rejected from the project. Informational mix samples may be obtained by the Agency at any time for verification of material properties.

The Agency administering the contract shall submit a letter of acceptance at the completion of the contract certifying that all work and materials were inspected and found to be acceptable to the Agency.

The Agency will pay for the work specified in Special Provision Division 400 - Subsection 401.11 for the HMA used.

Tack Coat

A tack coat of emulsified asphalt, RS-1, Item 409.15 shall be applied to any existing or new pavement at a rate of approximately 0.025 gal/yd², and on milled pavement approximately 0.05 gal/yd², prior to placing a new course. All joints between existing and new pavement will be tacked. Cleaning objectionable material from the pavement and furnishing and applying Item 409.15 bituminous materials to joints and contact surfaces is incidental to the contract paving items.

SPECIAL PROVISION
SECTION 411
(Stone Dust Surface Course)

411.01 Description

Add the following to the end of the section:

The work generally consists of removing, hauling, and disposing of all material encountered for the construction of the project in accordance with the specifications and in reasonably close conformity with the lines, grades, thickness and typical cross sections shown on the plans.

411.02 Aggregate

Replace this section with the following:

Contractor shall submit sample, gradation information, and source location of the proposed stone dust material to the Owner and Engineer for approval prior to delivering material to the site.

411.03 Placing

The following sentence is added:

The stone dust surface will be prepared and placed in accordance with MDOT Specifications Section 304 and meet compaction requirements of 95% of optimum density (AASHTO T-180).

411.03 Basis of Payment

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
411.13 Stone Dust Surface Course	CY

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(Quality Level Analysis)

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

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

TABLE 1- Methods A and B

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

502.503 Delete and replace with the following;

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

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

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

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

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

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

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

TABLE 3

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

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

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

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

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

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

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

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

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

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

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

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

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

C. The Contractor fails to follow the QC Plan”

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

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

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

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

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

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

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

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

Add the following Section;

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

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

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

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

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

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

CLASS OF CONCRETE	ITEM NUMBER	DESCRIPTION	P	METHOD
A	502.219	Structural Concrete Abut and Wall		C

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(Portland Cement Mortar)

This Subsection is deleted in its entirety and replaced with the following:

502.01 Description This work shall include all materials and equipment necessary to complete repairs to the existing Kennebunk River concrete and granite abutments and wingwalls. The work shall consist of filling voids in the existing substructure, as directed by the Resident, with Portland Cement mortar as described in this section.

502.02 Materials Except as provided below, the materials used shall meet the requirements of the following sections of Division 700 – Materials:

Water	701.02
Joint Mortar	705.02

Cement shall conform to the requirements of Portland cement AASHTO M85 (ASTM C150), Type IIA.

502.03 Installation The Contractor shall fill voids in the existing granite abutments and wingwalls with mortar as directed by the Resident.

The abutments shall be cleaned prior to setting any mortar to remove any dirt, loose stones or other debris that would inhibit the proper adhesion of the mortar. Cleaning shall be completed through the use of compressed air and hand tools to ensure a clean bonding surface is achieved. Small to medium sized loose stones shall be removed; rocks firmly in place shall remain. Large stones that are identified as being loose shall be thoroughly grouted into place. The Contractor shall use great care to avoid undermining or otherwise destabilizing the existing substructure.

A dry mixture of mortar shall be prepared and shall be readily available to the installer. Prior to beginning any repair, the existing granite to receive the repair shall be thoroughly wetted with water. Using a trowel, mortar shall be placed into the void and thoroughly tamped into place to fill the rear of the cavity. Successive layers of mortar shall then be installed and tamped firmly into place. Tamping shall be completed with a wooden mallet or similar tool to ensure the void is adequately filled. Mortar shall be added as needed to completely fill the void. Once a void has been filled, the surface of the repair shall be given a neat, workmanlike finish.

502.04 Method of Measurement The repair of granite masonry shall be measured for payment on a time and materials basis for repairs directed by, and completed to the satisfaction of, the Resident as follows:

Portland cement mortar satisfactorily mixed, placed, finished and accepted will be measured by the cubic foot. No payment will be made for mortar that is mixed but not placed.

Hand labor – See Standard Specifications, Section 629.

Labor and equipment for cleaning and preparing the existing granite masonry, and for pre-wetting the granite and stones, will not be measured for payment separately, but shall be considered incidental to the Portland Cement Mortar pay item.

502.05 Basis of Payment The accepted quantity mortar shall be paid at the contract unit price. This payment shall be full compensation for furnishing all equipment and materials to complete the work as described above and as directed by the Resident.

<u>Pay Item</u>	<u>Description</u>	<u>Unit</u>
502.60	Portland Cement Mortar	CF

SPECIAL PROVISION
SECTION 502
(Bridge Drain Extension)

502.01 Description This work shall include detailing, fabricating, and installing a bridge drain extension to direct falling water from the Precourt Street (Biddeford Spur) Bridge away from the proposed trail surface.

The existing bridge drain outlet consists of an approximately 6"x6" square tube orientated in the vertical direction. The underside of the Precourt Street Bridge is approximately 25 to 30 feet above the trail surface. The bridge drain currently empties onto the edge of the proposed trail surface. The bridge drain extension shall be designed to direct drainage a minimum of two feet from the edge of the trail. The materials, details, and method of installation shall be developed by the Contractor and submitted to the Resident for approval.

At a minimum, the bridge drain extension shall be constructed from durable materials and securely fastened to the proposed bridge drain. If bolted connections are used, each connection to the proposed diversion and bridge drain shall be made with a minimum of two fasteners.

Bolting or welding to the bridge girders will not be permitted.

502.04 Method of Measurement Bridge drain extensions shall be measured for payment as each unit fabricated and installed.

502.05 Basis of Payment The accepted quantity of fabricated and installed drain extensions shall be paid for at the contract unit price. Payment shall be considered full compensation for all materials, labor, equipment, and incidentals necessary to satisfactorily complete the work.

<u>Pay Item</u>		<u>Unit</u>
502.71	Bridge Drain Extensions	EA

SPECIAL PROVISION
SECTION 504
(Prefabricated Steel Truss Bridge)

530.01 Description Work under this item shall be in conformance with the applicable portions of Section 504 of the Standard Specifications. The work under this specification shall include furnishing and installing a Prefabricated Bridge Superstructure, including bridge bearings, as shown on the Plans. The bridge superstructure shall be fully engineered according to the requirements contained herein. All necessary work and incidental items required to complete the installation and connections to the substructure (including bearings and anchor bolts) shall be included in this work.

The Prefabricated Bridge Superstructure shall meet the design and manufacturing requirements of the latest versions and interim revisions of the AASHTO LRFD Bridge Design Specifications for Highway Bridges, AASHTO Guide Specifications for Design of Pedestrian Bridges, and State of Maine Department of Transportation Standard Specifications for Highways and Bridges, except as otherwise specified on the Plans or as stated below.

530.02 Materials

Steel

- All truss members shall be high strength, low alloy, atmospheric corrosion-resistant steel (weathering steel). The minimum thickness of all structural steel members shall be 5/16" nominal.
- All structural steel with calculated tensile stresses shall meet a Charpy-V-Notch (CVN) value of 15 foot-pounds at 40 degrees Fahrenheit. CVN testing shall be in accordance with AASHTO T 243 (ASTM A 673). The H frequency shall be used.
- All structural steel field connections shall be bolted with high strength bolts. High Strength bolts, nuts, and plain hardened washers shall conform to the requirements of ASTM A 325. Fasteners shall be Type 3 (weathering steel).
- Anchor bolts and nuts supplied shall conform to ASTM F 1554 with a minimum yield strength of 55 ksi. Anchor bolts shall be supplied with 2 heavy hex nuts and 2 hardened washers and unless otherwise specified the anchor bolts shall have a 90 degree bend with a 150 mm (6 inch) minimum leg length at the lower end. The anchor bolts, nuts and hardened washers shall be hot-dipped galvanized to ASTM A 153. After galvanizing, the nuts shall be retapped oversize by an amount appropriate to the nut size.

Wood Decking

Wood decking shall be No. 1 grade Southern Yellow Pine planks. Decking shall be treated utilizing Micronized Copper Quaternary (MCQ) preservative treatment. Decking shall be treated to a total absorption of 0.4 pounds per cubic foot of wood. The wood decking shall be designed for a minimum 100psf load.

530.03 Construction Requirements

530.031 Qualification of Fabricator Bridge(s) shall be fabricated by a fabricator who is currently certified by the American Institute of Steel Construction to have the personnel, organization, experience, capability and commitment to produce fabricated structural steel for Major Steel Bridges with Fracture Critical Endorsement as set forth in the AISC Certification Program. Quality control shall be in accordance with procedures outlined for AISC certification.

Qualified suppliers must have at least 5 years of experience fabricating these type structures. Pre-approved Manufacturers:

1. CONTECH Bridge Solutions Inc.
4021 Gault Avenue South
Fort Payne, AL 35967
2. Or approved equal

Qualifications of suppliers shall be submitted for approval prior to starting all work. The Contractor shall provide the following information for any proposed supplier:

- Product Literature
- All documentation to insure the proposed substitution will be in compliance with these specifications. This shall include:
 - Representative design calculations
 - Representative drawings
 - Splicing and erection procedures
 - Warranty information
 - Inspection and Maintenance procedures
 - AISC Shop Certification
 - Welder Qualifications
- Proposed suppliers must have at least five (5) years experience designing and fabricating these type structures and a minimum of five (5) successful bridge projects, of similar construction, each of which has been in service at least three (3) years. List the location, bridge size, owner, and a contact for reference for each project.

The Engineer will evaluate and verify the accuracy of the submittal prior to approval. If the Engineer determines that the qualifying criteria have not been met, the Contractor's proposed supplier shall be rejected. The Engineer's ruling will be final.

530.032 Bridge Requirements The bridge length shall be 60' -0" (straight line dimension) and shall be as measured from centerline of bearing to centerline of bearing. The overall bridge length shall be designed to fit within the proposed substructure units and shall provide adequate tolerance for thermal movement. Bridge width shall be 8'-0" and shall be as measured from the inside face of the railing at deck level. The following provisions also apply:

- Bridge shall be designed as a half-through truss with one diagonal per panel. All vertical members shall be plumb. The bridge shall be fabricated with the top chord cambered along a circular arch.
- Bridge shall be designed utilizing a nested floor beam (floor beam to fit within the trusses) as shown on the Plans.
- Timber decking shall be orientated with the centerline of the board perpendicular to the bridge centerline.
- The distance from the top of the deck to the top and bottom truss members shall be determined by the bridge manufacturer based upon structural and/or shipping requirements. Abutments are based upon 11¼" from top of deck to bearing surface. Adjustments shall be made to bearing seat elevations to accommodate the superstructure if actual dimensions vary. Adjustments of more than six (6) inches require the permission of the Engineer.
- The top of the top chord shall not be less than 4ft-6in (54 inches) above the deck (measured from the high point of the riding surface).
- All members of the vertical trusses (top and bottom chords, verticals and diagonals) shall be fabricated from structural steel shapes or square and/or rectangular structural steel tubing. Other structural members and bracing shall be fabricated from structural steel shapes or square and rectangular structural steel tubing. To provide lateral support for the top flange of open shape stringers (w-shapes or channels), a minimum of one stiffener shall be provided in each stringer at every floor beam location.
- Rubrails, safety rails, and toe kicks shall be placed as shown on the bridge typical section and shall be fastened to the truss by welding or with two carriage bolts, galvanized in accordance with ASTM A 153, at each support location. All rails shall be placed so as to prevent a 4" sphere from passing through the truss. Rails shall be placed on the inside of the structure and shall have their ends sealed and ground smooth so as to produce no sharp edges. The safety rail system shall be designed for an infill loading of 200 pounds, applied horizontally at right angles, to a one square foot area at any point in the system. Kickboards shall be a minimum of 4 inches high.
- Expansion joints/sliding plates shall be provided at both ends of the bridge to provide a uniform, even transition from the bridge surface onto the bridge approaches.
- The bridge top and bottom chords shall have a vertical camber dimension at midspan equal to 100% of the full dead load deflection plus 2 ½ inches.

530.033 Design Requirements The bridge structure and bearings shall be designed and signed by a Professional Engineer licensed in accordance with the State of Maine Regulations. Design shall meet the requirements of the latest versions and interim revisions of the AASHTO LRFD Bridge Design Specifications, and AASHTO Specifications for Design of Pedestrian Bridges. Sawn lumber shall be designed in accordance with the ANSI/AF&PA NDS, "National Design Standard for Wood Construction", as published by the American Forest & Paper Association. The following design requirements shall also apply:

Utility support brackets for the gas line shall be designed and detailed to provide support for the existing gas line along the North side of the bridge. Utility supports shall be spaced at no more than 8'-0" on center. The minimum thickness of all steel components shall be 5/16".

Design Loads:

- Utility Load: The bridge shall be designed to support a gas line, and associated supporting elements, as shown on the drawings. The weight of the gas line, not including support brackets, may be taken as 100 plf.
- Pedestrian Loads: Pedestrian loading shall consist of a minimum of live load 85 pounds per square foot uniformly.
- Vehicle Loads: No vehicle load required.
- Concentrated Loads: A concentrated load of 1000 pounds placed on any area 2.5 ft x 2.5 ft square.

Deflection:

- Vertical Deflection
 - Vertical deflection of the main trusses due to service pedestrian live load shall not exceed 1/500 of the span.
 - The deflection of the floor system members (floor beams and stringers) due to service pedestrian live load shall not exceed 1/360 of their respective spans.
- The horizontal deflection of the structure due to lateral wind loads shall not exceed 1/500 of the span under a 35 PSF wind load.

Welding

- Welding of bridge structure shall conform to Section 504 Structural Steel, AWS D1.1 for tubular members, and ANSI/AASHTO/AWS D1.5 Bridge welding code for structural steel members with the following additional requirements:
- All fracture critical members shall be identified on Plans and Shop Drawings. Fracture critical members shall be welded in conformance with the minimum preheat and interpass temperatures specified in Tables 12.4 or 12.5 of AWS D1.5, or 200 degrees Fahrenheit provided wall thickness of members are 3/4" or less. Filler metals shall meet the requirements of Tables 4.1, 4.2, or 4.3 of AWS D1.5.
- Welding using the GMAW process with a single gas or gas mixture containing less than 80 percent Argon shall be considered a short-circuiting process and shall not be used in bridge components with calculated stresses.
- All non-destructive testing of welds shall conform to the requirements of Section 6, AWS D1.5 with the exception of complete groove welds in tubular butt joints. These welds shall be non-destructively tested in accordance with AWS D1.1, Section 6.18.
- Welders shall be properly accredited operators, each of whom shall submit certification of satisfactorily passing AWS standard qualification tests for all positions with unlimited thickness of base metal, have a minimum of 6 months experience in welding tubular structures and have demonstrated the ability to make uniform sound welds of the type required.

530.034 Fabrication Unless addressed in this Special Provision, all structural steel and fabrication shall be in accordance with applicable sections of Standard Specifications 504 Structural Steel and 713 High Strength Bolts.

All splices, shop welded or otherwise shall not be placed within 15 feet of the midspan.

When the collection of water inside a structural tube is a possibility, either during construction or during service, the tube shall be provided with a drain hole at its lowest point to let water out.

Wood decking shall be placed tight together with no gaps. Fasteners shall be carriage bolts installed in predrilled holes and shall be galvanized in accordance with ASTM A 153. Powder actuated fasteners will not be allowed. A minimum of two fasteners shall be installed at either end of every plank. Planks shall also receive a minimum of one interior connection bolt at a stringer location approximately near the center of the bridge width.

530.035 Finishes To aid in providing a uniformly “weathered” appearance, all exposed surfaces of steel shall be blast cleaned in accordance with Steel Structures Painting Council Surface Preparation Specifications No. 7 Brush-Off Blast Cleaning, SSPC-SP7 latest edition. Exposed surfaces of steel shall be defined as those surfaces seen from the deck and from outside of the structure. Stringers, floor beams, lower brace diagonals and the inside face of the truss below deck and bottom face of the bottom chord need not be blasted.

530.04 Submittals The Contractor shall submit three (3) sets of Shop Drawings and Design Computations for the pedestrian bridge showing all details for the bridge fabrication to the Resident for review and approval. The shop drawings and design computations shall be prepared and stamped by a professional engineer licensed in the State of Maine. The calculations shall include all design information necessary to determine the structural adequacy of the bridge.

The following documentation shall also be submitted:

- The Contractor shall submit specifications for all materials and installation instructions.
- The Contractor shall submit the manufacturer’s recommended maintenance program.
- The Contractor shall submit welding specification procedures for approval.
- The Contractor shall submit Certified Mill Test Reports (CMTR) indicating chemical and physical properties for all materials (including Charpy V-Notch test reports as required).
- The Contractor shall submit a detailed erection plan for review and approval. The erection plan shall identify proposed crane models and locations, pick weights, attachment points, an evaluation of the erection procedures affect on the gas line, specific safety measures employed to protect the integrity of the gas line, and all other information deemed pertinent and relevant to the safe completion of the bridge erection. The erection methods and equipment shall be subject to approval by GSGT.

- The Contractor shall require the supplier to provide a construction advisor to assist the Contractor in the construction of the bridge. The actual construction of the bridge is the responsibility of the Contractor.

530.05 Delivery and Erection Delivery of the bridge shall be arranged by the supplier and Contractor. The Contractor shall notify and coordinate delivery and erection of the bridge with the Resident and GSGT's on-site representative.

GSGT will likely require the bridge be partially assembled on site to minimize the weight and size of each piece being erected alongside the gas line, and to minimize the size of the crane required for erection. The proposed method of bridge assembly and erection, as well as a detailed erection plan showing proposed equipment size, location, pick weight, etc., shall be prepared by a professional engineer licensed in the state of Maine and submitted to the Resident for approval.

530.06 Quality Assurance Inspections The Engineer, Owner or an independent inspector representing the Owner, will inspect various phases of the work to verify that work is in accordance with these specifications. Inspection of the work in the shop shall occur at up to three (3) different phases of the manufacturing. The final inspection shall be prior to shipping. The Fabricator/Contractor shall provide certifications prior to shipping of the structure to the site.

The Fabricator/Contractor shall facilitate the inspection as required, allowing adequate time for inspections and providing access to the work together with all necessary safety equipment needed by the inspector to perform the inspections. The Fabricator/Contractor shall furnish and maintain in working order all equipment and instruments that are necessary to inspect all phases of the work.

530.07 Warranty The bridge manufacturer shall warranty their steel structure(s) to be free of design, material and workmanship defects for a period of ten years from the date of delivery. Wood decking and wood attachments shall carry a ten-year warranty against rot, termite damage, or fungal decay.

530.08 Method of Measurement Prefabricated Bridge Superstructure shall be measured as a unit including designing, fabricating, and installing a bridge superstructure as shown on the Plans or as ordered. The prefabricated bridge shall include all bridge bearings, anchor bolts, attachments, hardware, gas line support brackets, and other incidentals required for complete installation of the Prefabricated Bridge Superstructure

530.09 Basis of Payment The installed and accepted Prefabricated Bridge Superstructure will be paid for at the contract lump sum price, complete in place. Such payment shall be considered full compensation for fabrication, shop drawings, coordination, delivery, and erection of the prefabricated bridge, including all materials, labor, equipment, and incidentals required to complete the work.

Payment will be made under:

Pay Item

530.01 Prefabricated Steel Truss Bridge, In Place

Pay Unit

Lump Sum

SPECIAL PROVISION
SECTION 603
PIPE CULVERTS AND STORM DRAINS
(Reinforced Concrete Pipe)

603.01 Description

The following paragraph is added:

This work shall also consist of furnishing and installing Class III and Class V reinforced concrete pipes at the locations as shown on the Plans or as approved by the Resident. These pipes shall meet the requirements of Subsection 706.02.

The 60 inch Reinforced Concrete Pipe – Class III shall be installed in an ‘arched’ layout as shown on the plans. Where ends of pipes are not seated tightly against one another the gaps shall be filled with expansive foam filler and the joint covered with a layer of heavy roofing felt glued in place. The expansive foam filler shall be a non-structural, compressible material.

603.12 Basis of Payment

The following paragraph is added:

The quantities and installation of expansive foam and roofing felt will not be paid for separately, but shall be considered incidental to the unit bid price for the pipe.

Payment will be made under:

Pay Item

Pay Unit

603.175	18 inch Reinforced Concrete Pipe - Class III	Linear Foot
603.471	60 inch Reinforced Concrete Pipe - Class V	Linear Foot

SPECIAL PROVISION
SECTION 606
(Timber Guardrail)

606.01 Description

Replace this section with the following:

This work shall consist of furnishing and installing timber guardrail at locations shown on the plans and in reasonably close conformity with the lines, grades, and details shown on the plans.

606.02 Materials

Replace this section with the following:

All lumber shall conform to Voluntary Product Standards PS-70 and be certified according to applicable standard grading and dressing rules and shall bear the official grade and/or trademark of the association under whose rules it is produced.

- A. Wood: Post shall be nominal 5" x 8". All wood shall be #2 Southern Yellow Pine (Southern Pine Inspection Bureau Grade), or approved equal. All wood shall be new, solid, sound and surface dry with a maximum moisture content of 19 percent. All wood shall be clearly marked with the official grading information.
- B. Fasteners: Carriage bolts shall be hot dipped galvanized steel or stainless steel and shall conform to the requirements of ANSI-B18.5 for round head, square neck bolts and to ASTM- A307. Washers shall be plain steel and shall conform to the requirements of ANSI-B18.22.1. Nuts shall be hex nuts conforming to the requirements of ANSI-B18.22.2.
- C. Treatment: All wood shall be .40 lbs per cubic foot pressure treated with Alkaline Copper Quaternary (ACQ).

606.09 Basis of Payment

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
606.611	Timber Guardrail	LF

SPECIAL PROVISION
SECTION 607
(Barrier Boulders)

607.01 Description

Replace this section with the following:

Work under this item shall include furnishing and placing boulders at various locations along the trail to block unauthorized access to the trail.

607.02 Materials

Replace this section with the following:

Boulders shall be 1 cy to 2 cy in size and shall be a durable, natural, and native material.

607.03 General

Replace this section with the following:

The Contractor shall perform clearing and grubbing as necessary to safely and securely place the boulders at the specified locations.

607.04 through 607.06

These sections are deleted and are not replaced.

607.06 Method of Measurement

Replace this section with the following:

Boulders will be measured by each unit satisfactorily placed.

607.07 Basis of Payment

Replace this section with the following:

The accepted quantity of boulders will be paid for at the contract unit price each, complete in place which price shall be full payment for furnishing, transporting, placing, and securing the boulders as directed by the Resident.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
607.294 Barrier Boulders	EA

SPECIAL PROVISION
SECTION 608
(Curb Ramp Detectable Warning Field)

608.01 Description

This section is replaced with the following:

This work shall consist of furnishing and installing curb ramp detectable warning plates with truncated domes at the locations shown on the plans or as established by the Resident.

608.02 Materials

This section is replaced with the following:

Detectable warning fields: The Contractor shall provide new cast iron detectable warning plates as manufactured by one of the manufacturers listed on Maine DOT's Qualified Products list of Cast Iron Detectable Warning Plates. This list can be found at: <http://www.maine.gov/mdot/transportation-research/qpl.php>

Each field shall match the width of the trail and shall have a natural finish. Prior to starting this work, the Contractor shall submit for approval the name of the selected supplier, manufacturer's literature describing the product, installation procedures, and routine maintenance required.

Concrete: Portland cement concrete shall meet the requirements of Section 502, Structural Concrete, Class A

608.044 Construction Requirements

Placement in New Asphalt: Asphalt shall be saw cut and removed to provide an opening that will allow for the dimensions of the cast iron plate surrounded by an additional 4" border on all sides of the plate. New concrete shall be placed in the resulting opening and finished, and the new plates set into the wet concrete, according to manufacturer recommendations. New plates shall be set square with the curb edge and the base of the truncated domes shall be flush with adjacent surfaces to allow proper drainage.

608.05 Method of Measurement

This section is replaced with the following:

Detectable warning fields properly placed and accepted shall be measured for payment by the square foot. Measurement shall include actual plate area, not surrounding concrete.

608.05 Method of Measurement

This section is replaced with the following:

Payment will be full compensation at the contract unit price for all labor, materials, and equipment required to install the detectable warning fields. This shall include surface preparation and removal of concrete or asphalt, and necessary replacement concrete.

<u>Pay Item</u>	<u>Pay Unit</u>
608.26 Curb Ramp Detectable Warning Field	SF

SPECIAL PROVISION
SECTION 610
STONE FILL, RIPRAP, STONE BLANKET, AND
STONE DITCH PROTECTION
(River Stones)
(Stream Restoration and Relocation)

610.01 Description This work shall consist of completing stream restoration at three separate areas.

1. A stream channel will be relocated adjacent to the proposed trail by excavating the channel and placing plants, boulders, logs and stumps within the channel to reproduce a naturalized stream. This Work will occur from STA 4539+92 to STA 4551+55 as shown on the plans. This work shall be done at the direction of the Resident.

2. A fish weir shall be created at the outlet of the culvert that crosses the proposed trail at STA 4551+40. The purpose of this weir is to eliminate the approximately 16-inch step at the outlet and allow unimpeded fish passage along the stream passing through the culvert. Location of work is adjacent to the project property and may include some work activity on Maine Turnpike property to the east of the corridor.

3. Restoration of fish passage and re-definition of the portion of the stream near the Maine Turnpike to reconnect the previously relocated channel (rip-rap lined) with the upstream channel. Work includes vertical transition improvements in the stream that runs parallel to the Maine Turnpike, and excavation of a defined channel upstream for approximately 60 to 80 feet. Location of work is on Maine Turnpike property at the upstream end of the previously relocated channel (rip-rap), as approximated on the plans.

Stream restoration shall be completed on a time and materials basis. Anticipated materials, equipment rental, and labor items have been included in the contract to complete the work. Material specifications and installation, labor, equipment rental, and payment for these items will be made in accordance with the respective MaineDOT Standard Specifications, the project Special Provisions, and this specification.

610.02 Materials Materials shall conform to the following requirements:

River Stones shall be between 0.5 to 2 cubic feet in average diameter and shall be a natural stone or rock other than sandstone or other similar soft stone. Boulder shape shall be naturally rounded.

Logs/Stumps shall be obtained from on-site clearing operations. Size and type of logs/stumps will be directed by the Resident.

Special Seed mix: Wetland Seed Mix – See Special Provision 618.

Plant Material: See Special Provision, Section 621.

Crushed Stone Slope Protection: See MaineDOT Standard Provisions, Section 513.

610.31 Construction

Stream Relocation

1. The general channel alignment shall be as shown on the plans. Alignment adjustments (field designed) will be at the direction of the Resident or his/her designee.
2. All activities shall be done in compliance with Standard Specification 656, Temporary Soil Erosion and Water Pollution Control and described in the Contractor's Soil Erosion and Water Pollution Control Plan. The stream is a cold water fisheries resource. The Contractor must develop a plan to minimize fisheries impacts and control stream water during construction. The plan must be approved by the Resident. The following seasonal work restrictions apply:
 - a. New pipe culvert at STA 5005+75 (July 15 to October 2).
 - b. Fish weir at STA 4551+55 (July 15 to October 2).
 - c. Stream Transition at Maine Turnpike (July 15 to October 2).
 - d. Stream Relocation STA 4539+92 to STA 4551+55 (July 15 to October 2).
3. The new channel shall be aligned, excavated and shaped to mimic a natural stream channel, as shown on the *Stream Relocation Typical Cross Section*. Adjustments in this section and location, both horizontal and vertical, shall be made as determined in the field the Resident or his/her designee, based upon conditions encountered in the field.
4. *River Stones* shall be placed randomly within the stream channel and on banks to create a naturalizing effect of riffles and pools as directed by the Resident. Stone/gravel shall be used as necessary to bed the boulders and for stream riffle and pool areas.
5. *Logs/Stumps* shall be placed randomly within the stream channel and bank to create a naturalizing effect as directed by the Resident.
6. *Erosion Control Blanket* shall be installed in accordance with Section 613 – EROSION CONTROL BLANKETS of the Standard Specifications and as

specified herein. Install Erosion Control Blankets on select areas of steep slopes to control bank erosion as required and as directed by the Resident.

7. *Special Seed Mix: Wetland Seed Mix* shall be applied to all disturbed areas within the stream relocation area as per Section 618 – SEEDING of the Standard Specifications and as specified below:
 - a. Rate of application shall be 35 pounds per acre.
8. *Temporary Seeding* shall be applied in accordance with Section 618 – SEEDING of the Standard Specifications and as specified herein. Temporary seeding shall be restricted to Winter Rye (*Secale cereale*) for stream relocation area only.
9. *Plant Material* shall be planted in accordance with Section 621 - LANDSCAPING of the Standard Specifications and as specified herein.
 - a. The specified shrubs shall be planted along the edge of the relocated stream to a maximum elevation of 2 feet above the surface of the water or a maximum distance of 10 feet from the stream edge.
 - b. Stream edge shrubs shall be spaced approximately 3 feet on center as directed by the Resident.
 - c. Shrubs shall be planted in mass groupings of individual species or randomly spaced to achieve a naturalizing effect as directed by the Resident.
 - d. Where the stream is closest to the trail, higher concentrations of Highbush Blueberry and Maleberry are to be planted in the buffer zone between the trail and the stream to minimize vegetation encroachment to the trail shoulder.

Fish Weir at Culvert Outlet STA 4551+40

1. Weir or weirs shall be constructed at culvert outlet to provide adequate depth and low water velocities to allow fish passage. Encroachment onto property owned by the Maine Turnpike Authority shall be avoided, but is authorized if needed.
2. Weir or weirs shall be constructed in accordance with Maine DOT publication, “Waterway and Wildlife Crossing Policy Design Guide: For Aquatic Organism, Wildlife Habitat, and Hydrologic Connectivity”, 3rd Edition, July 2008 and as directed by the Resident Engineer. Stream boulders and stone/gravel materials are preferable for weirs.
3. Work may include removing tree roots to re-define channel to surface where it flows beneath fallen trees.

Stream Transition at Maine Turnpike (off site)

1. Channel path is not established and shall be field-identified by the Resident to mimic a natural stream course.
2. Work will include excavation of a new channel to transition from the existing rip-rap lined (formerly relocated) channel to the defined channel approximately 60 to 80 feet upstream.
3. The use of step pools or weirs in the existing rip-rap channel for increasing stream elevation is anticipated. Distance of work in the existing channel is estimated to be 40 linear feet.

4. Excavation through the rip-rap channel and into existing ground to provide a hydraulic gradient suitable for fish passage is required. Rip-rap removed from the channel can be re-used for bank stabilization in excavated sections or for step pools in the downstream reach.
5. Use of stream boulders, stone/gravel, riparian plantings, logs, stumps or other materials representative of natural streams is anticipated.
6. Use of a temporary flow diversion to direct water away from the work zone is anticipated. All temporary flow areas shall be restored and stabilized to protect against stream flows re-establishing along the temporary route.

610.41 Method of Measurement

River stones will be measured by the cubic yard delivered to the site and placed in accordance with the Contract and Residents direction.

Logs/Stumps will be salvaged from clearing elsewhere on the project. Collection and transportation of the materials will be paid under the appropriate labor and equipment rental items.

Gravel: See MaineDOT Standard Specifications, Section 304.

Stream Stone: See Special Provision, Section 513.

Erosion Control Blanket: See MaineDOT Standard Specifications, Section 613.

Special Seed Mix: Wetland Seed Mix: See Special Provision, Section 618.

Temporary Seeding: See MaineDOT Standard Specifications, Section 618.

Planting Materials: See Special Provision, Section 621.

Hand Labor: See MaineDOT Standard Specifications, Section 629.

Equipment Rental: See MaineDOT Standard Specifications, Section 631.

610.51 Basis of Payment

River Stones will be paid at the contract unit price per cubic yard supplied to the site. Labor and equipment required for boulder installation shall be paid for separately under respective labor and equipment items.

Gravel: See MaineDOT Standard Specifications, Section 304.

Stream Stone: See Special Provision, Section 513.

Erosion Control Blanket: See MaineDOT Standard Specifications, Section 613.

Special Seed Mix: Wetland Seed Mix: See Special Provision, Section 618.

Temporary Seeding: See MaineDOT Standard Specifications, Section 618.

Planting Materials: See Special Provision, Section 621.

Hand Labor: See MaineDOT Standard Specifications, Section 629.

Equipment Rental: See MaineDOT Standard Specifications, Section 631.

With the exception of seeding, planting, and major excavation at the stream relocation and fish weir areas, all work associated with the stream relocation, fish weir construction and stream transition (restoration) at the stream ditch adjacent to the turnpike shall be paid by time and materials.

Payments will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
610.21	River Stones	CY

SPECIAL PROVISION
SECTION 610
 (Stream Stone)

610.01 Description This work shall consist of placing stones along areas of rehabilitated and relocated stream channels.

610.02 Materials Materials shall meet the following gradation requirements. Stone shall be of uniform quality and shall consist of clean, rounded rock, free from soft disintegrated pieces and other objectionable matter.

<u>Sieve Designation</u>	<u>Percentage by Weight Passing Square Mesh Sieves</u>
2 ½ in	100
2 in	95-100
1 in	0-30
¾ in	0-5

610.08 Method of Measurement Stream stone will be measured for payment by the number of cubic yards of material acceptably placed in accordance with the Contract.

610.09 Basis of Payment The accepted quantity of stream stone will be paid for at the contract unit price per cubic yard. Payment will be full compensation for excavating, shaping, and compacting areas of stream channel as required.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
610.212 Stream Stone	Cubic Yard

SPECIAL PROVISION
SECTION 618
SEEDING
(Seeding Method Number 1)

Add the following:

618.11 Method of Measurement Payment for seeding by the unit will be along the slope of the ground. One Unit will be 100 m² [1000 ft²].

Payment will be under:

<u>Pay Item</u>	<u>Pay Unit</u>
618.13 Seeding Method Number 1	Unit

SPECIAL PROVISION
SECTION 619
MULCH
(Mulch)

Add the following:

619.06 Method of Measurement Payment for hay and straw mulch by the unit will be along the slope of the ground. One Unit will be 100 m² [1000 ft²].

Payment will be under:

<u>Pay Item</u>	<u>Pay Unit</u>
619.12 Mulch	Unit

SPECIAL PROVISIONS
SECTION 618
SEEDING
(Special Seed Mix: Wetland Seed Mix)

618.01 – Description This work includes applying wetland seed at locations shown on the plans, or as directed by the Resident.

618.02 Materials - *Special Seed mix: Wetland Seed Mix* shall conform to the requirements of Section 618 – SEEDING of the Standard Specifications and as specified herein. The seed mix shall match New England Roadside Matrix Wet Meadow Seed Mix as supplied by New England Wetland Plants, 820 West Street, Amherst MA 01002, (413) 548-8000 or equivalent.

618.11 Method of Measurement Wetland Seed Mix will be measured by the area of seeding surface in Units of 1,000 square feet along the slope of the ground. The quantity of seeding measured for payment will be the number of units shown in the schedule of Items in the contract. This quantity will be considered final, and no adjustments will be made, except when the actual area seeded varies from the number of units shown in the schedule of Items by more than 15 percent.

618.12 Basis of Payment Special Seed Mix: Wetland Seed Mix will be paid for at the contract price per Unit, which price shall be full compensation for furnishing and spreading seed, limestone, fertilizer, and inoculant, as required. The price shall also include any reseeded, watering, and maintenance necessary to meet the requirements of Section 618.10, Maintenance and Acceptance.

<u>Pay Item</u>	<u>Unit</u>
618.143 Special Seed Mix: Wetland Seed Mix	Unit

SPECIAL PROVISIONS
SECTION 621
 LANDSCAPING
 (Plant Species Specification and Quantities Listing)

621.0001 – Description This work includes installing a line of evergreen trees along the edge of corridor between approximate station 4698+00 and 4701+00. This work shall also include planting shrubs along the area of stream restoration and relocation, as directed by the Resident.

The following list of item numbers provides a listing of plant species and quantities estimated for use on this project. Please note that the scientific name of the plant material is provided along with the common name following in parenthesis.

The Contractor shall follow MDOT Standard Specifications for landscape materials and installation procedures (sec 621) and General Conditions, Supplemental Specifications and Supplemental Standard Details For Construction, February 1, 2001.

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

Pursuant to Section 104.5.9 a Two-Year Maintenance Bond will be required in lieu of a Performance Bond by the Landscape Contractor. Item 621.8 Establishment Period - Two Year will be paid-out at 50% at the end of each year of establishment.

Item No.	Description	Unit	Species Quantity	Item Quantity
621.037	Evergreen Tree (5'-6') Group A	Ea.		21
	Thuja occidentalis (Eastern Arborvitae)	Ea.	21	
621.546	Deciduous Shrubs (2' – 3') Group A	Ea.		700
	Silky Dogwood, 2'-3' height (<i>Cornus amomum</i>)	Ea.	80	
	Red Osier Dogwood, 2'-3' height (<i>Cornus sericea</i>)	Ea.	80	
	Spicebush, 2'-3' height (<i>Lindera benzoin</i>)	Ea.	80	
	Maleberry, 2'-3' height (<i>Lyonia ligustina</i>)	Ea.	80	
	Bebb Willow, 2'-3' height	Ea.	100	

	<i>(Salix bebbiana)</i>			
	Pussy Willow, 2'-3' height <i>(Salix discolor)</i>	Ea.	100	
	Shining Willow, 2'-3' height <i>(Salix lucida)</i>	Ea.	100	
	Highbush Blueberry, 2'-3' height <i>(Vaccinium corymbosum)</i>	Ea.	80	
621.80	Establishment Period - Two Year	L.S.	Lump Sum	Lump Sum

SPECIAL PROVISIONS
SECTION 631
EQUIPMENT RENTAL
(Skid Steer)

631.01 Description This work shall consist of furnishing and operating construction equipment as directed by the Resident.

631.02 General Equipment used for work under this section shall conform to the following minimum sets of requirements:

Skid Steer - Front end bucket, 10 ft³ rated capacity on pneumatic tires

631.08 Basis of Payment The accepted quantities of equipment rental will be paid for at the contract unit price per hour for each type of equipment used. Payment shall include operators, fuel, grease, oil, and other incidentals necessary to operate the equipment.

No separate payment will be made to direct work done under these items, except when called for on the Plans. Payment will then be made under Pay Item 631.36. Payment made will be limited to the grade of foreman and limited to hours spent in actually supervising equipment operators. Such related costs as use of pickup truck, meal and room expenses, benefits, insurance, retirement, travel time, and overtime will not be paid for separately but will be considered incidental to the unit price bid for this pay item.

Payment for equipment rental will be based on experienced operators, familiar with the work being performed. Operators, determined to be below normal acceptable standards of production or workmanship, will be paid for at reduced hours as determined by the Resident.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
631.133	Skid Steer (Including Operator)	HR

SPECIAL PROVISION
SECTION 646
SETTLEMENT PLATFORMS
(Geotechnical)

Description. This work shall consist of installing equipment to facilitate monitoring the performance of the Embankment Preload. This work includes, furnishing, fabricating, installing and maintaining settlement platforms and protective barriers, and extending the settlement platforms up through the Embankment Preload fill as the fill is placed. The Contractor shall cooperate with the Engineer and the Engineer's authorized representative as necessary for the instrumentation to be successfully installed.

MATERIALS

All materials are to be provided by the Contractor unless specifically stated that an item will be provided by the Authority, or the Engineer's authorized representative.

Settlement Platforms and Protective Barriers. Settlement platforms shall consist of 5-ft. long sections of 2-in. dia. black iron pipe, threaded at both ends (one pipe coupling for each length), and attached at the bottom to a 2-ft. by 2-ft. by 3/4-in. thick pressure treated plywood base using a black iron floor flange, as shown on the detail sheet. A threaded black iron cap shall be provided at the top of the settlement platform. Protective barriers shall be fabricated from sound lumber, as shown on the detail sheets.

CONSTRUCTION REQUIREMENTS

Settlement Platforms and Protective Barriers. Settlement platforms and protective barriers shall be furnished, fabricated and installed by the Contractor as shown on the detail sheet. The Contractor shall provide all labor, equipment and materials necessary to extend the settlement platforms up through the Embankment Preload fill as the fill is placed.

The Contractor shall construct and maintain wooden barriers around each of the settlement platforms as shown on the detail sheet to provide protection to the settlement platforms during construction.

The Contractor shall be advised that the top of the settlement platforms will be surveyed by the Engineer: 1) after initial placement of the settlement platforms; 2) before and after additional sections of riser pipe are added to raise the settlement platforms; 3) any time that the settlement platforms are bumped, damaged, vandalized or otherwise altered; 4) at least weekly during placement of fill and at least monthly during other periods; and 5) at any other times deemed necessary by the Engineer. The Contractor shall cooperate with the

Engineer to allow these measurements to be made, and coordinate his schedule accordingly.

Fill Placement and Compaction Near Settlement Platforms. Fill placement and compaction within 3 ft. of riser pipes shall be accomplished by hand in an approved manner. Compaction shall be accomplished using approved hand-operated power compactors.

It is brought to the Contractor's attention that data will be obtained from the settlement platform devices during construction to monitor embankment settlement. Therefore, the Contractor shall take all necessary precautions to prevent damage, disturbance or movement of any settlement platform, once installed. The Contractor shall immediately notify the Engineer of any settlement platform damage, disturbance or movement. The Contractor will be required to halt all work in the area, and immediately repair, reset, resurvey, or replace damaged, disturbed or moved settlement platform as directed by the Engineer.

It is brought to the Contractor's attention that if data obtained from settlement platforms indicate insufficient strength gain within the clay, or signs of embankment instability, construction may be halted and placement of additional embankment material suspended. The Engineer may at such time request additional corrective actions, as necessary.

Survey of settlement platforms will be accomplished by the Engineer or by the Engineer's authorized representative at intervals deemed necessary. The Contractor shall in no way interfere with or delay such activities.

The Contractor shall be advised that the Engineer or Engineer's authorized representative plans to make survey measurements of each settlement platform: 1) after initial placement of the settlement platforms prior to placement of any fill in the area; 2) at least weekly during placement of fill, and at least monthly during other periods; 3) before and after additional sections of riser pipe are added; 4) any time that the settlement platforms are bumped, damaged, vandalized or otherwise altered; and 5) at any other times deemed necessary by the Engineer's authorized representative. The Contractor shall coordinate his schedule accordingly.

Sequence and Estimated Time for Installation of Settlement Platforms. The following sequence and time estimates are provided for the Contractor's planning purposes. The Contractor shall be advised that the following information is approximate, and will likely vary.

1. Clear and grub (by Contractor).
2. Place aggregate subbase course gravel on natural subgrade (by Contractor).
3. Install prefabricated vertical drains (by Contractor).
4. Place settlement platforms on subbase course gravel (by Contractor). Survey settlement platforms (by Engineer - ½ day).
5. Extend settlement platforms (by Contractor). Survey settlement platforms before and after extending (by Engineer - ½ day).

Method of Measurement. Settlement platforms provided in accordance with the plans and specifications will be measured by the lump sum.

Basis of Payment. Settlement platforms will be paid for at the contract lump sum price which shall be full compensation for all labor, materials, and equipment required to install the settlement platforms described in this section and shown on the plans.

Removal and replacement of settlement platforms damaged by the Contractor shall be incidental to the work. Time required for the Contractor to allow survey of settlement platforms by the Engineer or by the Engineer's authorized representative shall be incidental to the work.

<u>Pay Item</u>	<u>Pay Unit</u>
646.091 Settlement Platforms	Lump Sum

SPECIAL PROVISION
SECTION 641
(Trail Kiosks)

641.01 Description The work generally consists of furnishing and installing trail kiosks as shown on the plans in locations field determined by the Resident.

641.02 Materials All lumber shall conform to Voluntary Product Standards PS-70 and be certified according to applicable standard grading and dressing rules and shall bear the official grade and/or trademark of the association under whose rules it is produced.

- A. Wood: All wood shall be #2 Southern Yellow Pine (Southern Pine Inspection Bureau Grade), or approved equal. All wood to be new, solid, sound and surface dry with a maximum moisture content of 19 percent. All wood shall be clearly marked with the official grading information.
- B. Fasteners: Carriage bolts shall be hot dipped galvanized steel or stainless steel and shall conform to the requirements of ANSI-B18.5 for round head, square neck bolts and to ASTM- A307. Washers shall be plain steel and shall conform to the requirements of ANSI-B18.22.1 Nuts shall be hex nuts conforming to the requirements of ANSI-B18.22.2
- C. Treatment: All wood shall be .40 lbs per cubic foot pressure treated with Alkaline Copper Quaternary (ACQ)

641.02 Construction Shop drawings shall be submitted for approval prior to beginning construction and installation of the kiosks.

641.03 Method of Measurement Trail kiosks will be measured for payment by each unit satisfactorily constructed, installed, and accepted.

641.04 Basis of Payment Trail kiosks will be paid for at the contract unit price each, which price shall be full compensation for the fabrication and installation of the kiosks including all materials, labor, equipment, excavation, backfill, concrete, and other items incidental to completing the work.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
641.89	Trail Kiosks	EA

SPECIAL PROVISION
SECTION 645
HIGHWAY SIGNING

Under 645.023 Support Structures, add the following to the first paragraph just prior to the last sentence:

Minimum fatigue design default values for cantilever & butterfly sign support structures shall be classified as Fatigue Category I with Fatigue Importance Factors (I_f) of 1.0 for Galloping, 1.0 for Natural Wind Gusts and 1.0 for Truck-Induced Gusts. Bridge type sign support structures supporting variable message signs (VMS) shall also use this fatigue criteria in their design.

Minimum fatigue design default values for bridge type structures, without VMS, shall be classified as Fatigue Category II with Importance Factors (I_f) of 0.65 for Galloping, 0.75 for Natural Wind Gusts and 0.89 for Truck-Induced Gusts.

Under 645 Support Structures, b. Bridge, Cantilever, and Butterfly Type Sign Supports, modify the 1st sentence in paragraph 2 to read:

“Signs shall be placed on the support structure such that the bottom edges are aligned (unless written consent from the Fabrication Engineer is obtained), while accommodating the minimum height requirement - see Section 645.06.

Modify the 4th sentence of paragraph 2 to read:

“This additional theoretical sign load shall be computed by: For single signs increasing the sign widths an additional 25% without changing the horizontal midpoint of the sign; For multiple signs the sign widths shall be increased 25% toward the outside sign edges. The height shall be increased 25% without changing the bottom edge elevation of the signs.”

Under 645.06 Installation of Type I Signs, b. Sign Panels, modify the 4th sentence of the 1st paragraph to read:

“Sign panels on overhead structures shall provide a minimum vertical clearance of 5.5 meters [18 ft] to the highest point of the roadway surface under the sign(s).

SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC
(Traffic Control)

Failure by the contractor to follow the Contracts 652 Special Provisions and Standard Specification and/or The Manual on Uniform Traffic Control Devices (MUTCD) and/or The Contractors own Traffic Control Plan will result in a violation letter and result in a reduction in payment as shown in the schedule below. The Departments Resident or any other representative of The Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item. Any reduction in payment under this Special Provision will be in addition to forfeiting payment of maintenance of traffic control devices for that day.

ORIGINAL CONTRACT AMOUNT

from	Up to and	Amount of Penalty
<u>More Than</u>	<u>Including</u>	<u>Damages per Violation</u>
\$0	\$100,000	\$250
\$100,000	\$300,000	\$500
\$300,000	\$500,000	\$750
\$500,000	\$1,000,000	\$1,500
\$1,000,000	\$2,000,000	\$2,500
\$2,000,000	\$4,000,000	\$5,000
\$4,000,000	and more	\$10,000

SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC
Construction Sign Sheeting Material

Super high intensity fluorescent retroreflective sheeting, ASTM D 4956 - Type VII, Type VIII, or Type IX (prismatic), is required for all construction signs.

SPECIAL PROVISION
SECTION 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 xxxx¹
One Lane Road Ahead
Flagger Sign

Other typical signs include:

Be Prepared to Stop
Low Shoulder
Bump
Pavement Ends

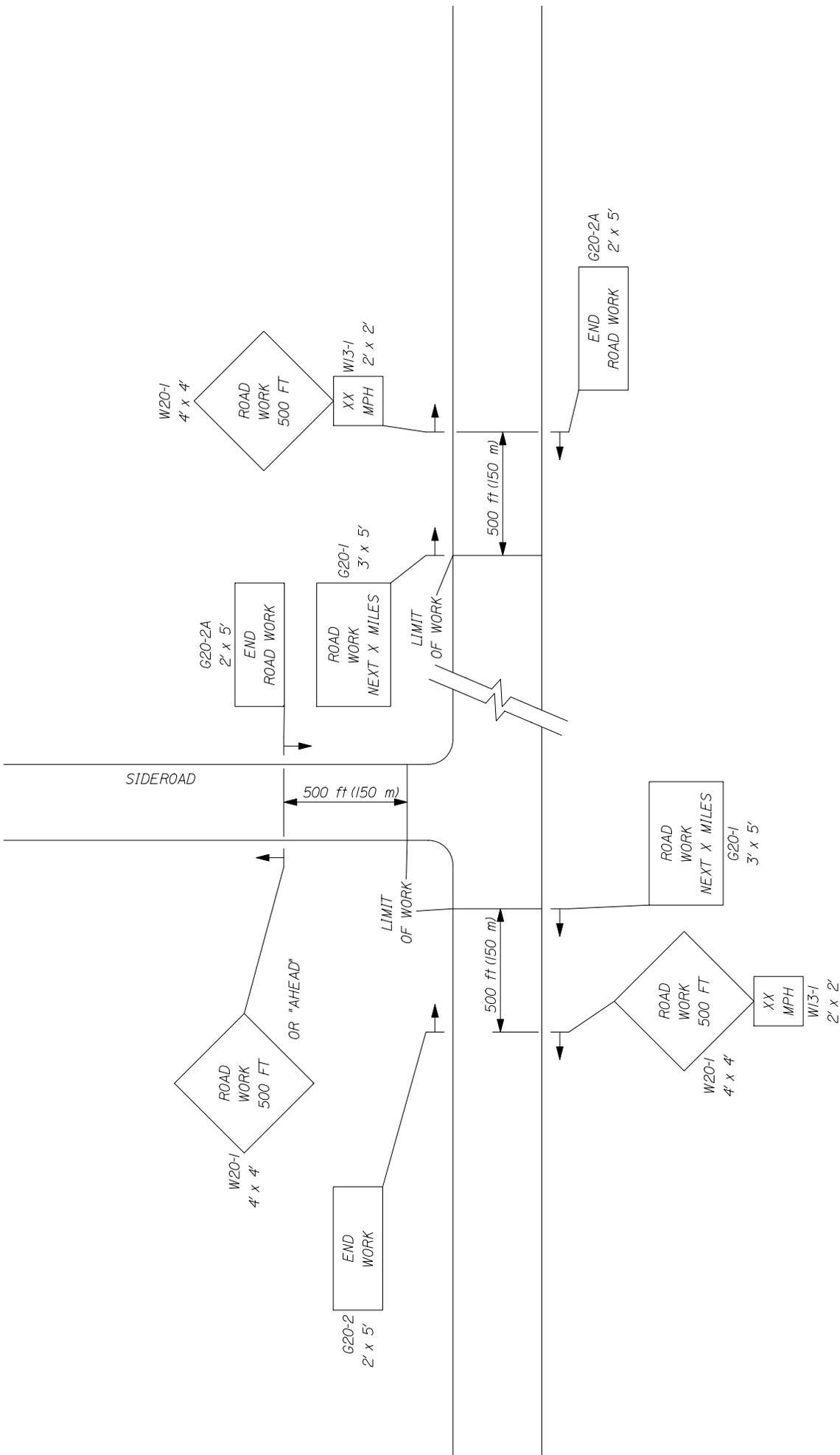
The above lists of Approach signs and Work Area signs are representative of the contract requirements. Other sign legends may be required.

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

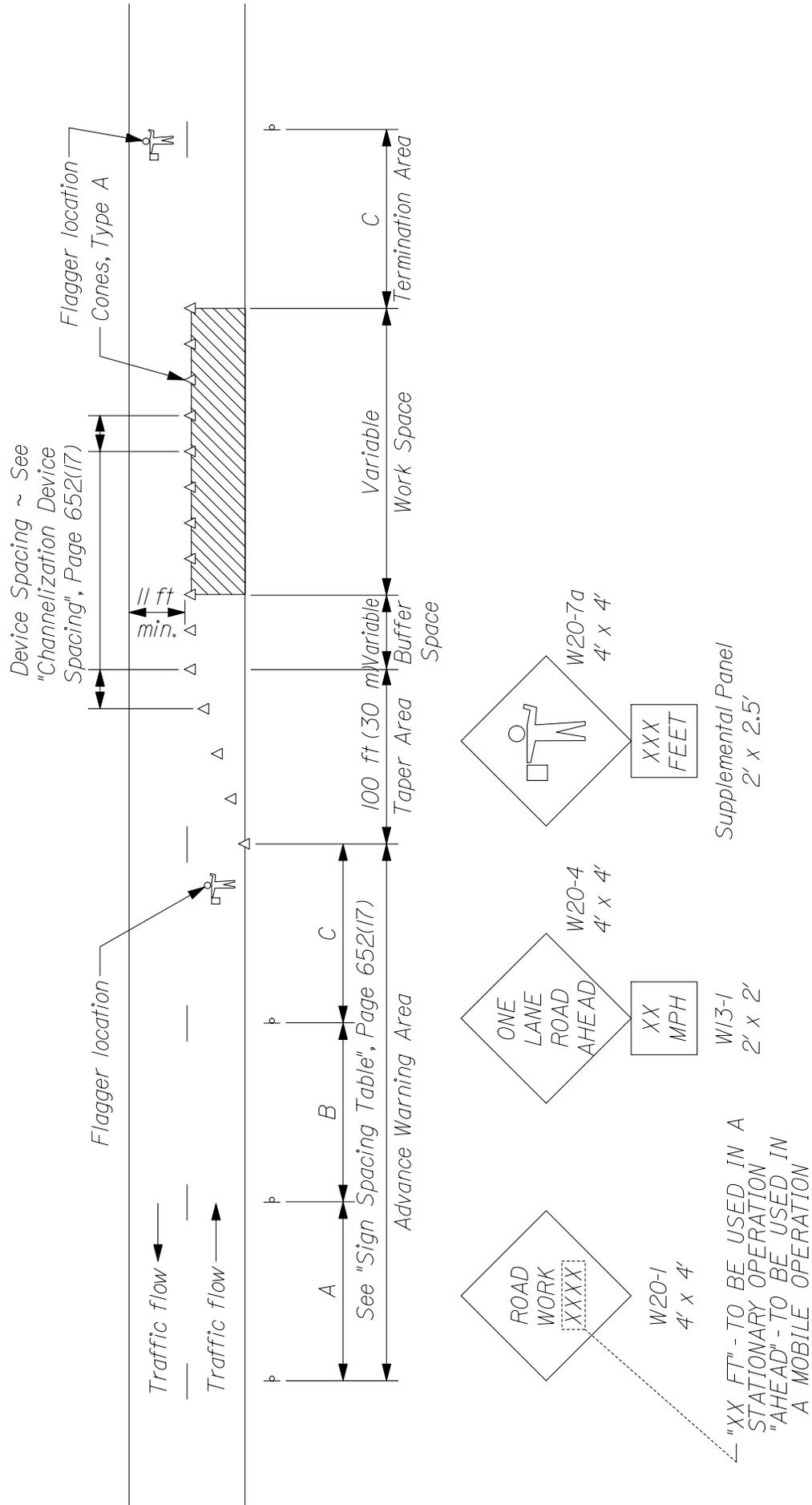
Temporary Centerline A temporary centerline shall be placed each day on all new pavement to be used by traffic. The temporary centerline, when specified of reflectorized traffic paint, shall conform to the standard marking patterns used for permanent markings.

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

¹ "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.

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
(Maine Turnpike Authority Facilities)

This Special Provision is for Maine Turnpike owned facilities, which includes working within the Maine Turnpike Authority Right of Way. This includes accessing the work area directly from the Turnpike and the northbound and southbound on and off ramps at Interchange 25.

652.2 Materials

The first sentence in the second paragraph is deleted and replaced with the following:

All construction signs shall have fluorescent orange reflective sheeting in conformance with ASTM 4956 type VII unless otherwise noted.

652.2.5 Safety Vests

This Subsection is amended by the addition of the following:

All jobsite personnel shall wear a safety vest labeled as ANSI 107-2004 standard performance for minimum Class 3 risk exposures. This requirement also applies to truck drivers and equipment operators when out of an enclosed cab.

652.2.6 Signs

The use of temporary plaques to cover text or to change text will not be allowed. All signs shall have a uniform face.

652.3.4 General

This Subsection is amended by the addition of the following:

No equipment or vehicles of the Contractor, their Subcontractors, 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, except as required by ongoing Work operations. Contractor equipment or vehicles shall never be used to stop, block or channelize traffic.

Vehicles parked on the shoulder shall be located so all portions of the vehicle(s) are a minimum of one foot from the traveled way. No operation (including loading or unloading

vehicles) shall be conducted on or near the traveled lanes or shoulders without first setting up the proper lane closure and traffic control devices. These precautions shall be maintained at all times while this Work is being performed.

No vehicle will move onto the traveled way at such a time or in such a manner so as to cause undue concern or danger to traffic approaching from either direction. The Contractor or his employees are not empowered to stop traffic.

During winter periods, drums shall be placed on the grass shoulder or removed from the roadway so winter maintenance operations will not be impacted. This requires the placement of drums behind the median guardrail. Drums shall not be placed on snow banks.

652.3.6 Traffic Control

This Subsection is amended by the addition of the following:

General

Three travel lanes in each direction (each direction being 36 feet wide excluding shoulder) shall be maintained at all times except during the placement and removal of traffic control devices.

Short Term Lane Closures

Contractor is permitted to close the far right travel lane on the northbound and southbound roadways in order to gain access to the work area.

Lane closures shall be removed if work requiring the lane closure is not ongoing unless approved by the Authority's authorized representative.

Temporary lane closures will only be allowed as follows:

July 13, 2009 through October 13, 2009, inclusive, lane closures are allowed daily Northbound 8:30 a.m. until 5:00 p.m. Monday through Thursday and 8:30 a.m. until 12:00 p.m. (noon) Friday. Southbound, lane closures are allowed daily 6:00 a.m. until 3:30 p.m. Monday through Thursday and 6:00 a.m. until 12:00 p.m. (noon) Friday. These hours may be adjusted by the Resident, based on the traffic volume each day.

In September 2010, lane closures will be permitted for one week (five working days), northbound and southbound, for access so the Contractor may remove excess surcharge material. For this purpose lane closures are allowed at the days and times defined above.

The lane closure set-up may not begin until the beginning time specified. Lane closures that are set-up early or that remain in place outside of the approved period shall be subject to a lane rental fee of \$500 per five minutes for every five minutes outside of the approved time. The actual restriction of a travel lane by an arrow board or other traffic

control device shall be a lane closure. Construction signs shall be installed immediately prior to the start of the lane closure and shall be promptly removed when no longer required. The installation and removal of a lane closure including signs, channelizing devices and arrow boards shall be a continuous operation. The Authority reserves the right to order removal of an approved lane closure.

The Resident is required to receive approval from the Maine Turnpike Authority for all lane closures. The request shall be submitted to the Authority by the Resident at least two (2) working days prior to the day of the requested lane closure. All requests must be received by 12:00 p.m. to be considered as received on that day. Requests received after 12:00 p.m. shall be considered as received the following day. The Contractor shall plan the work accordingly.

Lane Closure Installation and Removal Procedure

The Contractor will follow the following procedures when closing any travel lanes on the Turnpike roadways:

1. The sign package shall be erected starting with the first sign and proceeding to the start of the taper. The sign crew shall erect signs with the vehicle within the outside shoulder;
2. Position the arrow board with the proper arrow at the beginning of the taper; and
3. When arrow board is in place, continue with the drums to secure the work area.

To dismantle the lane closure, start with last drums placed and work in reverse order until all the drums are removed. The arrow board which was installed first shall be the final traffic control device removed, excluding the sign package. The remaining sign package shall be picked up starting with the first sign placed and continuing in the direction of traffic and with the vehicle in the outside shoulder.

Temporary Mainline Shoulder Closures

Temporary mainline shoulder closures may be allowed instead of a lane closure, at locations where Contractor access to the mainline is required. Heavy equipment may not access the mainline without a lane closure.

No previously approved days and/or times for shoulder closures have been determined. The Contractor shall submit a proposal to the Resident for approval.

Temporary shoulder closures with plastic drums shall be removed at the end of the workday. Temporary shoulder closures with plastic drums will not be allowed during periods of inclement weather as determined by the Authority.

652.61 Construction Vehicles

The Contractor shall furnish approved signs reading “Construction Vehicle – Keep Back” to be used on trucks hauling to the Project. The signs shall be a minimum of 30 inch by 60 inch, Black and Orange, Type VII. The older type “Construction Vehicle - Do Not Follow” may be used until the end of their service life.

All vehicles used on the Project shall be equipped with amber flashing lights, visible from both front and rear, or by means of a single, approved type, revolving, flashing or strobe lights mounted so as to be visible 360 degrees. The vehicle flashing system shall be in continuous operation while the vehicle is on any part of the Project. Dump trucks and utility trucks shall have a strobe light mounted on each side of the vehicle.

652.8 Basis of Payment

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
652.362 Maintenance of Traffic Control Devices – Maine Turnpike Authority	LS

SPECIAL PROVISION
SECTION 841
(Bollards)

841.01 Description Work under this item shall be in conformance with the manufacturer's recommendations. The work generally consists of furnishing and installing bollards as shown on the plans.

841.02 Materials Fixed bollards shall be Traffic Guard, LLC Fixed Steel Bollard or approved equal. Collapsible bollards shall be Traffic Guard, LLC Double Hinged Collapsible Bollards or approved equal.

Each bollard shall be supplied with two padlocks. All padlocks shall be Matser Lock commercial grade all-weather locks. One lock on each bollard shall use key # 57 and one lock on each bollard shall use key #3810. All padlocks shall be installed and locked after installation of the bollards and the keys provided to the Resident.

841.03 Construction Bollards to be installed in accordance with manufacturer's recommendations and per the details shown on the plans.

841.04 Method of Measurement: Bollards and Collapsible Bollards will be measured for payment by each unit satisfactorily constructed, installed, and accepted.

841.05 Basis of Payment: The accepted quantity of Bollards and Collapsible Bollards shall be paid for at the Contract Unit Price per Each (EA) which price shall be full compensation for all materials, labor, equipment, installation, sleeving, concrete, locks, and other incidentals required to complete the work.

<u>Pay Item</u>		<u>Pay Unit</u>
841.48	Bollards	Each
841.49	Bollards – Collapsible	Each

STANDARD DETAIL UPDATES

Standard Details and Standard Detail updates are available at:

http://www.maine.gov/mdot/contractor-consultant-information/ss_standard_details_updates.php

<u>Detail #</u>	<u>Description</u>	<u>Revision Date</u>
504(15)	Diaphragms	12/30/02
507(04)	Steel Bridge Railing	2/05/03
526(33)	Concrete Transition Barrier	8/18/03
645(06)	H-Beam Posts – Highway Signing	7/21/04
645(09)	Installation of Type II Signs	7/21/04
626(09)	Electrical Junction Box for Traffic Signals and Lighting	2/25/05
604(01)	Catch Basins	11/16/05
604(05)	Type “A” & “B” Catch Basin Tops	11/16/05
604(06)	Type “C” Catch Basin Tops	11/16/05
604(07)	Manhole Top “D”	11/16/05
604(09)	Catch Basin Type “E”	11/16/05
606(02)	Multiple Mailbox Support	11/16/05
606(07)	Reflectorized Beam Guardrail Delineator Details	11/16/05
609(06)	Vertical Bridge Curb	11/16/05
504(23)	Hand-Hold Details	12/08/05
609(03)	Curb Type 3	6/27/06
609(07)	Curb Type 1	6/27/06
535(01)	Precast Superstructure - Shear Key	10/12/06
535(02)	Precast Superstructure - Curb Key & Drip Notch	10/12/06
535(03)	Precast Superstructure - Shear Key	10/12/06

535(04)	Precast Superstructure - Shear Key	10/12/06
535(05)	Precast Superstructure - Post Tensioning	10/12/06
535(06)	Precast Superstructure - Sections	10/12/06
535(07)	Precast Superstructure - Precast Slab & Box	10/12/06
535(08)	Precast Superstructure - Sections	10/12/06
535(09)	Precast Superstructure - Sections	10/12/06
535(10)	Precast Superstructure - Sections	10/12/06
535(11)	Precast Superstructure - Sections	10/12/06
535(12)	Precast Superstructure - Sections	10/12/06
535(13)	Precast Superstructure - Sections	10/12/06
535(14)	Precast Superstructure - Stirrups	10/12/06
535(15)	Precast Superstructure - Plan	10/12/06
535(16)	Precast Superstructure - Reinforcing	10/12/06
535(17)	Precast Superstructure - Notes	10/12/06
801(01)	Drives on Sidewalk Sections	2/06/07
801(02)	Drives on Non-Sidewalk Sections	2/06/07
535(03)	Precast Superstructure - Shear Key	12/5/07
535(04)	Precast Superstructure - Shear Key	12/5/07
535(05)	Precast Superstructure - Post Tensioning	12/5/07
535(17)	Precast Superstructure - Notes	12/5/07
801(01)	Drives on Sidewalk Sections	1/04/08
801(02)	Drives on Non-Sidewalk Sections	1/04/08
203(03)	Backslope Rounding	1/29/08
535(02)	Precast Superstructure - Curb Key & Drip Notch	5/20/08

535(05)	Precast Superstructure - Post Tensioning	5/20/08
502(03)	Concrete Curb - Bituminous Wearing Surface	2/2/09
502(03)A	Concrete Curb - Concrete Wearing Surface	2/2/09
502(07)	Precast Concrete Deck Panels - Layout Plan	2/2/09
502(07)A	Precast Concrete Deck Panels - Layout Plan	2/2/09
502(08)	Precast Concrete Deck Panels - Panel Plan	2/2/09
502(09)	Precast Concrete Deck Panels - Blocking Detail	2/2/09
502(10)	Precast Concrete Deck Panels	2/2/09
502(11)	Precast Concrete Deck Panels	2/2/09
502(12)	Precast Concrete Deck Panels - Notes	2/2/09
502(12)A	Precast Concrete Deck Panels - Notes	2/2/09
526(06)	Permanent Concrete Barrier	2/2/09
526(08)	Permanent Concrete Barrier – Type IIIA	2/2/09
526(08)A	Permanent Concrete Barrier – Type IIIA	2/2/09
526(13)	Permanent Concrete Barrier – Type IIIB	2/2/09
526(14)	Permanent Concrete Barrier – Type IIIB	2/2/09
526(21)	Concrete Transition Barrier	2/2/09
526(39)	Texas Classic Rail – Between Window	2/2/09
526(40)	Texas Classic Rail – Through Window	2/2/09
526(41)	Texas Classic Rail – Through Post	2/2/09
526(42)	Texas Classic Rail – Through Nose	2/2/09
606(20)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09
606(21)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09
606(22)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09

606(23)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09
609(06)	Vertical Bridge Curb	2/2/09
609(08)	Precast Concrete Transition Curb	2/2/09

SUPPLEMENTAL SPECIFICATION
(Corrections, Additions, & Revisions to Standard Specifications - Revision of December 2002)

SECTION 101
CONTRACT INTERPRETATION

101.2 Definitions

Closeout Documentation Replace the sentence “A letter stating the amount..... DBE goals.” with “DBE Goal Attainment Verification Form”

Add “Environmental Information Hazardous waste assessments, dredge material test results, boring logs, geophysical studies, and other records and reports of the environmental conditions. For a related provision, see Section 104.3.14 - Interpretation and Interpolation.”

Add “Fabrication Engineer The Department’s representative responsible for Quality Assurance of pre-fabricated products that are produced off-site.”

Geotechnical Information Replace with the following: “Boring logs, soil reports, geotechnical design reports, ground penetrating radar evaluations, seismic refraction studies, and other records of subsurface conditions. For a related provision, see Section 104.3.14 - Interpretation and Interpolation.”

SECTION 102
DELIVERY OF BIDS

102.7.1 Location and Time Add the following sentence “As a minimum, the Bidder will submit a Bid Package consisting of the Notice to Contractors, the completed Acknowledgement of Bid Amendments form, the completed Schedule of Items, 2 copies of the completed Agreement, Offer, & Award form, a Bid Bond or Bid Guarantee, and any other Certifications or Bid Requirements listed in the Bid Book.”

102.11.1 Non-curable Bid Defects Replace E. with “E. The unit price and bid amount is not provided or a lump sum price is not provided or is illegible as determined by the Department.”

SECTION 103
AWARD AND CONTRACTING

103.3.1 Notice and Information Gathering Change the first paragraph to read as follows: “After Bid Opening and as a condition for Award of a Contract, the Department may require an Apparent Successful Bidder to demonstrate to the Department’s satisfaction that the Bidder is responsible and qualified to perform the Work.”

SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES

104.3.14 Interpretation and Interpolation In the first sentence, change “...and Geotechnical Information.” to “...Environmental Information, and Geotechnical Information.”
Delete the entire Section 104.5.9 and replace with the following:

“104.5.9 Landscape Subcontractors The Contractor shall retain only Landscape Subcontractors that are certified by the Department’s Environmental Office Landscape Unit.”

SECTION 105 GENERAL SCOPE OF WORK

Delete the entire Section 105.6 and replace with the following:

105.6.1 Department Provided Services The Department will provide the Contractor with the description and coordinates of vertical and horizontal control points, set by the Department, within the Project Limits, for full construction Projects and other Projects where survey control is necessary. For Projects of 1,500 feet in length, or less: The Department will provide three points. For Projects between 1,500 and 5,000 feet in length: The Department will provide one set of two points at each end of the Project. For Projects in excess of 5,000 feet in length, the Department will provide one set of two points at each end of the Project, plus one additional set of two points for each mile of Project length. For non-full construction Projects and other Projects where survey control is not necessary, the Department will not set any control points and, therefore, will not provide description and coordinates of any control points. Upon request of the Contractor, the Department will provide the Department’s survey data management software and Survey Manual to the Contractor, or its survey Subcontractor, for the exclusive use on the Department’s Projects.

105.6.2 Contractor Provided Services Utilizing the survey information and points provided by the Department, described in Subsection 105.6.1, Department Provided Services, the Contractor shall provide all additional survey layout necessary to complete the Work. This may include, but not be limited to, reestablishing all points provided by the Department, establishing additional control points, running axis lines, providing layout and maintenance of all other lines, grades, or points, and survey quality control to ensure conformance with the Contract. The Contractor is also responsible for providing construction centerline, or close reference points, for all Utility Facilities relocations and adjustments as necessary to complete the Work. When the Work is to connect with existing Structures, the Contractor shall verify all dimensions before proceeding with the Work. The Contractor shall employ or retain competent engineering and/or surveying personnel to fulfill these responsibilities.

The Contractor must notify the Department of any errors or inconsistencies regarding the data and layout provided by the Department as provided by Section 104.3.3 - Duty to Notify Department If Ambiguities Discovered.

105.6.2.1 Survey Quality Control The Contractor is responsible for all construction survey quality control. Construction survey quality control is generally defined as, first, performing initial field survey layout of the Work and, second, performing an independent check of the initial layout using independent survey data to assure the accuracy of the initial layout; additional iterations of checks may be required if significant discrepancies are discovered in this process. Construction survey layout quality control also requires written documentation of the layout process such that the process can be followed and repeated, if necessary, by an independent survey crew.

105.6.3 Survey Quality Assurance It is the Department's prerogative to perform construction survey quality assurance. Construction survey quality assurance may, or may not, be performed by the Department. Construction survey quality assurance is generally defined as an independent check of the construction survey quality control. The construction survey quality assurance process may involve physically checking the Contractor's construction survey layout using independent survey data, or may simply involve reviewing the construction survey quality control written documentation. If the Department elects to physically check the Contractor's survey layout, the Contractor's designated surveyor may be required to be present. The Department will provide a minimum notice of 48 hours to the Contractor, whenever possible, if the Contractor's designated surveyor's presence is required. Any errors discovered through the quality assurance process shall be corrected by the Contractor, at no additional cost to the Department.

105.6.4 Boundary Markers The Contractor shall preserve and protect from damage all monuments or other points that mark the boundaries of the Right-of-Way or abutting parcels that are outside the area that must be disturbed to perform the Work. The Contractor indemnifies and holds harmless the Department from all claims to reestablish the former location of all such monuments or points including claims arising from 14 MRSA § 7554-A. For a related provision, see Section 104.3.11 - Responsibility for Property of Others.

SECTION 106 QUALITY

106.4.3 Testing Change the first sentence in paragraph three from "...maintain records of all inspections and tests." to "...maintain original documentation of all inspections, tests, and calculations used to generate reports."

106.6 Acceptance Add the following to paragraph 1 of A: "This includes Sections 401 - Hot Mix Asphalt, 402 - Pavement Smoothness, and 502 - Structural Concrete - Method A - Air Content."

Add the following to the beginning of paragraph 3 of A: "For pay factors based on Quality Level Analysis, and"

106.7.1 Standard Deviation Method Add the following to F: "Note: In cases where the mean of the values is equal to either the USL or the LSL, then the PWL will be 50 regardless of the computed value of s."

Add the following to H: "Method C Hot Mix Asphalt: $PF = [55 + (Quality\ Level * 0.5)] * 0.01$ "

SECTION 107 TIME

107.3.1 General Add the following: "If a Holiday occurs on a Sunday, the following Monday shall be considered a Holiday. Sunday or Holiday work must be approved by the Department, except that the Contractor may work on Martin Luther King Day, President's Day, Patriot's Day, the Friday after Thanksgiving, and Columbus Day without the Department's approval."

107.7.2 Schedule of Liquidated Damages Replace the table of Liquidated Damages as follows:

<u>From More Than</u>	<u>Up to and Including</u>	<u>Amount of Liquidated Damages per Calendar Day</u>
\$0	\$100,000	\$100
\$100,000	\$300,000	\$200
\$300,000	\$500,000	\$400
\$500,000	\$1,000,000	\$575
\$1,000,000	\$2,000,000	\$750
\$2,000,000	\$4,000,000	\$900
\$4,000,000	and more	\$1,875

SECTION 108 PAYMENT

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

SECTION 109 CHANGES

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

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

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

109.5.1 Definitions - Types of Delays

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

109.7.2 Basis of Payment Replace with the following: "Equitable Adjustments will be established by mutual Agreement for compensable items listed in Section 109.7.3- Compensable Items, based upon Unit or Lump Sum Prices. If Agreement cannot be reached, the Contractor shall accept payment on a Force Account basis as provided in Section 109.7.5 - Force Account Work, as full and complete compensation for all Work relating to the Equitable Adjustment."

109.7.3 Compensable Items Replace with the following: "The Contractor is entitled to compensation for the following items, with respect to agreed upon Unit or Lump Sum Prices:

1. Labor expenses for non-salaried Workers and salaried foremen.
2. Costs for Materials.
3. A 15 % markup on the totals of Items 1 and 2 of this subsection 109.7.3 for home office overhead and profit of the Contractor, its Subcontractors and suppliers, and any lower tier Subcontractors or suppliers, with no mark-ups on mark-ups.
4. Cost for Equipment, based on Blue Book Rates or leased rates, as set forth in Section 109.7.5(C), or the Contractor's Actual Costs if determined by the Department to be lower.
5. Time.
6. Subcontractor quoted Work, as set forth below in Section 109.7.5 (F)."

109.7.5 Force Account Work

C. Equipment

Paragraph 2, delete sentence 1 which starts; "Equipment leased...."

Paragraph 6, change sentence 2 from "The Contractor may furnish..." to read "If requested by the Department, the Contractor will produce cost data to assist the Department in the establishment of such rental rate, including all records that are relevant to the Actual Costs including rental Receipts, acquisition costs, financing documents, lease Agreements, and maintenance and operational cost records."

Add the following paragraph; "Equipment leased by the Contractor for Force Account Work and actually used on the Project will be paid for at the actual invoice amount plus 10% markup for administrative costs."

Add the following section;

"F. Subcontractor Work When accomplishing Force Account Work that utilizes Subcontractors, the Contractor will be allowed a maximum markup of 5% for profit and overhead on the Subcontractor's portion of the Force Account Work."

SECTION 110 INDEMNIFICATION, BONDING, AND INSURANCE

Delete the entire Section 110.2.3 and replace with the following:

110.2.3 Bonding for Landscape Establishment Period The Contractor shall provide a signed, valid, and enforceable Performance, Warranty, or Maintenance Bond complying with the Contract, to the Department at Final Acceptance.

The bond shall be in the full amount for all Pay Items for work pursuant to Sec 621, Landscape, payable to the “Treasurer - State of Maine,” and on the Department’s forms, on exact copies thereof, or on forms that do not contain any significant variations from the Department’s forms as solely determined by the Department.

The Contractor shall pay all premiums and take all other actions necessary to keep said bond in effect for the duration of the Landscape Establishment Period described in Special Provision 621.0036 - Establishment Period. If the Surety becomes financially insolvent, ceases to be licensed or approved to do business in the State of Maine, or stops operating in the United States, the Contractor shall file new bonds complying with this Section within 10 Days of the date the Contractor is notified or becomes aware of such change.

All Bonds shall be procured from a company organized and operating in the United States, licensed or approved to do business in the State of Maine by the State of Maine Department of Business Regulation, Bureau of Insurance, and listed on the latest Federal Department of the Treasury listing for “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies.”

By issuing a bond, the Surety agrees to be bound by all terms of the Contract, including those related to payment, time for performance, quality, warranties, and the Department’s self-help remedy provided in Section 112.1 - Default to the same extent as if all terms of the Contract are contained in the bond(s).

Regarding claims related to any obligations covered by the bond, the Surety shall provide, within 60 Days of Receipt of written notice thereof, full payment of the entire claim or written notice of all bases upon which it is denying or contesting payment. Failure of the Surety to provide such notice within the 60-day period constitutes the Surety’s waiver of any right to deny or contest payment and the Surety’s acknowledgment that the claim is valid and undisputed.

SECTION 202 REMOVING STRUCTURES AND OBSTRUCTIONS

202.02 Removing Buildings Make the following change to the last sentence in the final paragraph, change “...Code of Maine Regulations 401.” to “...Department of Environmental Protection Maine Solid Waste Management Rules, 06-096 CMR Ch. 401, Landfill Siting, Design and Operation.”

SECTION 203 EXCAVATION AND EMBANKMENT

203.01 Description Under b. Rock Excavation; add the following sentence: “The use of perchlorate is not allowed in blasting operations.”

SECTION 502
STRUCTURAL CONCRETE

502.05 Composition and Proportioning; TABLE #1; NOTE #2; third sentence; Change "...alcohol based saline sealer..." to "alcohol based silane sealer...". Add NOTE #6 to Class S Concrete.

502.0502 Quality Assurance Method A - Rejection by Resident Change the first sentence to read: "For an individual subplot with test results failing to meet the criteria in Table #1, or if the calculated pay factor for Air Content is less than 0.80....."

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

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

502.10 Forms and False work

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

502.11 Placing Concrete

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

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

Second paragraph; delete the first two sentences.

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

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

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

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

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

SECTION 503 REINFORCING STEEL

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

SECTION 504 STRUCTURAL STEEL

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

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

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

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

SECTION 535 PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE

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

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

535.26 Lateral Post-Tensioning Replace the first paragraph; "A final tension..." with "Overstressing strands for setting losses cannot be accomplished for chuck to chuck lengths of 7.6 m [25 ft] and less. In such instances, refer to the Plans for all materials and methods. Otherwise, post-tensioning shall be in accordance with PCI standards and shall provide the anchorage force noted in the Plans. The applied jacking force shall be no less than 100% of the design jacking force."

SECTION 603
PIPE CULVERTS AND STORM DRAINS

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

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

SECTION 604
MANHOLES, INLETS, AND CATCH BASINS

604.02 Materials Add the following:

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

SECTION 605
UNDERDRAINS

605.05 Underdrain Outlets Make the following change:

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

SECTION 606
GUARDRAIL

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

606.09 Basis of Payment First paragraph; delete the second and third sentence in their entirety and replace with “Butterfly-type guardrail reflectorized delineators shall be mounted on all W-beam guardrail at an interval of every 10 posts [62.5 ft] on tangents sections and every 5 posts [31.25 ft] on curved sections as directed by the Resident. On divided highways, the delineators shall be yellow on the left hand side and silver/white on the right hand side. On two-way

roadways, the delineators shall be silver/white on the right hand side. All delineators shall have retroreflective sheeting applied to only the traffic facing side. Reflectorized guardrail delineators will not be paid for directly, but will be considered incidental to the guardrail items.”

SECTION 609 CURB

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

SECTION 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..."

In the last paragraph add the following as the second sentence: "The Department will review and provide comments to the Contractor within 14 days of receipt of the TCP."

652.3.5 Installation of Traffic Control Devices In the first paragraph, first sentence; change "Signs shall be erected..." to "Portable signs shall be erected..." In the third sentence; change "Signs must be erected so that the sign face..." to "Post-mounted signs must also be erected so that the sign face..."

652.4 Flaggers Replace the first paragraph with the following; "The Contractor shall furnish flaggers as required by the TCP or as otherwise specified by the Resident. All flaggers must have successfully completed a flagger test approved by the Department and administered by a Department-approved Flagger-Certifier who is employing that flagger. All flaggers must carry an official certification card with them while flagging that has been issued by their employer. Flaggers shall wear safety apparel meeting ANSI 107-1999 Class 2 risk exposure and clearly identify the wearer as a person, shall be visible at a minimum distance of 300 m [1000 ft], and shall wear a hardhat with retroreflectivity. For nighttime conditions, Class 3 apparel should be considered, retroreflective or flashing SLOW/STOP paddles shall be used, and except in emergency situations the flagger station shall be illuminated to assure visibility."

Second paragraph, first sentence; change "...have sufficient distance to stop before entering the workspace." to "...have sufficient distance to stop at the intended stopping point." Third

sentence; change “At a spot obstruction...” to “At a spot obstruction with adequate sight distance,...”

Fourth paragraph, delete and replace with “Flaggers shall be provided as a minimum, a 10 minute break, every 2 hours and a 30 minute or longer lunch period away from the work station. Flaggers may only receive 1 unpaid break per day; all other breaks must be paid. Sufficient certified flaggers shall be available onsite to provide for continuous flagging operations during break periods. Breaker flaggers will not be paid for separately, but shall be considered incidental to the appropriate pay item.”

652.8.2 Other Items Replace the last paragraph with the following: “There will be no payment made under any 652 pay items after the expiration of the adjusted total contract time.”

SECTION 653 POLYSTYRENE PLASTIC INSULATION

653.05 Placing Backfill In the second sentence; change “...shall be not less than 150 mm [6 in] loose measure.” to “...shall be not less than 250 mm [10 in] loose measure.” In the third sentence; change “...crawler type bulldozer of not more than 390 kg/m² [80 lb/ft²] ground contact pressure...” to “...crawler type bulldozer of not more than 4875 kg/m² [2000 lb/ft²] ground contact pressure...”

653.06 Compaction In the last sentence; change “...not more than 390 kg/m² [80 lb/ft²] ground contact...” to “...not more than 4875 kg/m² [2000 lb/ft²] ground contact...”

SECTION 656 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL

656.5.1 If Pay Item 656.75 Provided Replace the second paragraph with the following: “Failure by the Contractor to follow Standard Specification or Special Provision - Section 656 and/or the Contractor’s own Soil Erosion and Pollution Control Plan will result in a reduction in payment, computed by reducing the Lump Sum Total by 5% per occurrence per day. The Department’s Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item.”

SECTION 701 STRUCTURAL CONCRETE RELATED MATERIALS

701.10 Fly Ash - Chemical Requirements Change all references from “ASTM C311” to “ASTM C114”.

SECTION 703
AGGREGATES

703.05 Aggregate for Sand Leveling Change the percent passing the 9.5 mm [3/8 in] sieve from “85 – 10” to “85 – 100”

703.06 Aggregate for Base and Subbase Delete the first paragraph: “The material shall have...” and replace with “The material shall have a minimum degradation value of 15 as determined by Washington State DOT Test Method T113, Method of Test for Determination of Degradation Value (March 2002 version), except that the reported degradation value will be the result of testing a single specimen from that portion of a sample that passes the 12.5 mm [½ in] sieve and is retained on the 2.00 mm [No. 10] sieve, minus any reclaimed asphalt pavement used.”

703.07 Aggregates for HMA Pavements Delete the forth paragraph: “The composite blend shall have...” and replace with “The composite blend, minus any reclaimed asphalt pavement used, shall have a Micro-Deval value of 18.0 or less as determined by AASHTO T 327. In the event the material exceeds the Micro Deval limit, a Washington Degradation test shall be performed. The material shall be acceptable if it has a value of 30 or more as determined by Washington State DOT Test Method T 113, Method of Test for Determination of Degradation Value (March 2002 version) except that the reported degradation value will be the result of testing a single composite specimen from that portion of the sample that passes the 12.5mm [1/2 inch] sieve and is retained on the 2.00mm [No 10] sieve, minus any reclaimed asphalt pavement used.”

703.09 HMA Mixture Composition The coarse and fine aggregate shall meet the requirements of Section 703.07. The several aggregate fractions for mixtures shall be sized, graded, and combined in such proportions that the resulting composite blends will meet the grading requirements of the following table.

AGGREGATE GRADATION CONTROL POINTS

SIEVE SIZE	Nominal Maximum Aggregate Size---Control Points (Percent Passing)				
	TYPE 25 mm	TYPE 19 mm	TYPE 12.5 mm	TYPE 9.5 mm	TYPE 4.75 mm
	PERCENT BY WEIGHT PASSING - COMBINED AGGREGATE				
37.5 mm	100				
25 mm	90-100	100			
19 mm	-90	90-100	100		
12.5 mm		-90	90-100	100	100
9.5 mm		-	-90	90-100	95-100
4.75 mm		-	-	-90	80-100
2.36 mm	19-45	23-49	28-58	32-67	40 - 80
1.18 mm		-	-	-	-
600 µm		-	-	-	-
300 µm		-	-	-	-
75 µm	1-7	2-8	2-10	2-10	2-10

Gradation Classification---- The combined aggregate gradation shall be classified as coarse-graded when it passes below the Primary Control Sieve (PCS) control point as defined in the following table. All other gradations shall be classified as fine-graded.

GRADATION CLASSIFICATION

PCS Control Point for Mixture Nominal Maximum Aggregate Size (% passing)				
Nominal Maximum Aggregate Size	TYPE 25 mm	TYPE 19 mm	TYPE 12.5 mm	TYPE 9.5 mm
Primary Control Sieve	4.75 mm	4.75 mm	2.36 mm	2.36 mm
PCS Control Point (% passing)	40	47	39	47

If a Grading “D” mixture is allowed per Special Provision Section 403, it shall meet the following gradation and the aggregate requirements of Section 703.07.

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
½ inch	100
¾ inch	93-100
No. 4	60-80
No. 8	46-65
No. 16	25-55
No. 30	16-40
No. 50	10-30
No. 100	6-22
No. 200	3.0-8.0

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

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

**SECTION 706
NON-METALLIC PIPE**

706.06 Corrugated Polyethylene Pipe for Underdrain, Option I and Option III Culvert Pipe Change the first sentence from “...300 mm diameters to 900 mm” to “...300 mm diameters to 1200 mm” Delete, in it’s entirety, the last sentence which begins “This pipe and resins...” and replace with the following; “The manufacturing plants of polyethylene pipe shall be certified by the Eastern States Consortium. Polyethylene pipe shall be accepted based on third party certification by the AASHTO’s National Transportation Product Evaluation Program.”

SECTION 709
REINFORCING STEEL AND WELDED STEEL WIRE FABIC

709.03 Steel Strand Change the second paragraph from "...shall be 12mm [½ inch] AASHTO M203M/M203 (ASTM A416/A416M)..." to "...shall be 15.24 mm [0.600 inch] diameter AASHTO M203 (ASTM A416)..."

SECTION 710
FENCE AND GUARDRAIL

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

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

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

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

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

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

SECTION 712
MISCELLANEOUS HIGHWAY MATERIALS

712.06 Precast Concrete Units In the first paragraph, change "...ASTM C478M..." to "...AASHTO M199..." Delete the second paragraph and replace with the following; "Approved structural fibers may be used as a replacement of 6 x 6 #10 gauge welded wire fabric when used at an approved dosage rate for the construction of manhole and catch basin units. The material used shall be one of the products listed on the Maine Department of Transportation's Approved Product List of Structural Fiber Reinforcement." Delete the fifth paragraph and replace with the following; "The concrete mix design shall be approved by the Department. Concrete shall contain 6% air content, plus or minus 1½% tolerance when tested according to AASHTO T152. All concrete shall develop a minimum compressive strength of

28 MPa [4000 psi] in 28 days when tested according to AASHTO T22. The absorption of a specimen, when tested according to AASHTO T280, Test Method "A", shall not exceed nine percent of the dry mass."

Add the following:

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

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

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

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

(a) Aluminum steps-ASTM B221M, [ASTM B211] Alloy 6061-T6 or 6005-T5.

(b) Reinforced plastic steps Steel reinforcing bar with injection molded plastic coating copolymer polypropylene. Polypropylene shall conform to ASTM D 4101.

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

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

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

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

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

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

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

low intensity portion with wide distribution for short distance throw. Lenses shall be marked to indicate the top and bottom of the lens.

(b) Battery operated flashing lights shall be self-illuminated by an electric lamp behind the lens. These lights shall also be externally illuminated by reflex-reflective elements built into the lens to enable it to be seen by reflex-reflection of the light from the headlights of oncoming traffic. The batteries must be entirely enclosed in a case. A locking device must secure the case. The light shall have a flash rate of not less than 50 nor more than 60 flashes per minute from minus 30 °C [minus 20 °F] to plus 65 °C [plus 150 °F]. The light shall have an on time of not less than 10 percent of the flash cycle. The light beam projected upon a surface perpendicular to the axis of the light beam shall produce a lighted rectangular projection whose minimum horizontal dimension shall be 5 degrees each side of the horizontal axis. The effective intensity shall not have an initial value greater than 15.0 candelas or drop below 4.0 candelas during the first 336 hours of continuous flashing. The illuminated lens shall appear to be uniformly bright over its entire illuminated surface when viewed from any point within an angle of 9 degrees each side of the vertical axis and 5 degrees each side of the horizontal axis. The lens shall not be less than 175 mm [7 in] in diameter including a reflex-reflector ring of 13 mm [$\frac{1}{2}$ in] minimum width around the periphery. The lens shall be yellow in color and have a minimum relative luminous transmittance of 0.440 with a luminance of 2854° Kelvin. The lens shall be one-piece construction. The lens material shall be plastic and meet the luminous transmission requirements of this specification. The case containing the batteries and circuitry shall be constructed of a material capable of withstanding abuse equal to or greater than 1.21 mm thick steel [No. 18 U.S. Standard Gage Steel]. The housing and the lens frame, if of metal shall be properly cleaned, degreased and pretreated to promote adhesion. It shall be given one or more coats of enamel which, when dry shall completely obscure the metal. The enamel coating shall be of such quality that when the coated case is struck a light blow with a sharp tool, the paint will not chip or crack and if scratched with a knife will not powder. The case shall be so constructed and closed as to exclude moisture that would affect the proper operation of light. The case shall have a weep hole to allow the escape of moisture from condensation. Photoelectric controls, if provided, shall keep the light operating whenever the ambient light falls below 215 lx [20 foot candles]. Each light shall be plainly marked as to the manufacturer's name and model number.

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

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

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

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

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

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

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

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

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

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

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

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

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

The granite slabs shall be scabble dressed or sawed to an approximately true plane having no projections or depressions over 13 mm [$\frac{1}{2}$ in] under a 600 mm [2 ft] straightedge or over 25 mm [1 in] under a 1200 mm [4 ft] straightedge. The arris at the intersection of the top surface and exposed front face shall be pitched so that the arris line is uniform throughout the length of the installed slabs. The sides shall be square to the exposed face unless the slabs are to be set

on a radius or other special condition which requires that the joints be cut to fit, but in any case shall be so finished that when the stones are placed side by side no space more than 20 mm [3/4 in] shall show in the joint for the full exposed height.

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

SECTION 717 ROADSIDE IMPROVEMENT MATERIAL

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

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

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

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

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

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

SECTION 722 GEOTEXTILES

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

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

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

APPENDIX A TO DIVISION 100

SECTION 1 - BIDDING PROVISIONS

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

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

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

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

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

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

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

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

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

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

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

B. Bid Rigging Hotline To report bid rigging activities call: **1-800-424-9071**

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

SECTION 2 - FEDERAL EEO AND CIVIL RIGHTS REQUIREMENTS

Unless expressly otherwise provided in the Bid Documents, the provisions contained in this Section 2 of this "Federal Contract Provisions Supplement" are hereby incorporated into the Bid Documents and Contract.

A. Nondiscrimination & Civil Rights - Title VI The Contractor and its subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Department deems appropriate. The Contractor and subcontractors shall comply with Title VI of the Civil Rights Act of 1964, as amended, and with all State of Maine and other Federal Civil Rights laws.

For related provisions, see Subsection B - "Nondiscrimination and Affirmative Action - Executive Order 11246" of this Section 2 and Section 3 - Other Federal Requirements of this "Federal Contract Provisions Supplement" including section II - "Nondiscrimination" of the "Required Contract Provisions, Federal Aid Construction Contracts", FHWA-1273.

B. Nondiscrimination and Affirmative Action - Executive Order 11246 Pursuant to Executive Order 11246, which was issued by President Johnson in 1965 and amended in 1967 and 1978, this Contract provides as follows.

The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its efforts to achieve maximum results from its actions. The Contractor shall

document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

1. Ensure and maintain a working environment free of harassment, intimidations, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all forepersons, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
2. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its union have employment opportunities available, and to maintain a record of the organization's responses.
3. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
4. Provide immediate written notification to the Department's Civil Rights Office when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Design-Builder's efforts to meet its obligations.
5. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under B above.
6. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligation; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
7. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review

of these items with on-site supervisory personnel such as Superintendents, General Forepersons, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

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

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

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

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

§60-4.2 Solicitations

(d) The following notice shall be included in, and shall be part of, all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts in excess of \$10,000 to be performed in geographical areas designated by the Director pursuant to §60-4.6 of this part (see 41 CFR 60-4.2(a)):

Notice of Requirement for Affirmative Action to Ensure Equal Opportunity (Executive Order 11246)

1. The Offeror's or bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

Goals for female participation in each trade 6.9%

Goals for minority participation for each trade

Maine

001 Bangor, ME 0.8%

Non-SMSA Counties (Aroostook, Hancock, Penobscot, Piscataquis, Waldo, Washington)

002 Portland-Lewiston, ME

SMSA Counties: 4243 Lewiston-Auburn, ME 0.5%
(Androscoggin)

6403 Portland, ME 0.6%
(Cumberland, Sagadahoc)

Non-SMSA Counties: 0.5%
(Franklin, Kennebec, Knox, Lincoln, Oxford, Somerset, York)

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non federally involved construction.

The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be in violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor, estimated dollar amount of the subcontract; estimated started and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the Contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any).

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION
CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department form 941;
 - d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

- (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of the North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
 3. If the contractor, is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors for Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
 4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a. through p. of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical areas where the work is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specific.
 5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant, thereto.
 6. In order for the non working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the

apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as expensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, when possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organization's responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment sources or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7b above.
 - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific

review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment, efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing prior to the date for the acceptance of applications for apprenticeship or the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on site and in other areas of a Contractor's work force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are non segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of

solicitation to minority and female contractor associations and other business associations.

- p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7 a through p.). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7 a through p. of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program and reflected in the Contractor's minority and female work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions take on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
 9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, specific minority group of women is underutilized.)
 10. The Contractor shall not use the goals and timetables or affirmative action even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if standards to discriminate against any person because of race, color, religion, sex, or national origin.
 11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
 12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementation regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
 13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the

requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.6.

- 14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g. mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and location at which the work was performed. Records be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
- 15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

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

D. Disadvantaged Business Enterprise (DBE) Requirements The Department has established an annual Disadvantaged Business Enterprise goal to be achieved through race neutral means. This goal will adjusted periodically and will be provided by Supplemental Provision. The Contractor shall comply with all provisions of this section regarding DBE participation and the Department’s latest version of the Disadvantaged Business Enterprise Program Manual, said Manual being incorporated herein by reference. In the case of conflict between this Contract and said Manual, this Contract shall control. The Department reserves the right to adjust DBE goals on a project-by-project basis by addendum.

Policy. It is the Department’s policy that DBEs as defined in 23 CFR Part 26 and referenced in the Transportation Equity Act for 21st Century of 1998, as amended from the Surface Transportation Uniform Relocation Assistance Act of 1987, and the Intermeddle Surface Transportation Efficiency Act of 1991. The intent hereto remains to provide the maximum opportunity for DBEs to participate in the performance of contracts financed in whole or in part with federal funds.

The Department and its Contractors shall not discriminate on the basis of race, color, national origin, ancestry, sex, age, or disability in the award and performance of DOT assisted contracts.

Disadvantaged Business Enterprises are those so certified by the Maine Department of Transportation Civil Rights Office prior to bid opening date.

The Department has determined that elements of a good faith effort to meet the contract goal include but are not limited to the following:

1. Whether the Contractor advertised in general circulation, trade association, and minority/women's-focus media concerning the subcontracting opportunities;
2. Whether the Contractor provided written notice to a reasonable number of specific DBEs that their interest in the contract is being solicited;
3. Whether the Contractor followed up on initial solicitations of interest by contacting DBEs to determine with certainty whether the DBEs were interested;
4. Whether the Contractor selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goals;
5. Whether the Contractor provided interested DBEs with adequate information about the plans, specification and requirements of the contract;
6. Whether the Contractor negotiated in good faith with interested DBEs, not rejecting the DBE as unqualified without sound reasons based on a thorough investigation of their capabilities;
7. Whether the Contractor made efforts to assist interested DBEs with other appropriate technical/financial assistance required by the Department or Contractor;
8. Whether the Contractor effectively used the services of available minority/women's community organizations, minority/women's business assistance offices; and other organizations that provide assistance in the recruitment and placement of DBEs.

Substitutions of DBEs. The following may be acceptable reasons for Civil Rights Office approval of such a change order:

- The DBE defaults, voluntarily removes itself or is over-extended;
- The Department deletes portions of the work to be performed by the DBE.

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

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

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

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

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

SECTION 3 - OTHER FEDERAL REQUIREMENTS

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

A. Buy America

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

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

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

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

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

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

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

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

B. Materials

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

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

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

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

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

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

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

- the item is purchased or obtained through competitive bidding with equally suitable unpatented items,
- the STA certifies either that the proprietary or patented item is essential for synchronization with the existing highway facilities or that no equally suitable alternative exists, or
- the item is used for research or for a special type of construction on relatively short sections of road for experimental purposes. States should follow FHWA's procedures for "Construction Projects Incorporating Experimental Features" ([expermnt.htm](#)) for the submittal of work plans and evaluations.

The primary purpose of the policy is to have competition in selection of materials and allow for development of new materials and products. The policy further permits materials and products that are judged equal may be bid under generic specifications. If only patented or proprietary products are acceptable, they shall be bid as alternatives with all, or at least a

reasonable number of, acceptable materials or products listed; and the Division Administrator may approve a single source if it can be found that its utilization is in the public interest.

Trade names are generally the key to identifying patented or proprietary materials. Trade name examples include 3M, Corten, etc. Generally, products identified by their brand or trade name are not to be specified without an "or equal" phrase, and, if trade names are used, all, or at least a reasonable number of acceptable "equal" materials or products should be listed. The licensing of several suppliers to produce a product does not change the fact that it is a single product and should not be specified to the exclusion of other equally suitable products.

c. State Preference References: 23 U.S.C. 112, 23 CFR 635.409

Materials produced within Maine shall not be favored to the exclusion of comparable materials produced outside of Maine. State preference clauses give particular advantage to the designated source and thus restrict competition. Therefore, State preference provisions shall not be used on any Federal-aid construction projects.

This policy also applies to State preference actions against materials of foreign origin, except as otherwise permitted by Federal law. Thus, States cannot give preference to in-State material sources over foreign material sources. Under the Buy America provisions, the States are permitted to expand the Buy America restrictions provided that the STA is legally authorized under State law to impose more stringent requirements.

d. State Owned/Furnished/Designated Materials References: 23 U.S.C. 112, 23 CFR 635.407

Current FHWA policy requires that the contractor must furnish all materials to be incorporated in the work, and the contractor shall be permitted to select the sources from which the materials are to be obtained. Exceptions to this requirement may be made when there is a definite finding, by MDOT and concurred in by Federal Highway Administration's (FHWA) Division Administrator, that it is in the public interest to require the contractor to use materials furnished by the MDOT or from sources designated by MDOT. The exception policy can best be understood by separating State-furnished materials into the categories of manufactured materials and local natural materials.

Manufactured Materials When the use of State-furnished manufactured materials is approved based on a public interest finding, such use must be made mandatory. The optional use of State-furnished manufactured materials is in violation of our policy prohibiting public agencies from competing with private firms. Manufactured materials to be furnished by MDOT must be acquired through competitive bidding, unless there is a public interest finding for another method, and concurred in by FHWA's Division Administrator.

Local Natural Materials When MDOT owns or controls a local natural materials source such as a borrow pit or a stockpile of salvaged pavement material, etc., the materials may be designated for either optional or mandatory use; however, mandatory use will require a public interest finding (PIF) and FHWA's Division Administrator's concurrence.

In order to permit prospective bidders to properly prepare their bids, the location, cost, and any conditions to be met for obtaining materials that are made available to the contractor shall be stated in the bidding documents.

Mandatory Disposal Sites Normally, the disposal site for surplus excavated materials is to be of the contractor's choosing; although, an optional site(s) may be shown in the contract provisions. A mandatory site shall be specified when there is a finding by MDOT, with the concurrence of the Division Administrator, that such placement is the most economical or that the environment would be substantially enhanced without excessive cost. Discussion of the mandatory use of a disposal site in the environmental document may serve as the basis for the public interest finding.

Summarizing FHWA policy for the mandatory use of borrow or disposal sites:

- mandatory use of either requires a public interest finding and FHWA's Division Administrator's concurrence,
- mandatory use of either may be based on environmental consideration where the environment will be substantially enhanced without excessive additional cost, and
- where the use is based on environmental considerations, the discussion in the environmental document may be used as the basis for the public interest finding.

Factors to justify a public interest finding should include such items as cost effectiveness, system integrity, and local shortages of material.

C. Standard FHWA Contract Provisions - FHWA 1273

Unless expressly otherwise provided in the Bid Documents, the following "Required Contract Provisions, Federal Aid Construction Contracts", FHWA-1273, are hereby incorporated into the Bid Documents and Contract.

Start of FHWA 1273 REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS(As revised through March 10, 1994)

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.
2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.
4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;
Section IV, paragraphs 1, 2, 3, 4, and 7;
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.
6. Selection of Labor: During the performance of this contract, the contractor shall not:
 - a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or
 - b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION (Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:
 - a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.
 - b. The contractor will accept as his operating policy the following statement:
"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment,

upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."

2. EEO Officer. The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.
3. Dissemination of Policy. All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:
 - a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.
 - b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
 - c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.
 - d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
 - e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.
4. Recruitment. When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.
 - a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

- b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)
 - c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.
5. Personnel Actions. Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:
- a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
 - b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
 - c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
 - d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.
6. Training and Promotion.
- a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.
 - b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision

for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

- c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
 - d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.
7. Unions. If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:
- a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
 - b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.
 - c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.
 - d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.
8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment. The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

- a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.
 - b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.
 - c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.
9. Records and Reports. The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.
- a. The records kept by the contractor shall document the following:
 - (1) The number of minority and non-minority group members and women employed in each work classification on the project;
 - (2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;
 - (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and
 - (4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.
 - b. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the MDOT and the Federal Highway Administration.

The Contractor will submit to the MDOT a report for the month of July, indicating the total hours worked by minority, women and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR-1391. If on-the-job training is being required by "Training Special Provision," the Contractor will be required to furnish Form FHWA-1409. The report is required for week ending July 15 and can be obtained from MDOT, is due by week ending August 20th. This report is to be furnished directly to MDOT - Civil Rights Office.

III. NONSEGREGATED FACILITIES (Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

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

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

1. General:

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

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

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

2. Classification:

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

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

3. Payment of Fringe Benefits:

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

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

a. Apprentices:

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

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

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

b. Trainees:

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

- (3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.
 - (4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
 - c. Helpers. Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.
5. Apprentices and Trainees (Programs of the U.S. DOT). Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.
 6. Withholding. The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.
 7. Overtime Requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4

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

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

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

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

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

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

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

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

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

VII. SUBLETTING OR ASSIGNING THE CONTRACT

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

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

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

VIII. SAFETY: ACCIDENT PREVENTION

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

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

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

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--
Primary Covered Transactions

- 1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or

local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

- c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and
- d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Covered Transactions: (Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--
Lower Tier Covered Transactions:

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

- 1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
 - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a

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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